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Post contents follow:

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Using USB stick as swap (or RAMDISK) in Ubuntu; Published: 13 Mar 2023

Post link (URL) on blog:

<https://ravisier.wordpress.com/2023/03/13/using-usb-stick-as-swap-or-ramdisk-in-ubuntu/>

This post and comment was very useful to me when I had to explore using USB stick/key as swap or RAMDISK in Ubuntu: How to increase RAM using a USB as RAM memory?

<https://superuser.com/questions/1305720/how-to-increase-ram-using-a-usb-as-ram-memory> , 2018-03-19.

Info. from my side is given below:

I have a Dell Inspiron 3137 (mini) laptop with 2 GB RAM and Intel Mobile Celeron processor which I use primarily as a backup computer. It has Windows 8.1 which has gone out of support from Jan. 2023. It has a mechanical disk (500 GB) which is very slow. I was using a 64 GB USB 3.0 stick on it as a RAMDISK on Windows 8.1 and it helped to improve the performance of the computer.

I installed Ubuntu on it as Windows 8.1 updates do not come now. The above page and comment was very helpful to me to setup the USB stick as a RAMDISK on Ubuntu (though, as of now, I run it manually after boot when needed). I installed Ubuntu 20.04.5 LTS or something like that and then upgraded to current version which, if I recall correctly, is: 22.04.2 LTS. The USB RAMDISK worked on both these versions of Ubuntu.

The pic below shows how opening more programs/windows on Ubuntu when USB swap/RAMDISK is setup, results in USB swap being used instead of /swapfile.

```
Activities Terminal ▾ Mar 11 01:51
raviuser@ravi-Inspiron-3137: ~

raviuser@ravi-Inspiron-3137:~$ free
              total        used        free      shared    buff/cache
Mem:         1859236       1147908        200620        137348         510708
Swap:        62185448        124488       62060960

raviuser@ravi-Inspiron-3137:~$ cat /proc/swaps
Filename                                Type                                Size
/swapfile                               file                                2097148
/dev/sdb1                               partition                           60088300

raviuser@ravi-Inspiron-3137:~$ cat /proc/swaps
Filename                                Type                                Size
/swapfile                               file                                2097148
/dev/sdb1                               partition                           60088300

raviuser@ravi-Inspiron-3137:~$ free
              total        used        free      shared    buff/cache
Mem:         1859236       1166704        122460        238128         570072
Swap:        62185448         877764       61307684

raviuser@ravi-Inspiron-3137:~$ free
              total        used        free      shared    buff/cache
Mem:         1859236       1252728         92856        159092         513652
Swap:        62185448       1181044       61004404

raviuser@ravi-Inspiron-3137:~$ cat /proc/swaps
Filename                                Type                                Size
/swapfile                               file                                2097148
/dev/sdb1                               partition                           60088300

raviuser@ravi-Inspiron-3137:~$
```

Some additional input:

- 1) As mentioned in the comment, -p is priority for swapon command. /swapfile has -2 priority. Anything higher like 1 or 10 is enough for USB RAMDISK to have higher priority and so get used instead of /swapfile. I use the following command:
sudo swapon -p 10 /dev/sdb1
- 2) The whole of the after-format 64 GB stick (whole partition) is used as swap. Size shown by cat /proc/swaps is 60088300 (in kilobytes I presume). I could figure out how to use lesser size like 4 GB from the USB stick as swap but as of now at least I don't need the additional space on the USB stick.
- 3) It is not fast with this setup but is better than without the USB stick RAMDISK/swap and works at OK speed, especially if I am using only one or two programs like Firefox browser with only one or two tabs, and file manager. One issue is that sometimes on wakeup from sleep, the laptop gives read error on the swap device. It needs a hard reset to come out of it.
- 4) As expected, Log out does NOT result in USB ramdisk/swap being forgotten. Even sleep does not result in it being forgotten. But, as mentioned earlier, sometimes I get read errors on

swap device on wakeup which needs a hard reset (resulting in USB ramdisk/swap being forgotten).

5) In my testing so far, after usb key has been made swap, even after reboot, umount and mkswap commands are not needed.

Only command needed is: `sudo swapon -p 10 /dev/sdb1`

6) This is more advanced and perhaps tricky stuff but I tried it out and it worked. To move swap contents from system /swapfile to usb stick after usb swapfile is on, execute the command:
`sudo swapoff /swapfile`

Above command may take some time.

After above command has executed, /swapfile has to be made swap again. For that, execute:
`sudo swapon /swapfile`

The output of command: `cat /proc/swaps`, after above steps showed that /swapfile "Used" is 0, and as USB RAMDISK/swapfile has higher priority its "Used" was non-zero (when I had lot of windows open).

7) Changing the old mechanical hard disk to SSD will surely boost the performance and I will not need the USB RAMDISK/swap then. But as this (mini) laptop is only a backup computer, I don't want to invest in buying and fixing the SSD, unless it is necessary.

=====End of Post=====

Miscellaneous Notes about using Samsung M21 mobile; Published: 04 Feb 2023

Post link (URL) on blog:

<https://ravisiyer.wordpress.com/2023/02/04/miscellaneous-notes-samsung-m21/>

Last updated on 6th Feb. 2023

Customizing Quick Settings

How to Tweak and Rearrange Android's Quick Settings Dropdown,

<https://www.howtogeek.com/231078/use-android-6.0%E2%80%99s-hidden-system-ui-tuner-to-customize-your-quick-settings-and-status-bar/>

Currently as I frequently have to use the Mobile Hotspot icon-button in Quick Settings of my phone, I explored how to move its position so that it appears as soon as I swipe from the top to bring up the first row of Quick Settings menu. Here's a screenshot of how I set it up on my phone:

2:35

  VoLTE1  VoLTE2  70% 

Mon, 23 Jan



Device control

Media output

No notifications

icon from left of top row of Quick Settings icons.

Volume Settings

Samsung phone does not seem to have in-call volume setting separately.

First let us look at Google Android page for volume settings: Android Help: Change volume, sound, & vibrate settings, <https://support.google.com/android/answer/9082609?hl=en> . It

mentions four different volume level settings: Media, Call, Ring & notification and Alarm.

But my Samsung M21 phone does NOT have Call volume. It instead has these four volume settings: Ringtone, Media, Notifications and System. Related Samsung help page: Adjusting the Volume on my Samsung Galaxy,

<https://www.samsung.com/in/support/mobile-devices/adjusting-the-volume-on-my-samsung-galaxy/> .

As mentioned in above webpage section titled, "Increase in-call Volume", "When on a call, press the Volume key to increase or decrease the in-call volume." It also states, "Please Note: You are only able to adjust the in-call volume when on a call."

There seem to be two different in-call volume levels for without-speaker and with-speaker as in some experimentation I did, changing the volume level with speaker on, was remembered on next call when speaker was put on, which was different from volume level without speaker being on.

How to have a shortcut to a pic or a document on Home screen?

How to Create a Shortcut to a File on Android Home Screen,

<https://www.youtube.com/watch?v=rkVj1ehhHrI> , around 2 mins. published in Aug. 2020

Edge Panels

What is Edge Panel and how to use it on Samsung Mobile?,

<https://www.samsung.com/sg/support/mobile-devices/what-is-edge-panel-and-how-to-use-it-on-samsung-mobile-device/> : Settings -> Display -> Edge screen (panels)

Over the past few weeks I have been using the Edge panel (for apps) as a shortcut bar to launch a few applications. I found it to be a useful feature. Later I explored using additional panels and have chosen People, Tasks, Smart select and Tools as additional panels to try out for some time.

I figured out a lot about edge panels feature of my Samsung phone. It was a pleasant and big surprise that compass and ruler tools were available in the phone but not as apps. They have to be accessed via the Tools edge panel! See below pics.

4:53

VoLTE LTE1 VoLTE LTE2 89%

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is a big problem with eyes.
The shift key is another problem.
correct does a great job es
key issue is avoided.

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Puttaparthi

India

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Lon. 077°48'48"E

Calibrate

4:53

VoLTE LTE1 VoLTE LTE2 89%

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Calibrate

This Hindi video explains the Smart select options well: How To Use Smart Select Edge Panel Like A Pro On Your Samsung Devices, <https://www.youtube.com/watch?v=ut0eQP1zr5g> , 7 min. 48 secs, published on Apr 11, 2021.

Using Gestures for Navigation instead of Navigation Button-icons

Adjust the Home button settings on your phone,
<https://www.samsung.com/us/support/answer/ANS00062656/> : Settings -> Display -> Navigation bar

An interesting option I am trying out now is replacing navigation buttons with gestures. This not only increases the available screen size for apps but also helps with avoiding accidental press of home button when I want to press space bar when typing, which happens quite often for me. I also have the Samsung Assistant menu edge ball having the three navigation buttons of Recent apps, Home and Back, in case I don't want to use gestures for these operations. I noted that the edge ball is moved up when I am using the Gboard keyboard, and the edge panel disappeared.

In-built OCR feature

Bixby Vision acts as an OCR besides having ability to search by image like Google Lens. Samsung apps. like Gallery have a Bixby button and so invoking Bixby Vision and then using its OCR feature on a pic shown in Gallery app. is straightforward. Google Lens is a competitor to Samsung Bixby Vision. Google Lens is accessible on PC through camera icon in Google search bar. I think the same would work on mobile too though there seems to be an Android Google Lens app. which also can be downloaded.

Google Assistant, Voice Access and (not available on M21) Samsung Bixby Assistant

Google Assistant is available for Samsung M21 but it needs decent speed Internet connection to work. So most of its features may not be useful for me when using Jio mobile 4G network. An important issue is that even after spending some time exploring it, I have not figured out how to unlock my Samsung M21 phone using a Google Assistant voice command. So I can use Google Assistant voice commands only when the phone is unlocked.

I have found that some of the voice commands I want, do work for me, with Google Assistant even with Jio mobile network. I make Google Assistant active by saying 'Hey Google' (requires phone to be unlocked). I have listed below some of these commands:

1. Open Live Transcribe (Open Transcribe also works)
2. Set timer for 10 minutes
3. Set alarm at xyz
4. Remember xyz
5. Remind me xyz ... (Followed by it asking when) today x PM. [Does not give reminder if phone is locked and so not really useful]
6. Remind me at x PM today to call ABC [Does not give reminder if phone is locked and so not really useful]
7. Show reminders
8. Show memory
9. I created a simple routine in Google Assistant (through Settings menu -> Google Assistant -> Routines) called 'Log Time' and which is invoked with same words. It simply opens Live Transcribe (easier than saying Open Live Transcribe). I could not control Live Transcribe through the routine after opening. The commands seem to be simply stalled till Live Transcribe app. is closed manually.

10. This is the way I plan to use the simple 'Log Time' routine:

- a) If phone is locked, unlock it with fingerprint. This is quick and I have set it to work with one finger of left and right hand. So the phone be unlocked with either hand.
- b) When phone is unlocked, say 'Hey Google' to activate it (presuming that 'Hey Google' feature is set as On in Google Settings).
- c) Say 'Log time'
- d) When Live Transcribe app. starts up, say the words I want recorded (with automatic timestamp) like 'Medicines taken'.
- e) To prevent further speech getting transcribed by Live Transcribe, invoke Google Assistant again by saying 'Hey Google'
- f) This brings up the 'Hey Google' partial window in bottom part of screen and Live Transcribe puts up a message in top part of its window which continues to be visible, that Live Transcribe cannot use the mic while the other app is using it. Live Transcribe does capture the 'Hey Google' command but not any other speech after that (till it is made the active app again).
- g) If I want I can bring up another app. like Clock by saying 'Open Clock'. I can also invoke another routine. I created a routine called 'My notes' with similar voice command to 'Open Samsung Notes'.
- I tested the above and it works well. I need to test it a few times to see whether it works even if the Internet connection speed is poor (500 Kbps or lower).

Some issues I faced with Google Assistant

1. It seems to prefer Google apps. So when I say, Open Word, Google Docs app. is opened! But if I say, Open Office, it does open Microsoft Office app.
2. I am not able to figure out how to continue with Google Assistant voice commands once an app. is opened. It seems to me that only few applications, or perhaps even no applications on Samsung M21, work with Google Assistant once they are opened.
3. Once I am within a Google Assistant command like setting reminder or note, my voice responses/commands to give details of reminder or note work. But it then, at least sometimes, continues to use my voice commands as description for new reminders or notes. If I say Go back it does not get reset. I need to close the Google Assistant app. and/or say Hey Google again to reset it, at which time it recognizes what I say as a voice command at top-level and not as description for last command like reminder or note.
4. Google Assistant does not properly execute voice commands like 'Go home' or 'Go back'.
5. I could not figure out a way to invoke Google Assistant when the phone is locked. I tried to get some info. on whether screen timing out and screen disappearing always leads to phone getting locked. But I did not get suitable info. I explored some 'Always on Display' or similar setting on M21. That just shows time and perhaps some notifications on locked screen on tap or if set suitably, all the time. The phone is still locked and requires to be unlocked before Voice commands of Google Assistant or Voice Access can work.

Turning off 'Hey Google' feature: Open Google app (or click G on Google search bar), tap on profile icon and then Settings. Now Google Assistant -> Hey Google & Voice Match -> Hey Google button. This can be turned on or off to switch on or off the voice command 'Hey Google' on Samsung M21 phone.

The "**Voice Access**" feature under "Interaction and dexterity" under Accessibility on M21 seems to be a regular Android feature, perhaps customized a little for Samsung M21.

Android Accessibility Help: Get started with Voice Access spoken commands ,

<https://support.google.com/accessibility/android/answer/6151848?hl=en> seems to be the official Android page for it. However, this page description does not fully match what is seen in M21.

But this page has only overview stuff and that does not matter much.

This page: Use Voice Access commands,

<https://support.google.com/accessibility/android/answer/6151854> seems to be the main help page for the commands. It seems to largely match the help pages for it in Samsung M21.

How to Control Your Android Device Entirely With Your Voice,

<https://www.makeuseof.com/tag/control-android-device-entirely-voice>

I tried out various voice commands listed in it (like scroll, move (cursor), select) for a few apps like Samsung Notes, Microsoft Word and Google Docs. The support was minimal. So this seems to be a disappointing thing. The type text command worked only occasionally.

Another issue is that Voice Access seems to stop working after some time (even though I put off the associated timeout). Stopping and restarting it usually fixes the problem.

Open app. command usually works but that can be done via Google Assistant too.

One advantage with Voice Access over Google Assistant is that Voice Access works offline but Google Assistant needs to be online even for simple commands like open Clock. But Google Assistant may work for simple commands with even a poor speed Internet connection.

If Voice Access has been enabled, Hey google command followed by Voice Access, makes Voice Access active. Later commands are handled by Voice Access (without Google Assistant interfering). 'Stop listening' makes Voice Access inactive. Then if one says, Hey Google, Google Assistant is back on.

But I could not figure out how to feed voice commands to Voice Access through Google Assistant routines. So after voice Access is started manually voice commands have to said.

That is not what I was looking for.

Samsung Bixby Voice (Assistant) does not seem to be available for Samsung M21 (my phone model). Note that Bixby Vision is different from Bixby Assistant.

Special note: The 5 Best Auto-Clicker Apps for Android (Non-Rooted Phones),

<https://www.lifewire.com/best-auto-clicker-apps-android-no-root-4427959> – This is interesting but I don't know what are the security risks. I think it is best to avoid using these unless I am really sure about its safety.

Adaptive brightness

Adaptive brightness seems to be a useful setting. To access brightness setting with this option on Samsung M21 phone, pull down Quick Settings panel and then swipe down again. The brightness panel is shown near the bottom of the screen. Tap the three dots button at the right of the panel which opens up a window allowing one to turn the 'Adaptive brightness' setting on or off.

I am trying it out now to avoid manual setting of brightness to high level when I am using phone in sunlight as otherwise phone screen is not viewable, and then setting it back to lower level when I am working in my flat (not in sunlight) as then high level of brightness makes the screen too bright and high level of brightness drains more charge from the battery. Initial observation is that it does a good job of automatic setting of brightness to required level.

=====End of Post=====

Android: Samsung Assistant menu's

magnify does not seem to slow down Samsung M21 phone whereas Android Magnify seems to slow it down;

Published: 01 Feb 2023

Post link (URL) on blog:

<https://ravisier.wordpress.com/2023/02/01/android-samsung-assistant-menus-magnify/>

I found Samsung Assistant menu's magnify function to be quite useful to view my Samsung M21 phone when I do not have my reading and distant viewing (bifocal) glasses on but either have my computer glasses on (which has a lens suited to viewing computer screen at the usual distance I keep between screen and me) or do not have any glasses on. Samsung Assistant menu's magnify function does a good job, and the phone does not seem to slow down when Assistant menu is turned on but magnify function is not active. Even when magnify is active it does not seem to slow the phone much. In contrast, I found that standard Android Accessibility's magnification function, at times, slows down my Samsung M21 phone quite a bit. More details are given below.

About Android magnify

The official Google support page seems to be this one: Android Accessibility Help: Use magnification on your screen, <https://support.google.com/accessibility/android/answer/6006949>

On my Samsung M21 phone, this setting is here: Settings -> Accessibility -> Visibility Enhancements -> Magnification .

Nice video on it (but 4 years old): HOW TO magnify your phone's screen – For Android Devices #LiveAccessible, <https://www.youtube.com/watch?v=yHqJOSZN1zA> , 4 min. 49 secs., published on Nov 2, 2018.

Another more recent video: Magnification – Android Accessibility Feature, <https://www.youtube.com/watch?v=YsPAXnc4-nc> , 1 min. 48 secs., published on Jun 10, 2021.

I found the features of Magnify on my Samsung M21 to be good but it seems to significantly slow down the phone at times, even when Magnify function is not active (the setting is on but Magnification is not happening). I was not able to zero in on when exactly it slows down, but I observed on multiple occasions that when then I have set Accessibility Magnification on, sometimes the phone slows down quite a bit. When I turn off Accessibility Magnification, I don't see the same slowing down of phone, at times, problem.

Samsung Assistant Menu and its Magnify function

Note: I am using the term 'Samsung Assistant Menu' in this section but as I explain later on in

this section, there is some confusion about various 'Assistant's, in this case, Google Assistant and Samsung Assistant, in my mind. Note that I am quite a novice when it comes to smartphones.

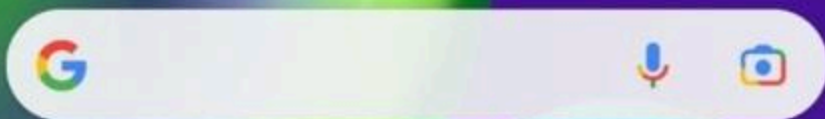
To see how the Samsung Assistant Menu works on Home screen, see this video (from 170 seconds): <https://www.youtube.com/watch?v=bcZQvRHV13o&t=170s> (video released on Sep. 24, 2020) . To know more about the settings related to Assistant Menu, see the initial part of the video. This video does not show how Assistant Menu's magnify function works.

I tried looking on youtube for a video that shows how Samsung Assistant Menu's magnify function works but could not find it in the limited time I spent looking for it. I then decided to invest some time to capture the info.

First some pics about how I use Samsung Assistant menu.

10:12

VoLTE LTE VoLTE LTE



Chrome



News



WhatsApp



Facebook



Gmail



Amazon



Play Store



Clock



YouTube



Live Transcribe



Gallery



Contacts



Docs



Office



Samsung
Notes



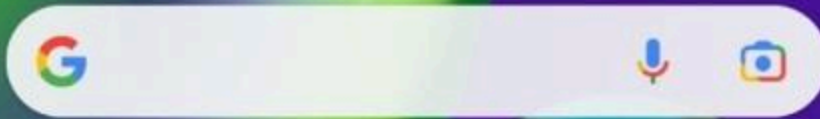
Settings



Assistant menu icon shown as an edge of a transparent ball in the middle part of right edge of screen (just next to Clock app. icon).

10:11

VoLTE LTE1 VoLTE LTE2



Chrome



News



WhatsApp



Facebook



Gmail



Amazon
Menu
settings



Play Store
Recents



Magnifier
window



YouTube



Live Transcribe



Gallery



Contacts



Docs



Office



Samsung
Notes



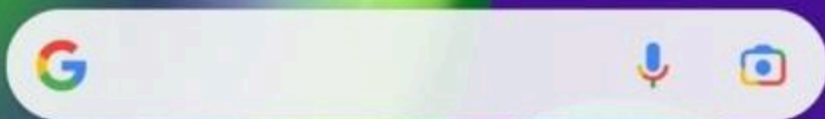
Settings



the Samsung Assistant menu ball edge icon, the first set of menu choices appear in a transparent window. These are menu choices I customized for my needs. Note the icon for 'Magnifier window' in this set.

10:13

VoLTE LTE VoLTE LTE



Chrome



Volume



WhatsApp



Facebook



Gmail



Amazon



Play Store



Clock



YouTube



Live Transcribe



Gallery



Contacts



Docs



Office



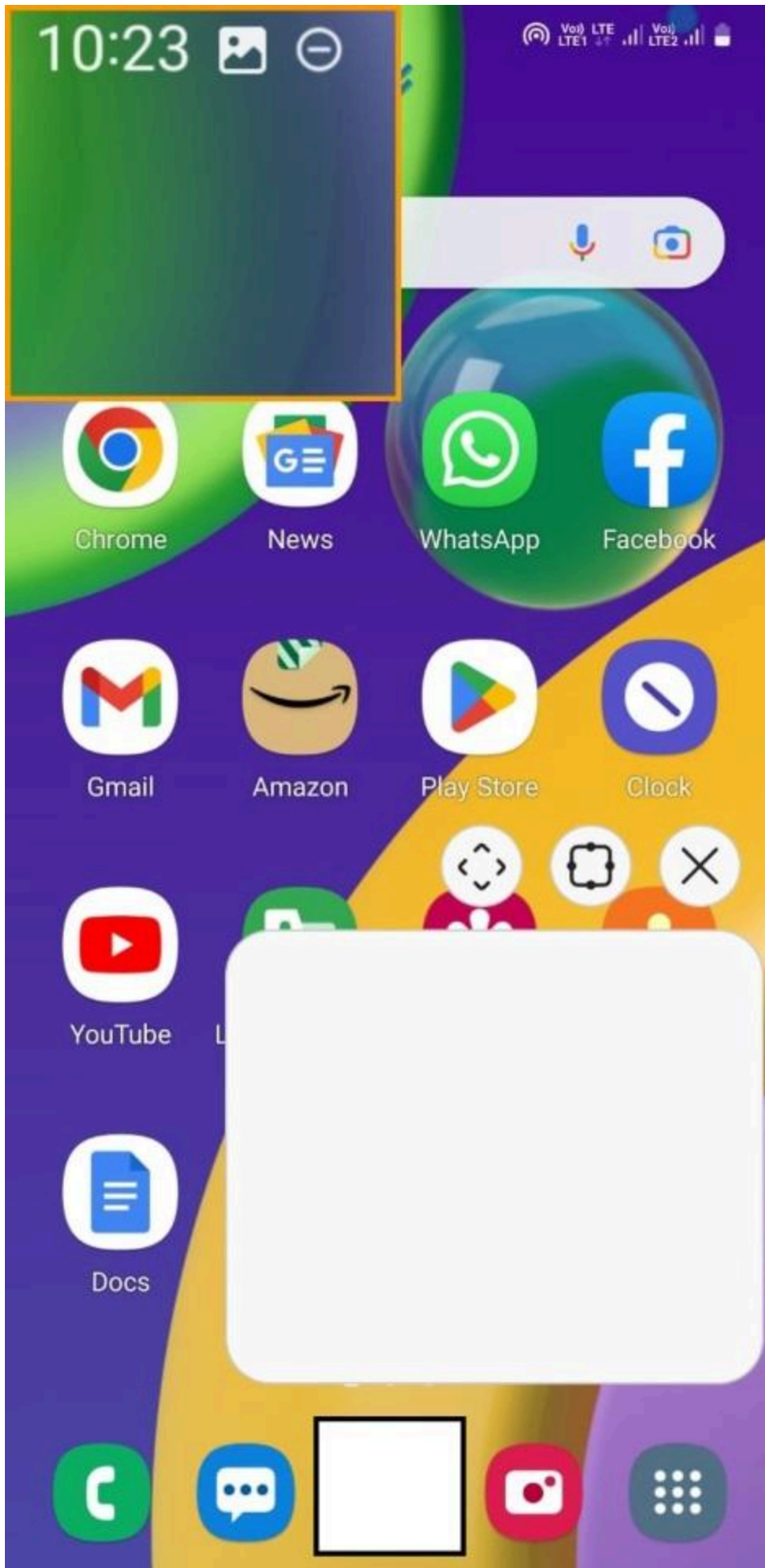
Samsung
Notes



Settings

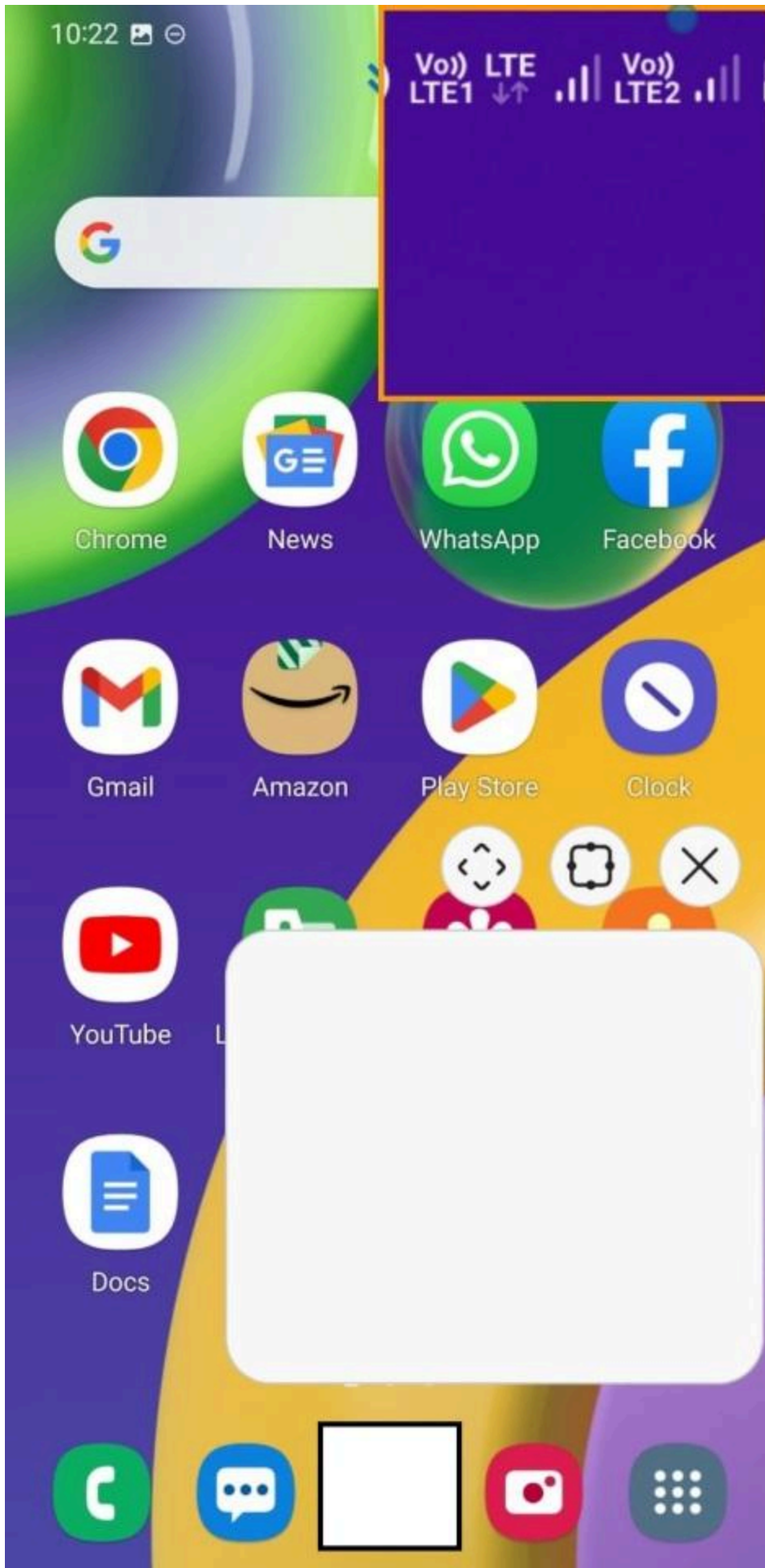


second set (only 1 item) of menu choices in my customized Samsung Assistant menu.



and magnify window when Samsung Assistant magnify function is in operation.

After tapping 'Magnifier window' in Samsung Assistant menu, a white rounded rectangle appears and can be seen in bottom half towards right side of screen in above pic, which is the cursor pad on which we can move a finger to move the magnifier window, which is the orange edged rectangular window in top left of screen. Two finger drag within the magnifier window also moves the magnifier window. The cursor pad can be moved around by dragging the leftmost icon above it. The magnifier window size can be changed by tapping the icon the next icon to its right, at which time the orange border of the magnifier window changes to a blue border which can be dragged to resize the window. To exit the magnify function the x icon has to be tapped.



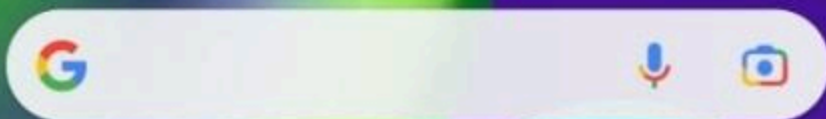
magnify window has been moved to top right of screen

Short video clip of 25 seconds I created to demonstrate Samsung Assistant Menu magnify function: <https://youtu.be/oBNDCbrA1sc> (or as a short:

<https://youtube.com/shorts/oBNDCbrA1sc>). The XRecorder app. that I used to do the screen recording did not capture the cursor pad that appeared after I pressed the 'Magnify window' icon in Samsung Assistant menu. But this cursor pad is shown in above two pics and so the reader can get an idea of how above video clip would be with cursor pad being shown. BTW the cursor pad sometimes disappears when one is using it (by dragging a finger in it) to move the 'Magnifier window'. But when I recorded above clip it surely was being shown for most of the time I was recording. It was XRecorder app. that did not capture the cursor pad being shown.

10:49

Vod LTE VoD LTE



Chrome



News



WhatsApp



Facebook



Gmail



Amazon



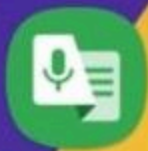
Play Store



Clock



YouTube



Live Transcribe



Gallery



Contacts



Docs



Office



Samsung
Notes



Settings



an edge icon, Samsung Assistant menu icon can be a full transparent ball.

Note that both the edge of ball icon or full ball icon of Samsung Assistant menu can be positioned elsewhere on the screen by simply dragging it.

Now for some info. about Assistant menu in general.

This Assistant menu seems to be different from Google Assistant, though it may be using some Google Assistant features. I was quite confused about this and am still not very clear about this Assistant menu feature being independent of, or partly associated with, Google Assistant. I don't use Google Assistant much as it seems to need a decent speed Internet connection to operate well and my phone's Jio 4G mobile Internet speed in Puttaparthi can drop to around 500 Kbps during peak usage times like late evening which seems to be not good enough for Google Assistant.

Smartphone assistants guide – everything you need to know,

<https://www.uswitch.com/mobiles/guides/assistivetouch-assistant-menu-and-accessibility-menu-guide-everything-you/> , Last updated: 07 May 2021, provides some info. on all these assistants.

I did not read it fully. But it seems to explain the Samsung Assistant part well in the section titled, "Assistant Menu". In that section, it states, "It should be noted that Samsung has its own version of Accessibility Menu, called Assistant Menu. This performs the same role as the other helper, but with a more flexible interface and a few more useful tools."

I think the above confirms that it is specific to Samsung. To turn Assistant menu on, on my Samsung M21 phone, go to: Settings -> Accessibility -> Interaction and dexterity -> Assistant menu .

Setting up Assistant Menu on my Samsung Phone,

<https://www.samsung.com/au/support/mobile-devices/set-up-assistant-menu/> .

To see how the Assistant Menu works on Home screen, see this video (from 170 seconds):

<https://www.youtube.com/watch?v=bcZQvRHHV13o&t=170s> (video released on Sep. 24, 2020) .

To know more about the settings related to Assistant Menu, see the initial part of the video.

"Magnifier window" is one of the utilities in this Assistant menu which brings up the magnification utility (with slightly different user interface than above Android (Google) magnification), as described earlier in this section.

Use interaction and dexterity enhancement features on your Galaxy phone,

<https://www.samsung.com/ca/support/mobile-devices/galaxy-phone-interaction-and-dexterity-enhancements/> .

(In Hindi) Interaction Dexterity control & Block Mobile Touch Hidden Feature Every Android Samsung A32 / A42, https://www.youtube.com/watch?v=y24_zUsZ87g , 2 min. 46 secs. published on Jan 25, 2021.

I also found a few of the other features of Assistant menu to be interesting but they are not as useful as magnify and so I am not writing about them in this post.

=====End of Post=====

Some notes about improving my (novice) typing (including speed) on Android smartphone (Samsung M21);

Published: 30 Jan 2023

Post link (URL) on blog:

<https://ravisier.wordpress.com/2023/01/30/some-notes-about-improving-typing/>

Last updated on 23 Mar. 2023

To know about my novice smartphone user background, please see the related section towards bottom of the post.

In the past few days, I invested some time in learning how to improve my typing in general including speed on my Android Samsung M21 smartphone. I have made some notes of it and thought that instead of keeping it only as private info., I should share them as a public post as it may be of some help to others. That's why I am putting up this post. In the points below, I knew some of the info. earlier but did not know quite a lot of it.

General

1. Interesting Android on-screen keyboards are Gboard, Samsung and Microsoft Swiftkey. They all seem to support the main features of Voice Typing, Glide Typing, predictive text, auto correct, cursor positioning via swiping space bar etc. [Google Voice Typing is covered in a separate post, <https://ravisier.wordpress.com/2023/01/21/writing-text-using-google-voice-typing-on-android/>.]
2. Predictive text of Gboard seems to be superior to Samsung keyboard but I am not sure. In particular, Gboard seems guess words well even if one makes a typing mistake.
3. I zeroed in on Gboard as the keyboard I should use for the main part of this exploration. Most, if not all, of the points below are with Gboard keyboard.
4. As part of my tests over past few days, I am quite sure that some of the typing sessions had the longest text that I had typed (in a single session) on a mobile/smartphone. That itself shows how much I have learned about more easily and more quickly typing long text on mobile over the past few days.

Optimum Gboard settings for me as of now (only non-default value settings are mentioned below)

1. Keyboard height: Normal (Initially I had it as Extra tall)
2. Number row: Off (Initially I had it as On)
3. Pop-up on keypress: Off
4. Key long-press delay: 600 ms (instead of default 300 ms).

Gboard General

1. An interesting Gboard option is to increase the height of the on-screen keyboard which seems to suit me, as of now. The pic at the end of this list (I could not figure out how to insert an image within a numbered list in WordPress) "Gboard keyboard with maximum height" shows how it looks with the maximum height (Extra tall). Till I get more comfortable with typing in Gboard with some speed, I plan to use 'Extra tall' height setting (in Preferences -> Keyboard height).
2. In Gboard, for most of the exploration below, I had turned on the number row setting (Preferences -> Number row) leading a separate number row being shown. If the setting is off, the numbers get associated as (one of the) long-press character(s) associated with top row of alphabet keypad.

3. After a few days, I changed keyboard height back to normal. I also turned off number row.
4. To access Gboard settings, long-press ',' key and then choose settings icon (gear).

12:58

Voi LTE VoLTE1 VoLTE2

< Title



A small issue is that at times lowercase i

5/6

word is not capitalised if it is in the middle of a sentence.

So far today's trial has been good. I think this is giving me the confidence to try typing long text on mobile. Previously I would avoid that as being just too time consuming and, perhaps more importantly, tedious for me.



keyboard with maximum height (Extra tall setting in Preferences)

One-finger or two-fingers typing? Index finger(s) or thumbs? Holding phone and typing

1. Two finger typing with either index fingers of both hands, thumbs of both hands or a mix of index finger of right hand and thumb of left hand are the variations that I tried which worked OK for me.
2. Typing using only right index finger has better speed for me now that I am using many of the tips covered in this post. Auto correct is helping with handling errors. It may be slightly slower than with two thumbs case perhaps but left hand is not strained at all. However the right hand moves a lot in this option and so it may get quite strained after some time.
3. With phone held in fingers of two palms and the palms resting on some surface or on one's body and typing with two thumbs, hand movement is much lesser than in only right index finger typing case.
4. I think two thumbs typing may be best even if I am slightly slow with it. It seems to cause minimum strain on both hands and there is a best suited feeling I get when I use it for long messages. I have to learn how to manage tapping keys with thicker thumb finger as compared to index finger but I think over time I will get that technique.
5. Thumb typing tends to trip up at times when I have to tap some letters that are hard to reach for the thumb when I am holding the phone in the palms of hands (one palm kept on another).
6. While typing with thumb, it is easier to thumb press to select a word than to thumb double-tap as sometimes the double-tap is not picked up by the phone.
7. I need a balance between comfort and speed while typing. In other words, I am fine with losing some speed but having more comfort while typing. I find that two thumb typing gives me a decent balance of comfort and speed.
8. For holding the phone when typing with two thumbs, it is comfortable when the fingers of the palms that are holding the phone are rested on some surface or on my body. I think this perhaps is the most suitable arrangement/position for me to type long messages on my smartphone.
9. A slightly better arrangement for this typing is to have both the top and bottom edges of the phone resting on my body and type with two thumbs with other fingers of both hands loosely touching each other and the phone but not holding the phone. This allow for freer movement of both thumbs. I can also move one or both hands from the phone without disturbing the arrangement much.
10. For ease of holding the mobile while typing, I fixed the mobile in a neck hanging thingy I have (similar product: <https://www.amazon.in/SPYKARTTM-Multiple-Function-Universal-Smartphones/dp/B08F2VVKHG/>) which was hanging from my neck on one end and at the other end had the clamp holding the mobile. This other end of the neck hanging thingy was placed on my lap. This lessened the pressure on my palms when they hold the mobile and thumb type even when my palms were partially resting on my lap. My palms were free to be raised further and so I had better angles for my thumbs to press on the letters in the keyboard. Note that if the mobile is placed on a table I think it will be inconvenient to type with two thumbs and one would have to use other fingers like the index finger(s).
11. In another session, I was holding the phone with fingers of palms of both hands but also resting the top of the phone on a table edge and my hands were partially resting on arms of a chair and partially on my lap. That was quite a comfortable typing position. At least it was comfortable for the few paragraphs I typed in that position.

Using Autocorrect and predictive (suggestion) text well

1. Some of the tips for improving my typing speed are to use the predicted text for long words and to continuously type a sentence without pausing to check for errors till the sentence has been typed. After the sentence has been typed one can or rather should check the sentence for errors. Note that auto correct fixes some errors by itself and so typing the whole sentence even with some errors would have some errors getting auto corrected, typically.
2. Auto correct is correcting many of my errors. That allows me to focus on trying to type a little faster and rely on auto correct to fix some or most of the typing errors I make.
3. I confirmed that auto correct works even when one is typing slowly.
4. A trick I have to learn is to steal looks quickly at the predictive text (or suggestion) strip while I am typing, and if I spot my intended word and I have to type more than 1 or 2 letters to finish the word, I should quickly tap the intended word in the suggestion strip and move on to next word.
5. In Gboard auto correction works even when the show suggestion strip setting is off.
6. When a suggestion is shown in bold and as centered suggestion then pressing space bar results in that suggestion replacing current word. In other words, the typed word is auto corrected to word shown in bold in suggestion strip. If the suggestion is not in bold then I observed that auto correct was not being done with any words of suggestion strip. In such cases, I had to tap the word in the suggestion strip if I wanted it to replace the word I was currently typing.
7. When does Gboard make a suggestion an auto correct word (shown in bold and replaces current word being typed, on space bar being pressed)? The official Google support page: Gboard Help: Get word suggestions & fix mistakes, <https://support.google.com/gboard/answer/7068415?hl=en> , does not seem to answer this question. When typing with two thumbs and the phone being held in other fingers of the hands, reaching out a thumb to tap the right word in the suggestion strip is more of a stretch than the space bar. I wonder if there is some way to make such suggested words become autocorrect suggested words.
8. When correcting spelling errors in typed words, positioning cursor on the word results in suggestions appearing and many times I have found that the suggestions include the word I want and so it is a simple tap on that word to replace the current (misspelt) word with the tapped suggestion.
9. Typing in Google docs results in suggestions additionally from Google docs, besides the on-screen keyboard suggestions. I need to explore this feature more and see if it is helpful. I think Microsoft Word on Android may also provide suggestions but it may not work well offline, or not work at all. The underlining of words with typing errors by Google docs (and quite surely by Microsoft Word as well, I presume) is another useful feature.
10. The i letter by itself in the middle of a sentence is not getting auto capitalized. I wonder why. I letter at the beginning of the sentence is auto capitalized properly.

Using the cursor pad

1. At times, the cursor keypad in Gboard may be a useful tool for me. Cursor positioning using space bar is great for cases where one wants to position cursor within current line or beginning of next line or end of previous line . But for other cases one has to tap on the required line in the screen and then, if required, use space bar to position at right character in the line. When typing with two thumbs and holding phone in other fingers of

the hands, and having a large keyboard due to settings like Extra tall height and Number row, that may require a big stretch of a thumb or even freeing one hand temporarily from holding the phone, tapping with a finger of that hand on required line and then holding the phone again. The cursor pad allows one to position the cursor using two thumbs and without a need to stretch the thumb too far or free a hand temporarily from holding the phone. Tapping on the cursor pad icon which I have set as one of the icons to show in suggestion strip, is a stretch for a thumb but not more of a stretch than tapping on a suggested word.

2. When both ends of the phone are resting on my body (like crossed legs for one end and abdomen for the other), and when typing with two thumbs as my fingers have to only lightly hold the phone, the thumbs can be more easily stretched out to reach any corner of the phone screen. In such an arrangement, the cursor pad may not be so useful.

Using QWERTY key layout knowledge; Gboard highlighting of typed character or pop-up of character; Pop-up on keypress setting

1. I tried to consciously bring in the knowledge I have of QWERTY key layout in my head as I typed on the on screen keyboard with two thumbs. This resulted in slightly lesser speed than normal. Fascinatingly at that speed I was able to bring in that layout knowledge into my typing. Hmm. Of course, even earlier while typing on mobile, this knowledge would come into play but it was usually at an unconscious level and I would be sometimes visually checking where a letter key is located. I still had to look at the keyboard to check the character I was typing. But I was not searching for where a character is positioned. It was only to confirm that I was typing the right character along with a little bit of checking exactly which position in the general area that I know, the key was placed.
2. Lack of key feeling (physical) feedback is a big issue due to which I have to see the alphabets part of the keyboard when I am typing on smartphone. *[In the physical computer keyboard, I do not need to look at the keyboard while I am typing in alphabets.]* I thought it may help to follow the pop-up (if Pop-up on keypress is enabled) and/or letter flash feedback as I type even if that slows me down a bit.
3. The Pop-up on keypress setting is in Gboard Preferences and can be on or off. I noted that for password fields even if Pop-up on keypress setting is on, the letter pressed does not pop-up which is good, IMHO. See pic at end of this list showing 'h' letter popped up. To see video of pop-up press see <https://youtu.be/LDo3lfC6uF4?t=36> (from around 36 seconds). In same video, from around 24 seconds you can see how keyboard operates without pop-up, <https://youtu.be/LDo3lfC6uF4?t=24> .
4. If Pop-up on keypress setting is on and if I am not sure of some keypress like z or , (comma), I can keep my finger pressed on the key for some time to confirm it is the right character by seeing the pop-up and then release the keypress to have the character typed in. One issue though is that if the press is for long, it will get into long keypress character associated with the key, if any. I find that having the 'Key long-press delay' setting to 600 ms instead of the default 300 ms, helps me to avoid getting into long-press character/letter when I checking this out. Further the 600 ms time is not too much when I do want to use the long-press letter.
5. Note that those keys which have a letter and associated long-press letter(s), show up in pop-up with three dots below them.
6. After trying out typing with Pop-up on keypress setting being on, I am not sure whether pop up on key press is helpful. I found it difficult to follow the pop up of the letter as I was typing with some speed using two thumbs. At times, it seemed as if the letter above the

pressed key was flashed which may have been due to the pop up covering the letter above pressed letter and then uncovering it quickly as I moved on to the next letter. It was when I kept the key pressed for somewhat long to check which key is pressed that it was helpful though if the key has associated long-press letters (accented characters or numbers) mapped to it, they appear after the key long press delay setting which I had set to 600ms.

7. I switched off Pop up on keypress. Then I noticed that the highlight of the letter pressed (or flash of the letter pressed if I had moved on to the next letter I wanted to type) was more visible than when Pop up on keypress setting was on. I think Pop up on keypress being off is a better setting for me.
8. Following highlight/flash of pressed key reduces wrong letters being typed in as compared to case where I am not following highlight/flash of letters but only focusing on pressing a letter and jumping to the next letter I want to type in. But it takes more time and so I think I need to strike the right balance here, especially as auto correction will fix some of the typing mistakes.

11:12

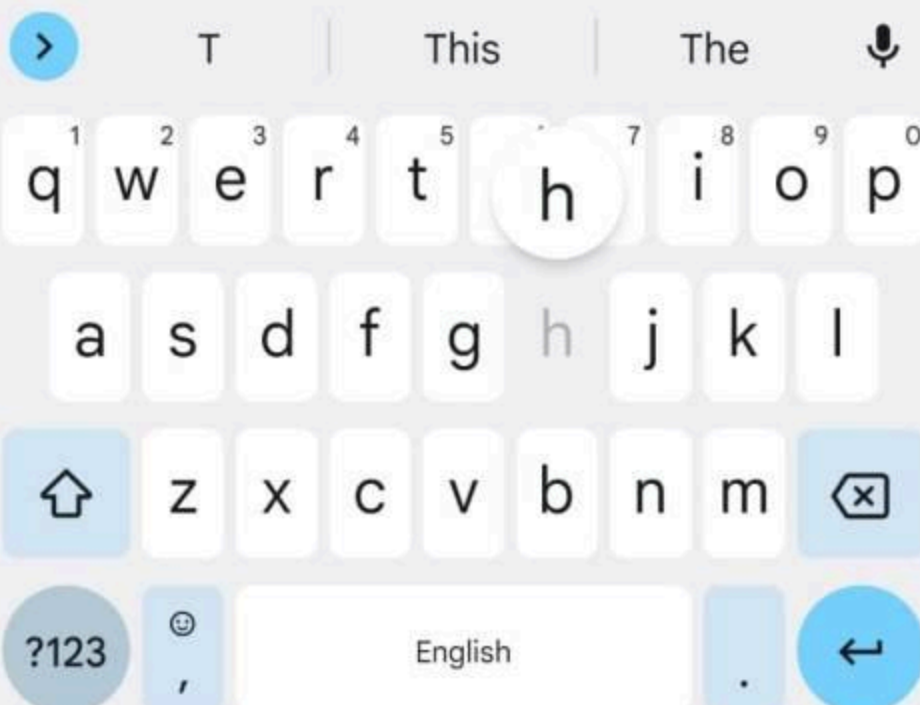
VoLTE LTE1 VoLTE LTE2

< Title



How to use the flash or rather the pop up on press? I think i need to train my eyes to watch for the popped up character as i type. And if i am not sure of some keypress like z or , i can keep my finger pressed on the key for some time to confirm it is the right character by seeing the pop-up and then release the keypress to have the character typed in. One issue though is that if the press is for long it will get into long keypress character associated with the key, if any.

I



letter popped-up on keypress

Gboard: Long-press effect based on letters associated with key; Long press for symbols setting

1. With default value of Key long-press delay setting of 300 ms in Gboard preferences and dragging from the shift key to capitalize a letter, sometimes when I am slow in confirming that I have dragged to the right letter, results in long-press mapped character of the key being typed instead of capitalizing the letter if the key has associated with long-press letter(s)/character(s). I am more comfortable with a higher key long-press delay setting like 600 ms to reduce such trip-ups. But this results in more wait time when I need a long-press character.
2. As of now, I prefer turning off the Long press for symbols setting and so for the bottom two rows of alphabets (z row and a row), excepting for the characters s, c and n, I do not have any long-press letter associated with the keys.
3. Note that accent characters associated with letter keys are limited to vowels and, I think, 3 other letters (s, c and n).
4. The keys at the extreme left and right of keyboard are hard to accurately press when typing with two thumbs. The exception is the number row when shown separately where the extreme left and right keys are not so difficult to thumb-tap. With number row being shown separately and symbols not being shown in keys (off setting for Long press for symbols), in this hard to accurately thumb-tap keys, only the keys a, comma (,) and period (.) have additional characters or options mapped to them. For the other keys of q,z,p,l and m there are no additional characters mapped to them and so it is easy to confirm these key presses by keeping them pressed a little while and moving the thumb slightly to confirm that the wanted key is highlighted. But trying the same with a comma (,) and period (.), for me at least, many times the alternate characters or options (e.g. emoji option) pop up. To make the popup go away without an alternate character or option being typed or chosen, without lifting the thumb first drag to another key on keyboard. After a new key is highlighted, without lifting the thumb, move to desired key to highlight and then release/lift to get it typed. And if you simply want to cancel the keypress, move the pressed thumb to above the keyboard into the text window of the app you are running.
5. A surer way of ensuring that a or comma (,) or period (.) key is pressed, is to first press without releasing, a key above or below it which does not have alternate characters associated with it, and confirm that the key is highlighted. Now we know that we have to only move the thumb slightly above or below to quickly select and highlight the key we want, and then lift the thumb. This is working quite well for me in my initial tries with 600 ms Key long press delay setting.
6. I could not find a Gboard setting to remove the additional association of accented or special characters or options from some keys like a, e, i, o, u, c,s and n.

Symbols (special characters)

1. Using special characters like &, ^, @ and % when Long press for symbols setting is off: Accessing the symbols is easy. One just has to tap on the ?123 key at bottom left of Gboard keyboard when character keys are being shown (see "Gboard keyboard with maximum height" pic given earlier). This results in either Numpad showing up in keyboard layout (see Gboard keyboard with Num Pad" pic) or 1st of 2 symbols layouts (see "Gboard keyboard with Num and Symbols layout 1" pic), depending on the status of the 1234 or !?# key. From 1st symbol layout one can go to 2nd symbol layout (see "Gboard

keyboard with Num and Symbols layout 2” pic) by pressing the =/< key (and go back by pressing ?123 key which replaces the =/< key). The set of symbols shown in these two layouts includes all the symbols shown on my Microsoft Comfort Curve keyboard attached to my PC desktop, and has some more. Further, some of the symbol keys have additional special characters, some of which are not available on a key by itself. As an example, see the special character symbols for infinity and not-equal-to (see “Gboard keyboard with Num and Symbols layout with additional symbols”).

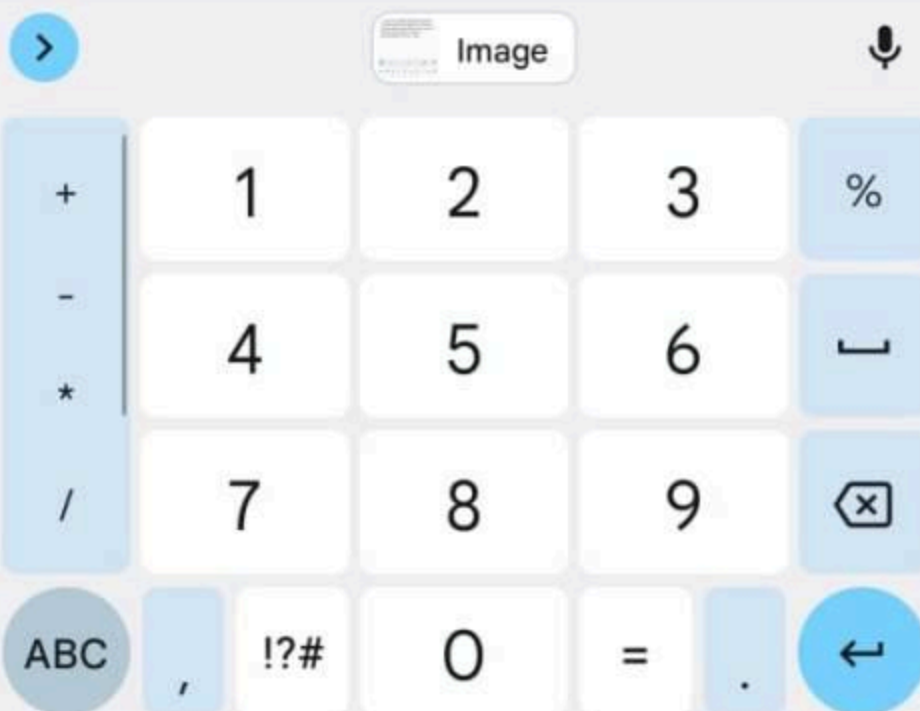
6:07

Voi LTE VoLTE1 VoLTE2

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type. And if i am not sure of some keypress like z or , i can keep my finger pressed on the key for some time to confirm it is the right character by seeing the pop-up and then release the keypress to have the character typed in. One issue though is that if the press is for long it will get into long keypress character associated with the key, if any.,



keyboard with Num Pad.

7:17

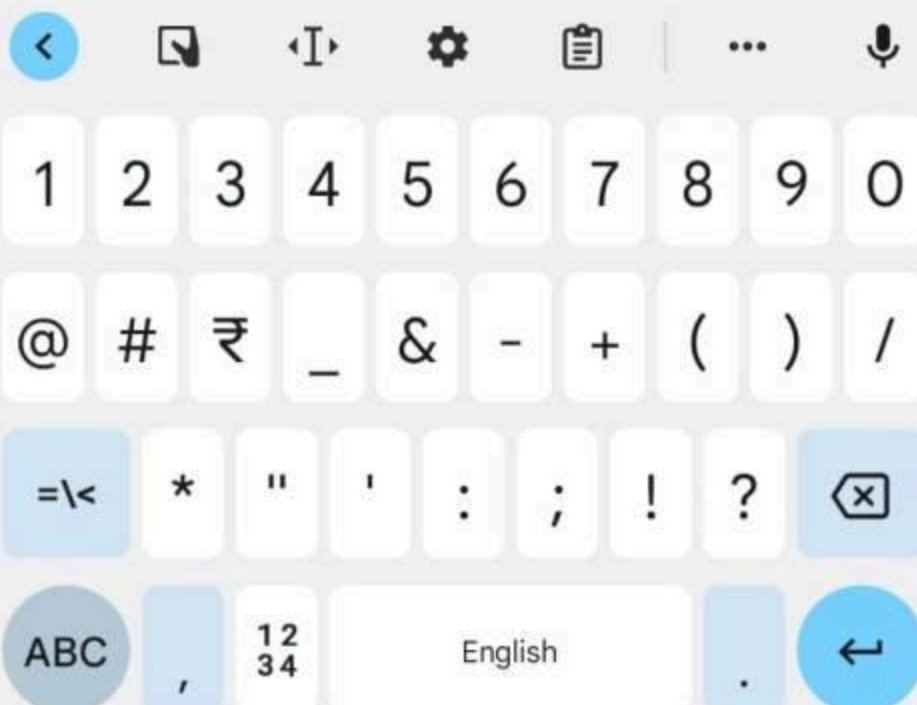
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type. And if i am not sure of some
keypress like z or , i can keep my finger
pressed on the key for some time to
confirm it is the right character by seeing
the pop-up and then re/<±±.&__\$Nº#@±»';;
jiii;±

lease the keypress to have the character
typed in. One issue though is that if the
press is for long it will get into long
keypress character associated with the
key, if any.,563% / ,.....,



keyboard with Num and Symbols layout 1.

7:18

VoLTE LTE VoLTE LTE

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type. And if i am not sure of some
keypress like z or , i can keep my finger
pressed on the key for some time to
confirm it is the right character by seeing
the pop-up and then re/<±±.&__\$Nº#@±»';;
jiii;±

lease the keypress to have the character
typed in. One issue though is that if the
press is for long it will get into long
keypress character associated with the
key, if any.,563% / ,.....,



keyboard with Num and Symbols layout 2.

3:17

Voi LTE VoLTE1 VoLTE2

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17▼



This is a test typing session. I am getting bored with these tests. But they do help in understanding the way in which one can type on mobile comfortably.

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keyboard with Num and Symbols layout with additional symbols.

Glide typing did not work out well for me

1. Glide typing seemed to be fascinating. But on more serious look and comparison, one finger typing speed for me can be as fast as glide typing with lesser errors. Glide typing tends to obscure the keyboard at times and that trips me up. I mean I have not been able to associate what my computer keyboard typing fingers know about QWERTY keyboard layout with glide typing and QWERTY on-screen keyboard. Perhaps it just needs some practice for me to make a sort-of memory transfer of QWERTY keyboard from my computer keyboard experience to glide typing or single-finger or two-finger typing. There is some memory, of course, about QWERTY keyboard layout even with on-screen keyboard on mobile but it does not come close to how automatically without any conscious remembering effort I type with ten fingers on a computer keyboard.
2. One or two finger typing can use glide typing at times. In other words, they can be combined.
3. I later switched off Glide typing setting to prevent inadvertant gliding of finger from one key to the other resulting in glide typing word output.

Miscellaneous

1. One handed typing is doable, even if slow, using Gboard. That is a big surprise for me, a smartphone novice user. Gboard predictive text is making the big difference and enabling me to do it. More details: I was able to type with one handed keyboard setting using right thumb. I had to carefully note which letters got highlighted as I typed. To fix typos, cursor positioning using swipe on space bar was very, very useful. Of course speed was slow using one hand typing but I was amazed that I was able to do it without it seeming to be just too much of a hassle. But when I tried to type fast with one handed keyboard with only right thumb finger, I made many errors.
2. Floating keyboard option is interesting from a general feature perspective but I don't know whether I will find it useful.
3. Typing in landscape mode is difficult for me as the typing fingers have to stretch more. So even if some experts prefer typing in landscape mode (as mentioned in one article I read), I think I should stick to portrait mode typing for most of my typing on mobile work.
4. Switching between keyboards is easy and quick through a bottom right keyboard icon button if one is not having Accessibility shortcut-icon set up.
5. Double tap on space bar to get period followed by space is very convenient especially when typing with thumb(s).

Some Updates

1. After a few days, I changed keyboard height back to normal. I also turned off number row. I retained Key long press delay as 600 ms. So I think the chances of unintended numbers being typed when I type letters in top (alphabet) row are limited. With these settings, the suggestion strip is closer to both thumbs and so I may be able to tap them correctly most of the time.
2. When I have to type numbers, I prefer switching to the number pad rather than use long press of top row keys. But if I have to type just a single number I may then try out the long press. I also noted that if I type the key i after beginning of sentence and after a word has just been typed followed by space, I get uppercase I as a suggestion. I need to just train myself to pick up that suggestion which is usually centred and so close to the i key just

tapped. Or I can tap shift key with left thumb and follow it up with i key using right thumb. That may also be easy to do.

3. For some time around 20th feb and 21st Feb 2023, I used Samsung keyboard. Its cursor control feature is awesome as it works both horizontally and vertically whereas Gboard cursor control works only horizontally. But Samsung keyboard does not seem to have the number pad that Gboard has which I really like. However I can switch quickly between Samsung keyboard and Gboard using the keyboard icon in bottom left of screen. In Gboard, long press on space bar results in keyboard options showing up, including Samsung keyboards. I tweaked Samsung keyboard settings to remove number row and to not have sound and vibration feedback on keypress. Samsung keyboard has Telugu (English) language option which Gboard does not seem to have. I think in this language option, Telugu words written in Roman script are predicted. That seems to be the only feature of this language option. Note that this is different from Telugu language selection where text can be typed in English (transliteration) which automatically gets converted to Telugu script. Such Telugu language setting is there in both Gboard and Samsung keyboard. I don't use this language option.

Interesting links

1. [Has lots of adverts within video] Gboard Tips and Tricks – Google Keyboard's Hidden Features That Make Typing Easier, <https://www.youtube.com/watch?v=OBeggQpyPrQ> , 10 min. 37 secs. A note about this video:
 - o Enable gesture delete (in glide typing setting) works by tap and slide and NOT tap and hold followed by slide as he says in the video. Tap and hold results in delete (backspace) deleting multiple characters, which is what confused me when I tried this out first some days back. Tap and immediate slide does not delete the characters and selects words like shown in above video. Now I am more comfy with gesture delete and will try using it in my typing work.
2. 11 Gboard Tips and Tricks | google keyboard For Android and iOS Gboard, <https://www.youtube.com/watch?v=IQI9qXxD18M> , 8 min. 37 secs. A note about this video:
 - o Around 2:59 secs: select text and then have first letter uppercase or all uppercase of all text in selection by pressing shift key. Press it multiple times to toggle through the options.
3. 19 Tips to Help You Master Gboard for Android, <https://medium.com/@GadgetHax/19-tips-to-help-you-master-gboard-for-android-1076e26803ff> , Feb. 13, 2018.
4. The best ways to select text on your phone and computer, <https://www.popsoci.com/diy/how-to-select-all-text/> , Oct. 14, 2022 covers the feature of long press on a word and then drag to select multiple words. I think that finger press and drag is a good feature. However, when I tried it, it did not limit selection to words and selected part of word depending on what extent I had dragged the finger.
5. How To Type Faster On Smartphone: 10 tips for high-speed texting, <https://www.typewise.app/blog/how-to-type-faster-smartphone-tips> , Nov. 3, 2021

Novice smartphone user; Why I had to do more typing

on smartphone somewhat recently?

I am novice smartphone user and started using a decent speed and features smartphone (Samsung M21) in mid 2020. Even after buying it, I did not invest too much time in learning how to improve my typing speed on it, and used slow one finger typing and did not delve much into features of the default Samsung on-screen keyboard, except perhaps for text shortcuts. I avoided doing any medium length and long messages stuff (say beyond 3 or 4 sentences max) on my smartphone and used my PC for those purposes which has a full QWERTY keyboard on which I type with quite good speed using all ten fingers of both hands. Even for WhatsApp messages of medium length, I would do it on PC using WhatsApp on web or on PC. It is after my hospitalization in January 2022 that there were times when I did not have access to PC, and so was forced to use only the mobile for my messages and notes. Over the period of the past year, I have started using my phone a lot more than earlier for messages and notes, and for other work like reading email. Sometimes I don't want to go through the somewhat longish process of turning on the PC to compose and send a medium sized message/mail and want to do that on the smartphone itself. That led me to explore improve my typing on smartphone, which in turn led to this post.

-

=====End of Post=====

Open Source and free Live Transcribe app on Android; In Puttaparthi context, may be useful for offline transcription of long speech with silence breaks; Published: 26 Jan 2023

Post link (URL) on blog:

<https://ravisier.wordpress.com/2023/01/26/open-source-and-free-live-transcribe-app/>

This post is mainly an information capture post and has two main sections which may be somewhat disjointed. The first section is the info. I had gathered about Live Transcribe and some tests I made using it on my Samsung M21 phone in initial days of January 2023, and put up as a different post. Later I updated that post with Microsoft Word (on Android as part of Office app.) Dictate feature.

The following section of this post is info. gathered on and around 25th Jan. 2023.

Sometime after I had put up the post mentioned earlier about info. gathered in early Jan. 2023, I felt that for my speech to text needs on my phone, Google Voice Typing would be more appropriate and so I took down (unpublished/reverted to draft) the earlier post I had published on Live Transcribe .

I should also mention here that I am quite sure that for some specific needs of people,

especially those who are hard of hearing, Live Transcribe may be an awesome app. Both Google Voice Typing and Live Transcribe support offline transcription (speech to text) for English (UK) and English (USA) languages, whereas Microsoft Word Dictate does NOT work offline. In Puttaparthi, Jio 4G mobile Internet speed can become quite poor (below 1 Mbps) at times, when Microsoft Word Dictate will not work well (or even not at all depending on how poor the speed is). So for situations where one is dependent on only Jio 4G mobile Internet in Puttaparthi, offline speech to text capability of Google Voice Typing and Live Transcribe are very useful.

Live Transcribe has a significant advantage in Google Voice Typing for long transcription which is that Live Transcribe does not stop transcription if there is silence for some time, whereas Google Voice Typing switches off after silence for around 10 seconds. I tried to see if there was some setting to change this behaviour but could not find it. Searching on the net gave me this Google support forum page dated July 2019 which says Google Voice Typing does not have such an option as of that time: Why does Voice typing stop after ~20 seconds, <https://support.google.com/docs/thread/10838865/why-does-voice-typing-stop-after-20-seconds?hl=en> .

So for offline transcription for long speech which could have over 10 second silence breaks, Live Transcribe may be a better choice.

The section below has the Live Transcribe related content of my previously deleted post but with suitable modifications reflecting my current knowledge of this area. This is followed by content I created later on around 25th January 2023.

Early January 2023 Notes

I explored Live Transcribe app on my Samsung M21 phone to speed up writing of long text messages on mobile using my slow one finger mobile typing speed [Update: Over past few days, I have become more comfortable with two finger mobile typing (e.g. left thumb and right thumb)]. I had tried Live Transcribe around a year or year and a half back when I felt the app. is interesting but was not sure whether it would be really useful to me. Note that at that time I was not so comfortable with Android smart phone usage, and perhaps the app too is better today than what it was then.

11:16

Voi LTE1 VoLTE2



Live Transcribe & notification

Research at Google

Uninstall

Update

What's new

Last updated 22 Nov 2022



- Sound Notifications: Add custom sounds to get notified when your appliances beep, like an alarm or oven timer.
- Live Transcribe: Set up offline tran...

Rate this app

Tell others what you think



[Write a review](#)

Developer contact



About this app



Real-time transcriptions of your conversations and sound event notifications

Communication

Tools

Personal assistar

with Android smartphones already know about Live Transcribe and even use it regularly. But I thought there may be some readers who may not know about it and so I thought of putting up this post.

From https://en.wikipedia.org/wiki/Live_Transcribe :

Live Transcribe is a smartphone application to get realtime captions developed by Google for the Android operating system. Development on the application began in partnership with Gallaudet University.[1] It was publicly released as a free beta for Android 5.0+ on the Google Play Store on February 4, 2019.[2] As of early 2022, it has garnered 500 million installs worldwide.[3]

— end wiki extract —

How was Live Transcribe born? The following video covers that and shows how Live Transcribe can be a great boon for deaf and hard of hearing people.

From Android Accessibility: Live Transcribe, <https://www.youtube.com/watch?v=jLCwjlPwA> , 2 min. 47 secs, published in 2019 [Use CC option on youtube (in right half of bottom bar of video window) to understand what Dmitri Kanvesky is saying]. From the video description: “Imagine a world where people who are deaf or hard of hearing can have everyday in-person conversations, in real time. Google research scientist Dimitri Kanvesky and engineer Chet Gnegy worked together to bring Live Transcribe, a new Android app, to life to accomplish just that. “

While Live Transcribe seems to be designed for hard of hearing and deaf users, I wanted to explore whether it can also be used as standard transcription software to convert voice to text. So I spent some time trying out Live Transcribe.

Live Transcribe supports various forms of English language like English (United States) and English (India), as well as many non English languages.

A few days back, I did a simple transcription trial with English (India) language and took some screenshots to explain the process.

Firstly the Live Transcribe app. has to be started. One can set it up as an easily accessible button on the screen (appears as microphone icon in bottom right of Android phone screen) but I have not used that setting.

Below pic shows the screen when one has started the app. (and set English (India) as the language).

10:54 ☹

🔔 📶 VoLTE1 LTE 4+ 📶 VoLTE2 LTE 4+ 🔋

Ready to transcribe



English (India)

speaks into the phone. It was nighttime when I was doing this trial and so I held the phone microphone part close to my mouth and spoke softly into it. The app. was able to pick up the words and transcribe them (with an error). The next pic shows the screenshot with the transcribed text.

10:55



10:54 pm

This is a test
transcription using
English India image.



English (India)

got transcribed as image. To correct it, you cannot type directly into the window. Instead you have to go through a slightly cumbersome process (which, if I recall correctly, was one of key issues that put me off when I tried it out first around one and a half years ago). You have to select and copy the transcribed text as shown in the next pic.

10:55



10:54 pm

This is a test
transcription using
English India image.

Select all Copy

window of the app. results in a bar appearing at the bottom (as can be seen in an earlier pic). You have to tap the keyboard icon in that bar to bring up another window halfway down the screen into which you can paste the copied text and then edit it. In my case, I corrected image to language (by typing it in) and the result can be seen in next pic. I think the intended use of this text window is for users (say those who have a speech disability as well as a hearing disability) to have the option of typing in their response and showing it to the person they are having a verbal conversation with (and whose speech would have been transcribed in the transcribe window). But, for my needs, the text box window can act as an edit-transcribed-text window.

10:57

Vod LTE Vod LTE

10:54 pm

This is a test
transcription using
English India image.

This is a test transcription using English
India language.

Clear typed text

This is a test transcriptio...



text can be selected as shown in next pic and copy-pasted into any other app. that supports text entry (like Samsung Notes or WhatsApp, or for that matter (though I did not try it) Facebook or GMail).

10:57

VoLTE LTE VoLTE LTE

10:54 pm

This is a test
transcription using
English India image.

Cut Copy Paste Undo Share

This is a test transcription using English
India language.

Clear typed text



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< Telugu (English) >

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video: Samsung's New Live Transcribe with Android 10,
<https://www.youtube.com/watch?v=xBIKMI4XoZY> , 3 min. 02 secs., published on Dec. 5, 2019
by Samsung In A Minute.

Google support page: Use Live Transcribe,
<https://support.google.com/accessibility/android/answer/9158064> .

Given below are some notes from some trials I had made a few days back with language as English (United States) (the notes have some unwanted commas inserted by Live Transcribe which I did not delete to save time and also show the issue; the text within square brackets and in italics have been added or modified by me for this post and are not part of the original transcription) :

I'm trying out using live transcribe software, on Samsung mobile to do such transcription. It is doing a fairly good job.

Earlier I had not known how to easily make text changes within the application itself. Today, I figured that out. Also, I noted that one has to wait for some time while one is speaking for the application to do the conversion from voice to text. *[Otherwise some spoken words are not converted/omitted.]* In other words, one has to speak a little slowly and watch the screen to see whether it has caught up in its conversion from voice to text.

This message *[Ravi: trial notes part]* has been done using live transcribe. I had to do some amount of editing after the automatic conversion, but it was not too much.

One can also add custom words to the dictionary. I just added Sairam to it. I tried it and it has recognized it. Great.

When I bought my Samsung phone in mid-2020 or so, at that time itself, I had tried out this software – that time itself or slightly after that.

But I tripped up on easy usage of the software. In particular editing text, once it was transcribed, and had errors in it was a tripping point for me.

But now, after two and a half years of using this Samsung smartphone, I'm much more familiar with quick copy paste from one application to a notepad like application and then editing within it.

Now I regularly use Samsung Notes App that comes with Samsung mobile phone. So *[a few days back]*, when I tried transcription again and I took the effort of speaking slowly and watching this *[mobile]* screen as it's coming up with transcribed text, I was able *[to get fairly good text output and was able]* to very easily copy paste the required text from this *[Transcribe window/app]* to Samsung Notes app and do the editing there. For smaller messages, one can do the editing within this application itself. That also I figured out in a better way *[that day]*.

Earlier, I had not understood this feature so well.

All of these *[notes-points]* that I have *[captured]* related to live transcribe – all or most of the *[notes-points]* – have been done, using live transcribe. Afterwards, I had to do some editing. One particular issue, I'm facing is that the sentence break is not in a proper place quite often. I type very slowly on the mobile with one finger as against 10 fingers typing on the computer keyboard. *[A few days later I had got more comfortable with two finger (two thumbs) typing on mobile.]* So I think, for long messages that I need to send somebody using the mobile when i do not have access to my computer, this live transcribe software can be used.

Another small issue is the placement of the comma.

The software tends to insert commas at inappropriate places.

It also takes some time to recognize the spoken words.

But I think that when I regularly use this software, I will better understand the speed at which I should speak the sentences.

To conclude I plan to use this live transcribe software, when I have to type long messages on

the mobile. Let us see how it goes.

— end of this part of Notes —

Later I found that Google Voice Typing is more suitable for most of my needs than Live Transcribe. But, as mentioned earlier, for offline transcription of long speech which has some silence breaks in it, I think Live Transcribe may be better than Google Voice Typing.

Live Transcribe has support for Telugu and Tamil!

See the next two attached pics showing its support for Telugu.

10:22 ☹

🔔 📶 VoLTE1 LTE1 4G VoLTE2 LTE2 4G 🔋

మాటల రాతకు సిద్ధంగా ఉంది



Telugu (India)

10:22

VoLTE1 VoLTE2

10:22 pm

నమస్కారమండి
బాగున్నారా

మీరు రేపు మా ఇంటికి
వస్తున్నారా



Telugu (India)

బాగున్నారా

మీరు రేపు మా ఇంటికి వస్తున్నారా

Above text is copy-paste of Telugu text from Transcribe text window onto another app. which text I then transferred to a text file in my PC desktop and that finally made its way to this (blog) post.

Tests and Info. from around 25th January 2023

Live Transcribe related notes made from trials done on 25th Jan. 2023

1. Quite by accident I saw that LT (Live Transcribe) does a good job of transcribing audio of English language video played on computer with speaker on and at reasonable or normal volume. It does not switch off when there are silence breaks and continuously does the transcription. But I think it misses out some words if the speech goes on without breaks for long.
2. I observed that usually Live transcribe starts transcription at good speed but later slows down. This happened in both online and offline cases.
3. Running additional apps like countdown timer seems to significantly slow down live transcribe on my Samsung M21 phone.
4. I guess, since my phone is mid-range, LT is not able to do as good a job as one can see on LT demo videos, which probably use high-end mobile phones. So when I use LT, I need to see to it that I do not have any other app that is running.
5. LT (Live Transcribe) seems to catch softly spoken speech but not very soft speech.
6. Kept the phone on the table with bottom edge of the phone about slightly over one foot from my mouth. Live transcribe was the only app that was running on the mobile phone. Initially it transcribed at good speed but as I spoke for a little longer I saw that it had stopped transcribing.
7. With English India language setting LT makes a lot of errors in transcribing my words spoken at close to my normal speed of speech. When I speak at normal speed then there are just too many errors.
8. Google voice typing from the keyboard does not work in LT. Instead microphone input seems to go only to LT.
9. When I was using LT to transcribe audio of a CNN US news video where the speakers were speaking quite fast, LT lagged behind on transcription output. When it lagged behind a lot I stopped the video expecting LT to also stop after the current plus one sentence. I was quite surprised to see that LT slowly but steadily transcribed perhaps three to five sentences after current sentence! Perhaps the app buffers the input to a largish extent and so when there is a long silence, LT is able to do good catching up. However I have also noticed that at times LT omits words and at times it just stops if I have spoken continuously.
10. For my speech accent, LT seems to have worked better with English UK selection than English India.
11. One problem in LT is correction. You cannot change the words that are shown in the transcribed window.
12. LT can act as a quick and simple timestamped **temporary** short entry app. As an example, if and when I need to capture the time I have taken my medicines, if LT was not running, I can open LT and just say 'Medicines taken'. LT automatically time stamps the transcribed two words. But if LT is already running, it will add the words under the current transcription without adding a timestamp. So I will need to say, "Medicines taken at" and then mention the current time to have LT transcribe that as text. These entries could get

lost/embedded in other transcription text if LT is used for other work at that time. Therefore these entries have to be viewed as quick and temporary entries, which can be copied over to a more permanent notes file using Samsung Notes, Microsoft Word, (Google Keep?) etc. In my case, at times I need to know the time I have taken some medicines only for a day or so (temporary note), and so LT itself may be enough for me to keep that info. temporarily.

Google Voice related notes in context of Live Transcribe usage, made from trials done on 25th Jan. 2023

Given below are notes about my trials spoken and transcribed, which I have edited later on. I have provided a conclusion at the end of each note, in bold & italics.

1. I am using Google voice typing now in Samsung notes. I have kept the phone around 1 feet from my mouth and am speaking now, watching the screen as I am speaking. I think Google voice typing is doing a better job of transcribing by words spoken normal speed. Now let me see the language setting and check whether it is English India. Yes it is English India. Google voice typing is clearly superior to Live Transcribe in converting my speech to text when I am speaking. There are errors, of course, but the errors are significantly lesser than live transcribe.

Google voice typing also misses out sentences at times when I am speaking at my normal speed. So I need to keep looking at the screen to check whether Google voice typing is translating my speech or not. Still it's better than live transcribe.

Google voice typing does a better job of transcribing my speech with English (India) language setting, than Live Transcribe.

2) What if I use Google voice typing with language set as English UK and I work offline. *[I was online earlier when English (India) was the language setting.]* Now I am offline and the Google Voice typing language setting is English UK. Let me speak at my normal speed and see whether Google voice typing is able to do a good job at translating my speech to text. So far it's doing a good job. I'm quite impressed.

Let me try out longer sentences at my normal English speaking speed. Google Voice typing does not introduce any punctuation but it captures my words at normal speed and that's really great to see.

Google Voice does a good job of transcribing my speech with English (UK) language setting and when I am offline.

3) Perhaps even what I had noted about live transcribe capturing audio (from a) video as a transcription when I am running the video on my computer with the speaker switched on and at reasonable volume, I think Google voice typing will catch that too. But there is a significant issue which is that Google Voice typing tends to switch off if no words are spoken for some time which is not the case with live transcribe. So if the video that is being played has some silence at that time Google Voice typing may switch off and one has to restart it by tapping the microphone icon. This is where Microsoft Dictate may be superior. It may capture all (of) the video's output audio even when there is some silence in the video.

I don't recall whether I tried out such a test for Google Voice Typing and what its outcome was.

4) I am checking the time after which Google voice typing stops automatically if there is silence. It stopped after 10 seconds in the first test. Now I will try the second test. Once again it stopped after around 10 seconds. This is the third and final test. This time too it was around 10 seconds.

Google Voice Typing switches off after 10 seconds of silence (and I recall reading that there is no setting, as of now, to change this behaviour).

Microsoft Word (as part of Office app.) Dictate feature related notes in context of Live Transcribe usage, made from trials done on 25th Jan. 2023

Given below are notes about my trials spoken and transcribed, which I have edited later on. I have provided a conclusion at the end of each note, in bold & italics.

1. What is the language setting for Microsoft Word dictate feature. Let me check it settings.
The language setting is English India. Phone is on my lap. Let me speak at normal speed.
It was able to convert short sentence spoken it (at) normal speed.

Microsoft Word Dictate does a good job of transcribing my normal speed speech with language setting as English (India).

- 2) Pausing the dictation (is) straightforward. I wonder how it will do if I use it to transcribe text from the sound being made by speaker when I'm playing a video on the computer like in the case of Google voice typing.

I think this test did not work properly as the Internet speed then was poor. This shows how Microsoft Word Dictate may not be a reliable option when using Jio Mobile Internet in Puttaparthi as the internet connection.

- 3) I think I should speak one sentence fully and not check or rather not spend much time worrying about corrections in that sentence. After I've finished speaking the sentence then I can look at that sentence and correct any transcription errors. I think that would be a good system to follow.

The above is a good learning about benefiting from auto correction while 'dictating' to Microsoft Word which would be relevant even for Google Voice typing and Live Transcribe.

- 4) I got a message in Microsoft Word that I am offline.

It is interesting to note that when the Internet connection speed is very poor or has broken, Microsoft Word (app. on Android) provides a message that it is offline.

=====End of Post=====

**Dictate of Microsoft Word on Android
(free version) is superb for voice to text
but needs decent speed Internet
connection; Tests with Jio 4G speed in
Puttaparthi; Published: 23 Jan 2023**

Post link (URL) on blog:

<https://ravisier.wordpress.com/2023/01/23/dictate-of-microsoft-word-on-android/>

Microsoft Word free version on Android – as part of Office (Microsoft 365) app – has a voice to text or transcribe facility called Dictate and this free facility seems to be superior to Google Voice Typing. Google Docs app. on Android expects users to use Google Voice Typing and so Microsoft Word app. seems to be superior to Google Docs app. too. However Microsoft Word's Dictate feature needs a decent speed (at least 1 to 2 Mbps, it seems) Internet connection.

This superb Word Dictate facility which can be used for free in Android mobiles was quite unexpected as I somehow presumed that Microsoft will not be offering such a facility/feature free of charge. I am glad to have been proved wrong. I am quite sure that this same feature will be available on free version of only Microsoft Word Android app (without other parts of Microsoft Office) which I think is called Word Mobile.

11:16



Office (Microsoft 365)

Microsoft Corporation

Contains ads • In-app purchases

Uninstall

Update

What's new •

Last updated 2 Jan 2023



Thank you for using Office.

We regularly release updates to the app, which in...

Rate this app

Tell others what you think



[Write a review](#)

Developer contact



Join the beta

Try new features before they're officially released and give your feedback to the developer. Certain data on your use of the app will be



Play Store for Office (Microsoft 365) app.

10:48

VoLTE LTE VoLTE LTE



Home



Recent



PDF



Word



Scans



More

Recent



Today



Document

OneDrive - Personal • Documents



Scans

See all



Images to PDF

Read and share easily

Try it



Document

OneDrive - Personal



Older



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This device • Download



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+ Create



Home



Apps

app. on my phone

10:46

Voi LTE Vo LTE

Document - Saved



Microsoft Word transcribe facility (Called Dictate) is free on Android and this free facility seems to be superior to live transcribe. This was quite unexpected as I somehow presumed that Microsoft will not be offering such a service free of charge. I am glad to have been proved wrong. This message too has been transcribed from voice (using Dictate). It too needed some editing but it was not too much editing.



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Telugu (English)



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document is opened in Office app. Note the Microphone icon above the on-screen keyboard and at the right edge of screen. This is the Dictate start button.

7:52



Space and new line without exiting from dictation and going to on screen keyboard. Let me try that out now.

„.?

I was able to use all the above mentioned punctuation characters without exiting the dictation mode. That's nice. I forgot to mention that backspace can also be used without exiting dictation mode.



Listening...

Say something to get started



when Dictate feature has been invoked.

Details

These are observations I made during my testing of Word Android app. over past few days.

*) Word Dictate on Android is doing an impressive job. It did not seem to omit many words as it converted voice to text even when I was speaking at reasonable speed. And it seems to catch my words quite well. I am really impressed with Office Word on Android capability of voice to speech. Even on Jio 4G mobile Internet in Puttaparthi usually (when speed is 1 to 2 Mbps or above), it is doing a good job.

*) Like in Google Voice Typing, switching between dictation and direct editing of the document is straightforward – Word just requires a tap to switch between dictation and direct editing of document.

*) Word has English (India) as a language choice.

*) One minor disadvantage is that in this free version some advertisements get shown. But that is not a big deal for retired-from-commercial-work persons like me who are looking at low cost solutions and low cost techniques to do their free service and personal work.

*) It seems to me that when the Internet connection is poor, i.e. less than 1 or 2 Mbps speed like 500 kbps, that is when Microsoft Word dictate feature performs poorly. Google Voice typing seems to do quite well even when the Internet speed is poor like 500 kbps.

*) Note that Microsoft Word dictate is a separate app which has to be started and in which one has to enter text through Dictate. Then, if required, one has to copy paste that text into any other app like say Gmail or WhatsApp. This is in contrast to Google Voice Typing which works directly on every app that allows for text input, using the on-screen keyboard.

*) Microsoft Word Dictate feature is superior to Google Docs on Android as Word Dictate supports a significant set of useful voice commands whereas Google Docs app on Android requires one to use Google voice typing which has very limited set of voice commands (only ‘full stop’ and ‘exclamation point’) that worked for me. Other voice commands like comma or ‘new line’ or ‘select word’ did not work for me even when my Internet connection speed was in the range of 4 to 8 or above Mbps, and so it was not a poor Internet connection speed issue.

*) Another nice thing about voice to speech on Office Word on Android is that the microphone or rather the voice to speech facility does not switch off if one has not spoken some words for some time. In Gboard keyboard that is quite often an issue. While one is checking whether Gboard and Google Voice Typing have properly converted the last sentence one has spoken, sometimes the microphone switches off. *[But there may be a setting to change this behaviour. I have not explored this point so far.]*

*) I was wondering whether if I use Microsoft Swiftkey keyboard (on apps. other than Microsoft Word), and use its Voice to text feature, will Microsoft Dictate speech to text technology come into play. It does not. Microsoft Swift key also uses Google Voice Typing. See Microsoft Swiftkey support page: How do I use Voice to Text with Microsoft SwiftKey on Android?, <https://support.swiftkey.com/hc/en-us/articles/201592041-How-do-I-use-Voice-to-Text-with-Microsoft-SwiftKey-on-Android-> .

*) Dictate your documents in Word Mobile, <https://support.microsoft.com/en-us/office/dictate-your-documents-in-word-mobile-155b64d2-0722-4d97-8190-066c695efb3b> is Microsoft support page for Word Mobile. It states that a reliable internet connection is needed. So that's official. Without a decent speed and reliable Internet connection, Dictate feature of Word Mobile will NOT work.

*) Tap-typing ,. ? space backspace and new line without exiting from dictation

While one is using Microsoft Word app dictate feature one can tap the icon-buttons for ,. ? space backspace and new line to insert the corresponding characters without exiting from dictation and going to on screen keyboard. See the pic given earlier showing Word app. in Dictate mode (when Dictate feature has been invoked).

I tried it out and confirmed that it works. That's nice.

Voice commands of Microsoft Word on Android

In

<https://support.microsoft.com/en-us/office/dictate-your-documents-in-word-mobile-155b64d2-0722-4d97-8190-066c695efb3b#Tab=Android> page, the section 'What can I say?' gives a small set of voice commands that can be used in Word on Android.

But using the 'show help' or 'show all commands' in the app. (i.e. speaking them while Dictation is on), shows a larger set of commands (and does not list the Mail related commands mentioned in above page).

12:29

Vod LTE Vod LTE

Now I'm using Microsoft Word app dictate While one is using the dictate feature one can typing,.? Space and new line without exiting from dictation and going to on screen keyboard. Let me try that out now.

,.?

I was able to use all the above mentioned punctuation characters without exiting the dictation mode. That's nice. I forgot to mention that backspace can also be used without exiting dictatio.

The screenshot shows the Microsoft Word app interface. At the top, there is a toolbar with icons for Bold (B), Italic (I), Underline (U), a pencil icon, a red underlined 'A' icon, and list icons. Below the toolbar is a header bar with a back arrow and the text 'Help & Support'. The main content area is titled 'Voice commanding' with a link 'All commands >'. Below this, it says 'Here is how you can use voice commands'. There are two columns of examples. The left column shows 'If you say: "backspace"' followed by 'Result: This will delete last character'. The right column shows 'If you say: "delete last s"' followed by 'Result: Hello. [This d'.

B *I* U A

< Help & Support

Voice commanding [All commands >](#)

Here is how you can use voice commands

If you say:	Result:
"backspace"	This will delete last character
"delete last s"	Hello. [This d

when 'Show Help' voice command is given.

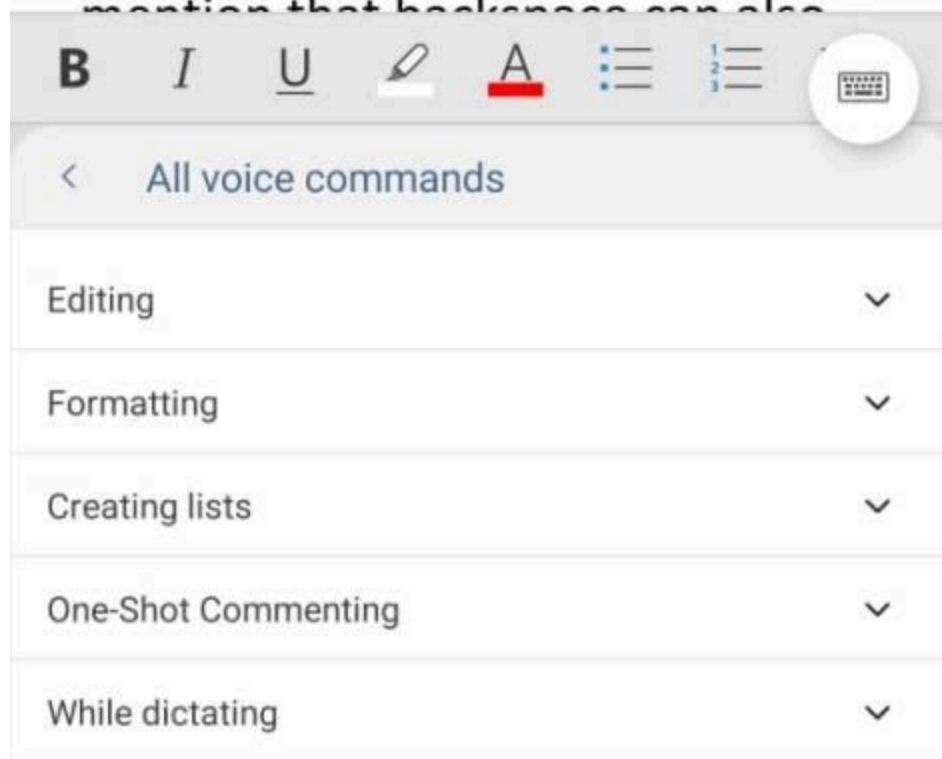
12:48

Vod LTE Vod LTE

Now I'm using Microsoft Word app dictate While one is using the dictate feature one can typing,.? Space and new line without exiting from dictation and going to on screen keyboard. Let me try that out unselect.

go up

I was able to use all the above mentioned punctuation characters without exiting the dictation mode. That's nice. I forgot to mention that backspace can also

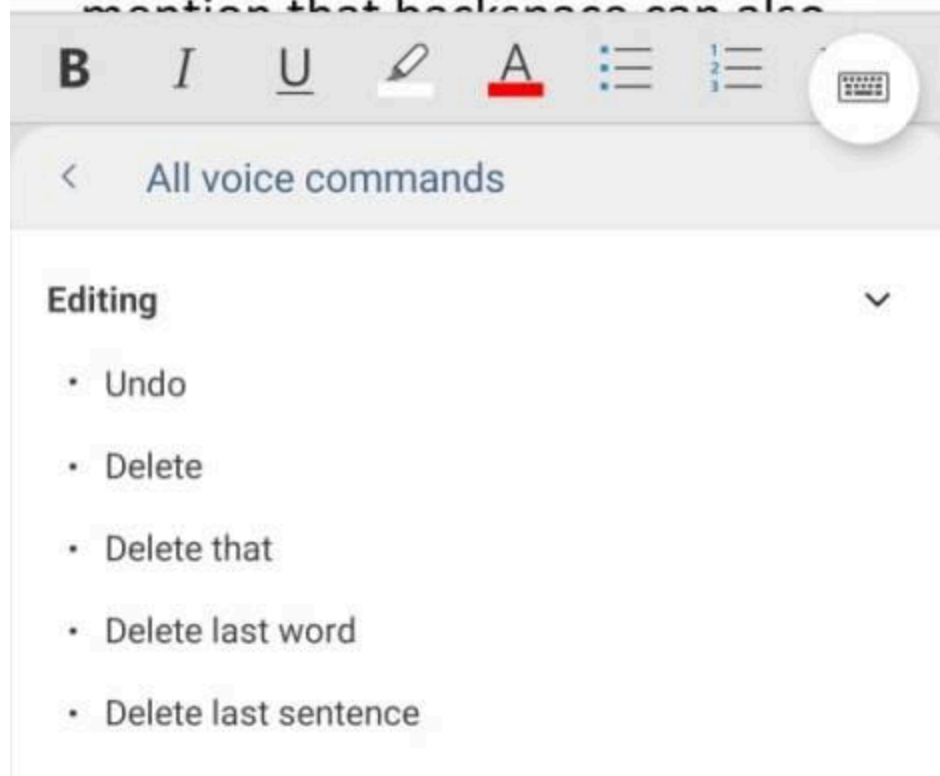


Word Mobile Help: All Voice command groups

Now I'm using Microsoft Word app dictate While one is using the dictate feature one can typing,.? Space and new line without exiting from dictation and going to on screen keyboard. Let me try that out unselect.

go up

I was able to use all the above mentioned punctuation characters without exiting the dictation mode. That's nice. I forgot to mention that backspaces can also

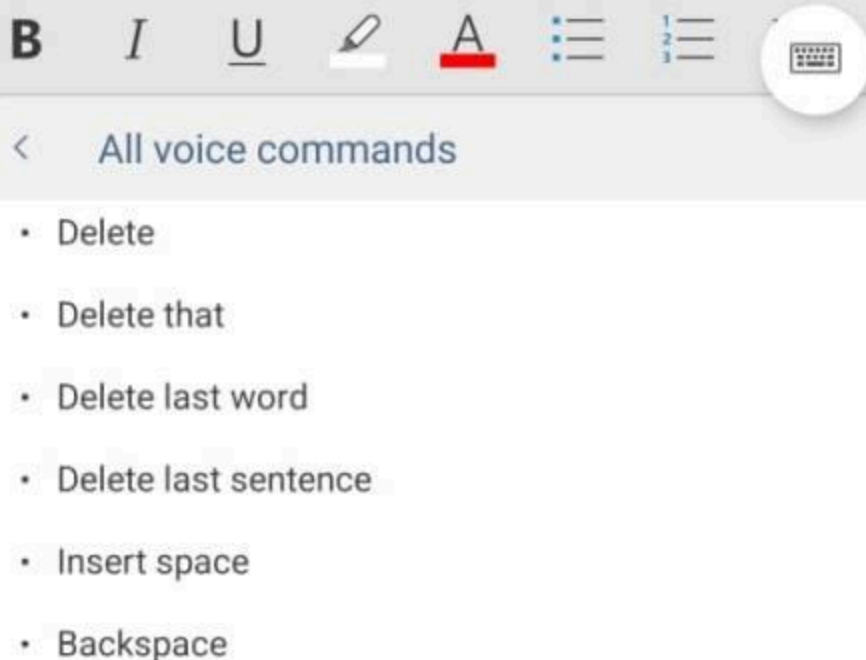


Editing commands – 1

Now I'm using Microsoft Word app dictate While one is using the dictate feature one can typing,.? Space and new line without exiting from dictation and going to on screen keyboard. Let me try that out unselect.

go up

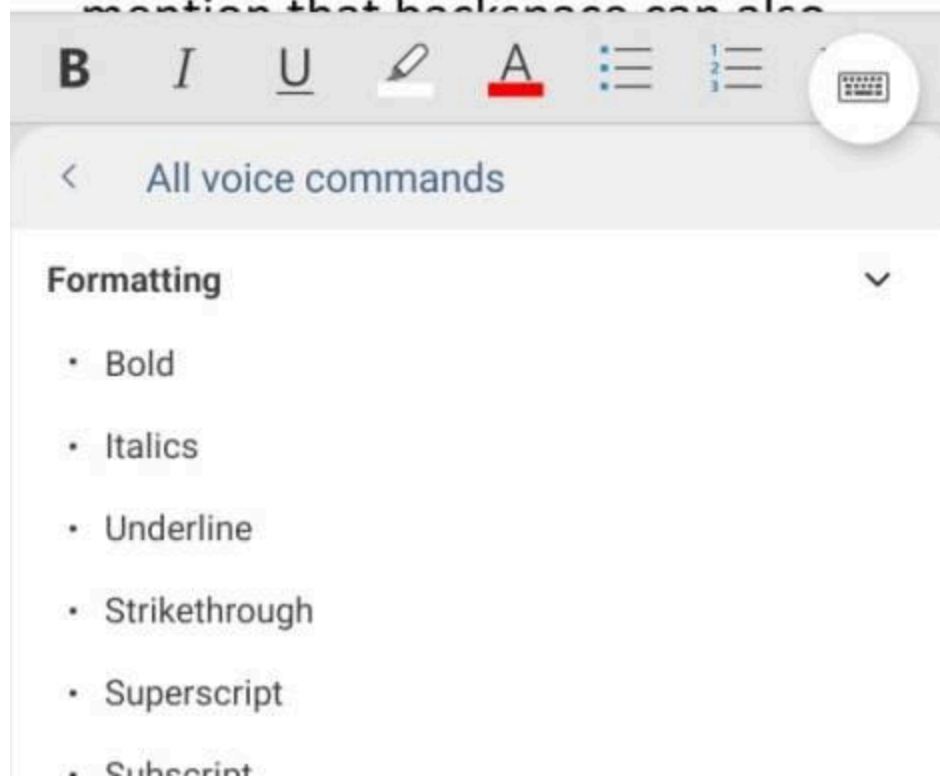
I was able to use all the above mentioned punctuation characters without exiting the dictation mode. That's nice. I forgot to mention that backspace can also



Now I'm using Microsoft Word app dictate While one is using the dictate feature one can typing,.,? Space and new line without exiting from dictation and going to on screen keyboard. Let me try that out now.

.,?

I was able to use all the above mentioned punctuation characters without exiting the dictation mode. That's nice. I forgot to mention that backspaces can also



Initial set of Formatting Commands

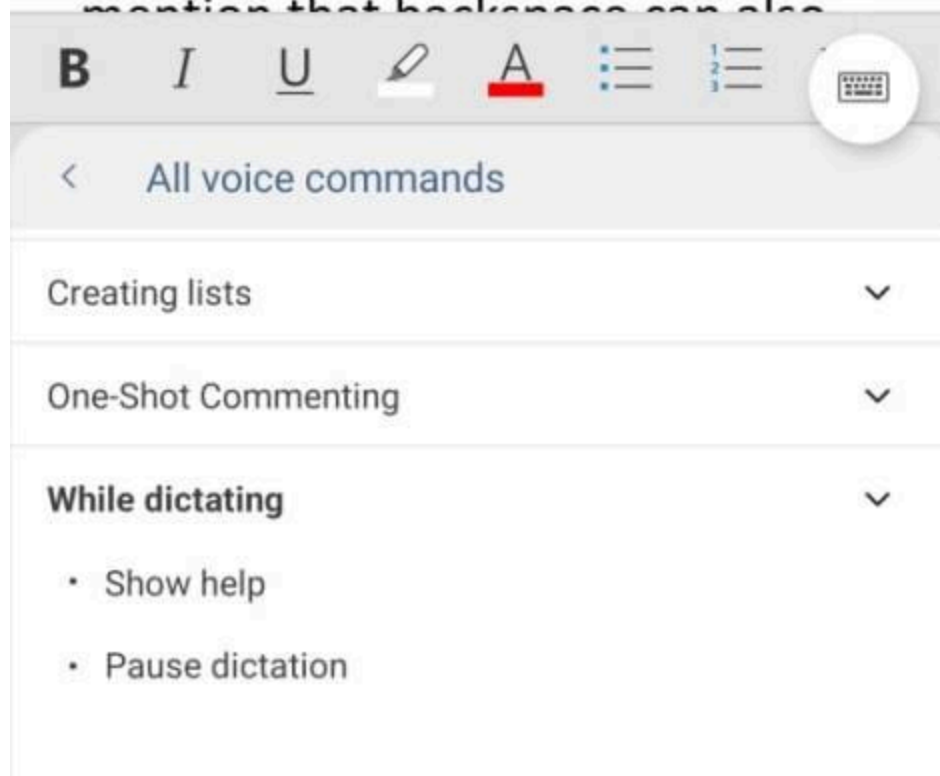
12:30

Vod LTE Vod LTE

Now I'm using Microsoft Word app dictate While one is using the dictate feature one can typing,.,? Space and new line without exiting from dictation and going to on screen keyboard. Let me try that out now.

,.,?

I was able to use all the above mentioned punctuation characters without exiting the dictation mode. That's nice. I forgot to mention that backspace can also



Word Mobile Help: 'While dictating' commands

In

<https://support.microsoft.com/en-us/office/dictate-your-documents-in-word-3876e05f-3fcc-418f-b8ab-db7ce0d11d3c> page, the section 'What can I say?' gives the voice commands that can be used for Microsoft Word Dictate on desktop PC (e.g. Windows PC). This list is larger than the Microsoft Word mobile 'show help' or 'show all commands' list.

From my perspective, the key commands mentioned in Word Dictate for desktop help page which are not mentioned in Word Mobile help page or its 'show help' list, are the punctuation commands. But I got a pleasant surprise when I tried out the punctuation command list from Word Dictate for desktop PC while using Word Mobile Dictate. I tried almost all, if not all, of them and they worked! I have given below the punctuation characters whose voice commands worked for me on Word app. on Android:

- . Command: 'full stop'
- , Command: 'comma'
- ? Command: 'question mark'
- ! Command: 'exclamation point'
- 's Command: 'apostrophe-s'
- : Command: 'colon'
- ; Command: 'semicolon'
- " Command: 'open quotes'
- " Command: 'close quotes'
- Command: 'hyphen'
- ... Command: 'dot dot dot' (and 'ellipsis')
- ' Command: 'open single quote'
- ' Command: 'close single quote'
- (Command: 'open parentheses'
-) Command: 'close parentheses'
- [Command: 'open bracket'
-] Command: 'close bracket'
- { Command: 'open brace'
- } Command: 'close brace'

Additional related commands which are listed elsewhere and which worked are 'insert space' to insert a space and 'backspace [n]' to backspace one character or [n] characters.

'new line' and 'new paragraph' commands also worked.

Some select commands worked when I tried it out (e.g. select 'specific word', select previous word and, IIRC, even select sentence). However remove selection or deselect command did not work.

I was amazed and very happy to see Word app. on Android work for the above mentioned voice commands, most of the time, while using mobile with Jio 4G network in Puttaparthi. But I also noted that when the Internet speed dropped to around 500 Kbps, Word app's Dictate feature stopped working. A few minutes later it worked well and when I used fast.com to check the speed, it was 2.1 Mbps.

So while using Word Dictate on mobile in Puttaparthi and using Jio 4G or equivalent Internet service, one has to be prepared for periods when network speed goes down to below 1 Mbps at which time Dictate feature will most probably stop working. But at such times, one has the option to continue using Microsoft Word app on mobile for voice to text, but use Gboard (or other) keyboard's Google Voice Typing technology for languages like English (UK) or English (USA) which work even when one is offline. I confirmed that by switching off mobile data and

then testing it out. Microsoft Word accepted all the words or other text given to it by Google voice typing and entered it in the document. The top of the screen showed that it is attempting to save the document which was online but which was not going through. However I was able to save it on the device (using Save As or similar command).

Additional info.

*) I also tried Windows 10 speech recognition on my desktop PC. That was a very unsatisfactory experience. But accessing Office 365 online from desktop PC and using its Dictate feature did a good job, comparable to what I experienced when using Office 365 on Android.

*) Use voice typing to talk instead of type on your PC,

<https://support.microsoft.com/en-us/windows/use-voice-typing-to-talk-instead-of-type-on-your-pc-fec94565-c4bd-329d-e59a-af033fa5689f> is Microsoft support page for Windows OS (Windows 10 and Windows 11). It states, "Use dictation to convert spoken words into text anywhere on your PC with Windows 10. Dictation uses speech recognition, which is built into Windows 10, so there's nothing you need to download and install to use it." But ...

This is followed by a highlighted statement, "To use dictation, your PC needs to be connected to the internet." So Windows 10 speech recognition needs a decent speed Internet connection.

*) Dictate your documents in Word,

<https://support.microsoft.com/en-us/office/dictate-your-documents-in-word-3876e05f-3fcc-418f-b8ab-db7ce0d11d3c> is Microsoft support page for Word on Windows and macOS. It states, "Dictation lets you use speech-to-text to author content in Microsoft 365 with a microphone and reliable internet connection." This implies that Word Dictate on PC won't work without a "reliable internet connection".

=====End of Post=====

Some details about Google Voice Typing especially in Puttaparthi Jio 4G mobile Internet speed context; Published: 21 Jan 2023

Post link (URL) on blog:

<https://ravisier.wordpress.com/2023/01/21/some-details-about-google-voice-typing/>

Last updated on 23rd Jan. 2023

This follows up my previous post: Writing text using Google Voice Typing on Android mobile works quite well (in Puttaparthi using Jio 4G Internet speeds); It works even offline with English (UK) or (USA) language setting,

<https://ravisier.wordpress.com/2023/01/21/writing-text-using-google-voice-typing-on-android/> .

Two language settings come into play with Gboard and Google voice typing

Gboard keyboard's language options are shown when the space bar is kept depressed for some

time. If one is offline and one is using Google Voice typing (activated by mic button touch/press), a settings icon is shown which has to be touched to see/modify Google Voice typing language settings. If one is online, one needs to get to Google Voice Typing language settings through Android Settings -> General Management -> Keyboard list and default -> Google Voice Typing. The screen would look like the pic below.

12:09

VoLTE1 VoLTE2



Google Voice Typing

Block offensive words

Hide recognised offensive voice results



Voice typing language

Languages

Languages: English (UK), English (India)

Primary language

Primary language: English (UK)

Offline speech



Add a language

Manage offline languages



Auto update languages

Wi-Fi only



Advanced

Downloaded languages

As seen in above screenshot, at that time I had chosen two languages: English (UK) and English (India). The important field in the context of offline usage is the Primary language which I had set to English (UK). When I had set it to English (India) for which I do not have downloaded data on my phone, Google Voice Typing would not work when I was offline. The next two screenshots below show the languages available for download to have offline speech functionality.



Add a language

Your languages



English (UK)

81 MB



English (US)

79 MB

Available languages



Deutsch (Deutschland)

65 MB



English (Australia)

43 MB



English (Ireland)

43 MB



English (Singapore)

43 MB



Español (España)

12:10

VoLTE1 VoLTE2

← Add a language



English (US)

79 MB

Available languages



Deutsch (Deutschland)

65 MB



English (Australia)

43 MB



English (Ireland)

43 MB



English (Singapore)

43 MB



Español (España)

49 MB



Français (France)

109 MB



Italiano (Italia)

53 MB



日本語 (日本)

58 MB

As can be seen from the screenshots I have English (UK) and English (USA) downloaded on my phone. The other languages that can be downloaded are a very small list which does NOT include English (India). In other words, it seems that, as of now, one cannot have offline Google Voice Typing facility for English (India) language selection (in Google Voice Typing setting). Now even with Gboard language setting as English India but with Google Voice Typing primary language as English (UK), I was able to do offline speech to text conversion using Google Voice Typing on my phone. I had turned off mobile data in my Samsung phone settings to do that test. Then I changed Google voice typing's primary language setting to English India and tried out Google Voice Typing, while still being offline. As expected, Google Voice Typing did not work giving the error message of network not connected.

Jio 4G Internet mobile speeds in Puttaparthi can sometimes (during peak usage, I guess) be below 1 Mbps (like around 500 Kbps). At such speeds, online Google Voice Typing may not function well. So it is better to have offline Google Voice Typing capability also on the mobile phone, which perhaps may automatically come into play when the Internet connection speed is poor. I should also say that during most of the day and evening times (off peak usage times), Jio 4G Internet speed in Puttaparthi is at least 1 to 2 Mbps and can be higher (4 to 8 Mbps is not uncommon). At such speeds I think online Google Voice Typing will function well.

Only few Google Voice Typing commands worked for me

I tried to search for Android Google Voice Typing commands to get a list of voice typing commands supported by Google Voice Typing on Android phones. I could not get an exact match Google help or support page giving that list. Instead the top results I got included Google Docs Editors Help -> Tools -> Type with your voice:

<https://support.google.com/docs/answer/4492226> . I wrongly presumed that these commands would be available at least for the Google Docs app. on Android, and perhaps for Google Voice Typing used on any app. in Android. That led to me wasting a lot of time trying out various voice commands listed there, on my phone using Google Voice Typing invoked via on-screen keyboard in Google Docs app. and in other apps. Only two commands I tried worked ('full stop' and 'exclamation point'). All the other commands I tried did not work.

On closer look at the above help page, it says, "This feature works with the latest versions of Chrome, Firefox, Edge, and Safari browsers". Crucially it does not include Google Docs Android app. I tried going to docs.google.com on Chrome in my Android mobile phone but that switched me to the Google Docs. app. This link: How to voice type in Google Docs,

<https://www.androidauthority.com/voice-type-google-docs-3112170/> , Feb. 21, 2022, confirms that these voice commands do not (are not supposed to) work on Google Docs on Android phones. It states, "Voice typing is only available on the desktop version of Google Docs on Google Chrome." and "If you want to use voice typing on Google Docs on your phone, you can use the microphone function on the Google keyboard. However, voice commands won't work." That settles it, IMHO. But I have to say that I felt quite frustrated as I was trying out these commands on Google Voice Typing on mobile and saw that they were not working. I was wondering whether I had got some incorrect setting or something like that and so experimented by changing those.

As mentioned earlier, two voice commands worked for me in Google Voice Typing on Android. They are: 'full stop' and 'exclamation point'. 'Comma', 'Question mark', 'new line', 'delete', 'delete that', 'select' etc. did not work (on Android). *[To make things really confusing, the related feature in Google Docs on desktop PC is called "Voice typing"! Some of these voice commands worked in Google Docs on my PC desktop when I tried it. So I thought it would work at least in Google Docs app. on Android mobile. By that time I had seen that Microsoft Word app. on Android mobile supported many voice commands and thought that Google Docs app. would*

have roughly equivalent capability. I had not seen the above androidauthority.com page at that time and so did not know for sure that such commands are not supported for Google Docs on Android mobile phones.]

Samsung and Microsoft Swiftkey keyboards seem to be using Google's Voice Typing technology

Touching/tapping the mic icon on Samsung and Microsoft Swiftkey keyboards brings up a small window in bottom of screen with prominent Google logo, and so it seems that these keyboards are simply invoking Google Voice Typing technology. See below pic.

10:23

VoLTE1 LTE1 VoLTE2 LTE2

< Title



Testing



Tap to pause



Google

support page: How do I use Voice to Text with Microsoft SwiftKey on Android?, <https://support.swiftkey.com/hc/en-us/articles/201592041-How-do-I-use-Voice-to-Text-with-Microsoft-SwiftKey-on-Android-> states, "Voice recognition is turned on by default. Your Microsoft SwiftKey Keyboard utilizes Google Voice technology to power this feature."

Hmm. So whether one uses Gboard or Samsung or Microsoft (on-screen) keyboard on Android, all of them seem to use the same underlying Google Voice (Typing) technology. Does that mean that the basic voice to text functionality will be same for all these keyboards? Perhaps. But do any add-on features like predictive text and auto-correct come into play when one uses Voice Typing? If so, I guess they would be managed by the keyboard and so be different for these keyboards.

Google Voice Typing seems better than Live Transcribe for 'normal' speech to text work on Android phones

For my needs of typing text using voice in Android apps like GMail, Samsung Notes, Messenger etc. with Puttaparthi Jio 4G Internet speed, which I am referring to as 'normal' speech to text work, I think Google Voice Typing is superior to Live Transcribe. But I am quite sure that for some accessibility functions like aid for those with poor hearing or who are deaf, Live Transcribe on Android may be a great option.

The main advantage of Google Voice Typing (GVT) over Live Transcribe (LT) for my 'normal' needs is that GVT works directly in any app. that accepts text input through various on-screen keyboards like Gboard or Samsung keyboard. With LT the converted/transcribed text appears in its app. window and then has to be selected and copy-pasted to the app. where one wants to enter that text. So using LT for such work involves extra effort.

Both GVT and LT support offline English (UK) and English (USA) speech to text, and both of them do NOT support offline English (India). So LT does not provide any advantage over GVT for offline speech to text conversion.

Additional Info.

*) Installed Google (Voice) Assistant and Google Voice Access apps on mobile but they seem to deal with operation of mobile using voice commands rather than speech to text used for typing in text. Voice Access seems to be an accessibility related feature. I don't think these apps. improve Gboard or other on-screen keyboards.

Some Interesting Links

1. Using speech-to-text and customizing its settings, <https://www.lifewire.com/set-up-speech-to-text-on-android-4769267>
2. Free Up Your Hands With Speech-to-Text on Android, <https://www.makeuseof.com/tag/free-hands-speechtotext-android/>
3. Interesting April 2022 (8 months old) video explaining great features of Voice Typing in Google Docs: Voice Typing Changes Everything – So much more than Dictation!, <https://www.youtube.com/watch?v=Unwa4fYxwJo> , 8 min. 34 secs.
4. Initial part of this video covers free sw on desktop and mobile to do transcription: How To Transcribe Audio To Text (UPDATED Video Transcription Tutorial!), https://www.youtube.com/watch?v=bex611cC_Ns , 13 min. 49 secs, published by Justin Brown – Primal Video on 4th Oct. 2022.

=====End of Post=====

Writing text using Google Voice Typing

on Android mobile works quite well (in Puttaparthi using Jio 4G Internet speeds); It works even offline with English (UK) or (USA) language setting; Published: 21 Jan 2023

Post link (URL) on blog:

<https://ravisier.wordpress.com/2023/01/21/writing-text-using-google-voice-typing-on-android/>

Firstly I would like to mention that I got very embarrassed with my previous post on Facebook on using Live Transcribe App. to speed up writing (typing) of (long) text on mobile. I had not considered Google Voice Typing at that time! That was a major, major slip up of mine. I have since deleted that post and will later share the info. about Microsoft Word Dictate in a new post. [More about this embarrassing lapse is given in a note at the end of this post.]

I am putting this up as a public post as one elder-friend had some vague knowledge about Google Voice Typing on Android mobile but had not tried it. After I told him that I was exploring it and finding it to be good, he tried it and was able to get decent results if he spoke slowly. He then was of the view that if I share this info. as a public post it may benefit some others as some may not know much about it, and the post would help them try it out and use it if it works well for them.

I am sure many persons reading this post would know a lot about Google Voice Typing and may have been using it for a long time. Such persons may want to skip reading the rest of this post if they have bothered to read it up to this point.

How do you use Google Voice Typing to write text on Android mobiles?

I have taken the example of two on-screen keyboards – Samsung keyboard and Google's Gboard. I think that may be enough info. to come to know about using other on-screen (default) keyboards on phones manufactured by other companies.

I have used an example of Voice Typing on WhatsApp as that is an app used by many of my contacts in Puttaparthi and elsewhere in India.

I have attached screenshots below of Samsung keyboard and Google's Gboard as it shows in WhatsApp when one touches the text box to type in a message. The black Voice Typing microphone icon button in the on-screen keyboards (different from Voice Recording icon button shown by WhatsApp just above the on-screen keyboard) is what one has to touch/press to activate Voice Typing.

11:45

VoLTE LTE1 VoLTE LTE2



forefingers or both hands to do the typing. I am also using Gboard predictive typing when convenient. This i think is the most comfortable and fastest way of typing that i hv done or tried out so far.

But I don't want to put stress on my left hand. So let me try using only my right hand.

I am trying out single hand keyboard and using my right forefinger. It is somewhat slow. But I can combine regular typing with glide typing. That is cool. Still it is...

[Read more](#)

11:46 pm



Correction: on crossed legs not folded legs

11:47 pm



Message



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!#1

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< Telugu (English) >

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Samsung keyboard then as shown in this video: <https://youtu.be/h6ILGOI5wOU?t=46> (from 46 seconds on), on touching the microphone icon of the on-screen keyboard (the icon is not black like in my Samsung phone), (after granting appropriate permissions) you may see something like what is shown in this video.

If one is using Gboard then as shown in this video: <https://youtu.be/yVyGiiG8jB0?t=52> (from 52 seconds on), on touching the black microphone icon, you may see something like what is shown in this video if your phone is connected to the Internet. Otherwise it may be like above Samsung keyboard case. Touching the black microphone icon again stops the Voice Typing function after which one can edit the text if needed and send it. Alternatively one can skip touching the black mic button and touch the WhatsApp green send button directly if there is no need to edit the text.

Speaking slowly and clearly helps in better quality of speech to text conversion. You can use the voice command 'full stop' to introduce a full stop or period at the end of the sentence.

Unfortunately many other voice commands like comma and new line which are supposed to work as per Google documentation, did not work for me even when I tried it many times both with a decent speed Internet connection (1 to 2 Mbps or higher speed) and offline.

This Voice Typing feature can be used in all other apps too, wherever text input can be made. Google Voice Typing works even without an Internet connection (offline) if language used is English (UK) or English (USA) and those languages' data has been downloaded on phone. But English (India) language data download is not available and so if Google Voice Typing language setting is English (India), it does not work offline, and may need a decent speed Internet connection to work well.

I use Jio 4G for mobile Internet in Puttaparthi. During evenings when the usage seems to peak, this Internet speed can drop to well below 1 Mbps and sometimes even not work for some seconds or few minutes. At such times, voice to text application features that need good (and steady) Internet speed of at least 1 to 2 Mbps (which is available in Jio 4G in Puttaparthi for most of the time excluding the what-seems-to-be peak usage periods), like Microsoft Word Dictate, either just stop working or work very poorly. It is in this context that Google Voice Typing working offline for English (UK) and English (USA) languages if their data is downloaded on phone, is a vital point in Puttaparthi context. Note that I think Jio 4G speeds in Puttaparthi would be roughly comparable to other mobile network speeds in Puttaparthi. So this post may be relevant for people who use other mobile networks like BSNL in Puttaparthi.

I want to keep this post brief and simple and so am stopping here, with the exception of a small note below which can be skipped as it is not about how to use Voice Typing. Later I will put up a more detailed post about Voice Typing settings and compare it with Live Transcribe and Microsoft Word Dictate.

Note: How did I miss out on Google Voice Typing which can be used via the on-screen keyboard on Android mobile and so is available for all mobile apps where text can be entered like GMail or Samsung Notes or Google Docs or even Microsoft Word? [My Samsung M21 phone uses Samsung on-screen keyboard by default; other company phones would have either their own keyboard or use a standard keyboard like Gboard.] Now I am quite a novice when it comes to smartphones as I had only a very low end smartphone (LYF) prior to mid 2020 (COVID pandemic forced me to go for a somewhat more expensive phone with more features – Samsung M21). If I recall correctly, I had tried out Google Voice Typing on the Samsung phone when I bought it in mid 2020. At that time, my experience of it was not all that great. I don't know why.

I should also say that, every once in a while, I would do Google search on mobile using the Voice Typing feature by pressing on the microphone icon in the Google search bar and then

speaking. In the past year or so at least, I had found that it would usually do a decent job of recognizing the words I had spoken. But I did not realize that using Voice Typing of Samsung Keyboard may, in all probability, use the same Google Voice Typing technology and so do a decent job.

=====End of Post=====

Very lightweight (30 gm) LED glow arm band powered by two button cells, useful even as dim light during power cut; Published: 15 Aug 2022

Post link (URL) on blog:

<https://ravisier.wordpress.com/2022/08/15/very-lightweight-led-glow-arm-band/>

Around a year back, I had purchased this item (now not available) from Amazon India for Rs.290: Shadow Securitrronics Sports LED Glow Safety Arm-Leg Reflective Band for Running/Cycling/Night/Outdoor Activities Adjustable Type with Strap – 1pc (LB10, Green), <https://www.amazon.in/gp/product/B078K2Q17H/> . Around a month later, I purchased another blue coloured band like the one above for Rs.259.

[This page seems to sell a set of 10 such bands at around Rs.1000: ArtBee® LED Bracelet Light Up Bracelets LED Light Bracelet Led Armbands Flashing Sports Wristband High Visibility Gear for Party, Running, Cycling, Concerts, Festivals (Pack of 10),

<https://www.amazon.in/Bracelet-Bracelets-Wristband-Visibility-Festivals/dp/B08W1N4WKN/> .

Rechargeable ones also seem to be available but at significantly higher cost of Rs.2000+:

<https://www.amazon.in/fashion-cool-Rechargeable-Adjustable-Bracelets/dp/B01G6GYQYM/> .]

I used them primarily as very light weight LED dim light thingies when I was doing walking exercise inside my room in the evenings or at night or when I was doing something else at night, and there was a power cut with it becoming pitch dark inside my flat except for very dim backlit glow of a digital clock. At such times, if these LED bands were accessible, I would switch it on (to unblinking light mode) with the dim glow being enough for me to locate a torch or my mobile (which has a torch facility like most mobiles have), and use the more powerful light of the latter to walk around or do whatever else I wanted to do, in my flat.

Now that I have an emergency (rechargeable) bulb which I switch on during evenings or night when I am awake and doing something, this emergency bulb ensures enough light during power cuts when it is on. So I don't regularly use these LED bands now.

However, I thought of putting up this post as this thingie was really useful to me, and so I felt it may be useful info. for some reader(s). At 30 grams, it is so light that it can be easily held in one's fingers as one walks around (one need not wear it as an arm band).



SF-400A

30^g

LIGHT

ON/OFF

Electronic Compact Scale

In contrast, a compact LED torch that I use which is powered by 3 AAA batteries, is 88 grams:
Groz Portable Pocket-Sized COB LED Flashlight with Magnetic Clip | 150 lumens, 3 Watts |
Best Torch for Work, Emergencies, Automobile Repairs, Camping, Hiking, etc.| LED/140,
<https://www.amazon.in/gp/product/B07V9FNCRS/> (sells at Rs.570 now).



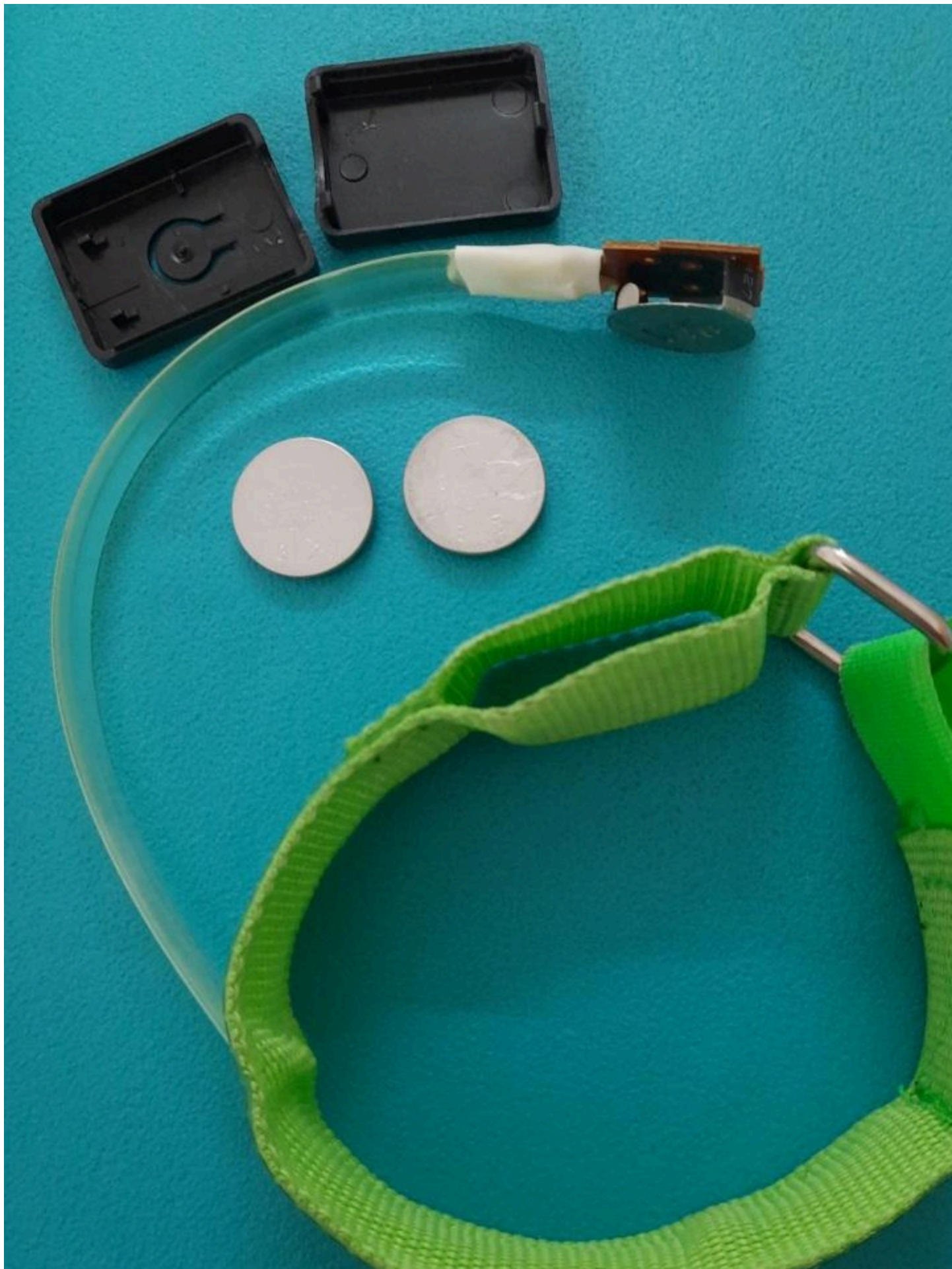
And my Samsung M21 phone is around 260 grams.
Of course, the light of the above Groz torch and Samsung phone are much more powerful than

the LED band's light.

Recently I had to change the battery (CR 2032) of the green LED band as its light had become very, very dim. Changing the battery is a bit of a hassle as one has to first get the LED light part out of the nylon strip/band, then prise open the plastic box having the circuitry and batteries, push out the two button cells from a small open box like thing which holds the button cells tightly and which has sharp edges (and so could cut one's finger(s) if one pressed the edges or corners of the edges too hard), push in the new button cells, close the plastic thingie and push the LED light part back into the nylon strip/band. It would have been really great if it was easy and safe to replace the batteries.

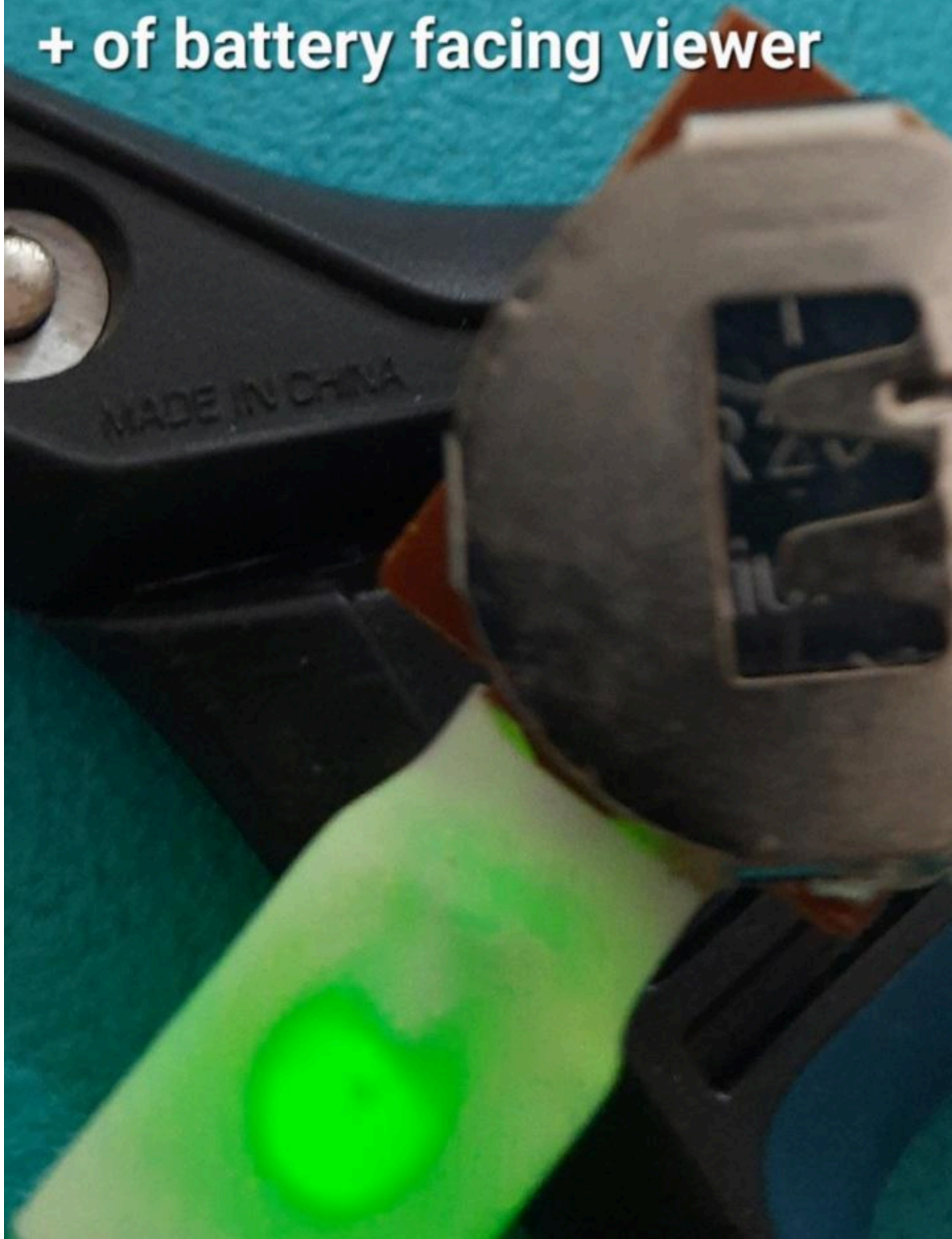
I used what seems to be new and original Maxell cell batteries as replacement, and that resulted in good but still somewhat dim, light in the LED glow band. The batteries supplied with the product seem to be unbranded ones.

I have given pics below related to this battery change work for this product.





+ of battery facing viewer



**-ve of battery (blank
facing viewer but hidden
PCB**



Both are off in this pic



Green one is on but seems to hv low battery



Green one is off in this pic



after battery replacement
green led strip



[This LED light/laser light product seems to provide an easy way to remove the button cell batteries: CSPARK Band 3 in 1 Laser Pointer,LaserTorch with Emergency Hazard LED Light and Key Chain Hook (Multicolor) with 3 Button Size Cells, <https://www.amazon.in/CSPARK-Pointer-LaserTorch-Emergency-Multicolor/dp/B095HJH6QK/> , Rs. 132. But its product page says it weighs 100 grams! That's more than the Groz torch with 3 AAA batteries I have mentioned earlier!]

I should also mention that I have ordered a motion sensor battery powered light (with On, Off and Auto settings) recently: SENIOR WORLD Juvo Wonderlite Motion Sensor Battery Operated Automatic LED Light (White), <https://www.amazon.in/gp/product/B01M9EWVL2/> , Rs.890. Note that cheaper ones without On/Off setting are also available but I wanted one with On/Off setting besides Auto setting.

I had come across these motion sensor battery operated light products on Amazon India in the past too. But as I had never used such a thingie before, I had some concerns about safety. Recently an elder told me that he is using such a product in his house. I dug deeper into the product technology – it uses Infrared to sense motion of humans (and other animals) who emit heat. I discussed it with the elder and we felt that this is safe technology to use at home. That gave me some confidence to order the product.

I plan to use it in the bathroom so that if there is a power cut when I visit the bathroom at night (which happens sometimes in Parthi), I have enough light to safely move around in the bathroom. BTW I keep one of the LED glow bands mentioned earlier in my bathroom which I can put on when I visit the bathroom at night and so I will have some dim light even if there is a power cut. But there is the hassle of switching it on even when there is mains power, which I usually don't do. This is besides switching on the bathroom regular light bulb (on mains power). However, on power cut even if I have not switched on the LED band earlier, I know where it is and I can feel my way in the bathroom and locate it, and then switch it on. With this motion sensor LED light, I think I will not need to switch on either the bathroom light or the LED glow band (and not have to switch them off either). So that should be very convenient and safe if the motion sensor LED light product works as expected.

=====End of Post=====

Changing battery in Logitech Pure Fi Express Plus speaker remote; Published: 14 Aug 2022

Post link (URL) on blog:

<https://ravisier.wordpress.com/2022/08/14/changing-battery-in-logitech-speaker-remote/>

Recently I wanted to explore changing the battery in my old Logitech Pure Fi Express speaker's remote as the remote was not working.

Opening up what I guessed to be the battery compartment was very tough. I was wondering whether my guess was wrong. I tried looking up the Internet for this info. but could not get suitable results.

Eventually I had to prise open the whole remote by pushing the flat edge of a screwdriver into

the gap between the two plastic covers of the remote. Then the battery compartment opened easily. I thought I should put up some pics of the remote and its battery compartment in this public post as it may be useful to other folks who want to change the battery in this speaker's remote.

And changing the battery in the remote with a new (Maxell) battery got the remote working again.

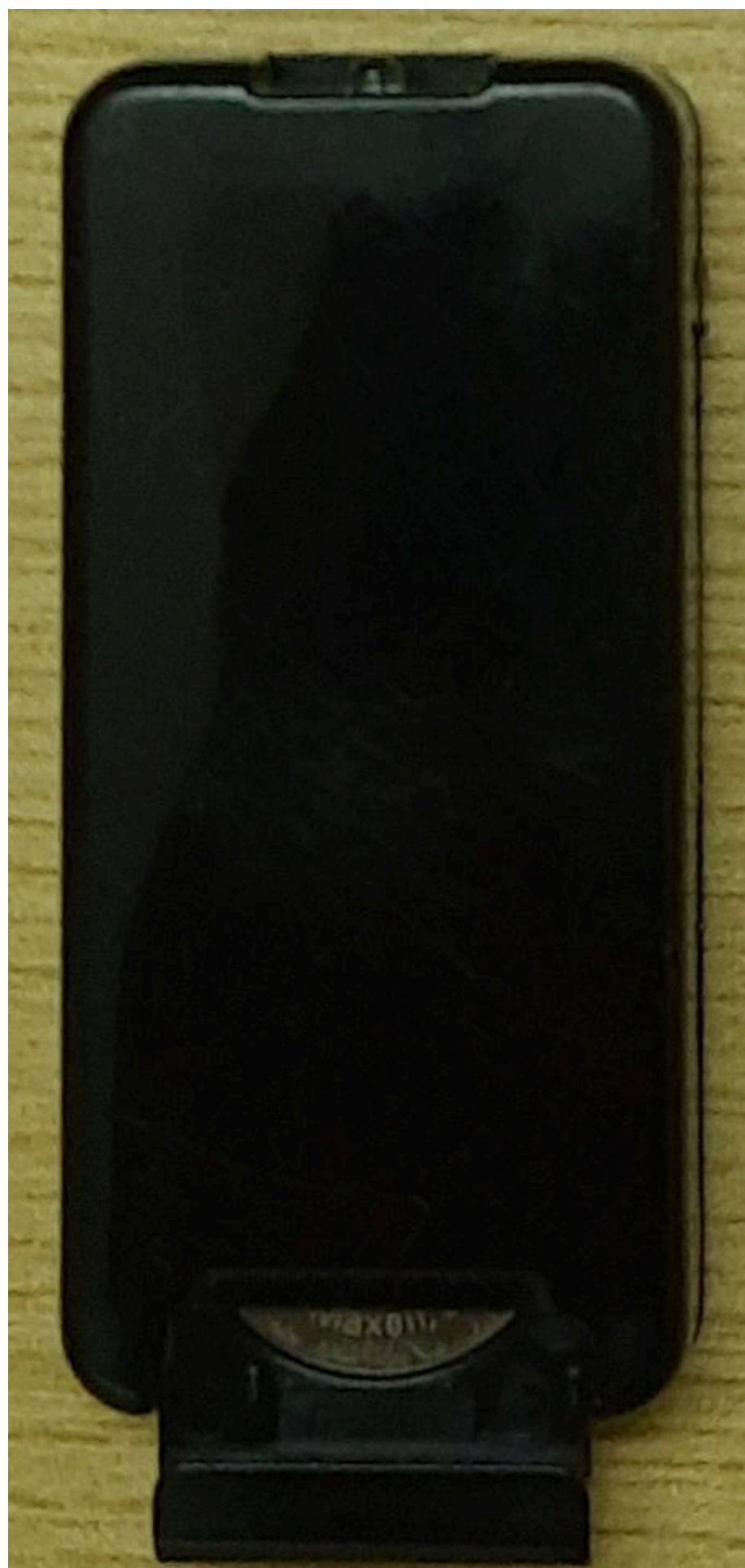
The pics which are self-explanatory, IMHO, are given below.

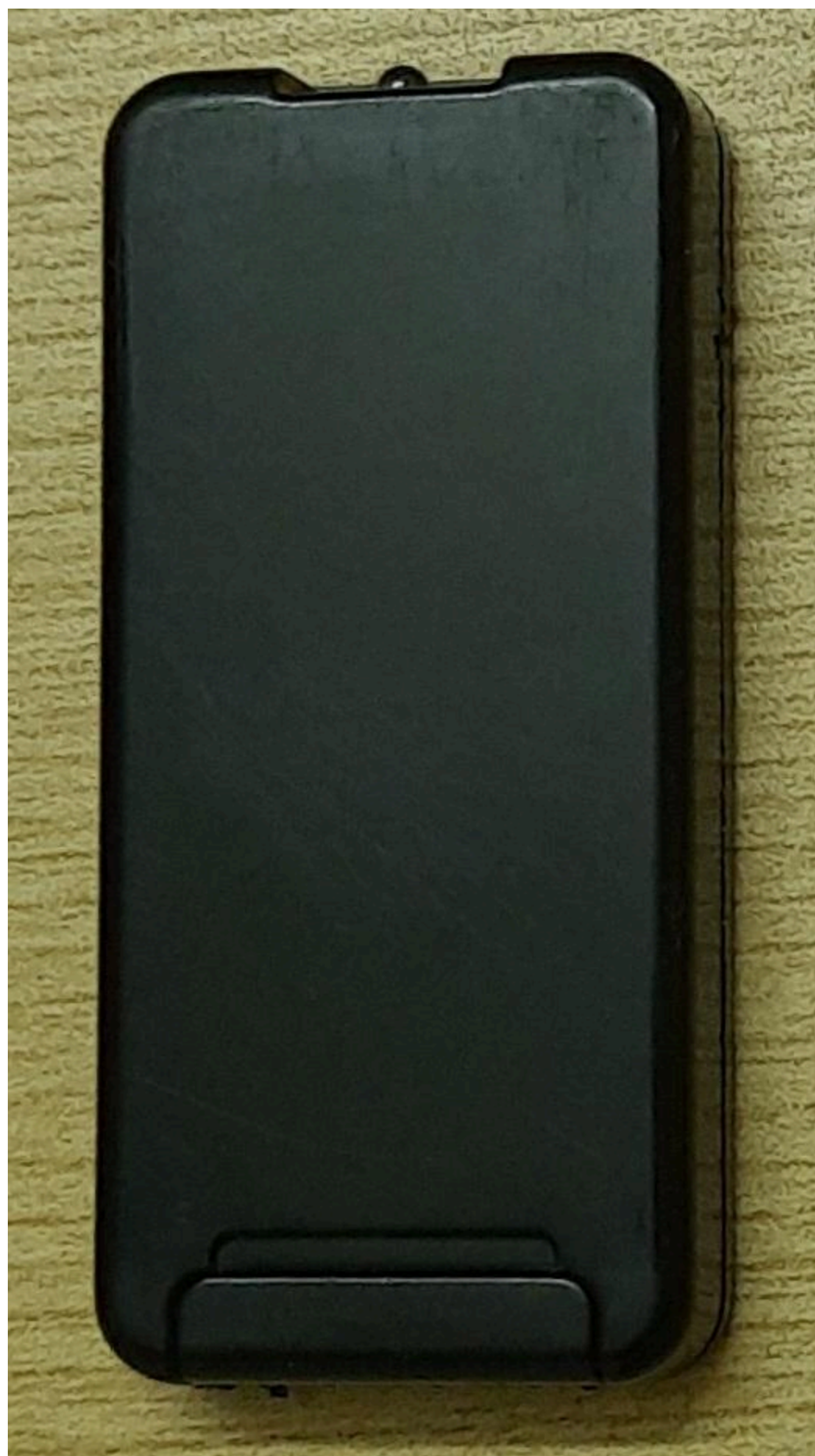












=====End of Post=====

Rotation Control Android app useful to manually switch phone to landscape mode; Published: 16 Jul 2022

Post link (URL) on blog:

<https://ravisier.wordpress.com/2022/07/16/rotation-control-android-app/>

I found this useful to manually control rotation of my Samsung M21 (Android) phone. At times, my phone does not auto-rotate to landscape mode when I rotate the phone. This app provides a way to manually rotate it to landscape which works most of the time. I think auto rotate gets switched off when this app is running and so one needs to use the app to rotate the phone display.

18:26



Rotation Control

CrapeMyrtle

Uninstall

Open

Rate this app

Tell others what you think



[Write a review](#)

Developer contact



About this app



You can control screen orientation from notification area easily.

Tools

3.9★

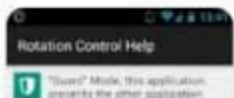
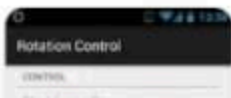
35K reviews ⓘ

3+

Rated for 3+ ⓘ

5M+

Downloads



=====End of Post=====

Screen mirroring from Samsung M21 phone to H96Max display using ‘Smart View’ app on M21 (not Samsung Smart View feature) and AirScreen on H96Max; Published: 14 Jul 2022

Post link (URL) on blog:

<https://ravisier.wordpress.com/2022/07/14/screen-mirroring-from-m21-to-h96max/>

12th July 2022 to 14th July 2022

Quick-Info

Need: I wanted to be able to type text into an app (like Samsung Notes) on Samsung M21 phone, and see that mirrored on a 22 inch TFT monitor connected to H96Max Android 11 Smart TV box.

Problem: The ‘Smart View’ built-in feature of Samsung M21 phone does not see H96Max when AirScreen or DLNA is running on H96Max. So there is no question of casting phone screen (mirroring screen) to H96Max. I tried Google Home app (on M21 phone). It could see H96Max device when AirScreen was running on it but the cast function failed. So the standard approach of casting an (Samsung) Android phone to an Android smart TV box failed.

Solution: Smart View Android App (different from Smart View built-in feature of Samsung M21 phone),

https://play.google.com/store/apps/details?id=com.airplay.screenmirroring.tv&hl=en_IN&gl=US , installed on M21 phone was able to see H96Max when AirScreen was running on H96Max, was able to connect to it, and cast to it. Explored using it for a couple of days and it worked well.

The mirroring on TFT monitor is accomplished by having the mvmonitor connected to H96Max Android 11 device. I ran AirScreen on H96Max and ran Smart View App on M21 phone to cast phone to H96Max.

I also have a bluetooth mouse paired with M21 phone. So to position cursor and copy-paste, I can comfortably use the mouse.

I then setup a USB switch (UGREEN) to share my wired keyboard and wired mouse with desktop PC and Samsung phone. That worked! I thought I may need to provide power to the USB switch through a power cable but even without it, the USB switch is working. Note that I am using an HDMI switch to share monitor between Desktop PC and H96Max.

So I have to switch twice to change keyboard, (wired) mouse and monitor between Desktop PC and H96Max, if I am using both of the latter computing devices at the same time.

What happens if I am using only the H96Max and desktop PC is powered off, if I lose power.

The mirroring on TFT monitor is accomplished by having the mvmonitor connected to H96Max Android 11 device. I ran AirScreen on H96Max and ran Smart View App on M21 phone to cast phone to H96Max.

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What happens if I am using only the H96Max and desktop PC is powered off, if I lose power.

Details

This details section has a detailed log of my work in trying various options and then finally getting a fix.

I have tried this out earlier and may have some notes on it. But today I was focussing on screen mirroring as a way to use Samsung phone as the computing device and H96Max connected monitor as the display device, with H96Max and monitor connected to voltage stabilizer (as against UPS). If I lost power, the H96Max would go off and the display would go off, but when power came back they would be back on again without any big issue. In other words, the H96Max device seems to manage even if it is not shutdown properly, unlike a desktop PC. Due to voltage fluctuations (particularly high voltage 273 to 296 volts when I measured it yesterday (11th July) evening around 5.30 PM) the UPS goes into alarm mode and I have to shut down PC often. Note that I get very limited backup time from my current UPS – a few minutes only, with the low-battery alarm sounding almost immediately after power cut. So I was exploring the configuration mentioned earlier: Samsung phone, H96Max and display connected to it.

I am capturing my learnings so far as quick points:

- 1) Smart View built-in feature of Samsung M21 does not even see H96Max device though they are on same LAN and I am running DLNA or AirScreen on H96Max.
- 2) Google Home sees the H96Max device when AirScreen is running but fails to cast the screen to it.
- 3) YouTube app on phone casts to Youtube on H96Max but this is not screen mirroring.
- 4) Bubbleupnp app on phone connects to DNLA (if I recall correctly though perhaps it was AirScreen) and plays audio (and video too, I presume) from phone on H96Max. But it does not seem to have screen mirroring
- 5) DLNA Media Stream & Mirroring app fails to do screen mirroring to H96Max. It also throws up some ads of other apps including one that has a name like mirror screen of phone to tv or similar. I tried one app but that failed to even detect H96Max with DLNA running on it.
- 6) As per settings in AirScreen or DLNA I don't clearly recall which or whether it is both, Miracast is not supported by H96Max. That seemed to rule out many solutions as there are many webpages/videos talking of mirroring screen from phone to TV using Miracast.
- 7) ApowerMirror works even if the free trial version disconnects after 10 minutes and then one has to set up the connection again. IIRC, I loaded the same app on both phone and H96Max and when both apps are running they are able to see the device on which each app is running. Then choosing mirroring works quite OK though at times I have experienced freeze. However, for typing text in Samsung Notes App, it works well. ApowerMirror also has a Windows version which I installed on Dell Mini Laptop. I could mirror phone to Dell Mini Laptop. That worked quite well. I have not tried ApowerMirror on desktop PC so far. I think I will try it out for completeness though it may not make sense for me to use desktop PC for screen mirroring as a workaround for the high voltage tripping up UPS often problem that I am facing now.
- 8) Another app on phone – Rotation Control – provides easy way to force phone in landscape mode, with landscape mode on the large display connected to H96Max showing the text in large, easy to read size.
- 9) With the ApowerMirror screen mirroring, I connected a USB keyboard to the M21 phone via some small USB adapter thingy that I have and so I could use full keyboard to type into M21 phone's Samsung Notes App which would display in large size on H96Max connected monitor

or on Dell Mini Laptop. The Logitech bluetooth mouse was convenient to use as I could see the mouse cursor on the large display and could operate it easily that way. I am considering whether I should buy a bluetooth keyboard so that the USB C port of M21 phone will be free (say, for charging).

10) Some higher end Samsung phones have an ability to display their screen to an HDMI monitor with a USB C to HDMI cable connected. But Samsung M21 does not seem to have that feature. See

<https://www.quora.com/Can-we-get-video-output-from-any-C-type-phone-to-HDMI-I-have-a-Samsung-M21-Will-it-provide-direct-output-to-my-LED-TV> and

<https://www.samsung.com/au/support/mobile-devices/how-do-i-connect-my-phone-to-my-tv-using-hdmi/>.

However there seems to be some adapter solution as per

<https://firmwarespro.com/tv/samsung-galaxy-m21-detail> which states that this adapter is available for \$3!

Well, in India these accessories seem to be much more than \$3 equivalent in Rs. 2-in-1 USB Type C/Micro USB to TV HDMI Cable, 6.6ft MHL to HDMI Adapter 1080P HD HDTV Mirroring & Charging Cable for All Android Smartphones Tablets to TV/Projector/Monitor,

<https://www.amazon.in/Adapter-Mirroring-Charging-Smartphones-Projector/dp/B08LN8Z6QX/> is Rs.4000 plus.

The above page also talks of Wi-Fi Direct as a way to wirelessly connect M21 to smart TV. But Wi-Fi Direct seems to be limited to file sharing kind of stuff and not screen mirroring!

11) Anycast Wireless WiFi 1080P HDMI Display TV Dongle Receiver- Black,

<https://www.amazon.in/Anycast-Wireless-Display-Receiver-Supports/dp/B07SG3ZT9L> , Rs.1349

seems to be an interesting option for Android phone to HDMI monitor wireless casting. Related video: How To Connect Anycast Dongle To Monitor | Anycast Setup to Monitor,

<https://www.youtube.com/watch?v=zsycEOzAE0c>

12)

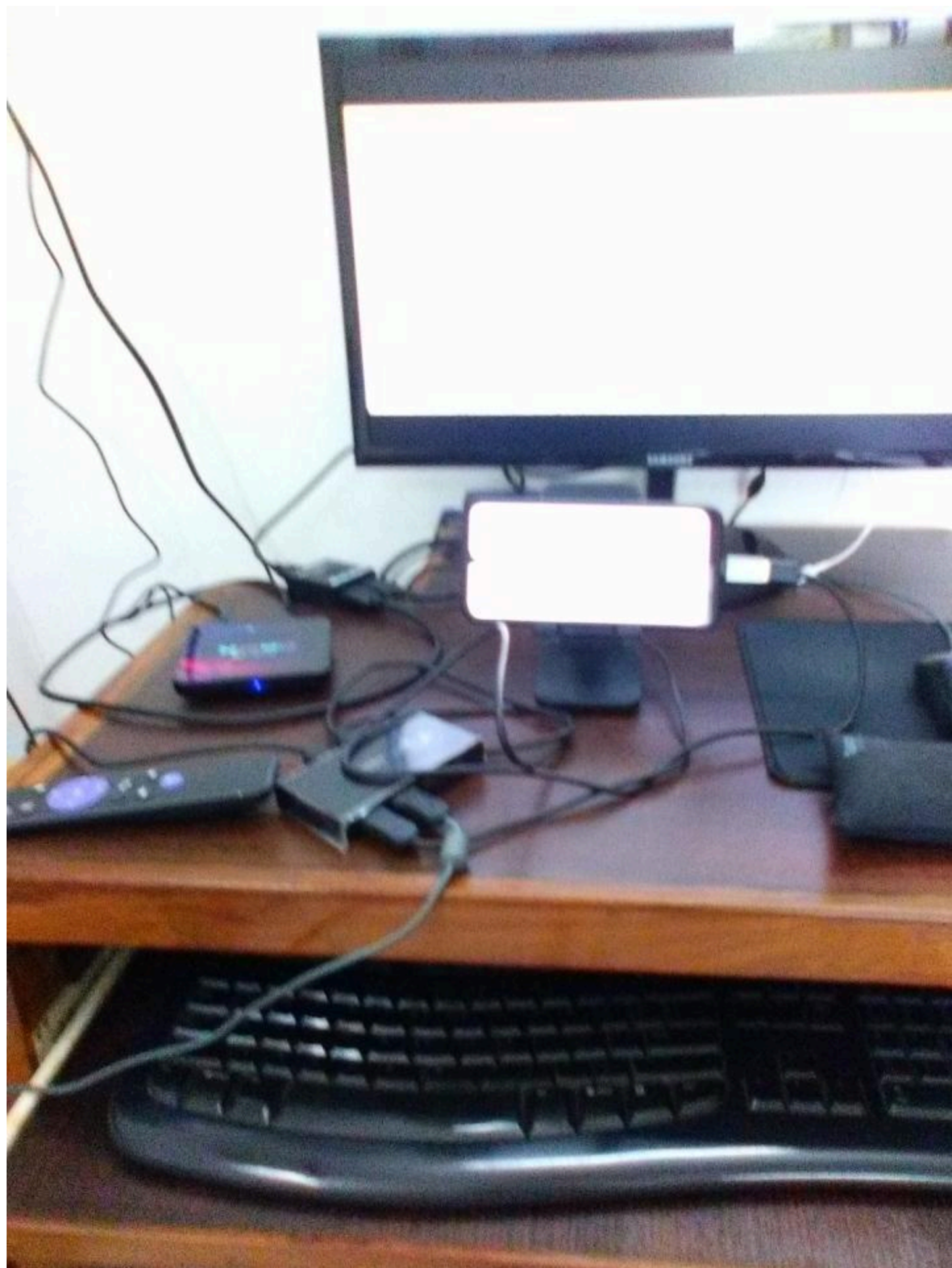
<https://superuser.com/questions/1715912/windows-stream-screen-over-network-to-smart-tv-dlna>

informs us : "If you're looking for screen mirroring, DLNA actually can't do it since it relies on the UPnP protocol which does not support mirroring. Solutions do exist for the Mac, but not for Windows. Third-party applications exist that can cast the screen, but may require Miracast rather than DLNA."

13) Airplay seems to be related to Apple.

14) Airscreen (on H96Max) has "Cast" as On. So ideally Apps on Android phone that can Cast to a cast device may be able to mirror phone to tv. As I said, Google Home App can see H96Max device but mirror screen fails (Cast fails). Smart View built-in feature of Samsung M21 phone does not see the device at all!

15) Finally seem to have got a solution. Smart View Android App (not from Samsung I think), https://play.google.com/store/apps/details?id=com.airplay.screenmirroring.tv&hl=en_IN&gl=US , installed on M21 phone was able to see H96Max when AirScreen was running on H96Max, and connect and cast to it. Explored using it for a couple of days and it worked well. The following point was typed using this setup on Samsung Notes. I took pics of the setup with my old LYF phone. Please excuse the cable clutter on computer table in pic below which was taken when I was experimenting with this setup. My old LYF phone could not simultaneously focus well on the screen displays, and on the computer table as a whole. So I took two pics with different focusing. Please excuse the limitations of my old LYF phone for taking such pics.



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I also have a bluetooth mouse paired with M21 phone. So to position cursor and paste, I can comfortably use the mouse.

I then setup a USB switch (UGREEN) to share my wired keyboard and wired mouse with desktop PC and Samsung phone. That worked! I thought I may need to provide power to the USB switch through a power cable but even without it, the USB switch is working. Note that I am using an HDMI switch to share monitor between Desktop PC and H96Max.

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What happens if I am using only the H96Max and desktop PC is powered off, if I lose power.

16) [This point was typed using Samsung Notes App on M21 which was cast/screen mirrored to 22 inch TFT monitor connected to H96Max. Some slight editing was done after it was included in this document.]

Typing with Microsoft Comfort Curve keyboard to Samsung M21 phone with display on phone mirrored on 22 inch TFT monitor

The mirroring on TFT monitor is accomplished by having the monitor connected to H96Max Android 11 device. I ran AirScreen on H96Max and ran Smart View App on M21 phone to cast phone to H96Max.

I also have a bluetooth mouse paired with M21 phone. So to position cursor and copy-paste, I can comfortably use the mouse.

I then setup a USB switch (UGREEN) to share my wired keyboard and wired mouse with desktop PC and Samsung phone. That worked! I thought I may need to provide power to the USB switch through a power cable but even without it, the USB switch is working. There is a little bit of lag when the mouse and keyboard are used through the USB switch but that is at manageable level. Note that I am using an HDMI switch to share monitor between Desktop PC and H96Max.

So I have to switch twice to change keyboard, (wired) mouse and monitor between Desktop PC and M21 phone/H96Max, if I am using the latter computing devices at the same time.

What happens if I lose power when I am using only the H96Max and desktop PC is powered off. I will check that out now. Now I put off the power switch to monitor and H96Max and so both of these are in off state with no display on monitor. But the M21 phone is on and I can use the keyboard to type and see the typed text on the M21 phone. I can also use the (wired) mouse to operate the M21 phone.

Now let me put on the power switch to monitor and H96Max. ... The H96Max starts up and its startup screens/animation are shown on the monitor. Startup of H96Max takes some time – 1 to 2 minutes I think. The colours on the display are a little different than usual. That could be a problem for video and images viewing. Oh! The right colours got restored after I switched the HDMI switch to PC (which is Off and so no display is shown) and then back to H96Max. So that's an easy fix to colour problem.

To get the Samsung M21 phone display to be mirrored on H96Max driven monitor, I need to run AirScreen again. I used the H96Max remote to operate it but I could pair the Bluetooth mouse to H96Max and operate it that way if I want. After AirScreen is ready to receive casting/mirroring connections on H96Max, on the M21 phone, I switched to the open Smart View app (Alt-Tab on keyboard switches apps on M21 phone!) which was showing the H96Max AirScreen device but in disconnected state. I connected again to H96Max AirScreen and the M21 phone screen got displayed on the monitor. Straightforward stuff but there is some extra manual effort if mains power goes off and then comes back, to get M21 phone display mirrored on 22 inch TFT monitor again, and it takes a few minutes.

Cable management is an issue as now there are more devices and switches on computer table, with associated cables. That needs to be better organized.

=====End of Post=====

Using USB flash drive and ReadyBoost feature significantly improved

performance of my old Dell mini Laptop (Inspiron 3137); Published: 28 Jun 2022

Post link (URL) on blog: <https://ravisier.wordpress.com/2022/06/28/using-readyboost-feature/>

Last updated on 29th Jun. 2022

Key info.: How to Use USB as RAM to Speed Up Your Windows (ReadyBoost) [Partition Manager], <https://www.partitionwizard.com/partitionmanager/use-usb-as-ram.html>

My Dell Mini Laptop (Inspiron 3137) bought in end 2014 was running very, very slow, when I used it yesterday after a gap of 6 months or so. Note that this laptop is a fallback computer with my desktop PC being my primary computer. Now it was slow earlier too and I was exploring whether running Ubuntu from a USB flash drive/memory key inserted into the Laptop would improve performance. Note that performance analysis shows that the (mechanical) disk is the bottleneck in the Laptop though 2 GB RAM is also a factor. Replacing the mechanical disk with an SSD may do the trick of improving speed. Also upgrading from 2 GB to 4 GB would be good but it may be a hassle to get the right RAM for this old model, or that may be priced very high. Note that there is lot of free space (over 10 GB) in the system disk partition on laptop and so low system disk free space is not a factor for the poor performance.

But replacing the mechanical HDD with SSD involved two challenges. The first was that I would need help from a laptop technician for it as I don't have any experience in opening, modifying and then closing the laptop hardware properly so that it does not break down. Secondly moving the OS and other pre-installed software from HDD to SSD may be tough unless the technician has good experience on such matters. I have my doubts about whether computer technicians accessible to me would be able to handle it correctly.

I do have some factory backup of the Dell OS & software that came pre-installed on it. But I have never used such factory backup CD/DVD to setup a fresh disk on a laptop. If the OS and software CD/DVDs were available then I would be able to do the software installation – no problem. But I did not get such OS and software CD/DVDs when I bought the laptop (and I guess that would be the case with the typical customer).

I did my exploration in end 2021 of running Ubuntu on the Dell mini Laptop (DmL) from a USB and checking whether that runs fast. My notes states that I could boot Ubuntu Live from USB key on DmL but the 2 GB RAM limitation of DmL and the Ubuntu Live USB flash drive not having swap space, resulted in DmL running Ubuntu quite slowly and also getting hung when I tried out youtube. It suggests that making another Ubuntu Live flash drive for DmL with swap space may resolve that problem. But that has not yet been done by me.

The above mentioned notes also captures my effort at creating a USB install key (that remembers settings as against Ubuntu Live which does not remember settings) for PC desktop. The issue was that there was a risk of install process modifying boot records of hard disks. I could get around that issue for PC desktop by physically disconnecting the hard disks. But I could not do the same for laptop as I don't have experience in opening laptops, as mentioned earlier.

Yesterday when I analyzed the DmL performance (Task Manager) I saw that Disk usage was 100 percent almost all the time! The 2 GB RAM limitation would have required some swap space on disk and that seems to be very slow. I browsed the net to see whether there was a way, and came across the following:

1) How To Increase RAM Using USB Drive In Windows 8 & 10,
<https://www.dell.com/support/kbdoc/en-in/000149907/how-to-increase-ram-using-usb-drive-in-windows-8-10>

2) How to Use USB as RAM to Speed Up Your Windows (ReadyBoost) [Partition Manager],
<https://www.partitionwizard.com/partitionmanager/use-usb-as-ram.html>

I first tried using a Kingston DataTraveler Exodia DTX/64 GB Pen Drive, USB 3.2 that I had as a Virtual Memory device. But the drive that the USB pen drive got mapped to, did not appear in the list of drives that I could choose.

Next I tried using 'ReadyBoost' with the above pen drive and that worked like a charm. It improved the performance of the DmL significantly.

To get an idea of how ReadyBoost is helping in terms of stats, the following link explains how to check that: How to Test if ReadyBoost Is Active,

<https://smallbusiness.chron.com/test-readyboost-active-68360.html> .

The following link explains how to save the counter setup in Performance Monitor app. which can be used to save above ReadyBoost counter setup: How can I save the counters' setup in windows performance monitor,

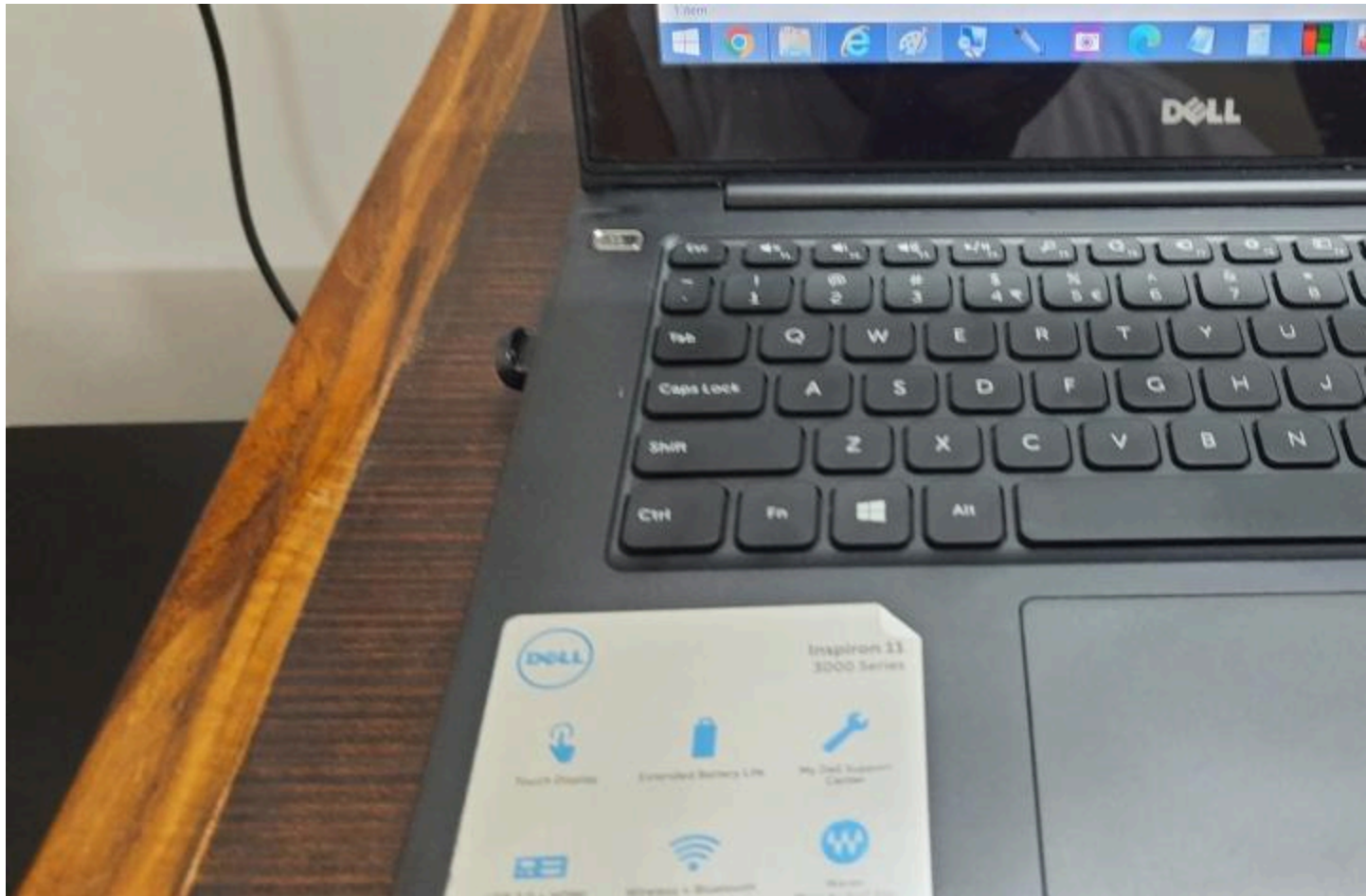
<https://serverfault.com/questions/339282/how-can-i-save-the-counters-setup-in-windows-performance-monitor> .

So now I have reasonable performance of DmL, reasonable for my mainly Internet browsing needs with simple file management in Windows.

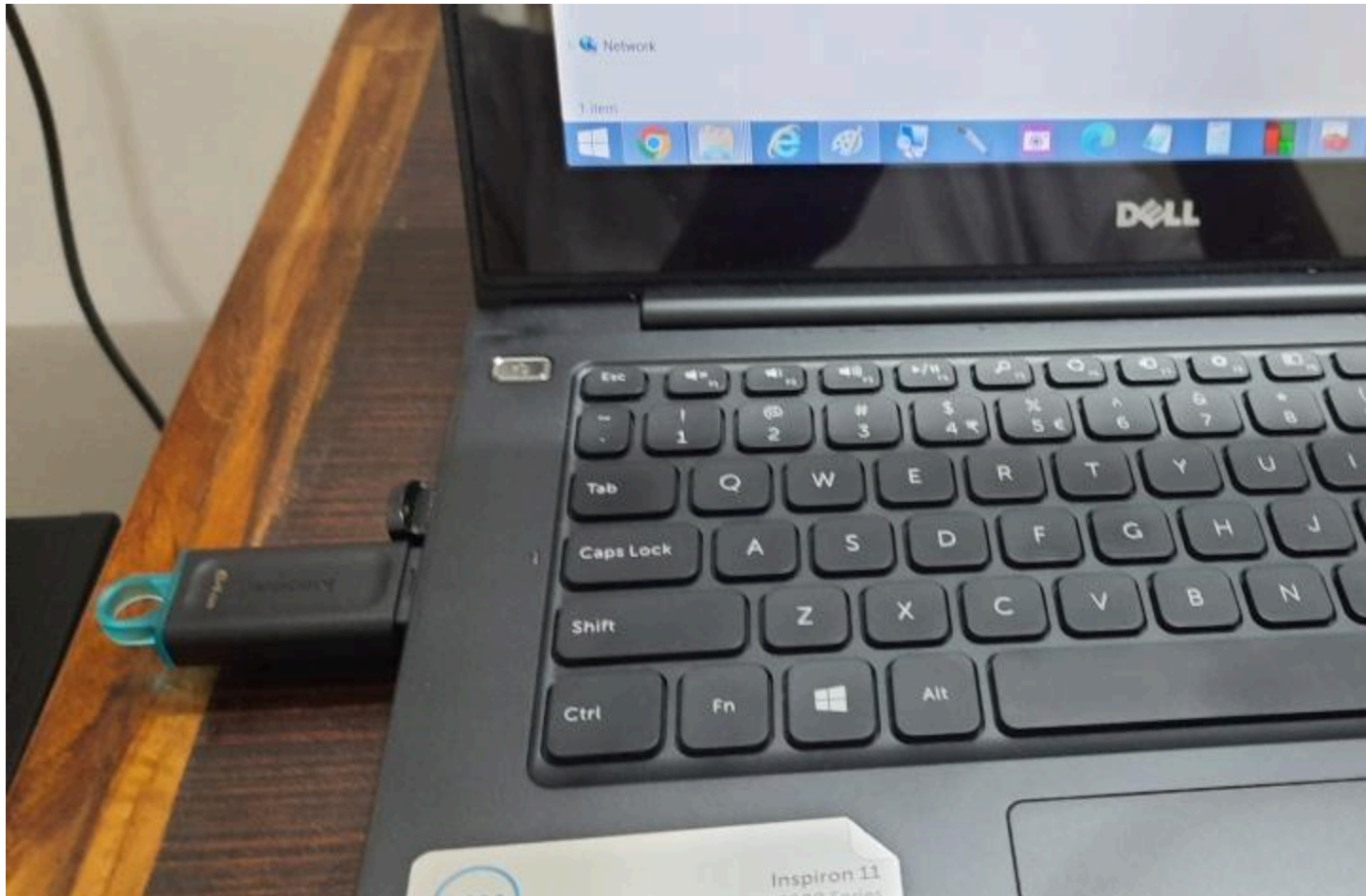
I looked around for a very small USB 3.0 pen drive which I could permanently attach to the DmL. I found this: SanDisk SDCZ430-064G-I35 Ultra Fit 3.1 64GB USB Flash Drive (Black), <https://www.amazon.in/gp/product/B07CJTTW7D> , with dimensions of 2.98 x 1.43 x 0.5 cm and weighing 1.28 Grams, costing Rs.669. The page has pics showing the product attached to a laptop. The protrusion outside the laptop is very little. I ordered it with delivery expected within 2 days.

29th Jun. 2022 Update

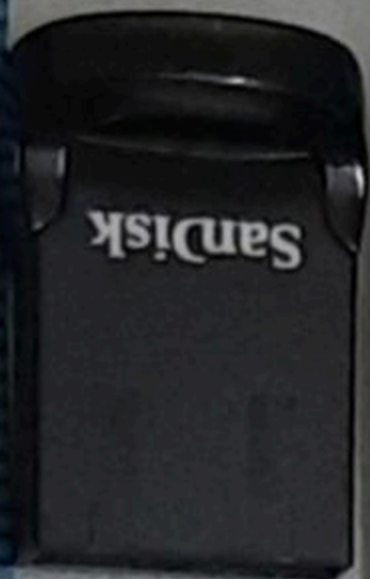
Received the very small SanDisk USB flash drive mentioned above, today. Its length is just 1.8 cm! See pics below.



Above pic: The USB flash drive snugly goes into the laptop (DmL) with only a small protrusion outside.

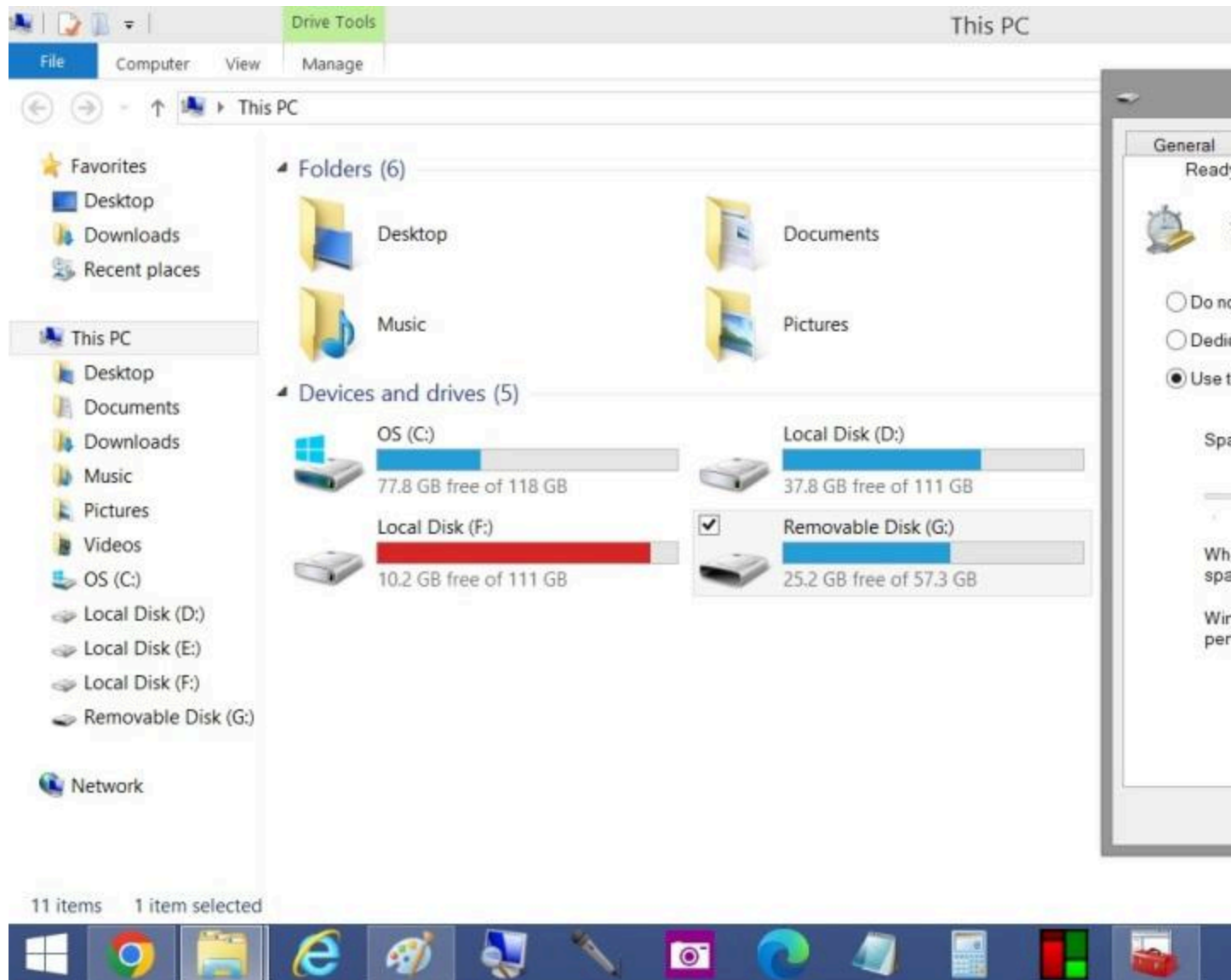


Above pic: I additionally attached the normal size USB drive that I was using earlier for ReadyBoost and took a pic to show the size difference.

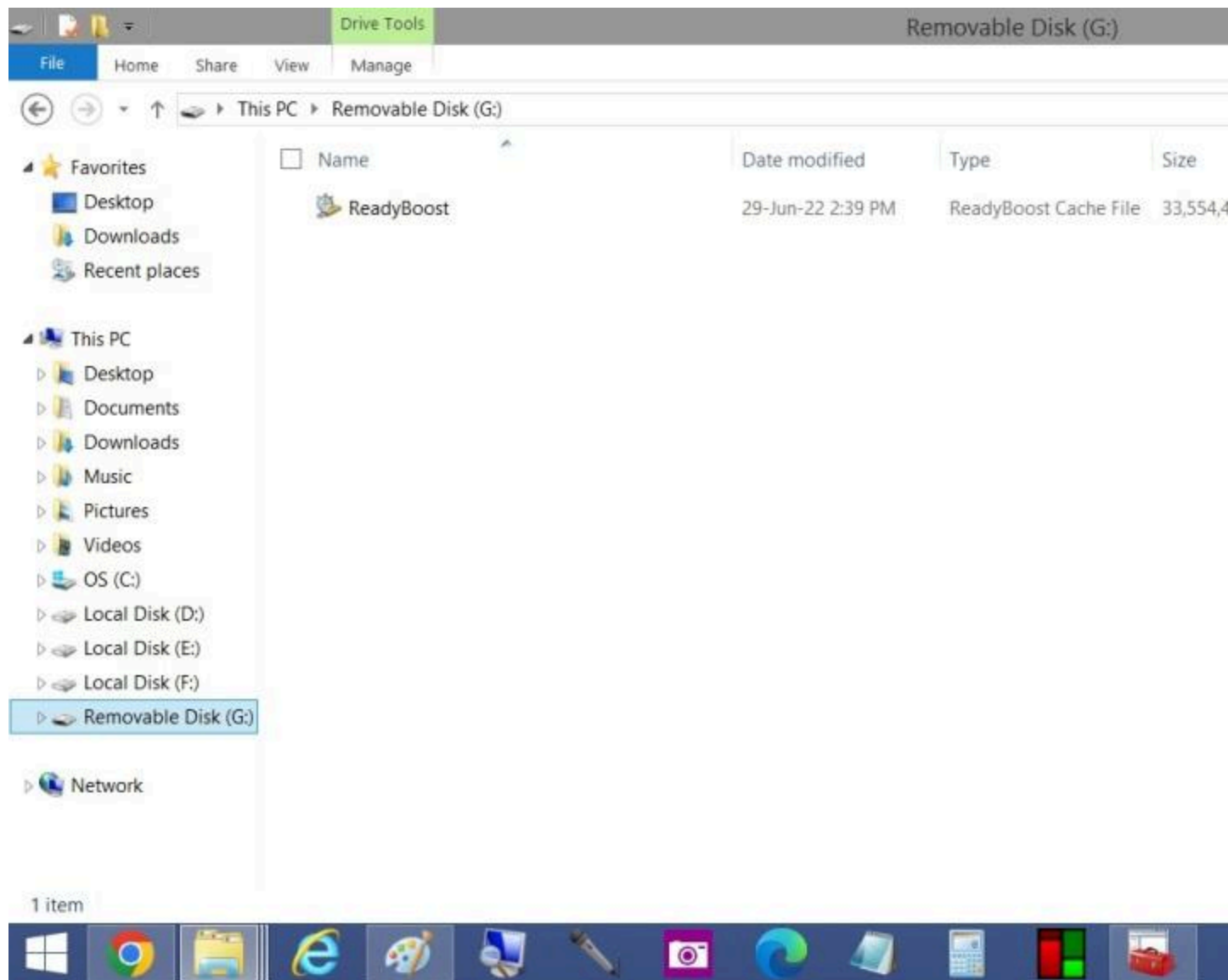


Above pic: Another pic showing size difference of the two USB drives and also the tiny length of 1.8 cm that the SanDisk USB drive has.

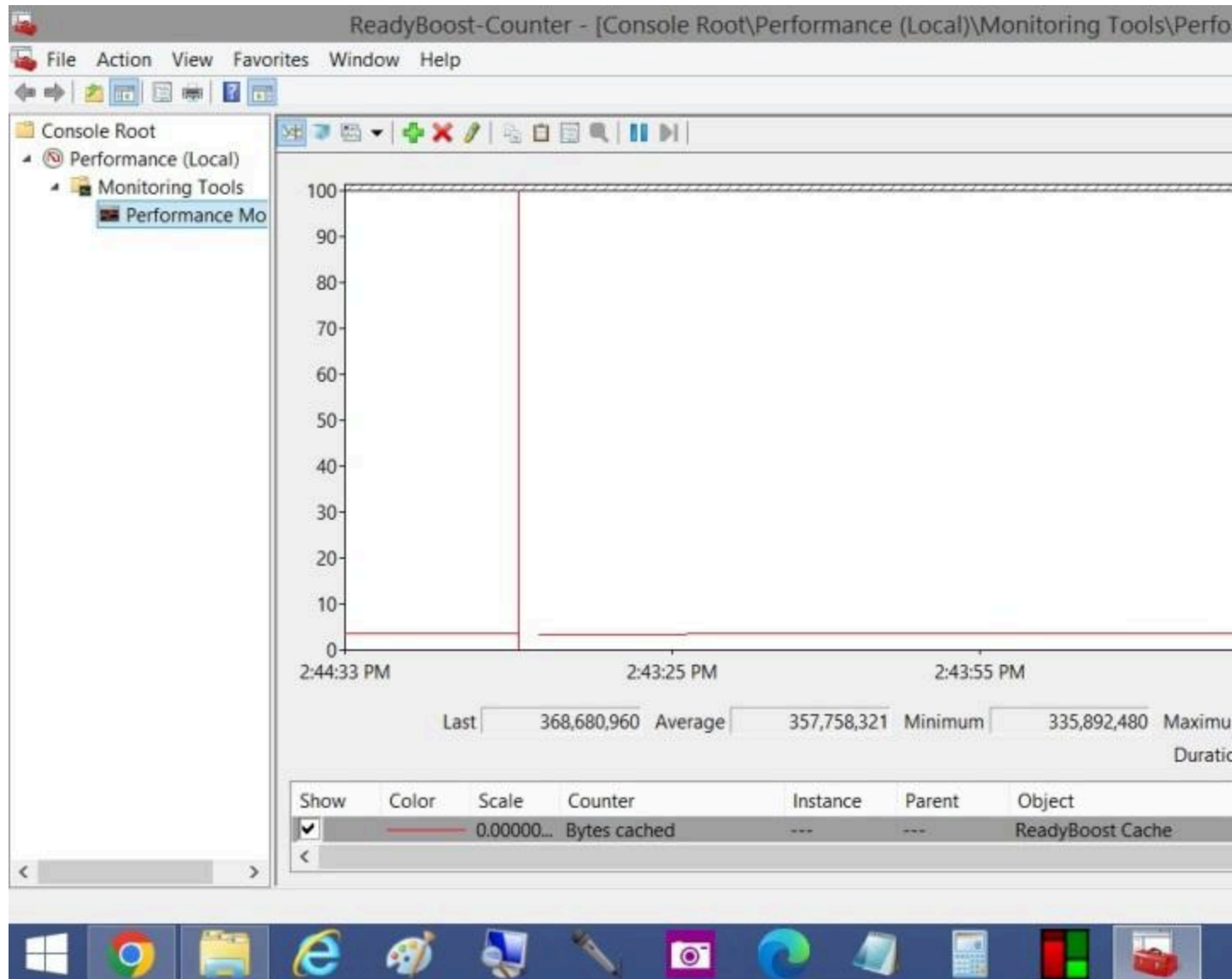
As explained in <https://en.wikipedia.org/wiki/ReadyBoost> using NTFS filesystem enables larger size ReadyBoost cache on USB drive. So I 'quick formatted' the SanDisk USB drive to NTFS. Then by default ReadyBoost property tab on the drive showed 32 GB as cache size which is what I went with.



That resulted in an around 32 GB file named ReadyBoost being created on the USB drive (of 64 GB size) with remaining space available for any other files.



When Chrome browser was open with two or three tabs, the ReadyBoost bytes cached figure for the DmL was around 360 MB. That shows that ReadyBoost was playing a significant role in speeding up the DmL.



A small downside is that the tiny SanDisk USB drive gets hot very quickly. Hope that does not become an issue as I use this setup regularly, whenever I use the Dell mini Laptop in future.

=====End of Post=====

Referral: Exploring Motherboard repair possibilities through company service center without computer technician support, in rural India...; Published: 09

Dec 2021

Post link (URL) on blog:

<https://ravisiyer.wordpress.com/2021/12/09/referral-exploring-motherboard-repair-possibilities-through-company-service-center-without-computer-technician-support-in-rural-india/>

Readers may want to see my recent post on another blog: Exploring Motherboard repair possibilities through company service center without computer technician support, in rural India; Below Rs.3000 (US\$40) limited functionality Linux mini PC box with 1 year warranty, <https://ravisiyermisc.blogspot.com/2021/11/exploring-motherboard-repair.html> .

=====End of Post=====

Unsolicited upgrade of my BSNL landline broadband plan from “Upto 8 Mbps”, 2 GB per day at Rs.369 + tax per month to “Upto 10 Mbps”, 200 GB per month at Rs.399 + tax per month; Published: 08 Apr 2021

Post link (URL) on blog:

<https://ravisiyer.wordpress.com/2021/04/08/unsolicited-upgrade-bsnl-broadband-plan/>

I got an an initially unpleasant surprise recently when my BSNL landline broadband bill for March 2021 was Rs.470 which is an increase of around Rs.35 from previous months. The increase in amount is not much but as a customer I do not like such surprises even if the increased amount is small. I very much prefer to be told beforehand about the price increase (in this case, I would have liked to be informed by email/SMS in Feb. 2021 or Jan. 2021 about price increase from March 2021).

I also recalled a similar small amount price rise of around Rs.25 sometime in second half of last year. As the COVID pandemic had really squeezed my free time, I was not able to dig deep into that price rise matter.

This time around, I decided to dig into these recent price rises. As part of that process, I came across some documents I had saved that triggered a recall of yet another quietly slipped in upgrade and price hike in 2019. But at that time I think I dug into the matter as soon as I saw the price-hiked bill and so came to know of the plan upgrade.

Unfortunately, BSNL provides only 6 months online bill history. I used to get printed bills before COVID pandemic but I think from March 2020, I have not got printed BSNL landline broadband bills. There is an option in BSNL portal for a user to choose ebills (sent by email I guess) which I chose a few years ago itself, but that has not been implemented for me! I have tried choosing

the option again only to be informed that my earlier request is pending or words to that effect! For paying the bill amount, BSNL provides multiple convenient online ways which mentions only the bill amount and month, and which I have been using for past few years.

So to get an idea of these price rises over time, I had to go through the last 6 months bills that I got from BSNL online, dig up the old printed (paper) bills I could locate and also go through all the payment e-receipts I had for past few years.

A good start date for this analysis was when I reconnected BSNL landline broadband in mid December 2018. Details about that are provided in my post: Reconnected BSNL Landline Broadband with Experience Unlimited Combo 299 plan, 8 Mbps till 1.5 GB/day, 1 Mbps beyond, <https://ravisiyer.wordpress.com/2018/12/13/reconnected-bsnl-landline-broadband-299plan/> , posted on 13th Dec. 2018, last updated on 18th Dec. 2018 .

From an analysis of the data I dug up, my broadband plans and associated charges from Dec. 2018 onwards seem to be as follows (I am excluding info. about free voice calls on the landline as that is not so critical for this post):

- **Dec. 2018 mid-way to Jun. 2019 – Rs.299** BB plan “**BB BSNL CUL**”: With tax (18%) around Rs.353; When I first applied for this plan, it was called: “Experience Unlimited Combo Broadband 299” – Combo word indicates broadband data as well as voice calls on landline; Main features: 8 Mbps till 1.5 GB/day, 1 Mbps beyond.
- **Jul. 2019 to Jul.2020 – Rs.349** BB plan “**2GB BSNL CUL**”: With tax around Rs.412; Main features: 8 Mbps till 2 GB/day, 1 Mbps beyond. To know more about what seems to have prompted this “auto-upgrade”, see: BSNL to Launch 3 New Broadband Plans With Up to 8Mbps Speed at as Low as Rs. 349 Per Month, <https://gadgets.ndtv.com/telecom/news/bsnl-rs-349-399-499-broadband-plans-india-july-1-benefits-speed-2059148> , 25th June 2019 .
- **Aug. 2020 to Feb. 2021 – Rs.369** BB plan “**2GB BSNL CUL**”: With tax around Rs. 435/436; Main features: 8 Mbps till 2 GB/day, 1 Mbps beyond. To know more about what seems to be a plain price hike, see: BSNL users shocked, the price of these plans increased by 30 rupees – bsnl price increase of its broadband plans monthly charges from 1 august, <https://www.kultejas.com/bsnl-users-shocked-the-price-of-these-plans-increased-by-30-rupees-bsnl-price-increase-of-its-broadband-plans-monthly-charges-from-1-august/> , 30th July 2020 – “According to TelecomTalk, the company said that the monthly fee of 2GB BSNL CUL plan has been increased from Rs 349 to Rs 369. In this plan, customers get 2 GB of data every day at 8Mbps speed. After 2 GB the speed decreases to 1Mbps. Apart from this, one gets Rs 600 for unlimited calling on BSNL network and calling on other networks. Along with this, unlimited calling is available from 10.30 am to 6 am at night and on Sunday.”
- **Mar. 2021 onwards – Rs.399** BB plan “**BB – 200GB CUL / Speed Upto 10 Mbps till 200GB beyond that Upto 2Mbps / Voice unlimited**”: With tax comes to Rs. 470/471. To know more about what seems to have prompted this “auto-upgrade”, see: BSNL Rs 399 new broadband plan gives 200GB data, what Jio offers at the same price, <https://www.indiatoday.in/technology/news/story/bsnl-rs-399-new-broadband-plan-gives-200gb-data-what-jio-offers-at-the-same-price-1774163-2021-03-01> , 1st March 2021.

The above three upgrades/price-hikes have been done automatically without seeking approval from me, the customer!!! These are the lowest priced regular landline broadband plans BSNL has. So as it upgraded its lowest priced regular BB plan, it essentially forced the upgrade on users. As mentioned earlier, I would come to know of the “upgrade” through the bill for the upgraded-month being little higher than previous month’s bill. As a customer, I am not so

pleased with such stuff.

But I also realize that rural Puttaparthi today does not generate any big income for the government. Note that BSNL is a government owned entity. I have to be thankful to BSNL as it provides this broadband service in Puttaparthi. None of the other major private landline/fibre broadband providers in India, are currently operating in Puttaparthi as far as I know. There are mobile Internet providers but that speed during day time can be well below 1 Mbps, whereas BSNL broadband would give me around 6 Mbps till I crossed my data limit for the day, after which it would give close to 1 Mbps.

With the current plan that I was automatically and quietly upgraded to, my charge has gone up by around Rs. 35 to Rs.470/471 per month and the claimed speed has gone up to 10 Mbps and the data limit is 200 GB for the month (up from 2 GB per day). 200 GB per month comes to average of 6.67 GB per day which is over 3 times the earlier 2 GB per day limit. My March 2021 data usage in current bill (which I could download from BSNL selfcare portal) is 70.43 GB. At 7.18 PM on 7th April 2021, speedtest.net gave a download speed of 8.27 Mbps, <https://www.speedtest.net/result/11225565473> . Around the same time, fast.com gave a download speed of 7.8 Mbps.

As I mentioned earlier, this is the lowest-priced regular BSNL BB plan now. There is a cheaper promotional plan for new connections I think: “100GB CUL” at Rs.299, Upto 10 Mbps till 100 GB per month, https://portal2.bsnl.in/myportal/tariffs.do?ADSL_BROADBAND_COMBO&AP , which, it seems, will be automatically upgraded to this “200GB CUL” @ Rs.399 plan after six months. Sometimes in months previous to March 2021, when I would watch many long videos in a day, I think I would cross the 2 GB per day limit, and I could, at times, see the quality of the video go down, especially if it was a live-stream video. I don’t think I faced this issue since March 2021. So I like this new plan and I am fine with paying Rs. 470/471 per month for it.

To give a recent livestream video watching experience, I saw part of this video dealing with testimony of Police Officer Nicole Mackenzie (Medical Support Coordinator) of Minneapolis, Minnesota, USA live: Watch LIVE: Derek Chauvin Trial for George Floyd Death – Day 7 | ABC News Live Coverage| ABC News, https://www.youtube.com/watch?v=YyCk_aCyC_Q , streamed live on 6th April 2021. I saw it on full screen on my around 21 inch TFT monitor. The video quality was very good and so was the audio quality.

I think BSNL landline broadband in Puttaparthi is pretty good though it does go down at times (‘server problem’ is the typical reason given if one asks). There are one or perhaps more smaller shop private landline broadband (including fibre) offerings but I really don’t know how reliable and stable they are and I prefer to stay with the established and big companies for my vital Internet broadband connection.

Of course, I should also mention that BSNL is making huge losses after Jio disrupted the Internet service provider market by introducing cheap mobile Internet plans (and also fibre plans in some cities in India). So BSNL is struggling to survive. As a long-time customer of BSNL broadband in Puttaparthi (over 15 years I think), I can understand the challenges it is facing now, and would like to do my tiny, tiny bit to help it rise to the challenge by continuing to use its services given that it’s plans are reasonably priced in the current marketplace.

=====End of Post=====

Tips to remove/change background

colour in hi-res pics; Published: 02 Nov 2019

Post link (URL) on blog:

<https://ravisier.wordpress.com/2019/11/02/tips-to-remove-change-background-colour-in-hi-res-pics/>

These are tips from my recent successful but time consuming efforts to remove/change background colour in hi-resolution pics.

I thought of sharing this on a public post as it may be helpful to some readers. Further, perhaps some readers know easier ways of removing/changing background colour in pics, which they can share as comments on this post.

* The pics I worked on were typically 3000×4496 pixels, 300 DPI and were between 2 to 4 MB in size to start with. The pics were taken by a professional photographer with a Nikon camera who provided me the raw pics.

* Note that I don't use Photoshop (NOT freeware). Instead for complex photo editing ('Photoshop') kind of work, I use GIMP (freeware) on Microsoft Windows. For basic functions I use Microsoft Paint. Many times, for the same pic, I do some editing work with GIMP and some other editing work with Paint. At times I use Microsoft Paint 3D too.

* Magic Select in Microsoft Paint 3D has an ability to select an object with a freeform border with some suggestions provided by the user to the program using Add/Remove similar areas. Here's a video on it: <https://www.youtube.com/watch?v=po7eJ1KygDo>, 3 min. 49 secs. On my desktop PC, Magic Select in Paint 3D did a great job in selecting the foreground object in the pic with a freeform border. But repeated attempts to save the pic after doing Magic Select resulted in system crash! I did not want to invest the time in trouble-shooting the cause for these system crashes when using Magic Select in Paint 3D.

* I explored some online websites for background colour removal/change but all the sites I got on Google search, required payment for hi-res pic download after background colour removal! Here are the websites I tried: <https://online.photoscissors.com/>, https://burner.bonanza.com/background_burns, <https://clippingmagic.com/>. I don't know whether I just noted this site or tried it: <https://www.fotor.com/features/backgrounds.html>. I also downloaded and installed a program doing that but which also needed payment for saving hi-res pic after background colour removal. I think I tried this program: "Photo Background Remover for Windows", <https://photo-background-remover.en.softonic.com/>.

Then I turned to GIMP which has become my trusted program for pic editing that is beyond Microsoft Paint. GIMP's Fuzzy Select feature did the trick for me. Given below are quick tips about it.

GIMP related tips

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* How To Change Image Background in GIMP,
<https://www.guidingtech.com/change-image-background-gimp/>

- * Choose Fuzzy Select -> Click on area with same/similar colour to get auto freeform selection
- * Now you can cut the selection to get white background
- * Or you can fill the selection/parts of the selection with foreground colour using bucket fill tool
- * To set foreground color from a colour on pic, use color picker tool.
- * Bucket fill tool can be used to fill rectangles and other shapes too.
- * Bucket fill typically does not fill all of freeform selection. So second round work is needed perhaps using Free Select Selection tool.
- * Free Select Selection tool is very useful for cutting out freeform shapes. It can be used in two ways: a) With mouse clicked throughout operation from starting point back to starting point. b) With multiple mouse clicks giving line segmented shape going back to starting point.
- * Fuzzy select may sometimes leave a border of a contrasting colour from the area just beyond the border. This border may show up at full resolution viewing of the pic. I had to manually remove such a white pixel coloured border after I changed the background from white to blue. That was quite time-consuming. For such manual changing of colour of border, I used the pencil (pixel level), brush, straight line and Polygon tools in Paint with varying sizes (from 1 pixel to higher). Polygon is an interesting tool in Paint as one can draw the base of a triangle (with mouse being dragged) and then click on the third vertex of the desired triangle, to get that triangle outline (filled with white colour if Fill has Solid colour option chosen with Color 2 being white). That triangle can then be filled with foreground colour (Color 1) with bucket-fill tool.

=====End of Post=====

BSNL Mobile: Renewed Plan485 (Freebies) 'STV Enquiry unsuccessful' msg issue resolved after new Plan activation; Response msg can be better formulated; Published: 03 Feb 2019

Post link (URL) on blog:

<https://ravisier.wordpress.com/2019/02/03/bsnl-mobile-renewed-plan485-freebies-msg-issue-resolved/>

Last updated on 6th Feb. 2019

This post is an update to previous post: BSNL Mobile: Renewed Plan485 'Freebies' before expiry to avoid main balance drain; Confusion due to 'STV Enquiry unsuccessful' msg, <https://ravisier.wordpress.com/2019/02/01/bsnl-mobile-renewed-plan485-freebies/>, dated 1st Feb. 2019

Today, 3rd Feb. 2019, the renewed BSNL Mobile Plan 485 kicked in (got activated) as the previous Plan 485 expired yesterday on 2nd Feb. 2019.

Given below are pics showing the message response of *124*2# command sent around 11:15

AM today (cropped from screenshot pics).

Subscribed STVs are
PLAN485 VOICE ;
Expirydate 03/05/2019:
Unlimited AnyNet Calls.
PLAN485 Data ;. Dial 1
for more or 0 to exit

Expirydate 03/02/2019:
99 unit left out of AnyNet
SMS,3.7071 GB left out of
Data.

The text in the above msgs is:
Subscribed STVs are

PLAN 485 VOICE ;

Expirydate 03/05/2019:

Unlimited AnyNetCalls.

PLAN485 Data ;. Dial 1

for more or 0 to exit

Expirydate 03/02/2019:

99 unit left out of AnyNet

SMS,3.07071 GB left out of

Data

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I think the combined message of the above, separated by feature, would be:
Subscribed STVs are

PLAN 485 VOICE ; Expirydate 03/05/2019: Unlimited AnyNetCalls.

PLAN485 Data ; Expirydate 03/02/2019: 99 unit left out of AnyNet SMS,3.07071 GB left out of Data

I interpret it as follows:

* PLAN 485 VOICE freebie has got extended from 3/2/2019 (as earlier plan freebie expired on 2/2/2019) to 3/5/2019, which would be around the 90 days freebie validity specified in PLAN 485 details

* PLAN485 Data freebie seems to have two validity & data usage, dates & availability, associated with it – the 90 days freebie validity and the per day data usage availability at high speed and its validity, both as specified in PLAN 485 details. The result mentions the per day data at high speed validity date of 3/2/2019 with 3.07071 GB left out of (available from) the per day high speed data usage allotted. I presume that the other Data freebie validity is for 90 days like the Voice freebie validity, and so will be valid till 3/5/2019. In other words, the per day data at high speed validity date will be renewed automatically at the end of each day till the end of 3/5/2019.

* Per day, 100 SMS is allotted. The result data specifies that 99 SMS is available for the day.

The usage of ; : and , punctuation marks in the result message is confusing.
I think a better message conveying the full information without forcing the user to do interpretation like I have done above, is as follows:
Subscribed STVs are

1) PLAN 485 VOICE:

Expirydate 03/05/2019,

Unlimited AnyNetCalls.

2) PLAN 485 Data:

Expirydate 03/05/2019,

99 unit left in AnyNet

SMS today, 3.07071 GB

left in High-Speed Data

today. Today is

03/02/2019.

I plan to mail the above suggestion to BSNL Mobile support email id, if I can find one.

I should also mention that I checked the main BSNL mobile balance using *123# around 7:15 PM to 7:30 PM and it continues to be Rs. 94.1851 thereby showing that there has been no charge levied to BSNL mobile main balance for any data access done today on BSNL mobile (SIM). I also checked the 'Freebie' balance (using *124*2#) around the same time with the response showing that 97 SMS and 3.7058 GB remain from my daily/per day freebie quota.

Another thing to be recorded here is that, for the past 2 days, if I have noted correctly (surely the case today), my LYF phone battery charge got down to zero, over the night. When I looked at my LYF (Jio) phone today morning (and either yesterday morning or perhaps day-before-yesterday morning – I am not sure which day), it did not switch on. I had to start powering it at which time it showed a 0% charge indicator and started charging.

I wonder why that is happening as in the past, the phone battery charge did not go out so quickly. I wonder whether it is because I had switched off Data access for BSNL SIM in my mobile, and changed the default 3G/4G and Data access SIM to my Jio SIM whose plan has expired (I have not renewed it). Were some apps on the Android LYF phone repeatedly trying to access the Internet as they were repeatedly failing to connect to it via my expired Jio SIM, and which activity was eating up the battery charge?

Anyway, now I have activated Data access on BSNL SIM and also made it the default SIM for 3G/4G and Data. So now automatic Internet access by Android apps will go through easily. Let me see whether I continue to face an overnight battery drain problem on my LYF phone. I doubt that it will be the case.

6th Feb. 2019 Update

On 4th and 5th Feb. mornings when I checked the phone, the battery had ****NOT**** drained over the night. I don't think I had battery-recharged the phone between putting up this post on 3rd Feb. and 5th Feb. morning. So the battery drain issue disappeared once the phone got an active Internet connection.

=====End of Post=====

BSNL Mobile: Renewed Plan485 'Freebies' before expiry to avoid main balance drain; Confusion due to 'STV Enquiry unsuccessful' msg; Published: 01 Feb 2019

Post link (URL) on blog:

<https://ravisiyer.wordpress.com/2019/02/01/bsnl-mobile-renewed-plan485-freebies/>

Background reading for this post: Inadvertent waste of Rs.129 BSNL Main Balance due to Plan-485's 'free' Internet data expiry; How to check BSNL 'free' Internet data validity, <https://ravisiyer.wordpress.com/2018/11/06/inadvertent-waste-of-rs-129-bsnl-balance/>, dated 6th Nov. 2018

Past day or two, I have been getting the SMS that Freebies on my BSNL mobile plan will expire on 2nd Feb. 2019. As the above post shows, what that means is that after 2nd Feb. 2019, any Internet data usage as well as phone calls made from my BSNL mobile (SIM) will be charged to my regular BSNL Mobile balance. The last time Rs. 129 of the main balance got wasted in this fashion mainly due to Internet data access being done by apps on the phone automatically. This time around I did not want that to happen. So yesterday on 31st Jan. 2019, I recharged my BSNL mobile plan with Plan485, paying Rs. 485, using BSNL Internet portal for recharge. The Plan485 details are given here:

http://www.bsnl.co.in/opencms/bsnl/BSNL/services/mobile/prepaid_plans_new23022018.html.

The critical aspects are free phone calls (in India) and free Internet in India (High speed for 1.5 GB + any bonus that applies per day, low speed (80 Kbps?) after that for that day) for a period of 90 days, and plan validity for a period of 180 days. So after 90 days the freebies expire but the plan is valid for 90 days more at which time it will charge for services from the main balance (unless freebies are extended using a plan recharge).

A few minutes after the recharge was done, using command of *123# (dialing it) showed that main validity had extended to around 6 months in the future – 30th July 2019. That was good and as specified for Plan485.

But using the command of *124*2# to get the Freebies validity (referred to as STV validity in response messages) gave me this disappointing message: "STV Enquiry unsuccessful. Kindly contact customer care."

I decided to wait till today (1st Feb.) to see if that status changes. But when I tried today there was no change. So I called BSNL customer care. After a failed attempt, the second attempt got through to an agent. It took some effort to explain the issue to him. Finally he told me that my Freebies balance has been extended to early May (I think he said 3rd May) which would come to around 90 days from 2nd Feb and which too is as specified for Plan485.

I asked him why I am not getting that info. when I give the *124*2# inquiry command. He was not able to give a proper answer but said that after my Freebies plan expired on 2nd Feb., the new Freebies plan will automatically come into play. So I take that to imply that after the new Freebies plan takes effect automatically on 3rd Feb. 2019, the *124*2# command will work properly.

Meanwhile I wanted to explore ways to simply switch off BSNL Mobile SIM Internet access on my LYF phone. *[I have BSNL landline broadband as my main Internet Service Provider and so I can manage without Internet on my smartphone for a day or two OR I can use Jio Mobile Internet on the Jio SIM on my dual SIM phone, by purchasing a short term plan. As of now the Jio main plan has expired.]* I switched off BSNL Mobile SIM Internet access by switching off Data for BSNL SIM. So now I think there is no possibility of automatic usage of the Internet by my LYF phone using BSNL SIM.

What I will do is check on 3rd Feb. 2019 by using *124*2# command whether I get correctly extended validity for STV to early May 2019 or not. If I get the correct STV validity (freebie validity) extension, then I will switch on Data access for BSNL SIM. Otherwise I will have to contact customer care and understand why the freebie extension is not showing in my *124*2#

command result.

This way, I protect my BSNL Mobile main balance of Rs. 94.1851 from being drained by automatic downloads from apps.

Around 6 to 7 PM today (1st Feb. 2019), I took screenshots of the above command results, and later cropped the screenshot to have only the result message. They are given below.

Bal Rs: 94.1851
Expiry: 30/07/2019
Status: ACTIVE
Gp1: 14/08/2019
Gp2: 26/01/2020
Plan: BSNL485

Above pic gives result of *123# on 1st Feb. 2019

STV Enquiry
unsuccessful. Kindly
contact customer care.

Above pic gives result of *124*2# on 1st Feb. 2019

=====End of Post=====

**Reconnected BSNL Landline Broadband
with Experience Unlimited Combo 299
plan, 8 Mbps till 1.5 GB/day, 1 Mbps
beyond; Published: 13 Dec 2018**

Post link (URL) on blog:

<https://ravisier.wordpress.com/2018/12/13/reconnected-bsnl-landline-broadband-299plan/>

Last updated on 18th Dec. 2018

Today, 13th Dec. 2018, around noon or slightly before, I visited BSNL Puttaparthi office and provided a filled up form (I had got the form yesterday in a visit to their office) for a new Landline Broadband connection.

[*****History-Info-Paragraph-Can-be-skipped: Note that I had disconnected my BSNL Landline Broadband plan on 31st July 2017, and the plan I had used prior to Broadband disconnection (but without disconnection of landline) was called: BB – BBG COMBO ULD 470 CS142, with price of Rs.470 (+ tax) per month. [Tax was 18%, making the net price (rounded): Rs.555 per month.] The ULD 470 plan then offered 2 Mbps speed till 10 GB usage per month, and 1 Mbps beyond that. Prior to this ULD470 plan I was on an 8 Mbps plan till around 30 GB usage per month and 1 Mbps beyond, if I recall correctly, and priced at around Rs.999 + tax [around 1150 after tax then as the tax was a little lower then]. I was very satisfied with the consistent around 6 Mbps speed I got with this 999 plan (not 8 Mbps), but after Jio 4G disrupted the market, I was not willing to pay Rs.1150 per month when I had cheaper Jio options of around Rs. 150 per month giving me beyond 1 Mbps speed then (as well as free phone calls). ... Later the Jio 4G speeds fell rather drastically during regular hours to below 500 Kbps and sometimes even lower below 300 Kbps. So Internet access had become a little slow. It was still manageable but it did slow down my Internet work speed a little. Now I was not willing to pay Rs. 555 for 2 Mbps till 10 GB per month and 1 Mbps beyond, BSNL Landline broadband which is what continued to be on offer in Puttaparthi, I believe, though major cities in Andhra Pradesh had better options from BSNL. End-History-Info-Paragraph-Can-be-skipped*****]

I specifically asked for the plan, “Experience Unlimited Broadband 299”, which is a new plan of price Rs.299 (+ tax) per month, shown in BSNL All India website:

http://www.bsnl.co.in/opencms/bsnl/BSNL/services/broadband/BB_plans_speed.html, but not yet shown in BSNL AP (Andhra Pradesh) website. [I presume that tax is 18%, making the net price (rounded): Rs.353 per month.]

This plan is NOT a promotional plan (which expires after 6 months and moves customer to 470 Plan after that). In particular, I did not want to get the promotional plan titled, “BBG Combo ULD 300GB Plan” in

http://www.bsnl.co.in/opencms/bsnl/BSNL/services/broadband/entry_level_plan.html, whose price is also Rs.299 (+ tax) per month.

The Customer service officer assured me that he will provide me the “Experience Unlimited Broadband 299” plan and NOT the other promotional plan.

Here are the key features of “Experience Unlimited Broadband 299” from

http://www.bsnl.co.in/opencms/bsnl/BSNL/services/broadband/BB_plans_speed.html

- Bandwidth (Download Speed) subject to technical feasibility: Upto 8 Mbps till 1.5 GB/day, Upto 1 Mbps beyond
- Monthly Charges (Rs): 299 (+ tax)
- [Call charges]

a) 24 hrs. Unlimited free calling (Local+STD) within India on BSNL network.

b) Unlimited free calls (Local+STD) between 10:30 PM to 6:00 AM and on all Sundays, to any network within India.

c) Free calls of worth Rs. 300/- on other N/W within India. MCU Charges/ pulse in Rs. (to Other Network): 1.20

— end key features of “Experience Unlimited Broadband 299” plan —

Ravi: I found the features of the above plan to be very attractive and very competitive with Jio

4G or BSNL 3G Internet & phone call plans. So I decided to reconnect to BSNL Landline Broadband with this new plan.

Today afternoon perhaps around 3.30 PM, I was pleasantly surprised to receive a phone call on my BSNL landline from the BSNL lineman who was inquiring whether I had applied for a Broadband connection. To cut a long story short, he visited my flat later on and set up the modem. The Net connection did not work then but he said it will start working later on. They seem to have done something at the exchange, after which the Internet connection started working.

I did a few quick speed tests and got great results. Here's one speedtest data:

<https://www.speedtest.net/result/7876758622> : Done at 4:48 PM on 13th Dec. 2018:

Download speed: 9.47 Mbps, Upload speed: 0.51 Mbps.

That's great! But maybe once many people jump onto the BSNL Landline broadband connection again in Puttaparthi, the speed will fall. If it provides me around 6 Mbps till 1.5 GB per day, and 1 Mbps beyond, I will be very happy! That's good enough speed for me. Youtube videos play with sharp and well-defined image rendition on my 21.5 inch TFT (Samsung) display, and without buffering! Facebook also loads fast and its videos too play without buffering. So that speed's enough for my main needs.

Note that the upload speed is somewhat low as compared to Mobile 4G connections. But that's a manageable thing. Anyway, I intend to keep one mobile Internet plan as well – either BSNL 3G or Jio 4G. So if I have some big upload work, I can use that connection at off-peak times when they can give over 1 Mbps Upload speed (Jio 4G sometimes gives even upload speeds like 6 or 8 Mbps, if I recall correctly).

I visited selfcare website of BSNL and saw that my landline entry shows a Broadband plan with the name “BB – Experience Unlimited Combo Broadband 299”. That's the right plan name! It is ***not*** the promotional plan. So far so good.

I will explore the free calls to BSNL network (land and mobile) and Rs.300 per month worth of calls to other networks later on. They also seem to be attractive features of this plan.

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14th Dec. 2018 Update

As I had seen a lot of videos today, by around 4 .15 PM the speed of the Net connection had dropped to around 1 Mbps as shown by BitMeter running display. I think I may have crossed the 1.5 GB/day limit. Unfortunately, selfcare BSNL website did not show me any usage data (giving a “no records” message for date range of 13th Dec to 13th Dec or 13th Dec to 14th Dec or 14th Dec to 14th Dec). So BSNL usage reporting for per day usage on its selfcare website has to improve to match competitors like Jio.

I did a speedtest where I also checked that no Windows automatic update is going on. Here's its data:

<https://www.speedtest.net/result/7879721007>: Done at 6:18 PM on 14th Dec. 2018:

Download speed: 1.21 Mbps, Upload speed: 0.51 Mbps.

Checked speed with BSNL 3G Mobile Internet at 6:39 PM, 14th Dec,

<https://www.speedtest.net/result/7879768210>

Download speed: 0.41 Mbps, Upload speed: 0.33 Mbps.

Then checked speed with Jio 4G Mobile Internet at 6:42 PM, 14th Dec,

<https://www.speedtest.net/result/7879775073>

Download speed: 0.86 Mbps, Upload speed: 0.83 Mbps.

So even post 1.5 GB usage, BSNL Landline Broadband plan ‘Experience Unlimited Broadband 299’ gives better download speed for me in my flat in Puttaparthi, than Jio 4G and BSNL 3G

Mobile Internet in evening hours (peak time for Mobile Internet in Puttaparthi). However, it must be noted that Jio 4G provides better upload speed of 0.83 Mbps even in evening peak time, as compared to BSNL Landline broadband Upload speed ***before crossing 1.5 GB per day limit*** of 0.51 Mbps.

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18th Dec. 2018 Update

Checked speed with BSNL 3G Mobile Internet at 11:14 PM, 18th Dec,

<https://www.speedtest.net/result/7890507429>

Download speed: 0.86 Mbps, Upload speed: 2.20 Mbps.

So at late night, BSNL 3G can give over 1 Mbps upload speed, and even over 2 Mbps upload speed.

=====End of Post=====

BSNL 299 Landline Broadband plan is very interesting; Published: 03 Dec 2018

Post link (URL) on blog:

<https://ravisier.wordpress.com/2018/12/03/bsnl-299-landline-broadband-plan-is-very-interesting/>

Seems very interesting:

<https://gadgets.ndtv.com/telecom/news/bsnl-launches-rs-299-broadband-plan-with-8mbps-download-speed-45gb-data-1956866>

Essentially it is BSNL Landline broadband at 8 Mbps for 1.5 GB/day and 1 Mbps beyond that for a price of Rs. 299 (+ tax, I guess) per month . That's a good deal! Now the issue is whether it is available in Puttaparthi or not.

I was a heavy BSNL Landline broadband user for quite a few years but opted out of it, after Jio 4G Mobile broadband service was available at around Rs. 150 per month. If I recall correctly I used to pay over Rs. 1100 per month (999 + tax) for the BSNL broadband landline connection which gave me sustained high speed broadband (around 6 Mbps even though it was advertised as 8 Mbps) which I was very happy with. Later, in end July 2017, I got onto a BSNL plan which cost me around Rs. 555 inclusive of taxes (ULD470 plan), which was giving 2 Mbps speed till 10 GB and 1 Mbps beyond with Jio 4G as an additional Internet service that I had (at around Rs. 150 per month).

I found Jio 4G to be good then and decided to opt out of BSNL broadband and have BSNL 3G mobile Internet instead. So my Internet service provider expenses were, and still are, around Rs. 150 for BSNL 3G mobile and Rs. 150 for Jio 4G mobile. Free mobile phone calls within India are a bonus in these plans. I felt that opting out of BSNL landline broadband was the right thing to do as even though BSNL landline broadband quality was great and superior to mobile Internet, its charges were too much given the new competition.

I still have the BSNL landline connection for which I pay around Rs. 177 per month as I want to have the landline phone facility. So the new 299 BSNL Landline broadband plan which should

be around Rs. 350 with taxes will cost me an additional Rs.350 – Rs.177 = Rs.173. That's a competitive price wrt Mobile Internet providers I use. So I can opt out of one Mobile Internet service provider and opt in (again) to BSNL Landline broadband (with one Mobile Internet service provider as backup).

Note Jio 4G speeds fell during peak time, and sometimes during non-peak time too, to below 1 Mbps levels, sometimes below 500 Kbps levels, some months after I opted for it. That continues to be the case today. Whereas my experience of BSNL 8 Mbps Landline Broadband (Rs. 1000 + tax is what I used to pay for it in the past) was that I used to get sustained speeds of around 6 Mbps, which was excellent for my needs. So the 299 (+ taxes, I guess) BSNL plan giving 8 Mbps 1.5 GB/day is very attractive to me.

The question is whether BSNL Puttaparthi will provide this plan and whether they will provide it to me who is an existing BSNL landline user who is currently not using BSNL Broadband. Some of their earlier competitively priced plans were meant for only new customers and were valid only for six months or so.

The Andhra Pradesh BSNL broadband plans website,

http://www.ap.bsnl.co.in/flashapnews/plans_ap_bb.htm, does not list this 299 option as of now.

So maybe this will take time to get offered in Puttaparthi by BSNL, if at all it gets offered.

=====End of Post=====

Inadvertent waste of Rs.129 BSNL Main Balance due to Plan-485's 'free' Internet data expiry; How to check BSNL 'free' Internet data validity; Published: 06 Nov 2018

Post link (URL) on blog:

<https://ravisier.wordpress.com/2018/11/06/inadvertent-waste-of-rs-129-bsnl-balance/>

I had an unpleasant experience yesterday (5th Nov. 2018) morning with my BSNL 3G Mobile service provider's handling of expiry date of my PLAN-485 with them. I thought I should share that info. with readers and also have this info. available on my blog for easy future reference.

Over the past few days I got the following SMS messages from BSNL:

"Dear Customer,Your Plan485 will expire on 04-NOV-2018.This is for your information Please-BSNL MOBILE", on 2nd Nov. 2018

"Dear Customer, Freebies PLAN485 will expire on 04/11/2018.", on 2nd Nov. 2018

"Dear Customer, Freebies PLAN485 will expire Tomorrow.", on 3rd Nov. 2018

"Dear Customer, Freebies PLAN485 will expire Today.", on 4th Nov. 2018

Prior to 5th Nov. 2018, I checked my PLAN485 expiry using *123# call/code. That said PLAN485 expires sometime in Feb. 2019. I wondered about the Freebies part of some of the messages. But I was under the wrong impression that perhaps a few months ago I had already paid for a new PLAN485 to be renewed automatically when the current plan expires. And that is

why I was getting the response that PLAN485 expires in Feb. 2019 on sending the appropriate request code.

But that was not the case. Some months ago I had added Rs. 220 to my Main Balance to take care of situations where I had to send SMS to contacts in foreign countries, and perhaps make some short international phone calls too. That Main Balance was reflected in the response of the status enquiry which said Rs. 223.375 Balance, if I recall correctly. I had not used anything from the Main Balance since and so it continued to be Rs. 223.375 on 4th Nov. 2018, if I recall correctly.

Now the BSNL customer care portal, selfcare.bsnl.co.in, is not so useful in figuring out mobile plan and usage details (as compared to, say, Jio.com).

So in the evening of 4th Nov. 2018, my view was that I should check out the status next day morning. When I checked on 5th Nov. 2018 morning (I think around 9 or 10 AM), I found that my BSNL Mobile Main Balance had gone down to low hundreds (around Rs. 110 if I recall correctly). I called up BSNL Mobile help line (1503) and got on to the customer service guy asking him what had happened. He said that my PLAN485 free calls and free Internet part had expired on 4th Nov. but that it was valid for 90 days more which is why I got the status message that PLAN485 is valid till Feb. 2019. But as the free calls and free Internet part had expired, the Internet data usages (2 times) in early morning of 5th Nov. were charged to my Main Balance! I think that usage would have been automatic updates of apps. on my phone and/or something similar!

I told the customer service guy that I was very disappointed with BSNL for not having given me a proper status response. He said something about BSNL following TRAI (Telecom Regulatory Authority of India) rules. I told him that BSNL has lost my trust. He said he was sorry but that was something that he perhaps was instructed to say in such cases, and there was no point in me blaming him for this BSNL issue.

Later I tried using the BSNL selfcare portal (using Jio Router as my Internet Service provider; I have both Jio and BSNL Mobile Internet connections) to get the exact usage details but for my mobile connection usage and other details, I got this unhelpful message: "We are facing some issues in fetching the Prepaid related details. Please try after sometime."

Meanwhile I called up a Parthi shopkeeper who helps me with mobile plan renewals/recharges. The call got charged from BSNL main balance!

I turned off BSNL SIM as the default 3G/4G SIM. But the other SIM (another Jio SIM different from SIM in Jio Router) did not have any valid Internet plan on it. I did not know how to ensure that Android on the phone does not fall back to using BSNL SIM for Internet usage for automatic updates, and reducing my BSNL Main Balance further!

In the afternoon I went to the Parthi shop guy who explained the situation to me. He said that BSNL PLAN485 provides free calls and 1.5 GB Internet data/per day for 90 days but the validity period for the plan is 180 days. To know the 'free' Internet data (1.5 GB/day) validity, one has to use another command: *124*2#

As BSNL Mobile has good coverage in Parthi, I am reluctant to stop using it. So I got another PLAN485 (for Rs.485) activated on it that afternoon (5th Nov. afternoon).

The BSNL Main Balance had gone down to 94.1851 but did not go down further as this new plan had taken effect. I was able to browse the Net using BSNL 3G without incurring any new charges. Rs.223 – Rs.94 = Rs.129 was the amount that was lost or wasted.

Now (on 6th Nov.), *124*2# on it gives this status response:

Subscribed STVs are

PLAN485 Data ;

Expirydate 02/02/2019

PLAN485 Data ;

Expirydate 06/11/2018

—end status response —

I do not understand why there are two such expiry dates. I have given up on the possibility that I will be able to understand such BSNL Mobile status responses fully. BTW STV (Special Tariff Voucher) is what BSNL uses to give special plans within an existing BSNL plan.

Using *123# command gives the PLAN485 validity date as 04/05/2019.

Now I understand that the above validity is for the plan ***without*** free calls and 1.5 GB/day free data. The earlier command response given above having STV expiry date of 02/02/2019 is the date when the 'free' calls and 1.5 GB/day 'free' data stop. *[I have put the free word in quotes as I paid Rs. 485 for the plan, and so it is not exactly free calls and free data.]*

A question that is outstanding is what if I go beyond 1.5 GB data usage on a particular day on this BSNL plan. Will Internet data usage beyond that get charged from my main balance? The Andhra Pradesh BSNL page, http://www.ap.bsnl.co.in/flashapnews/prepaid_plans.htm, simply says "1.5GB/day for first 90 days". Towards the bottom of the page, it says that an extra data offer applies for this plan till 14-11-2018 whereby the user gets 3.7 GB/day (instead of 1.5 GB/day).

Essentially, the BSNL plan details are very complicated. That puts the user at BSNL's mercy, and BSNL seems to use that situation to exploit users like I got exploited this time.

But BSNL is a mega public sector company and I need its services. So I have to tolerate such stuff and try to avoid losing significant amount of money when one falls into one of its traps. One way of doing that is by keeping very low amount of money, say Rs. 20, in BSNL Main Balance. That would limit maximum loss to Rs.20 if one falls into one of these traps.

=====End of Post=====

Puttaparthi June 2018 daytime Jio 4G speeds are very poor with BSNL 3G speeds being significantly better!;

Published: 18 Jun 2018

Post link (URL) on blog:

<https://ravisiyer.wordpress.com/2018/06/18/puttaparthi-june-2018-daytime-jio-4g-speeds-are-very-poor-with-bsnl-3g-speeds-being-significantly-better/>

Last updated on 20th June 2018

Jio 4G speeds in Puttaparthi over the past month or two have seriously dipped (250 Kbps to 350

Kbps in daytime typically). This has impacted my browsing activity when using Jio 4G as pages with images take time to load and youtube videos sometimes get stuck at buffering. Nowadays when I find that browsing has become sluggish due to poor speed of Jio 4G, I try out BSNL 3G which sometimes, but not all times, gives better speed! Note that I am currently using a Jio 4G SIM and a BSNL 3G SIM with regular Internet plans on both (cost of around Rs. 150 per month on each, if I recall correctly).

Yesterday was a pleasant surprise as Jio 4G speeds were very good even during daytime, well above 1 Mbps and touching 10 Mbps in one speed test. But that seems to have been because it was Sunday and so perhaps there was less traffic for some reason. Today – Monday – the speeds have dipped seriously again.

Before I give current speed data, here's how it was around a year ago in July 2017. My post: Jio Mobile 4G and BSNL landline Broadband ROUGH speed data for my home PC in Puttaparthi, <https://goo.gl/hikch1>, dated July 29th 2017 states the following for typical Jio 4G speed I got then in my flat:

3 to 7 Mbps: Morning and afternoon (say 6 AM to 5 PM) speed

2 to 6 Mbps: Evening (say 5 PM to 10 PM) speed

4 to 9 Mbps: Late night and early morning (say 10 PM to 6 AM) speed. There are transient highs of upto 16 Mbps

— end extract —

Sadly now Jio 4G speeds in Puttaparthi have dipped far below what is reported above. Some months ago, it used to be in the range of 500 Kbps to 1 Mbps in the afternoons which was still manageable as browsing speed did not get impacted that seriously. But now it is typically in the range of 250 to 350 Kbps sometimes touching 500 to 600 Kbps range, in the afternoon. That has a definite negative impact on browsing speed.

I decided to conduct some tests today and capture the results. The data is given below.

Jio 4G DOWNLOAD speed on desktop PC using JioFi router showing green indicator as (best indicator) quality of signal, placed in my balcony/sit-out on 18th June 2018

320 Kbps, 3.00 PM, <https://fast.com/>

580 Kbps (0.58 Mbps), 3.03 PM, <http://www.speedtest.net/result/7402155168>

230 Kbps, 3.06 PM, <https://fast.com/>

260 Kbps (0.26 Mbps), 3.08 PM, <http://www.speedtest.net/result/7402165099>

BSNL 3G DOWNLOAD speed on desktop PC using smartphone via HotSpot in my balcony/sit-out in same location as JioFi router on 18th June 2018

2.4 Mbps, 3.16 PM, <https://fast.com/>

1.6 Mbps, 3.18 PM, <http://www.speedtest.net/result/7402183263>

0.94 Mbps (940 Kbps), 3.18 PM, <https://fast.com/>

0.6 Mbps, 3.22 PM, <http://www.speedtest.net/result/7402190869>

Essentially, during daytime, BSNL 3G is giving 500 Kbps to 2 Mbps while Jio 4G is typically giving 250 to 350 Kbps! Sad to see that Jio 4G service in Puttaparthi is struggling so much to provide good speed to its customers (including me).

Update on 20th June 2018: Some speed tests using BSNL 3G, yesterday and today. Note that the NetVelocity tests were conducted using NetVelocity app on the smartphone whereas the Speedtest test was done on PC desktop connecting over WiFi to smartphone via HotSpot.



3G

Operator

BSNL MOBILE

Signal

Good

Quality

Good

Jun 19, 2018 08:28 AM

LYF LS-4505 

MIN 1.86 MAX 2.55

MIN 0.73 MAX 2.55

 Reliance Jio Infocomm Ltd, Bangalore

DOWNLOAD

2.15

Mbps

LATENCY

282

ms

UPLOAD

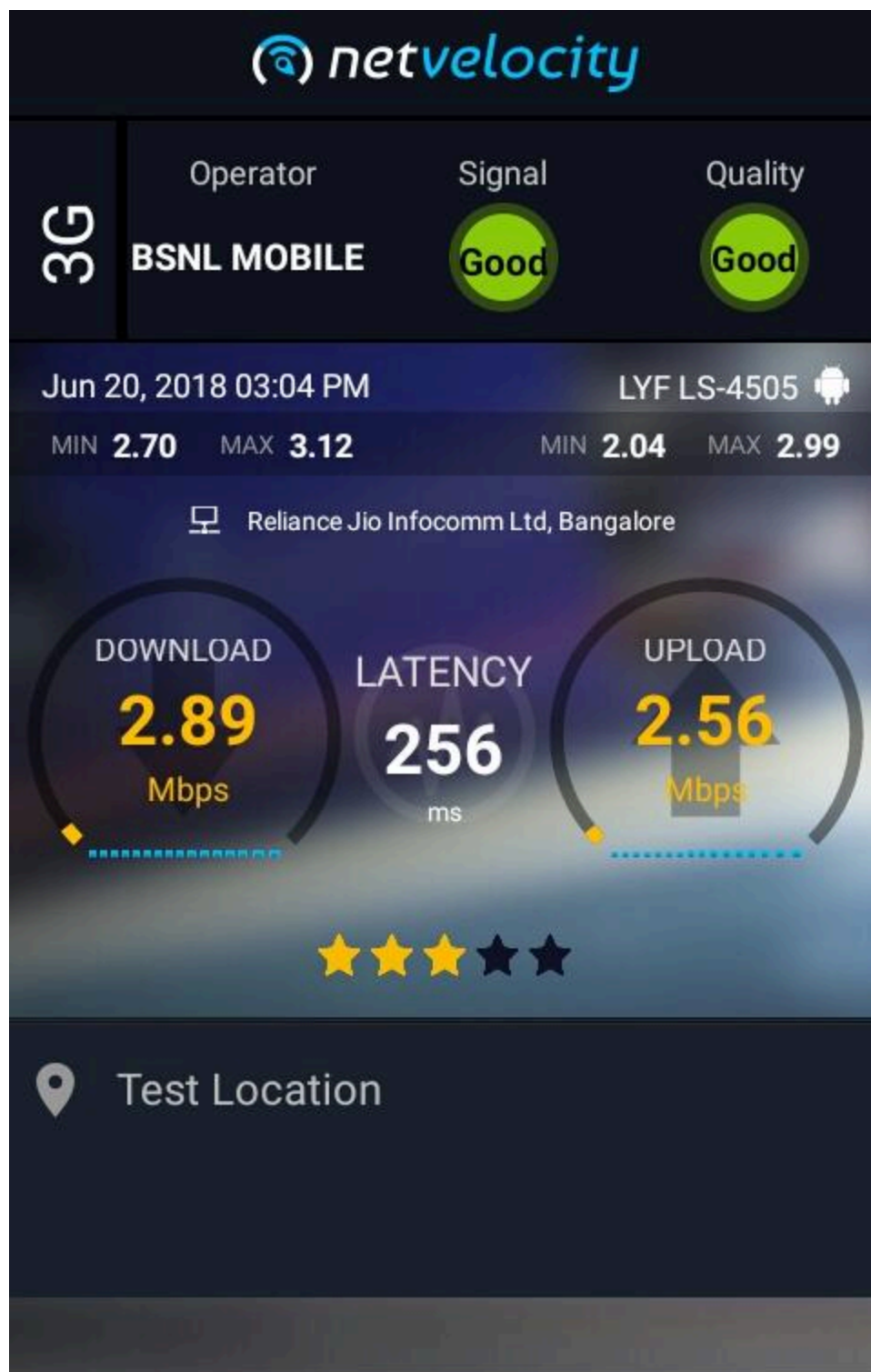
1.77

Mbps



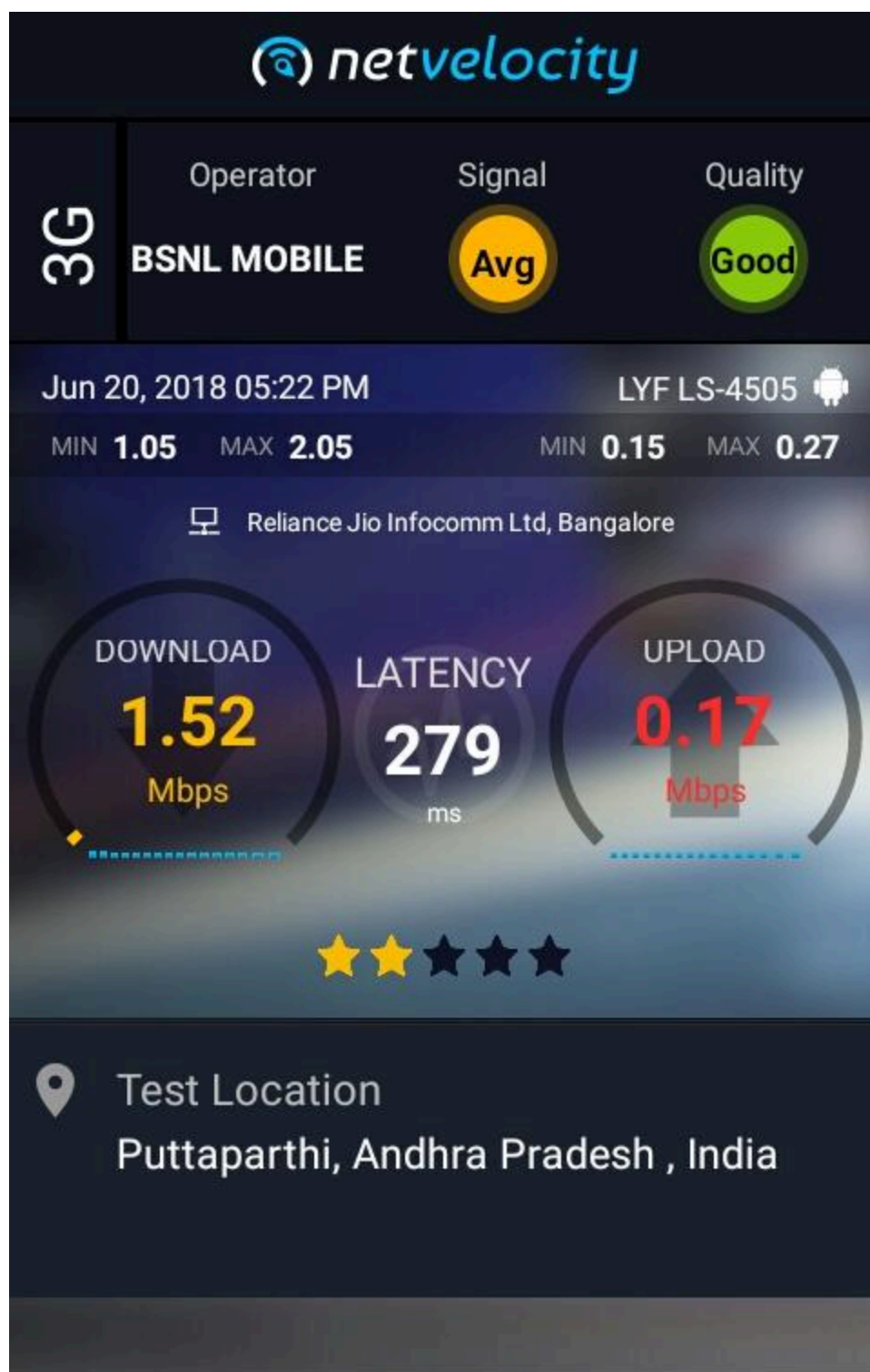
Test Location

Puttaparthi, Andhra Pradesh , India



4.36 Mbps, 3.08 PM, 20th June 2018 <http://www.speedtest.net/result/7407756487>

Speedtest on smartphone in my bedroom (not in balcony/sit-out where signal reception is usually better):



Now the point is that even inside the room it is over 1.5 Mbps! That opens up a possibility of me using an additional BSNL 3G SIM on my USB Huawei 3G/4G modem-dongle and opting for an Internet only BSNL 3G plan for it.

=====End of Post=====

Cancellation of Airtel Prepaid SIM involves blocking SIM and waiting for 90 days of no usage for automatic disconnect of Airtel number; Published: 07 Feb 2018

Post link (URL) on blog:

<https://ravisier.wordpress.com/2018/02/07/cancellation-of-airtel-prepaid-sim-involves-blocking-sim-and-waiting-for-90-days-of-no-usage-for-automatic-disconnect-of-airtel-number/>

As mentioned in a previous post, Unhappy experience with Airtel Rs. 1500 cashback offer on Karbonn A40 smartphone; Internet Speed Tests with A40 + Airtel AND JioFi3 Router + Jio, <https://ravisier.wordpress.com/2018/01/23/internet-speed-tests/>, last updated on 4th Feb. 2018, I had returned the Karbonn A40 phone and Airtel SIM to the vendor a few days back (on or around 25th Jan. 2018).

I was effectively returned the money for both Karbonn A40 phone as well as Airtel SIM & plan, by the vendor in Puttaparthi. I was very satisfied by this kind co-operation of Puttaparthi vendor. He said that the cancellation of Airtel SIM will take some time but that the process has been initiated from his side.

On 4th Feb. 2018, he told me that the cancellation of SIM has been done as the Airtel distributor/officer/contact had returned the money for Airtel SIM and first Airtel plan to him which he thought implied that the SIM has been cancelled.

On 5th Feb., I wrote to Airtel support email id 121@in.airtel.com, seeking confirmation that Airtel had cancelled my Airtel SIM 9xxx and that the number is no longer associated with my name and Aadhar number.

I got a call from Airtel support on 6th Feb. in the morning where I was told that the number is still active in my name as a prepaid connection! I requested an email response with this info. which I could then forward to the vendor.

I got the email a little while later, forwarded it to the Puttaparthi vendor, and spoke to him over phone about it. He said he would check with his Airtel officer/contact/distributor.

When I visited him in the evening he said that he now had my Airtel SIM with him (perhaps the Airtel distributor returned it to him). He told me that the Airtel distributor/officer told him that cancellation is a long process ...

To cut a long story short, in front of me, the vendor called up Airtel support and asked them about this cancellation. He later passed the phone to me. I spoke to the support person who then put me on to her supervisor. I explained the matter again to the supervisor expressing my desire to cancel the SIM.

The supervisor told me that such an option is not available. Instead he said that he could block the SIM now and that the SIM number would automatically get allocated to some other SIM after 3 months (without recharge). So that's the option I took.

After finishing the call, the vendor helped me confirm that my Airtel SIM and number had been blocked by attempting to call from a phone with that SIM, which did not go through. Then he attempted to call my Airtel SIM number to which he got the message that the number is not valid.

I wrote to Airtel email support about this and sought a confirmation email from them that the number is blocked. I also wrote the following in the email to them:

I will be keeping the SIM with me (the vendor gave it back to me) in a safe place for three months. After that I will check whether the SIM number has been allotted to somebody else. If so, then I would know that the number is no longer associated with my name. That would then effectively be a cancellation of this Airtel SIM associated with my name.

So this is the process I will be following for the effective cancellation of my Airtel SIM.

— end extract of my mail to Airtel support —

I got a call from Airtel support today (7th Feb.) morning. The support person first confirmed that I wanted to do this cancellation and then essentially agreed that the process I have mentioned above is the right one for cancellation.

I sought an email response from her as a record, which she agreed to, and which I received a little while later. The mail confirmed that the Airtel number has been blocked. It further said that the (my) Airtel number would disconnect if there is no usage on it for 90 days, and the account does not have Rs. 20 or above balance, for service extension of 30 days which has a charge of Rs. 20. [As of now, I think my Airtel number/account has 0 Rupees balance, and, of course, I plan to keep it that way.]

At that time the mail indicated (using slightly confusing words) that my service would be disconnected permanently.

So what I need to do now is to put the SIM card in a safe place to prevent any inadvertent usage of it by anybody. Then wait till around a few days after 7th of April 2018, say 10th of April 2018, and on that day, send an email to Airtel seeking confirmation that my Airtel number has been permanently disconnected. I was told that after that permanent disconnection, the number would be recycled to be used by another, new I guess, SIM card.

Hmm. What a complicated process to cancel the Airtel prepaid mobile number! I wanted to understand this process and want to confirm that my name is not associated with the number after 90 days non-usage, due to security considerations associated with mobile SIM numbers (in India).

Ideally speaking, the process to disconnect a mobile number should be simpler and quicker, especially as (Indian) government has introduced strict identity checks with mobile numbers. But I don't want to spend time on trying to push for such changes in the process for disconnection of a mobile number in Airtel. Perhaps it is similar in other mobile service provider companies in India too, but I am not sure about that.

=====End of Post=====

**Was able to use my first of eight Rs. 50
free cashback vouchers from Jio;**

Published: 05 Feb 2018

Post link (URL) on blog:

<https://ravisier.wordpress.com/2018/02/06/was-able-to-use-my-first-of-eight-rs-50-free-cashback-vouchers-from-jio/>

On 22nd Jan 2018, I had bought a Rs. 399 Jio plan giving 1 GB per day for 84 days for one of my two Jio SIMs/numbers – the 8xxx one. I was promised 8 Rs. 50 cashback vouchers (50 * 8) for that purchase.

Now I bought the plan using my PC from jio.com website. At that time the 8xxx SIM was being used in my Huawei 4G USB dongle device.

I could not see the cashback vouchers in my jio account display on jio.com. Jio support as well as Jio website (if I recall correctly), informed me that the cashback vouchers can be viewed and redeemed or used only via MyJio app.

Now MyJio app does not run on Windows. I tried using an Android emulator (Bluestacks) on Windows and ran MyJio app within it. The MyJio app loads up and shows some features but clicking on My Vouchers related links (e.g. View) results in a window being opened up which keeps on showing in-progress buttons without putting up a list even on waiting for many minutes. Perhaps the MyJio app needs a SIM which the Android emulator does not provide to it, and so the Vouchers display gets stuck.

When I got my LYF C459 smartphone device (running Android), I ran the preloaded MyJio app on it which detected the 9xxx SIM I used on the smartphone and, if I recall correctly, automatically created a 9xxx account in MyJio. To this account I was able to link the 8xxx SIM/number account and switch to that 8xxx account. After that, listing MyJio's vouchers showed the free 8*50 vouchers (for 8xxx number).

<https://www.jio.com/en-in/faq/100-percent-cashback-offer/how-can-i-redeem-the-voucher-received-for-100-percent-cashback-offer.html> informs us that "You can redeem the Jio Diwali cashback vouchers of Rs. 50 each from 20th Nov. 2017 using MyJio app. These vouchers can be redeemed, one at a time, against recharges of Rs 309 & above plans and against Rs 91 & above data add-ons." I thought the same condition would apply to the Rs. 50 cashback vouchers I got in Jan. 2018 (different from Jio Diwali cashback vouchers).

I also read elsewhere that the way the cashback vouchers get used is that if we go through the normal buy process for plans/Add Ons that satisfy above criteria using MyJio app, the pay amount window will show an automatic discount of Rs. 50 by applying one of the Rs. 50 cashback vouchers available in the Jio account.

I also realized that I may have to use the 8xxx SIM on the phone where I am using My Jio app to buy this plan/Add On.

So I swapped the Jio SIMs between the LYF C459 phone and the Huawei 4G USB dongle such that the LYF phone had the 8xxx SIM and the Huawei 4G USB dongle had the 9xxx SIM.

Today, 5th Feb. 2018, I used MyJio App on LYF C459 phone (having 8xxx SIM) to buy a Rs. 101 Add On (giving 6 GB data with same validity as base plan). As expected, the pay amount window showed a Rs. 50 voucher discount (1 of 8 vouchers available on 8xxx number) with the result amount to be paid being Rs. 51. I paid that amount using Paytm which already had Rs. 79 as balance and which balance then came down to Rs. 28.

So with same Jio SIM as the one that has the vouchers, being the primary SIM in the LYF phone, MyJio app on the phone applies the cashback voucher as expected and quite smoothly. The 6 GB plan became active immediately as I had exhausted the 399 plan's 1 GB per day

quota, and the remaining part of the 1 GB Add On bought a few days earlier. This then delivered 4G speed data to my PC via HotSpot on LYF C459 device.

Note that the 8xxx SIM account also shows a 5 GB Add On data pack which came from a voucher/coupon that I redeemed a few days back and which has been described in earlier posts on this blog. That 5 GB Add On data is shown as active but is still not coming into play. I had used MyJio app. on LYF phone with 9xxx SIM (at that time) to activate the 5 GB Add On data booster on Huawei 4G USB dongle with 8xxx SIM (at that time), using MyJio app's linked account feature. [Primary account of MyJio app then was and still is the 9xxx number and linked account was and still is the 8xxx number.] That may have tripped it up, due to which the 5 GB Add On is not coming into play.

So the learning is that MyJio app works for voucher discount if the voucher is available on the primary SIM (number) which is loaded on the LYF C459 device which is running the MyJio app. I do not know whether the same will work for other scenarios like SIM with vouchers being on another device (e.g. Huawei 4G USB dongle connected to PC) but its voucher being attempted to be discounted through MyJio app on device with a different SIM.

=====End of Post=====

Hotspot feature of (Jio) LYF C459 4G smartphone using Jio 4G SIM, works well as WiFi Internet connection on PC desktop; Published: 03 Feb 2018

Post link (URL) on blog:

<https://ravisier.wordpress.com/2018/02/04/hotspot-feature-of-jio-lyf-c459-4g-smartphone-using-jio-4g-sim-works-well-as-wifi-internet-connection-on-pc-desktop/>

My first usage of the Hotspot feature of my new LYF (Jio owned company) C459 low-price 4G smartphone as my WiFi Internet connection on PC desktop was disappointing! [I bought it from Jio.com website for Rs. 3899.] In speed tests (fast.com and Ookla), I typically got poor speed of tens of Kbps and sometimes low hundreds of Kbps on the PC, though at times it gave healthy Mbps speeds. On the LYF phone itself speed tests gave me good Mbps speeds!

I thought there was something wrong with the LYF C459 Hotspot feature or that I had tripped up on some configuration issue. I browsed the net for solutions and tried some suggested solutions to improve HotSpot speed on LYF phones but that did not solve my problem.

Later I realized that it was a large automatic Windows Update download (feature update to Windows 10) in order of GBs, that hogged the WiFi connection from PC desktop to LYF phone as I had not set that connection as a metered connection!

After setting the WiFi connection as metered, Windows Update did not automatically use that connection for its big download. That then resulted in healthy Mbps speeds being shown in speed tests on PC desktop when connected via WiFi to the Hotspot on LYF C459 phone device. I have not checked how long the full battery charge lasts when I am continuously using the LYF C459 as a Hotspot device. But I think it will last for a few hours. I also have the option of using

the Hotspot while the phone device is being charged.

Important health note: I suffer from breathing related allergies which includes an allergy to even small amount of chemical gas released by rechargeable batteries in devices like smartphones and laptops. In my short usage of this LYF C459 phone (uses 2000 mAH Chinese company manufactured Lithium ion battery), I think that its battery does release small amount of chemical gas which triggers my allergy. So I need to use it in a manner in which I do not get exposed too much to any chemical gas it releases. But that's my individual health issue which may not be an issue for most people.

Detailed Log

Readers who are not interested in the detailed log may please skip reading the rest of this post.

1st Feb. 2018: I think using Hotspot from LYF C459 phone has two serious problems:

1) The speed available at PC via the Hotspot is usually poor (hundreds of Kbps, sometimes even tens of Kbps) though at times it does get into healthy Mbps range.

2) Using the Hotspot seems to consume Data (balance) from Jio account very, very fast! Today I have used up over 90% of 1.5 GB daily quota from the 9xxx number! Yes, I did do some app update downloads but that was maybe three or four such updates. They were in tens of MB. That would make it say 80 MB. And some speed tests on phone using fast.com and Net Velocity. Add 200 MB making it around 300 MB.

For the remaining 1 GB of data usage I think it was a few speed tests on desktop (say 100 MB) and 20 to 30 minutes of youtube video. That should not have taken up a total of 1 GB!! I suspect that the Hotspot app is responsible for high data usage without providing that data at good speed to the WiFi client.

Maybe my above tentative views will be proved wrong down the line. But I do think that JioFi 3 router is far superior as Jio 4G Internet access device as compared to LYF C459 phone being used for that particular purpose.

2nd Feb. 2018, 00:35 (12:35 AM)

Around 10 to 15 minutes ago, I tried out the LYF C459 Hotspot again. But this time before connecting to the Hotspot from the PC (over TPLink USB WiFi adapter), I ran the BitMeter program.

The 9xxx number (SIM in LYF C459) had around 60 or 80 MB remaining from its 1.5 GB. Initially even though I was not downloading data from the browser (or little amt. automatically from tabs having Facebook, gmail etc.) I saw a lot of downloading being shown on the BitMeter window. Roughly between 0:20 and 0:22, a total of around 60 MB got downloaded+uploaded (0:20 – 4.94 MB, 0:21 – 29.8 MB, 0:22 – 24.5 MB, 0:23 – 0.6 MB, 0:24 – 1 MB). At 0:23 perhaps the 4G Data availability had dropped to 0. [Later jio.com did show 0 or very close to it (sometimes it shows 0.1 but the speed drops to post FUP speed of around 64 Kbps.)]

There also was a Notification on the PC about some system update download.

I then checked whether the Wifi connection to HotSpot was marked as metered. It was not! So it is possible that large consumption of data on Hotspot on 1st Feb. 2018 was due to Automatic download.

I then set the connection as metered (to prevent automatic download on that WiFi connection) using Administrator login.

On checking now (at 00:49 AM), Windows Update states the following:

Updates are available. We'll download them when you are not using a metered connection, or

you can download 1.18 GB-4.50 GB using your current data connection (charges might apply).
You might still need to connect to unmetered Wi-Fi for some updates.

— end Windows Update message —

Around 0:30 or so, jio.com showed data availability renewal on the 8xxx number (Huawei USB 4G dongle) but not on the 9xxx number! Strange that the renewal time seems to be different between the two Jio numbers!

At 0:53 AM, jio.com showed that 1.5 GB Data had become available on LYF SIM (9xxx).
Now the PC is connected to LYF Hotspot via WiFi.

At 0:55 AM on PC, fast.com full run test gave 8.2 Mbps! [Excellent results]

At 0:59 AM on PC, Ookla Speedtest full run test gave 8.56 Mbps DL and 3.84 Mbps UL! Server: You Broadband India Hyderabad [<http://www.speedtest.net/result/7021014342>] [Excellent results; Also saw that Bitmeter is showing similar speeds as reported by Ookla Speedtest during the test.]

At 1:02 AM on PC, fast.com full run test gave 6.5 Mbps.

At 1:04 AM on PC, Ookla Speedtest full run test gave 7.46 Mbps DL and 3.79 Mbps UL. Server: You Broadband India Hyderabad, <http://www.speedtest.net/result/7021028998>.
Hmm. So I am getting excellent Hotspot speed now. Data usage on jio.com for this 9xxx number is not reflected yet (1:07 AM) as it is still showing 1.50 GB out of 1.50 GB.
Should check it first thing tomorrow after I wake up. It should show a data usage that reflects the above 4 tests. I have not done any other significant web activity (the jio.com page visits and refresh to see data usage should be minor data usage).

2nd Feb. 2018 10:49 AM

Checked Usage data for 9xxx number.

It shows 1.42 GB available from 1.50 GB.
Jio.com website usage details are as follows:
Consumed : 79.21 MB

02 Feb 2018 00:35:28

...

Consumed : 66.09 MB

02 Feb 2018 00:18:18

— end usage details from jio.com —

The second entry of 66.09 MB and 00:18:18 which I interpret as start time of Internet connection, seems to correspond to around 60 MB getting used from 00:20 to 00:22. Some or most of the additional usage may be that done after 0:22 (till next connection possibly initiated at 00:35) at post 4G speed of 64 Kbps.

At around 00:35 the earlier entry below tells us that the 1.5 GB per data had got renewed. So

the first entry above of 79.21 MB usage for connection possibly initiated at 00:35, corresponds to data usage from the two fast.com and two Ookla Speedtest speed tests done after 00:35, from 00:55 AM to 01:04 AM. Note that in the Jio.com data usage details above there is no entry after 00:35 entry which leads to the conclusion that the 00:35 timestamp in the jio.com data usage details corresponds to start of Internet connection (and NOT end of Internet connection). Did some speed tests now (11:09 AM). The LYF mobile is on the window sill resting against mosquito net (and glass sliding pane on the balcony side; so sandwiched between the two panes) with Hotspot on. PC is connected to LYF Hotspot via TP-LINK USB WiFi adapter. Speed test is on PC desktop

At 11:09 AM on PC, fast.com full run test gave 2.6 Mbps

At 11:15 AM on PC, Ookla Speedtest full run test gave 1.0 Mbps DL and 1.6 Mbps UL. Server: You Broadband India Hyderabad, <http://www.speedtest.net/result/7022155163>.

At 11:17 AM on PC, fast.com full run test gave 2.3 Mbps

At 11:18 AM on PC, Ookla Speedtest full run test gave 4.11 Mbps DL and 1.31 Mbps UL. Server: Jio Hyderabad, <http://www.speedtest.net/result/7022160014>.

At 11:20 AM on PC, Ookla Speedtest full run test gave 1.76 Mbps DL and 0.81 Mbps UL. Server: ACT Fibrenet Hyderabad, <http://www.speedtest.net/result/7022160014>.

Hmm. So speeds are Mbps speeds as against Kbps speeds which is good enough for me during daytime (off peak hours). That I think clearly shows that LYF C459 Hotspot is good enough for me from speed of connection point of view. It has also been reliable during these tests so far without any connection drop. The critical point is that the setting of the connection to Metered connection has prevented Automatic Update of Windows to use that connection.

I wonder whether manually doing the Update will allow this metered connection to be used. Just tried it. All Settings (from bottom right icon click) -> Update -> Download.

It started the update on this metered connection. Bitmeter shows DL speeds in the range to 1 to 4 Mbps. Note that the Windows update download started from around 36% (which it had done yesterday as part of automatic download).

Now I tried fast.com on PC (connected to LYF Hotspot via WiFi) just to see what it reports (while Windows Update download is going on in the background). It started off very slow with < 10 Kbps, moved on to tens of Kbps, and then into low hundreds of Kbps, before finishing with a final report speed of 260 Kbps. This corresponds to what I was getting yesterday afternoon/evening when without my knowledge, Windows Update download was going on in the background! That explains it. So satisfying to know why I got such poor speeds yesterday afternoon/evening.

BTW just saw the jio.com usage details for 9xxx number on 1st Feb. 2018 which gives us the clear picture. Here are the entries (deleted the Rs. 0 part as it is noise for this analysis):

Consumed : 33.57 MB

01 Feb 2018 16:38:39

Consumed : 234.85 MB

01 Feb 2018 15:29:33

Consumed : 1.00 GB

01 Feb 2018 14:52:11
Consumed : 70 KB

01 Feb 2018 14:50:32
Consumed : 60 KB

01 Feb 2018 14:50:03
Consumed : 157.16 MB

01 Feb 2018 14:36:56
Consumed : 23.13 MB

01 Feb 2018 11:34:49

— end of Usage Details entries for 1st Feb—

The 14:52 and 15:29 connections took up 1 GB and 234 MB! That's what ate up most of the 1.5 GB data quota!

—
A little before 12:15 PM (2/2/18), the BitMeter display showed a big drop in connection speed (almost 0 Mbps as against 1 to 4 Mbps earlier) which continued for few minutes and so was not a transient drop . Tried checking usage in jio.com but the website was opening too slowly (I think bulk of post FUP 64 Kbps speed was being taken up by automatic Windows update; Did not see an option to pause Windows Update in the Settings->Update window). Disconnected from Hotspot. Switched to Huawei USB 4G Jio connection (8xxx). BitMeter speeds picked up to around 1 Mbps. Checked jio.com usage at 12:15 PM for 9xxx and found it to show 0 MB available from 1.5 GB. So Windows Update took up all of the remaining around 1.4 GB Data available for the day in 9xxx Jio connection. Jio.com Usage details have not been updated so far to show usage details for the 1.5 GB consumption on 9xxx done today. Windows Update had moved from around 36% to around 70%.
At 12:24 PM, Windows Update is showing 73% of downloading updates completed.

At 12:27 PM, Windows Update is showing 74% of downloading updates completed.

—
5:15 PM entry

Some time down the line, the 1 GB quota per day of the 8xxx Jio number also got exhausted with some percentage (around 15 to 20 percent) of the Windows Update download yet to be done. The email notification for 8xxx number said, "You have used 100% of your high speed internet quota from Data account of MRP 399 on your Jio Number 8[xxx] as of 02-Feb-18 15:49 Hrs."

In jio.com the 5.00 GB Add On entry became the 1 of 2 entries under Summary of 8xxx number, with 0.01 MB being shown as available from 1 GB per day 399 plan. But the Internet speed continued to the post FUP speed tens of Kbps or low hundreds of Kbps! So while the 5 GB Add On entry was shown as an active plan and prioritized as the 1st of 2, with the 399 plan being lowered in priority to 2nd of 2, the 5 GB Add On did not come into play!
Called up Jio support number 1800-889-9999 and eventually reached a human support guy.

Explained the issue to him but he was not able to give a quick solution. Instead he made a Service Request, Prepaid VoLTE-8xxx SRxxx, which shows up in jio.com as Data-Slow Speed, and said that it would be responded to within a max. of 48 hours! The call took quite some time with me running a fast.com test and telling him about the low speeds.

As I thought about it later on, I felt that as it is a freebie, jio.com has some hoops introduced which trip it up. Quite unfair of jio to give or lure the customer with free vouchers and then make it cumbersome and bothersome to use those vouchers! But such is life!

Decided to try using a new Add On paid with my own money. Went for a Rs. 21 Add On giving 1 GB more with existing plan's validity. That got activated on its own as soon as I bought it. Using fast.com to check the speed gave me a healthy 4.2 Mbps! Checked that the 1 GB Add On had got listed as 2nd of 3 in Summary of 8xxx plans.

Then Windows Update seem to continue its download with BitMeter showing high usage. Windows Update finished 100% of download of update (before 5:15 PM) after which BitMeter usage dropped. Bit Meter usage last sustained peak was at 5:10 PM which may be the time when Windows Update finished (100%) of download.

Checking jio.com balance at 5:34 PM shows 563.74 MB of Data available from 1 GB Add On (listed as 2nd of 3 active plans under Summary). Note that its expiry is same as the base 399 plan's expiry which is 18th April 2018.

At 5:35 PM All Settings-> Update-> Windows Update window shows the message, "Preparing to install updates 54%". So while the download has got done, the update process is still ongoing.

At 5:51 PM, jio.com shows 471.73 MB Data available of 1 GB Add On pack. I also got a Notification email about 50% Data exhaustion of this Add On.

3rd Feb. 2018, 12:33 PM

Jio.com shows that the 1 GB Add On purchased yesterday has 297.55 MB left and that it is placed in 3 of 3 position. Current data usage is from the 1 GB quota of the 399 plan which is placed in 1 of 3 position with 868.49 MB being free. The 5 GB Add On is placed in 2 of 2 position with no additional news about resolution of problem of it not coming into play yesterday. Also yesterday (2nd Feb.) late evening the major Windows update process completed with one or two automatic reboots at least. The user interface of Windows system on PC has now changed a little. So this is a major feature update from Windows delivered via Windows update. That is why perhaps the update size was so big – running into some GB.

=====End of Post=====

LYF C459 low-priced 4G Android smartphone and its setup; Published: 03

Feb 2018

Post link (URL) on blog:

<https://ravisier.wordpress.com/2018/02/04/lyf-c459-low-priced-4g-android-smartphone-and-its-setup/>

I ordered a (Jio owned) LYF C459 4G smartphone for Rs. 3899 from Jio Website on 28th Jan. 2018.

Key specs of the LYF C459 device are: 4.5 inch touchscreen display, Quad-core Qualcomm Snapdragon 210 processor, Dual SIM (4G + 2G), 1 GB RAM, 8 GB Internal storage expandable via micro SD Card to 128 GB, 5 MP and 2 MP cameras, Android 6.0.1 and 2000 mAH Li-Ion battery.

I received the phone by courier on 31st Jan. 2018 morning. After tripping up once, I inserted the SIM in my JioFi3 router (9xxx) into the phone using a microSIM holder to hold the NanoSIM, which was recognized by the device software.

Specified my regular gmail id in the initial setup process. That got completed smoothly.

Some apps including MyJio app were preloaded on the device. Had to update MyJio app which went through smoothly. MyJio app picked up 9xxx number of the SIM as main account. Linked my 8xxx number (used on Huawei 4G USB dongle) to it. Then I was able to view the vouchers associated with 8xxx number! That was good as these vouchers are shown and can be used only via MyJio app (and NOT on jio.com website).

As the device is the rock-bottom price device in LYF phones, it has only 1 GB RAM and ran the software rather sluggishly. So I deleted some preloaded apps which I felt I don't need, which freed up some RAM as well as storage space.

Preloaded Chrome browser ran well showing fast.com speed test website properly. Decided to delete preloaded OperaMini.

But I could not remove my regular gmail id from the phone! That was upsetting as I do not want to use my regular gmail id (and other ids like Facebook id) on this phone due to security concerns.

Factory reset promised to remove all setup info. that I had provided and so did factory reset.

Restart and setup after factory reset seemed to be slower than setup that I did in the first attempt. Created a new gmail id for the Android phone and completed the initial setup with that gmail id.

I repeated some of the earlier setup steps but with more confidence and knowledge. I tripped up on the Hotspot feature but that was due to Automatic Windows Update download getting used on the WiFi connection to the Hotspot. Once I figured the issue out and resolved it, the Hotspot feature worked well.

Overall the phone meets my limited needs for it – primarily as an Internet access device and usage of MyJio app related freebies/cashback vouchers. I also may use its free phone calls facility but the health issue that I have given below may hold me back from using that. So far I have not tested the phone call facility of this LYF C459 device. I use an old Nokia E-52 3G phone as my primary phone device.

Important health note: I suffer from breathing related allergies which includes an allergy to even small amount of chemical gas released by rechargeable batteries in devices like smartphones and laptops. In my short usage of this LYF C459 phone (uses 2000 mAH Chinese company manufactured Lithium ion battery), I think that its battery does release small amount of chemical gas which triggers my allergy. So I need to use it in a manner in which I do not get exposed too

much to any chemical gas it releases. But that's my individual health issue which may not be an issue for most people.

Detailed Log

Readers who do not want to know the details may please skip reading the rest of this post.

Key specs from <https://www.jio.com/shop/en-in/c459-black/p/581109213>

C459 BLACK

- 11.43 cm (4.5) IPS display
- 1.3 GHz Quad Core Processor with 1GB RAM
- USB OTG support | 8GB internal memory with expandable memory up to 128GB—

PEN DRIVE COMPATIBLE

Access and share media files on the go. With the USB On-the-go (OTG) support one can easily access and share photos, movies and music without compromising the speed of the phone.

PIXEL MOMENTS

5MP rear and 2MP front cameras to capture the colourful moments of life. The 5MP rear camera with face detection is apt to capture vibrant images. The 2MP front camera with Beauty mode is perfect for those special selfies.

IMPRESSIVE DISPLAY

LYF C459 comes with IPS display for wide angle views. The 11.43 cm (4.5) screen is perfect to watch movies, enjoy games and set up video calls.

MULTI-TASKING MADE EASY

Powered by 1.3GHz Qualcomm® Snapdragon TM quad-core processor and 1GB RAM, C459 is the preferred phone for seamless multitasking. The phone is supported by an internal memory of 8GB expandable up to 128 GB and 2000mAh battery.

SMART GESTURE CONTROL

Use gesture control for easy handling of your phone. Flip to mute, double click to wake screen, slide up to unlock and slide down to launch camera. Assign gesture characters C, E, O, W to launch apps. Write 'm' on locked screen to play and pause music or slide right/left to navigate songs

TRUE 4G

High definition voice, video calling over LTE network. Switch anytime between audio and video call. Instant call connect. *TRUE 4G features/benefits are network dependent. T&C apply.———

2G Yes

2G Bands GSM 900/1800/1900

3G Yes

3G Bands UMTS WCDMA BAND1 (2100)/ BAN00448(900)

4G Yes-LTE

4G Bands LTE-FDD BAND3(1800)/ BAND5(850) LTE-TDD BAND40(2300)

Audio Formats MP3, MIDI, WAV, AMR, AAC, AAC+ Audio Jack 3.5mm
Battery Capacity 2000 mAh Battery Type Lithium Ion(Li-Ion)
Bluetooth Yes Bluetooth Version v4.0
Colour Black
Display Type LCD
EDGE Yes
Email Yes
Expandable Memory Up to 128 GB
Flash Type Rear LED Flash
FM Radio Yes
GPRS Yes
In The Box Handset, Removable Battery, Earphone, Charger Adaptor, Micro USB Cable, User Manual, Warranty Card
Internal Storage 8 GB
Loud Speaker Yes Memory (RAM) 1 GB
Operating System Android Marshmallow 6.0.1
Primary Camera 5 MP
Processor Quad-Core 1.3GHz
Screen Resolution 480×854 pixels Screen Size (Diagonal) 11.43 cm
Secondary Camera 2 MP
Sensors GyroSensor, Ambient Light, Accelerometer, Proximity
SIM Type Dual SIM
Standby Time Up to 160 hours
Talk Time Up to 8 hours (4G)
USB USB 2.0, USB OTG support, Micro USB 2.0
Video Formats MP4, AVI, MKV, WMV
Web Browser Yes
Wi-Fi Yes
SAR Information Head 0.365W/Kg SAR Information Body 0.462W/Kg
— end extracts from jio.com webpage —
Extracts from https://www.amazon.in/gp/product/B074HZVPZ6/ref=ask_gl_qh_dp_hza, LYF Amazon India page selling this model.

LYF C459 (Black, 1GB RAM, 8GB ROM)

Price: 5,079.00 Sale: 3,849.00 [Ravi: With Free Delivery, so Rs. 50 cheaper than jio.com sale price. I preferred jio.com website and was willing to pay Rs. 50 extra for that website based purchase. end-Ravi]
Product description

The phone comes with a 4.50-inch touchscreen display with a resolution of 480 pixels by 854 pixels at a PPI of 218 pixels per inch. The Lyf C459 is powered by 1.3GHz quad-core Qualcomm Snapdragon 210 processor and it comes with 1GB of RAM. The phone packs 8GB of internal storage that can be expanded up to 128GB via a microSD card. As far as the cameras are concerned, the Lyf C459 packs a 5-megapixel primary camera on the rear and a 2-megapixel front shooter for selfies. The Lyf C459 runs Android 6.0.1 and is powered by a 2000mAh non removable battery. It measures 132.00 x 66.00 x 9.30 (height x width x thickness) and weigh 139.00 grams. The Lyf C459 is a dual SIM (GSM + CDMA and GSM + CDMA)

smartphone that accepts Micro-SIM and Nano-SIM. Connectivity options include Wi-Fi, GPS, Bluetooth, USB OTG and 4G (with support for Band 40 used by some LTE networks in India). Sensors on the phone include Compass Magnetometer, Proximity sensor, Accelerometer, Ambient light sensor and Gyroscope.

— end extracts from amazon.in webpage —
1st Feb. 2018, 00:05

Yesterday (31st Jan. 2018) morning I received the Jio LYF C459 device via courier. Given below are some key points about the setup I tried out so far.

1. The nano SIM (I believe it is called Nano SIM) in the JioFi3 router, 9xxx, was inserted as is in the LYF C459 device SIM1 slot and failed to be recognized. After some frustration, I tried out using the micro SIM holder template that was there in the Jio SIM sachet to hold the nano SIM and inserted the micro SIM holder + Nano SIM in SIM1 slot of C459. This time it picked up the SIM properly.
2. On setup I provided my regular Gmail Id. It needed a PIN code verification which I was able to do. I had thought that I will first provide my regular gmail id to get things going, but later delete the account (for safety purposes). However, later deletion/removal of the account always tripped up saying that administrator is preventing the removal. More on that later.
3. MyJio app. had to first be updated. On running it (after update), it automatically picked up the first SIM details and plan (perhaps I also logged in with my Jio Id). Later I added the other SIM 8xxx (used in Huawei 4G USB dongle). It needed a PIN verification – I was able to get the PIN from SMS sent to 8xxx number via MobileParter program on PC.

My Vouchers for the 8xxx number lists the 50*8 vouchers (got from purchase of Rs. 399 plan sometime in Jan 2018) as well as another 5 GB or something like that add on voucher. It was good to see that MyJio app. showed this voucher credits properly (note that the website jio.com does NOT show the vouchers and that these vouchers can be redeemed only through MyJio app on mobile device).

4. Hotspot was very slow in my initial attempts. Later it showed better speed. Perhaps there was some setup issue that tripped it up.
5. The C459 device is a rock-bottom price LYF device and so its RAM of 1 GB was almost full. Further the device seems to have a poor response speed. So I deleted the following apps to free up memory and storage: JioCinema, Yatra, Opera Mini, JioMags, ...
6. Net Velocity app forced an update on running it but after the update was downloaded, failed to run it claiming that some security setting needs to be changed. I solved the issue by updating from Google Play store where this security issue did not crop up.
7. Fast.com on Chrome shows up properly. Opera Mini has some issues with fast.com display. Decided to delete Opera mini and use only Chrome.
8. Downloaded and installed Ookla Speedtest app. But after factory reset, I have not downloaded it again as I think Net Velocity and fast.com on Chrome may be enough as speed tests.
9. Simply could not remove my regular gmail account from the phone. So went in for factory reset. Restart and setup after factory reset seemed to be slower than setup that I did in the morning. Created a new gmail id for the Android phone. I do not want to have my regular gmail, Facebook and other accounts on this mobile device as of now due to security concerns that I have, of the phone being misplaced or lost at which time my main accounts could be vulnerable

to hacking or worse.

4th Feb. 2018

After above-mentioned factory reset (point 9), I repeated some of the earlier steps but with more confidence and knowledge. Barring the Hotspot feature, other essential features that I needed worked. The Hotspot feature did work but I got blindsided by a large automatic Windows Update from my PC over the WiFi connection to the Hotspot, leading to poor speed test results on desktop PC. Once I figured that out and resolved the issue by making the WiFi connection to the Hotspot a metered one (which then does not get used automatically by Windows Update), the speed test results on desktop PC WiFi connection to C459 phone's Hotspot gave healthy Mbps speeds.

Overall the phone meets my limited needs for it – primarily as an Internet access device with small usage of its free phone calls facility as well as MyJio app related freebies/cashback vouchers.

P.S. Dual SIM on this phone (and other low priced Dual SIM phones) means that one SIM can be 4G but the other SIM will operate only as 2G. In other words, in these low-priced phones the Dual SIM feature does not allow for dual 4G SIMs to be used at the same time. But I think one can change which SIM of two 4G SIMs should be used as primary (4G) with the other becoming 2G. But I have not tried that out.

=====End of Post=====

Jio Data Add On packs are low-priced and interesting options when one exhausts per day data quota under base plan like 399 1.5 GB per day plan; Published: 03 Feb 2018

Post link (URL) on blog:

<https://ravisier.wordpress.com/2018/02/04/jio-data-add-on-packs-are-low-priced-and-interesting-options-when-one-exhausts-per-day-data-quota-under-base-plan-like-399-1-5-gb-per-day-plan/>

What should one do when one exhausts the per day data quota on a Jio plan like Rs. 399 plan giving 1.5 GB per day for 84 days? [Before 26th Jan. 2018, the 399 plan gave 1 GB per day for same period of 84 days.] Note that after the per day quota is exhausted (and there is no other active plan) Jio drops the speed on the connection to around 64 Kbps (but, as perhaps an exception, gives better speed for jio.com website where one can purchase new plans or Add Ons).

One standard option is to postpone work needing good 4G Internet speed (Mbps speeds) to the next day when the daily data quota will be renewed (e.g. to 1.5 GB under 399 plan). I have used this approach in the past.

But there is an interesting and low-priced option of using Data Add On packs also called Booster packs, which give more data with same validity as that of the base plan. Given below are the 4 options available on & after 30th Jan. 2018 (Source: <http://jep-asset.jio.com/jio/plan/add-on-packs-2018-01-30.pdf>):
MRP 11 (Rs. 11) – 400 MB High Speed Data

MRP 21 (Rs. 21) – 1 GB High Speed Data

MRP 51 (Rs. 51) – 3 GB High Speed Data

MRP 101 (Rs. 101) – 6 GB High Speed Data

For this particular need of additional data on an active base plan, the above options are superior to sachet packs giving data and a validity period, which are as follows (Source: <https://www.jio.com/en-in/4g-plans>):

Rs. 19 plan giving around 153 MB (0.15 GB) with 1 day validity

Rs. 52 plan giving around 153 MB (0.15 GB) per day with 7 days validity

Rs. 98 plan giving around 2 GB over 28 days [total 2 GB and NOT 2 GB per day], with 28 days validity.

To activate the Add On pack after the base plan data quota is exhausted for the day, is a simple process of choosing recharge on the appropriate SIM number in jio.com, then choosing Add On Packs, selecting an Add On pack and paying for it. Once the payment is made, my experience was that the Add On pack immediately became the active pack and was also shown as the 1st priority pack/plan on jio.com display. This resulted in 4G high speed data being delivered to the Internet connection.

Another great feature of the Add On pack is that when the per day data quota gets renewed on the base plan (typically between 12:00 midnight and 1:00 AM), it is the base plan's data quota that becomes the priority data quota to be used (with the base plan being shown as 1 of x active plans) and if there is some available unused data balance on the Add On pack, it becomes listed as a later priority pack/plan. In other words, the remaining data balance of the Add On pack gets carried forward and can be used later if and when daily data quota of base plan gets exhausted again.

Detailed Log

Readers who are not interested in the detailed log may please skip reading the rest of this post.
23rd Jan 2018

[Update on 3rd Feb. 2018: This 23rd Jan. 2018 entry captures my mistake of using sachet plans with validity periods instead of using Add On packs using base plan's validity period and much more data for equivalent Rs. cost than the sachet plan. See 30th Jan. entry for details about Add On packs.]

Jio provides a sachet costing Rs. 19 which gives 153.60 MB for 1 day validity. I have used it and am happy with the ease of the process even when one has exhausted data for the day/total GB amount, but the plan is still valid (not yet expired) due to which Jio provides a promised 64 Kbps speed connection. On this post data limit exhausted connection, normal fast 4G speed (over 1

Mbps on Huawei USB dongle at night time) is provided for Jio website and Net Banking payment gateway of SBI (I am sure that extends to other payment gateways too).

The next sachet is Rs. 52 giving 0.15 GB for 7 days each (total 1.05 GB)

[Update on 27th Jan. 2018; After Republic day, 26th Jan 2018, Jio's Rs. 149 plan gives 1.5 GB per day for 28 days (a max consumption of 42 GB)! So rather than pay Rs. 52 it is wise to go for Rs. 149 as it gives a much, much superior data plan. [Rs. 98 giving 2 GB over 28 days NOT 2 GB per day is also not a great plan AS COMPARED TO the 149 plan.]

So either go for Rs. 19 sachet when one is clear that one needs only a 100 MB or so extra for that day OR go for Rs. 149 giving 1.5 GB per day for 28 days. end-27-Jan-Update]

[Update on 30th Jan. 2018: On 28th Jan. 2018 at around 22:17 (10:17 PM), I bought Rs. 149 plan giving 1.5 GB for 28 days, and activated it immediately after. IIRC, I had exhausted data on my other active plans and needed extra data for some activity. I chose to go for the 149 plan as it gives me a longer period coverage and longer data capacity per day than if I had gone for lesser priced options of Rs. 98 (2 GB total for 28 days) or Rs. 52 plan (153 MB per day for 7 days). end-30th Jan 2018 Update.]

30th Jan. 2018

Today I saw that there is a separate set of recharge options known as Add-On Packs or Boosters. These simply add more data without changing base plan's validity. The data added is more than the sachet plans which provide both data and validity. There also seems to have been a recent change in the Add-Ons/Boosters options to provide more data.

As of now, Clicking Recharge and then clicking Booster -> Data gives the following four options: MRP 11 (Rs. 11) – 400 MB High Speed Data

MRP 21 (Rs. 21) – 1 GB High Speed Data

MRP 51 (Rs. 51) – 3 GB High Speed Data

MRP 101 (Rs. 101) – 6 GB High Speed Data

These are surely superior to Rs. 19 plan giving 153 MB with 1 day validity, Rs. 52 plan giving 153 MB per day for 7 days.

I think the best option is the Rs. 11 option giving 400 MB extra. I wonder whether if there is spillover to next day with the base plan having validity for next day or beyond, the unused portion of 400 MB will be added to data quota for the next day (i.e. base plan per day data + remainder of 400 MB data which was unused).

<http://indianexpress.com/article/technology/reliance-jio-booster-plans-revised-to-offer-more-4g-dta-all-you-need-to-know-5045115/>, dated 30th Jan. 2018 states that earlier only two Add-On or booster packs were available:

a) Rs. 11 add on pack earlier gave 100 MB (which has now been increased to 400 MB).

b) Rs. 51 add on pack earlier gave 2 GB (which has now been increased to 3 GB).

1st Feb. 2018: On MyJio app on my new LYF C459 phone device, for the 8xxx number I saw a 5 GB free promo voucher (offer) (in addition to the 50*8 vouchers which I got due to my buying the 399 plan in Jan 2018). Note that none of these vouchers are visible on jio.com web portal –

Only MyJio app shows them and provides for a mechanism to redeem them! Jio is forcing users like me to use MyJio app to avail of their freebie vouchers!

I chose to redeem the 5GB offer today. It went through very easily (using MyJio app). Now jio.com website for my account for the 8xxx number shows an additional 5 GB plan that expires in 76 days (besides the 1 GB/day 399 plan whose expiry period of 76 days is what has got applied to the 5 GB voucher when I redeemed it).

At 5.17 PM on 1/2/2018 I am shown 347.68 out of 1 GB Data availability on the 399 plan and 5.00 of 5 GB Data availability on this Add On plan.

I wonder whether there is some algorithm to first use up the available data of the 1 GB/day plan before getting into the 5 GB plan. I presume that will be the case and intend to monitor the situ over the next few days, and log the outcome here.

2nd Feb. 2018, 5:15 PM entry

Some time down the line, the 1 GB quota per day of the 8xxx Jio number also got exhausted with some percentage (around 15 to 20 percent) of the Windows Update download yet to be done.

In jio.com, the 5.00 GB Add On entry became the 1st of 2 entries under Summary of 8xxx number, with 0.01 MB being shown as available from 1 GB per day 399 plan. But the Internet speed continued to be the post FUP speed tens of Kbps or low hundreds of Kbps! So while the 5 GB Add On entry was shown as an active plan and prioritized as the 1st of 2, with the 399 plan being lowered in priority to 2nd of 2, the 5 GB Add On did not come into play!

Called up Jio support number 1800-889-9999 and eventually reached a human support guy. Explained the issue to him but he was not able to give a quick solution. Instead he made a Service Request, Prepaid VoLTE-8xxx SRxxxx, which shows up in jio.com as Data-Slow Speed, and said that it would be responded to within a max. of 48 hours! The call took quite some time with me running a fast.com test and telling him about the low speeds.

As I thought about it later on, I felt that as it is a freebie, jio.com has some hoops introduced which trip it up. Quite unfair of jio to give or lure the customer with free vouchers and then make it cumbersome and bothersome to use those vouchers! But such is life!

Decided to try using a new Add On paid with my own money. Went for a Rs. 21 Add On giving 1 GB more with existing plan's validity. That got activated on its own as soon as I bought it. Using fast.com to check the speed gave me a healthy 4.2 Mbps! Checked that the 1 GB Add On had got listed as 2nd of 3 in Summary of 8xxx plans.

Then Windows Update seemed to continue its download with BitMeter showing high usage. Windows Update finished 100% of download of update (before 5:15 PM) after which BitMeter usage dropped. Bit Meter usage last sustained peak was at 5:10 PM which may be the time when Windows Update finished (100%) of download.

Checking jio.com balance at 5:34 PM shows 563.74 MB of Data available from 1 GB Add On (listed as 2nd of 3 active plans under Summary). Note that its expiry is same as the base 399 plan's expiry which is 18th April 2018.

At 5:35 PM All Settings-> Update-> Windows Update window shows the message, "Preparing to install updates 54%". So while the download has got done, the update process is still ongoing.

At 5:51 PM, jio.com shows 471.73 MB Data available of 1 GB Add On pack. I also got a Notification email about 50% Data exhaustion of this Add On.

3rd Feb. 2018, 12:33 PM

Jio.com shows that the 1 GB Add On purchased yesterday has 297.55 MB left and that it is placed in 3 of 3 position. Current data usage is from the 1 GB quota of the 399 plan which is placed in 1 of 3 position with 868.49 MB being free. The 5 GB Add On is placed in 2 of 2 position with no additional news about resolution of problem of it not coming into play yesterday.

=====End of Post=====

Setting WiFi connections to Metered on Windows 10 prevents Windows Automatic Update downloads on those connections; Published: 03 Feb 2018

Post link (URL) on blog:

<https://ravisier.wordpress.com/2018/02/03/setting-wifi-connections-to-metered-on-windows-10-prevents-windows-automatic-update-downloads-on-those-connections/>

A large Windows Update download ate up my data quota for the day on my Jio connection. This was done automatically without my having noticed it. Using a small increment of 153 MB for the day (a sachet plan) had resulted in the entire 153 MB data getting used up in a few minutes! That led me to explore how to control such automatic Windows update and other such automatic update downloads. One decent solution is to set WiFi connection to metered. This can be done by using Network & Internet Settings as administrator and choosing Metered connection for the WiFi networks one uses. When one logs in as ordinary user (NOT administrator), though the Network & Internet Settings windows do not show the WiFi connections that were set as metered under administrator login, as metered, I observed that Windows does treat those connections as metered for ordinary user logins too and DOES NOT automatically initiate a Windows Update download.

One can manually initiate a Windows Update download even on these metered WiFi connections, at which time Windows uses those metered WiFi connections for Windows Update downloads.

I could not find a way to set Cellular (e.g. Huawei 4G USB Dongle) and Ethernet connections as Metered. But under Network & Internet Settings, there is a Data Usage menu option that gives some Data usage statistics and provides a limit facility for Cellular data as well as an option to restrict background data usage on the Cellular connection.

To track data usage, I found that the Windows 10 Data Usage info. was not that useful. While there are specialty apps that seem to give detailed info. on data usage, I have used BitMeter2 off and on over many years to get top-level data usage, and used it again this time to get an idea of how much data was being downloaded in real-time.

Detailed Log

Detailed log info. is provided below. Readers who are not interested in such details may please

skip the rest of this post.

24th Jan. 2018

Today I had an unhappy experience with using a limited data of 153 MB data per day Internet connection (IIRC, it is a Rs. 52 sachet pack giving 153 MB data each day, for 7 days). [Update on 3rd Feb. 2018: Using the sachet pack to get more data after base plan's per day data quota exhaustion but with more days validity, was a bad choice as I did not need the validity period of the sachet pack. Instead I should have chosen an Add On pack which would have given me more data than 153 MB per day, with validity period same as the base plan. After revision around 30th Jan. 2018, Rs. 51 Add On plan gives 3 GB data,

<http://jep-asset.jio.com/jio/plan/add-on-packs-2018-01-30.pdf> ! Earlier, it seems, the Rs.51 Add On plan gave 2 GB data. end-3rdFeb-Update]

Within a few minutes of my using that data sachet on my desktop PC connected to JioFi3 router having the Jio SIM with that data sachet, it got exhausted! Now I had not initiated any large download. I had opened a CNN page which had a video and many pics – I think that would have taken up quite some data. But I don't think that itself would have amounted to 153 MB!

Perhaps there was an automatic download initiated by Windows 10 OS (Automatic Updates) or by some applications installed on my desktop PC.

I need to explore how to control such automatic updates on Windows 10.

I put on the option for Metered connection for the Jio Router connection (after the data exhaustion, so don't know how helpful that may be in future). But I could not find an option for Metered connection for the Huawei 4G USB dongle.

=====

11:52 PM, 24th Jan 2018

1 GB/day plan for 84 days got active on Huawei Jio SIM around 11:20 PM (on 24/1/18).

Data Usage info. on Windows 10: All Settings (from mouse-click on bottom right icon on screen)

-> Network & Internet -> Data usage

There seems to be no option for setting up a Cellular Network (Huawei 4G USB dongle comes up as that) as a Metered connection [Big downloads are avoided by Windows on Metered connection].

So one has to run Mobile Partner application and track data usage to see whether something in the background (e.g. Windows Update) is eating up a lot of data.

I set up the Track Data Usage with 1 GB as the data limit and 1 day as the validity period. So far, in the past 5 minutes or so it has downloaded only 1.61 MB and uploaded 400 KB leading to data usage of 1.99 MB. That's very fine. In around the same time today afternoon 153 MB got consumed!

So the way to keep a check is to run Mobile Partner with Track Data Usage when using Huawei 4G USB dongle.

=====

30th Jan. 2018: I later downloaded BitMeter2 which is a simple net data logger that I have used for many years now. It is not sophisticated but may serve the purpose in an easier way than other programs. E.g. BitMeter2 does not need administrator login like MobilePartner needs, and comes up much faster than MobilePartner.

=====End of Post=====

Unhappy experience with Airtel Rs. 1500 cashback offer on Karbonn A40 smartphone; Internet Speed Tests with A40 + Airtel AND JioFi3 Router + Jio; Published: 23 Jan 2018

Post link (URL) on blog: <https://ravisier.wordpress.com/2018/01/23/internet-speed-tests/>

Last updated on 4th Feb. 2018

Overview of Airtel Rs. 1500 Cashback offer on Karbonn A40 Indian, and my unhappy experience of it

The Rs. 1500 cashback scheme of Airtel and some its vendors including Karbonn was attractive enough for me to purchase on 21st Jan. 2018, a Karbonn A40 Indian, 2nd lowest-priced smartphone with Airtel 4G SIM and plan of 0.5 GB per day for 28 days (as conveyed to me by the vendor though I had thought he had said 1 GB per day) for a total price of Rs. 3200 (Rs. 2950 for the A40 phone and Rs. 250 for Airtel SIM and 28 day plan).

I did know that Jio 4G plans were cheaper then (21st Jan 2018) as compared to Airtel 4G by typically Rs. 50. I was willing to pay Rs. 50 more to Airtel as I wanted to have an alternative 4G service provider besides Jio, and further, I would get a cashback of Rs. 1500 over 36 months which would theoretically offset the Rs. 50 extra I would be paying to Airtel. Yes, I would be locked into Airtel for a 36 month period if I wanted to avail of the cashback which was not so comfortable a thought. But I wanted to give it a shot as my total initial expense was only Rs. 3200.

On 26th Jan 2018, Jio increased the data quota per day in its regular 4G plans by 0.5 GB to make it 1.5 GB per day – this was announced perhaps a day or two earlier to 26th Jan. This made Jio 4G plans even more attractive than Airtel.

The speedtest results with Airtel 4G in my flat were poorer than Jio 4G. A later section gives an overview of that.

But the worst issue was that the vendor could not open an Airtel Payments Bank a/c for me even through we tried multiple times over 2 to 3 days! The cashback offer worked only through this Airtel Payments Bank. After going through the frustration of failed attempts to open Airtel Payments Bank a/c over 2 to 3 days, both the vendor and I independently came to know that Govt. of India had stopped opening of Airtel Payments Bank a/cs. I came to know that this was due to some problem of Airtel Payments Bank sending subsidy payments like LPG subsidy to Airtel Payments Bank a/c of users WITHOUT taking any approval ('informed consent') from the users! That Airtel Payments Bank could do this itself seems to be a security flaw in the Aadhar based subsidy payment mechanism of the Govt. of India. More on this issue can be seen in this news article: <http://www.thehindubusinessline.com/info-tech/uidai-suspends-airtel-airtel-payments-banks-ekyc-licence/article9995428.ece>, 16th Dec. [2017], last updated on 9th Jan. 2018.

The vendor also told me that his Airtel contact told him that the cashback scheme was not operational any more! This did not match the Airtel website which I had checked before buying the phone on 21st Jan. 2018, as that website continued to mention the cashback scheme. Further, the vendor was told that the first Rs. 169 plan that I was given was 0.5 GB for 15 days and NOT 28 days!

Based on these words of the Puttaparthi vendor, I had a complete loss of confidence in Airtel and decided to return the phone and Airtel SIM to the vendor. The vendor understood why I was returning it though he did try to convince me to keep the A40 Indian phone (and use it with another 4G vendor like Jio). But I told him that I bought it because of the cashback scheme and now that the cashback scheme was not operational (as per what was told to the vendor by his Airtel contact), I insisted that return of both device and SIM was the best option for me.

The vendor took it back. He offered to pay me the Rs. 2950 for the phone immediately. For the SIM he said it would take some time as there was a process involved for SIM cancellation. A few days later, the vendor told me that he had a long discussion (perhaps argument) with his Airtel contact on this matter. The result was that the vendor was now ready to pay back the full amount of Rs. 3200 that I had paid him! I was very satisfied with the vendor for helping me with return and refund. I decided to buy other things from him for that money. I have already bought Rs. 1200 worth of stuff from him leaving a credit of Rs. 2000 now with him for any future purchases from him.

Overview of Internet speed tests with Karbonn A40 + Airtel AND JioFi3 Router + Jio

In my flat as well as my balcony (sit-out), Airtel 4G (used with Karbonn A40 smartphone) generally gave poor speeds as compared to Jio 4G (used with JioFi 3 router).

Airtel speeds in my balcony measured on Karbonn A40 (so avoiding possibility of desktop PC Windows Update download slowing down the speed test reading) during day time was typically in the range of 1 to 3 Mbps, with the highest being 5.62 Mbps. Unfortunately, Airtel 4G speeds on Karbonn A40 when it was inside my room, next to my computer table, was very poor with Speedtest app usually reporting 'Network communication issues' and so no speedtest result! Going outside my flat to the staircase between 3rd floor and 4th floor where I can see a mobile tower in Chitravathi hilltop (Gutta) area which I believe is an Airtel tower, I got around 1 Mbps speed in the speedtest app. on A40 device.

In contrast, Jio 4G speeds (very few readings as compared to Airtel 4G speedtest readings) as measured from desktop connection (so automatic Windows update could have resulted in lesser value reading), with JioFi3 router in my balcony, was typically in the range of 2 to 5 Mbps, with the highest being 13.27 Mbps.

Detailed Log

Readers who are not interested in detailed log entries may please skip reading the rest of this post.

Airtel Rs. 1500 Cashback offer on Karbonn A40 Indian and my unhappy experience of it – Details

1) Bought Karbonn A40 Indian from a Puttaparthi vendor on 21st Jan. 2018 along with Airtel SIM (9xxx) and 28 days 0.5 GB/day prepaid plan for Rs. 2950 (A40 phone) + Rs. 250 (Airtel SIM & plan) = Rs. 3200.

From <https://www.airtel.in/4gphone> on 21st Jan. 2018
General info.

How does it work?

- 1) Buy any Airtel Partner 4G handset
- 2) Recharge for a specified total amount within 12/18 months [See info. below which says that there should be recharge every month.]
- 3) Get first cashback
- 4) Continue to recharge for the same specified total amount within next 12/18 months
- 5) Get second cashback

*Cashback details vary as per partner 4G handsets. For more information, please refer to individual handset sections below.

Karbonn A40 Indian specific info.

With Karbonn A40 Indian You Get

Rs.500 Cashback – Recharge for Rs.3000 within first 18 months

Rs.1000 Cashback – Recharge for Rs.3000 within next 18 months

===== end extract from Airtel 4G phone webpage =====

A small extract from <https://www.airtel.in/4g-phone-faqs>

6. Eligibility for cashback?

Customer can make 36 continuous monthly recharges of Rs 169. The customer will get a cash refund of Rs 500 after 18 months on the device and another Rs 1000 after 36 months, taking the total cash benefit to Rs 1500.

[Ravi: *****] In case the customer does not wish to opt for the special Rs 169 bundled plan, she/he has the flexibility of doing recharges of any denomination and validity as per individual requirements. Recharges worth Rs 3000 must be done on the Device within the first 18 months (to claim the first refund installment of Rs 500) and another Rs 3000 on the mobile number over the next 18 months (to claim the second refund installment of Rs 1000).

[Ravi: *****] Additionally for cashback, Customer needs to be an active Airtel subscriber i.e recharge his Airtel Mobile atleast once every month

=== end extract from Airtel FAQ=====

24th Jan. 2018

Ravi: So I need to recharge once every month ***ON THE DEVICE*** for the first 18 months, and the total amount paid has to be Rs. 3000 or more, in the first 18 months. In the next 18 months the same conditions apply except that it ***NEED NOT BE THE SAME DEVICE*** but has to be the same SIM number.

What does ***ON THE DEVICE*** mean? Perhaps it means that I make the payment using Airtel Payments Bank (gateway) on the device, using payment gateways like SBI Net Banking. Regarding the recharge every month, it seems that the value of the recharge may be anything, including perhaps the Rs. 9/= 100 MB Combo 3G / 4G Data Pack valid for 1 day [For tariff see: <https://www.komparify.com/operators/1-airtel/type/4g>]

So, in theory, I could take 60 GB Combo 3G / 4G Data Pack, ₹ 999, 3 month validity three times in the first 18 months (totaling Rs. 2997) and combine it with Rs. 9/- per month 15 times (on months other than the ones where I recharge using 60 GB Data Pack) (totaling Rs. 135). That would make the grand total for the first 18 months as Rs. 3132 satisfying the criteria of Rs. 3000/- or more recharge in first 18 months.

I can do something similar in next 18 months.

=====

30th Jan. 2018

A few days back I returned both Karbonn A40 Indian phone and Airtel SIM to the vendor (in Puttaparthi). The reasons were that Airtel Payments Bank a/c could not be opened and when the vendor checked with his Airtel person he was told that the cashback scheme has been stopped! Further, the Rs. 169 plan had been changed to give 0.5 GB for 14 days!

This did not match what Airtel website said. So I had a complete loss of confidence in Airtel. Further its speed in my balcony was just about OK – typically slightly above 1 Mbps during off load times, but its speed within my flat was poor.

So besides loss of confidence in Airtel, its performance was not so great and further its data plans were not as attractive as Jio (which I knew from earlier).

The vendor was ready to pay me Rs. 3200 (the total amount I paid him) as he said that he fought with the Airtel person, got money back for the phone, and will be getting money back for the SIM too. I decided to buy other things from for that money. Have bought Rs. 1200 worth of stuff yesterday. So he has a credit of Rs. 2000 now from me.

Around 2 days back I ordered Jio LYF C459 lowest priced smartphone from Jio website (for Rs. 3899). Its details are provided elsewhere.

Internet speed tests with Karbonn A40 + Airtel AND JioFi3 Router + Jio – Details

Important Note: The readings for the desktop PC speed tests may be inaccurate as I don't think I had made the WiFi connection on the PC a 'metered' one, due to which Automatic Windows Update download could have hogged the Internet connection, lowering speeds recorded in the speed test. But the speed tests conducted on Karbonn A40 device itself would not have this problem as at that time the Hotspot on it was, as far as I can recall, either not operational or NOT connected to PC desktop.

Internet speed measured on Desktop PC connected to Karbonn A40 Indian hotspot via Wireless connection on 23rd Jan. 2018 at around 00.30 hours, with A40 being placed on window sill resting against mosquito net (good access to outside balcony area):

Airtel 4G Speeds

Fast.com – 1.4 Mbps

Ookla Speedtest – 1.58 Mbps

Repeat test around 00:35 hours

Fast.com – 25 Kbps

Ookla Speedtest – Did not even run the test!!!

Tried the speedtest app on the A40 – that reported network issues!

Fast.com on A40 also gave some hundreds of Kbps

=====

Internet speed measured on Desktop PC connected to JioFi 3 router via Wireless connection on 23rd Jan. 2018 at around 00.50 hours, with JioFi router being placed on window sill resting against mosquito net (good access to outside balcony area):

Jio 4G Speeds

Fast.com – 1.6 Mbps

Ookla Speedtest – 2.17 Mbps
At around 1.01 AM

Fast.com – 2.4 Mbps

Ookla Speedtest – 4.75 Mbps (ACT Fibrenet server NOT Jio server)

Fast.com – 3.9 Mbps

=====

23rd January 2018 Morning.

Internet speed measured on Desktop PC connected to Karbonn A40 Indian hotspot via Wireless connection on 23rd Jan. 2018 at around 09.45 hours, with A40 being placed on window sill resting against mosquito net (good access to outside balcony area):

Airtel 4G Speeds

Fast.com – 430 Kbps

Ookla Speedtest – 1.63 Mbps [Airtel server]

Fast.com – 1.5 Mbps

Ookla Speedtest – 1.5 Mbps [ACT Fibrenet]

On Karbonn A40 tests around 9.55 AM, in balcony with A40 facing outside balcony area

Airtel 4G Speeds

Fast.com – 1.8 Mbps

Ookla Speedtest app – 2.87 Mbps

[A40 on window sill resting against mosquito net]

Fast.com – 2.0 Mbps

Ookla Speedtest app – 0.91 Mbps

Ookla Speedtest app – 5.02 Mbps

Around 10.07 AM from Desktop PC as earlier

Fast.com – 2.1 Mbps

Ookla Speedtest – 3.85 Mbps [Airtel server]

=====

Internet speed measured on Desktop PC connected to JioFi 3 router via Wireless connection on 23rd Jan. 2018 at around 10.10 AM, with JioFi router being placed on window sill resting against mosquito net (good access to outside balcony area):

Jio 4G Speeds

Fast.com – 10 Mbps

Ookla Speedtest – 13.27 Mbps [Jio Server]

=====

Puttaparthi mobile vendor told me that Airtel has one tower in or near Sai Super Bazaar building, one tower at Chitravathi Gutta (hill top) and one tower at Yenumulapalli.

Ookla Speedtest app results after lunch on 23rd Jan 2018 (perhaps between 1 and 3 PM)

Airtel 4G Speeds

7.68 Mbps – Near Chitravathi river bed temple

2.98 Mbps – Steps to Kalpa Vriksha

6.53 Mbps – Near Teashop which in turn is near Tibetan Potala something on Chitravathi Road. From this teashop one can see a tower in the direction of Yenumulapalli behind a few buildings on the other side of Chitravathi Road. It seems to be (but is not confirmed to be) an Airtel Tower.

0.61 Mbps – Entrance to Sai Chaitanya II

0.83 Mbps – Platform on staircase between 3rd and 4th floor of Sai Chaitanya II from where the same Airtel Tower mentioned in the Tea shop entry above, can be seen.

000 – No reading outside my flat as Speedtest app gives a message about 'network issues'

5.62 Mbps – From right edge of balcony and close to open window [4 bars signal indicator showing perhaps best signal]

0.33 Mbps – From right edge of balcony and close to open window [4 bars signal indicator showing perhaps best signal] [Funny how the speed dropped from 5.62 to 0.33 Mbps in a short while]

0.32 Mbps – Near left edge of balcony and close to open window

=====

Karbons A40 Indian Signal strength indicator

The signal strength indicator consists of two parts: One to two letters indicating technology used and four signal bars with all 4 bars being white (as against grey/black) indicating best signal indicator. The one or two letters seen to indicate technology that I have seen so far on the phone are as follows:

4G – 4G LTE technology; highest speed and best for my needs I think

H – HSPA is part of UMTS (3G) technology but faster than 3G

H+ – Better than H above but still 3G technology variant (improvement)

E – EDGE is an extension of GPRS (2G technology which also seems to be known as GSM).

Edge is faster than 2G

Reference for

above: <https://community.giffgaff.com/t5/Tips-Guides/Mobile-Data-GPRS-E-3G-H-H-LTE-4G/td-p/14159693>, dated 2014

In my bedroom, next to my computer table the signal strength of A40 phone with Airtel 4G SIM is typically low (only one bar at times) and the corresponding Internet speed is also low in the order of hundreds of Kbps, usually low hundreds but rarely touching 1 Mbps and above.

In my balcony with the phone held or placed next to window or in the window sill, the signal strength seems to be typically as 3 white bars or 4 white bars (best signal quality). This typically results in good Internet speeds between 1 Mbps and 5 to 6 Mbps. But at times, the speed is in the high hundreds of Kbps. And very rarely, it is in the low hundreds and sometimes in the tens of Kbps.

=====

24th January 2018

Note that Airtel Balance showed 0 MB used from 0.5 GB at around 2 minutes after midnight – 00:02/12:02 AM. So Airtel renews the daily balance promptly at midnight.

Around 12:03 AM, speed test on A40 Indian on computer desk in bedroom failed to give results! So very poor and unacceptable speed.

Around 12:05 AM, speed test on A40 Indian in balcony:

fast.com – 1.6 Mbps

Speedtest Ookla – 1.65 Mbps

Speed test from Desktop PC connected via Hotspot to A40 on balcony window sill resting against mosquito net around 12:13 AM:

fast.com – 14 Kbps!!! [Yes – Kbps and NOT Mbps]

Speedtest Ookla – x Mbps [Did not work]

Went to the balcony; checked speed on speedtest app – got it in Mbps (> 1 Mbps). Closed the speedtest app and all other open windows. Last time I think speedtest app was open. Did that interfere? I don't know. Now got excellent speed at 12:19 AM

fast.com – 4.9 Mbps

Speedtest Ookla – 3.65 Mbps [12:21 AM, You Broadband server Hyderabad]
At around 12:32 AM

fast.com – 3.6 Mbps

Speedtest Ookla – No result due to very slow speed! [12:35 AM, You Broadband server Hyderabad]

12:36 AM, fast.com – 0!

12:39 AM, Checked the A40 Indian phone Internet data balance. It was 0! 500 MB of 500 MB was reported as utilized! Besides the above tests I did some Facebook browsing and WordPress blog post update in the past half an hour or so. I don't think I did any other large data usage operation.

=====

25th Jan 2018, between 12.30 PM (afternoon) and 1.05 PM tests

Speedtest App tests on Karbonn A40 Indian with 4G Airtel SIM

Seated at computer desk or standing next to open door between front room and bedroom, with balcony door open: Network communication issues i.e. Internet connection not good enough for Speedtest app to run its test!

In balcony next to open window (right side of balcony)

12:50 PM: 0.96 Mbps DL, 1.88 Mbps UL

12:51 PM: 1.57 Mbps DL, 2.90 Mbps UL

Outside room in passage way next to front door:

Network communication issues

On staircase platform between 3rd and 4th floor (with line of sight view of top of possibly Airtel tower in Chitravathi Gutta) at 12:55 PM – 0.92 Mbps DL, 1.68 Mbps UL

Outside room in passage way next to front door:

at 12:56 PM: 0.24 Mbps UL, 0.19 Mbps DL – So, in this set of tests conducted today, in this location once I got low Internet speed test result and once I got no test result due to “Network communication issues”.

=====End of Post=====

**Resolved “No Internet, Secured”
problem faced with using TP-LINK
TL-WN725N USB WiFi adapter on
desktop PC to connect to JioFi 4G WiFi**

router; Published: 23 Nov 2017

Post link (URL) on blog:

<https://ravisiyer.wordpress.com/2017/11/24/resolved-no-internet-secured-problem-faced-with-usb-tp-link-tl-wn725n-usb-wifi-adapter-on-desktop-pc-to-connect-to-jiofi-4g-wifi-router/>

First, the problem and the solution in short.

I use a TP-Link TL-WN725N 150Mbps Wireless N Nano USB Adapter to connect over WiFi to JioFi 3 4G router to browse the Internet on my desktop PC. That stopped working over the past 4 to 5 days, giving “No Internet, Secured” status message whenever I tried to connect my desktop computer to JioFi 3 4G router via the TP-Link WiFi adapter. So it connected over WiFi to JioFi 3 4G router but could not provide Internet browsing facility.

The solution that worked (or that seems to be the solution that solved the problem) was running the setup/autorun file from the driver update that I had downloaded from TP-Link website in Sept. 2017. Running that setup/autorun file required me to “repair” the TP-Link adapter installation. A PC restart later, on connecting to JioFi 3 router’s WiFi network, I got the status message of “Connected, secured”. Browsing the Internet using Chrome worked!

I don’t know what exactly solved the problem. Perhaps the “repair” did the trick even though the driver update involved the same version of the driver (apparently).

Tethering JioFi 3 directly to desktop PC via USB (and so not connecting via WiFi) also worked as a USB Ethernet connection and provided good Internet connection. I recall that when I had tried USB tethering once during the past few days when I faced the Internet connection problem with JioFi, it did not work then. Maybe I did not do something correctly.

That finishes the short description of the problem and the solution. Readers who are not interested in the detailed log of the matter may skip reading the rest of this post.

Detailed Log

The entries below are in chronological order and are based on mails (slightly edited) sent by me on 23rd and 24th Nov. 2017 to Jio customer care (only my part of it and not their response as that is marked as confidential).

On my Prepaid VoLTE – –number-snipped– which I use in a JioFi device, for the past few days I have not been able to connect to the Internet as I get a message of “No Internet” whenever I try to connect. Earlier I used to get these messages only once in a while over days.

Puttaparthi (in Andhra Pradesh) where I live, has a lot of crowd over the past few days due to the birthday of Sri Sathya Sai Baba. I thought perhaps that’s the reason why the Jio Network is completely failing me on this JioFi device.

I tried removing the Jio SIM (–number-snipped–) and then inserting it again into the JioFi router. That continued to give the same “No Internet, Secured” message.

Then I tried the second step of putting that Jio SIM in a 4G USB dongle that I have (which I normally use with another Jio SIM –number-snipped–). This time I got the message that my balance is exhausted! That reminded me that this Jio SIM (–number-snipped–) is under the special offer that I got when I bought the JioFi router and so will work only with that JioFi router for the special offer which is supposed to give me 2GB/day till 7th Jan 2018.

I plan to go to the shop that sold me the SIM card and the JioFi router package and hope they can help me.

But I have to say that I feel that I lost out on my 2 GB/day for four to five days so far and that

has been an unpleasant experience with Reliance Jio. I intend to put up a public blogpost and Facebook post about this unpleasant experience of mine so that other Reliance Jio users are alerted to this possibility. *[Later update: I was wrong about suspecting the fault to be with Reliance Jio, and apologized for it as seen in later entries below.]*

An update. I saw that I could connect to the Internet via JioFi router with Jio SIM (–number-snipped–) from a phone device. The speed is slow but I can still browse the Internet. It is on my PC desktop, which is my primary Internet access device, that I am not able to access the Internet via JioFi device. My PC desktop does not have inbuilt Wi-Fi. So I am using a TP-Link USB WiFi adapter TL-WN725N to connect to JioFi router. I think it is this TP-Link adapter that perhaps due to slow speed of Jio 4G Internet, is having an issue (problem) and is showing the “No Internet, Secured” message and not providing Internet access.

I used to get this message earlier too (before the past 5 days), but that would be for a short period of time when Jio 4G Internet was slow. An hour or so later if I tried again it would connect. This time, it has not been able to connect (to the Internet) over the past 4 to 5 days on all the times I tried (which is a few times every single day). Perhaps over the next two to three days as the crowd in Puttaparthi reduces, the Jio 4G speeds will increase thereby allowing me to connect to JioFi router via the TP-Link adapter on my PC desktop.

Meanwhile if you have any suggestions to solve my TP-Link TL-WN725N adapter to JioFi router Internet connection problem, I would be glad to receive it. Also, if Jio recommends particular WiFi USB adapter(s) to use on PC desktop to connect to JioFi, I would be glad to know about them.

BTW I tried uninstalling the driver for TP-Link TL-WN725N adapter and then reinstalling it. It still gives the same “No Internet, Secured” message.

A further update.

I used my Dell mini-Laptop, which has built-in WiFi, to connect to Jio Fi router with Jio SIM (–number-snipped–). The Internet connection was made easily. And now at 12.50 AM on this Internet connection, fast.com reports (the speed as) 2.1 Mbps.

But even now when I am connected to JioFi router via mini-Laptop which gets Mbps Internet speeds, the desktop PC with TP-Link TL-WN725N USB WiFi adapter, CANNOT connect to the Internet. It connects to the JioFi router on LAN but gives, “No Internet, Secured” as the status of the connection.

So clearly I am facing a TL-WN725N USB WiFi adapter connecting to JioFi 3 router problem and NOT a Jio SIM connection or JioFi router for Internet connection to other devices like phone and laptop problem.

As mentioned earlier, any help to resolve this TL-WN725N USB WiFi adapter problem will be welcome.

Solved the problem!!!

Once I came to know that it was the TP-Link TL-WN725N adapter that was the problem and NOT JioFi3 router or the SIM card in it, I visited my blog post USB WiFi adapter on desktop computer connected to JioFi 3 router, improves Jio 4G Internet speed to 4 Mbps or more (in my Puttaparthi flat),

<https://ravisier.wordpress.com/2017/09/28/usb-wifi-adapter-on-desktop-computer-connected-to>

[-jiofi-3-router-improves-jio-4g-internet-speed-to-4-mbps-or-more-in-my-puttaparthi-flat/](#), dated 28th Sept. 2017 which had a log of past issues I faced with it.

Relevant parts of the above post are given below:

Then I tried updating the driver using latest version from TP-Link website. That involved running a setup program in the downloaded set of files (after unzip) which “repaired” the TP-Link installation.

...

On restart of the computer, the problem got solved! Now on connecting to JioFi 3 router’s WiFi network, I got the status message of “Connected, secured”. Browsing the Internet using Chrome worked! I don’t know what exactly solved the problem. It was not the WiFi channel setting suggestion as after the unsuccessful attempts with modifying the channel, I had set it back to its original (default) setting of Automatic. I also noted that the driver date remained the same (1st April 2016) even after the latest driver was installed from TP-LINK website. So I think the first driver installed by the initial CD setup may have been the same as the latest driver that I downloaded.

— end extracts from my blog post —

I now think that the repair process involved in the TP Link driver update solved the problem.

I also want to apologize for presuming that the problem was with Reliance Jio 4G and considering writing a public blog post (but did not do it) about it to warn other users, when the problem was with my TP-Link WiFi adapter.

I plan to be more careful in future about jumping to such conclusions regarding Reliance Jio 4G which has given me excellent value for money as a mobile Internet service provider with decent Internet speeds for most of the time (excluding peak usage hours) in Puttaparthi.

Thanks & Regards

=====End of Post=====

Airtel 4G prepaid Tariff compared with Jio 4G prepaid tariff; Below Rs. 3000 4G smartphone now available in Puttaparthi shop; Published: 05 Nov 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/11/05/airtel-4g-prepaid-tariff-compared-with-jio-4g-prepaid-tariff/>

<http://www.airtel.in/mobile/prepaid/recharge-online/?CIRCLE=12&CIRCLENAME=AP%20and%20Telangana&tab=1#tabs-1>

The above link lists various mobile and 4G data prepaid tariff of Airtel (as of 4th Nov. 2017). I have given below the important ones and compared it with Jio prepaid plans/tariff,

<http://www.jio.com/en-in/4g-plans>.

1) Rs. 169, 28 days – “Unlimited All Local+STD Calls and 500MB 4G/3G data/day on your new 4G handset.” Rs. 12.07 per GB assuming 0.5G x 28 days consumption. [Jio eq. plan is Rs. 149, 28 days 0.15 GB per day. This Jio plan is less beneficial.]

2) Rs. 349, 28 days – “Unlimited all Local+STD Calls(non-commercial use), 1.5GB/day, outgoing in National Roaming & SMS Free (100SMS/Day), T&C.” Rs. 8.31 per GB assuming 1.5G x 28 days consumption. [Jio has Rs. 309 plan giving 1 GB/day for 49 days (Rs. 6.31 per GB) and Rs. 399 plan giving 1 GB/day for 70 days (Rs. 5.7 per GB).]

3) Rs. 448, 70 days – “Unlimited all Local+STD calls (for non-commercial use), free outgoing in National Roaming, 100 SMS/Day+1GB/Day 3G/4G.” Rs. 6.4 per GB assuming 1G x 70 days consumption.

4) Rs. 1999, 180 days – “Unlimited all Local+STD Calls(non-commercial use), outgoing in National Roaming & SMS Free (100SMS/day), 125GB data for 180 days.T&C.” Rs. 15.99 per GB consumed in any manner so long as all 125 GB is consumed in 180 days. [Jio has Rs. 999 plan giving 60 GB for 90 days (Rs. 16.65 per GB), and Rs. 1999 plan giving 125 GB for 180 days (15.99 per GB – same as Airtel)].

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From <https://www.airtel.in/4gphone>

Your First 4G Smartphone

Starting At Just 1,349*

How does it work?

- 1) Buy Karbonn A40 Indian or Celkon Smart 4G handset
- 2) Recharge worth Rs. 3,000 within 18 months
- 3) This gets you Cashback of Rs. 500
- 4) Continue to recharge worth Rs. 3,000 for next 18 months
- 5) Get additional Cashback of Rs. 1,000

Also from

<https://www.airtel.in/press-release/10-2017/airtel-partners-with-device-manufacturers-to-offer-4g-smartphones-for-the-price-of-a-feature-phone>

The customer needs to make a down payment of Rs 2899 for the 4G smartphone and make 36 continuous monthly recharges of Rs 169. The customer will get a cash refund of Rs 500 after 18 months and another Rs 1000 after 36 months, taking the total cash benefit to Rs 1500.

In case the customer does not wish to opt for the Rs 169 bundled plan, she/he has the flexibility of doing recharges of any denomination and validity as per individual requirements. However, to claim the cash refund benefit, recharges worth Rs 3000 must be done within the first 18 months (to claim the first refund installment of Rs 500) and another Rs 3000 over the next 18 months (to claim the second refund installment of Rs 1000).

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One of the reasons which prompted me to have a close look at Airtel 4G plans, was that I am keenly interested in buying the sub-3000 Rs. 4G smartphone that Airtel is offering in combination with Karbonn. Note that this 4G phone will allow me to avail of the free voice calls all over India that the popular Jio and Airtel 4G plans offer. Two or three days ago I came to

know that one of my regular mobile and electrical/computer accessories shops in Puttaparthi (Tirupathi Rao's shop) had stock of these phones. The shopkeeper told me that he has already sold many of these phones in Puttaparthi!

I then had to decide whether to buy it or not. Ideally, I wanted to avail of the cashback of Rs. 1500 over 36 months too (bringing the effective price of the 4G smartphone to around Rs. 1500), which would need me to buy Airtel plans. That prompted me to do this comparison. As my free 2GB/day Jio plan along with JioFi router purchase continues till first or second week of January, it makes sense for me to postpone my purchase of the sub-3000 Rs. 4G phone and Airtel 4G plans till then.

=====End of Post=====

Reliance Jio (4G mobile Internet) hikes its rates; Published: 19 Oct 2017

Post link (URL) on blog:

<https://ravisiyer.wordpress.com/2017/10/19/reliance-jio-4g-mobile-internet-hikes-its-rates/>

Reliance Jio 4G rates revised from today: Check out the full prepaid, post paid tariffs here, <http://indianexpress.com/article/technology/mobile-tabs/reliance-jio-4g-rates-revised-postpaid-prepaid-october-19-4897069/>, 19th Oct. 2017.

The hikes for regular users is in the following prepaid plans (see <http://www.jio.com/en-in/4g-plans>):

1) Rs. 399/- 1 GB per day validity has been reduced from 84 days to 70 days. The earlier 84 days 1 GB per day plan has been raised from Rs. 399 to Rs. 459 (raise of Rs. 60).

2) Rs. 509/- 2 GB per day validity has been reduced from 56 days to 49 days.

The raise is not unexpected as Reliance Jio had declared a loss of hundreds of crores (billions) of Rupees for last quarter. The plan I use is the 2 GB per day plan (due to package offer at buying JioFi 3 time, my validity for this plan is up to Jan. 2018). The 2GB per day plan cost for 30 days works out to Rs. 311.63, which is still significantly cheaper than the BSNL landline 470UL costing Rs. 554.6 per month (470 + 18% GST) and giving 2 Mbps speed.

=====End of Post=====

Jio care/My LYF care responses are confidential; I expect a JioFi 3 WiFi router firmware update over the next few days; Published: 18 Oct 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/10/18/jio-caremy-lyf-care-responses-are-confidential-i-exp-ect-a-jiofi-3-wifi-router-firmware-update-over-the-next-few-days/>

I had a few rounds of email exchanges with Jio care/My LYF care on the JioFi 3 WiFi 4G router update for WPA wireless security vulnerability issue mentioned in earlier posts.

However, I am not in a position to share their responses here as each mail response of theirs has a confidentiality clause! I would like to be a co-operative customer to Jio care/My LYF care and so would like to follow their confidentiality clause.

But I think I can share my messages to them which may give readers the picture!

Here are my relevant mails (slightly edited) to Jio care/My LYF care (after the first one which was shared in an earlier post,

<https://ravisier.wordpress.com/2017/10/16/us-cert-releases-public-vulnerability-note-on-wpa2-handshake/>):

Dear —,

I am not sure whether you have properly understood the issue. To help you understand it, please visit the Indian Computer Emergency Response Team (Ministry of Electronics and Information Technology, Govt. of India) website, <http://cert-in.org.in/>, and see, under Latest Security Alert, the Note “CERT-In Vulnerability Note CIVN-2017-0160”, Multiple Vulnerabilities in Wi-Fi Protected Access II (WPA2) protocol, dated 16th Oct. 2017.

You may also see this Times of India article, ‘Password-locked Wi-Fi prone to cyber attacks’ by Kim Arora,

<http://epaperbeta.timesofindia.com/Article.aspx?eid=31804&articlexml=Password-locked-Wi-Fi-prone-to-cyber-attacks-17102017001050>, dated 17th Oct. 2017. I have put up a blog post giving my views on the article here: <https://goo.gl/DD1vkM>.

So it is up to Jio/LYF as the vendor of JioFi 3 router to INFORM users about when they will provide the firmware update to fix this WiFi vulnerability. I hope you understand this. If you do not understand what I have written, you may please call me on my mobile: — and I will explain it to you over phone.

Dear —,

Wonderful! Thanks for that reassuring update.

—end my mails to Jio/LYF care—

Ravi: I expect Jio/LYF to provide an updated firmware for JioFi 3 WiFi 4G router over the next few days at which time I will update the firmware of my JioFi 3 WiFi 4G router using its web admin interface (unless the firmware gets updated automatically).

=====End of Post=====

My view on Times of India article on WPA2 wireless security vulnerability; I plan to continue using JioFi 3 WiFi 4G

Internet router for https sites; Published: 17 Oct 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/10/17/my-view-on-times-of-india-article-on-wpa2-wireless-security-vulnerability-i-plan-to-continue-using-jiofi-3-wifi-4g-internet-router-for-https-sites/>

Thanks to Shri Deepak Bharwani for providing this article link: 'Password-locked Wi-Fi prone to cyber attacks' by Kim Arora, <http://epaperbeta.timesofindia.com/Article.aspx?eid=31804&articlexml=Password-locked-Wi-Fi-prone-to-cyber-attacks-17102017001050>, dated 17th Oct. 2017. Shri Bharwani provided the link in a comment on one of my previous Facebook posts on this matter.

The article quotes a cybersecurity expert as saying, "While you wait for an update, you can use your Wi-Fi in hidden mode. This doesn't protect you completely, but is just an added security measure. Else, you could just use LAN for some time".

Ravi: I was wondering about this. I think what he means is that one should change the WiFi router settings (via webadmin page) to NOT broadcast the SSID name. I did some browsing on the topic now. This article, Debunking Myths: Is Hiding Your Wireless SSID Really More Secure?,

<https://www.howtogeek.com/howto/28653/debunking-myths-is-hiding-your-wireless-ssid-really-more-secure/>, dated 15th Aug. 2014 states that hidden SSID network names can be easily discovered using the right tools. In other words, a determined hacker can easily discover them. So I (Ravi) am not convinced about the suggestion of using Hidden SSID name for WiFi router to improve security.

However, I think that hidden SSID does have the feature of not letting non-hacker-type neighbours know that you are using a WiFi network. But it must be noted that it increases the effort involved in connecting to the hidden WiFi router (for the first time, I guess). I personally am not bothered by my neighbours seeing my WiFi router SSID (name) come up in their list of WiFi networks. They cannot connect to my WiFi router as it is password protected, unless they are extraordinarily lucky in guessing the password.

The Times of India (ToI) article quotes a Google spokesperson as saying in context of Android (WiFi) devices, "We're aware of the issue, and we will be patching any affected devices in the coming weeks". Note that JioFi 3 is an Android device. BTW I also saw in the webadmin info page of JioFi 3 router that the original manufacturer (or something like that) is Foxconn! So Reliance Jio may have got the manufacturing done by Foxconn, which is a Chinese company with factories in China and some other countries. Foxconn is well known as the key manufacturer of iPhones, at least in the past when Steve Jobs was boss of Apple.

The ToI article quotes a Microsoft spokesperson as saying, "We have released a security update to address this issue. Customers who apply the update, or have automatic updates enabled, will be protected. We continue to encourage customers to turn on automatic updates to help ensure they are protected".

Ravi: I did a Check for Updates on my Windows 10 desktop PC, a little while back today. It reported that my system has the latest updates.

For my query to Jio about this matter (mentioned in earlier post) sent yesterday night (16th Oct. 2017, 9.37 PM), I received an automated message from Jio care then itself, that they will

respond to it in the next 48 hours. I have not received any further message from them so far (it is around 1 PM now on 17th Oct. 2017).

I plan to continue to use https websites on my JioFi 3 WiFi 4G Internet router even though I am aware of the possible vulnerability in the JioFi WiFi router (Android device manufactured by Foxconn). I hope Jio/Foxconn/Google will provide a suitable update over the next few days that will fix this, now widely publicized, WPA WiFi security flaw that most probably affects the JioFi 3 Android WiFi 4G Internet router that I use.

=====End of Post=====

US-CERT releases public vulnerability note on WPA2 wireless security handshake; Published: 16 Oct 2017

Post link (URL) on blog:

<https://ravisiyer.wordpress.com/2017/10/16/us-cert-releases-public-vulnerability-note-on-wpa2-handshake/>

This post follows up on earlier post today: US CERT advisory on WPA2 wireless security flaw, sent to orgns (not public), <https://ravisiyer.wordpress.com/2017/10/16/us-cert-advisory-on-wpa2-wireless-security-flaw/>.

US-CERT released this PUBLIC note today: Vulnerability Note VU#228519; Wi-Fi Protected Access II (WPA2) handshake traffic can be manipulated to induce nonce and session key reuse, released on 16th Oct. 2017, <http://www.kb.cert.org/vuls/id/228519>.

The impact section states, "An attacker within the wireless communications range of an affected AP and client may leverage these vulnerabilities to conduct attacks that are dependent on the data confidentiality protocol being used. Impacts may include arbitrary packet decryption and injection, TCP connection hijacking, HTTP content injection, or the replay of unicast, broadcast, and multicast frames."

The solution section states that installing updates (to WiFi router devices) is the solution. It provides a non-exhaustive vendor list (of USA vendors of such WiFi devices, I guess) with a status column showing whether they were affected by this vulnerability or not, and date columns showing when they were notified of this problem (e.g. Cisco 28th Aug 2017) and when they updated (their firmware to fix the vulnerability) (e.g. Cisco 10th Oct 2017).

In my JioFi 3 4G router case, the vendor is India specific, and is not listed in this CERT advisory. On browsing the net I could not find any suitable results for JioFi 3 router firmware update for this problem.

I sent the following support message via email to Jio a little while back today:

Subject: Firmware update for JioFi 3 router to handle WPA2 vulnerability

Details: I would like to know when and where JioFi 3 router will provide firmware update to handle WPA2 vulnerability as documented in this US-CERT vulnerability note: Vulnerability Note VU#228519; Wi-Fi Protected Access II (WPA2) handshake traffic can be manipulated to induce

nonce and session key reuse, released on 16th Oct. 2017,
<http://www.kb.cert.org/vuls/id/228519>.

— end main support message sent to Jio —

I don't think my TP-Link WN725N Wireless USB adapter would need a driver/firmware update for this issue. Its driver download page does not show any new updates in 2017. But I plan to check over the next few days whether TP-Link will put out some driver update for this adapter.

=====End of Post=====

US CERT advisory on WPA2 wireless security flaw, sent to orgns (not public); Published: 16 Oct 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/10/16/us-cert-advisory-on-wpa2-wireless-security-flaw/>

I had planned to do some reading up about security vulnerabilities (and any health issues) related to WiFi. Perhaps in 2011 or so I seriously considered whether I should use WiFi on a regular basis. But at that time I read about some innocent people in India whose WiFi connections were used by criminals/terrorists (by hacking into it or perhaps simply using an open WiFi connection), and who (the innocent people) then had to face questioning from the police! My readings then did not give me a clear picture of WiFi security. As WiFi usage was not critical for me then, I simply decided to avoid using WiFi, switched off (via configuration option) the WiFi facility of the BSNL ADSL modem and router, and relied on Ethernet cable connected Internet via BSNL ADSL modem and router (landline BSNL broadband Internet). I think such landline connections using Ethernet cables are difficult to hack and penetrate. I don't recall reading any hacking/penetration reports about such BSNL landline Ethernet broadband connections in India.

But now I have become a regular user of WiFi as my regular Internet connection is through the JioFi 4G WiFi router. I use the default WPA-PSK/WPA2-PSK (default setting of WPA-WPA2 Mixed with AES encryption) wireless security provided by JioFi router and have password protected my connection. And I also check on the JioFi web status/admin page:

<http://jiofi.local.html/>, from time to time, that the number of clients connected to my JioFi router matches the clients I have connected (usually 1 from PC desktop but sometimes additional like Laptop or phone).

I have not yet got around to doing a proper reading up of wireless security today in 2017.

Neither have I been able to do a proper reading up of any health issues related to WiFi usage. But today I came across this article, Severe flaw in WPA2 protocol leaves Wi-Fi traffic open to eavesdropping,

<https://arstechnica.com/information-technology/2017/10/severe-flaw-in-wpa2-protocol-leaves-wi-fi-traffic-open-to-eavesdropping/>, 16th Oct. 2017.

The article quotes a USA Computer Emergency Readiness Team (US-CERT) advisory distributed to 100 organizations as saying, "US-CERT has become aware of several key

management vulnerabilities in the 4-way handshake of the Wi-Fi Protected Access II (WPA2) security protocol. The impact of exploiting these vulnerabilities includes decryption, packet replay, TCP connection hijacking, HTTP content injection, and others. Note that as protocol-level issues, most or all correct implementations of the standard will be affected. The CERT/CC and the reporting researcher KU Leuven, will be publicly disclosing these vulnerabilities on 16 October 2017.”

Ravi: Today is 16th October 2017 and so we may get more details about this vulnerability today (unless they have already done so).

My view, based on this article, is that HTTPS protocol is reasonably safe to use over WiFi Internet even with this WPA2 security vulnerability as HTTPS uses its own (SSL) encryption. The article suggests that WiFi Internet usage should be avoided but I think that's a rather extreme reaction based on what the article says, for home users like me. But the article continues to say, “When Wi-Fi is the only connection option, people should use HTTPS, STARTTLS, Secure Shell and other reliable protocols to encrypt Web and e-mail traffic as it passes between computers and access points.”

It is HTTP protocol usage over WiFi Internet that could be hacked due to these vulnerabilities, and so it is UNSAFE to use HTTP protocol over WiFi Internet.

gmail, facebook, blogger, wordpress, Internet banking (Indian banks) etc. sites are https sites and so, it seems to me, they may be used safely over WiFi WPA2 security Internet.

Here is an interesting advisory related to WiFi routers from USA Computer Emergency Readiness Team (US-CERT), Security Tip (ST15-002), Securing Your Home Network, <https://www.us-cert.gov/ncas/tips/ST15-002>, last revised on 16th Dec. 2015.

I followed suggestions given above of disabling WPS (enabled by default in JioFi 3 router). UPnP setting was disabled by default.

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Readers may want to visit an update to this post here: US-CERT releases public vulnerability note on WPA2 handshake,

<https://ravisier.wordpress.com/2017/10/16/us-cert-releases-public-vulnerability-note-on-wpa2-handshake/>, dated 16th Oct. 2017.

=====End of Post=====

Extraordinary low cost 4G smartphone (sub Rs 3000) and low cost 4G Internet access portends very bright outlook on this front for India, and perhaps the world; Published: 16 Oct 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/10/16/extraordinary-low-cost-4g-smartphone-sub-rs-3000-and-low-cost-4g-internet-access-portends-very-bright-outlook-on-this-front-for-india-and-perhaps-the-world/>

Note: This post is copy-pasted from another blog of mine

here: <http://ravisiyermisc.blogspot.in/2017/10/extraordinary-low-cost-4g-smartphone.html>.

Last updated on 15th Oct. 2017

These past few months seem to be raining bonanzas for Indian customers of low-cost 4G Internet services as well as 4G Internet devices. I am pleasantly shocked to see how they seem to have already revolutionized Internet usage by lower middle class and poor Indians across the country, I guess, with more low-cost gizmos on offer! I think these offerings will have long-term and large-scale impact of vastly improved delivery of Internet based services of various kinds including education related, to lower middle class and poor Indians across the country. That is a source of great joy and happiness to me.

The latest low-cost gizmo is a 4 inch touch screen 4G smartphone, Karbonn A40 Indian, offered at the price of Rs. 2899 by Airtel in combination with Karbonn mobile devices company, with a potential refund of Rs. 1500 over a 36 month period if one buys appropriate Airtel 4G plans.

Note that these Airtel 4G Internet plans give free phone calls across the country via 4G phones like the above mentioned one. Also note that Karbonn is an Indian company, <http://www.karbonnmobiles.com/company>. The design of the phones seem to be Indian. It is reported that the devices are manufactured/assembled in India.

The background to this offer is Reliance Jio company's offer, a few months ago, of the 4G JioPhone for a refundable deposit of Rs. 1500 (and so, effective price of ZERO), which can be used to make free Jio 4G calls anywhere in the country on appropriate Jio 4G Internet plans. However, the JioPhone is NOT a touch screen phone and is not a smartphone like the Karbonn A40 Indian phone referred above. Note that the JioPhone device seems to be manufactured in China as per Reliance Jio, an Indian company, specifications.

I find the Karbonn A40 Indian phone's listed features to be very attractive at its sub-Rs-3000 price. Here are its key features

(from <http://www.karbonnmobiles.com/A40-Indian>, <http://gadgets.ndtv.com/karbonn-a40-indian-4451>):

- * 10.16 cm (4 inch) WVGA display, capacitive touch, 800×480 pixels resolution
- * Android Nougat 7.0 OS
- * 1.3 GHz Quad core processor
- * 1 GB RAM
- * 8 GB storage expandable to 32 GB (via microSD card)
- * Dual SIM slots (3G/4G)
- * VoLTE (HD voice calls)
- * WiFi 802.11 b/g/n, Hotspot, Micro-USB, Bluetooth
- * 2 MP Rear camera, 0.3 MP Front camera
- * 1400 mAh Li-ion battery, Standby time: 200 hrs, Talktime upto 4 hrs, Charging time upto 3 hrs
- * Weight: 249 grams

JioPhone features are listed

here: <http://gadgets.ndtv.com/jio-phone-4255> and <https://www.jio.com/en-in/book-jio-phone>. Key features are:

- * 2.40 inch screen, NOT TOUCH SCREEN, 240×320 pixels resolution
- * KAI OS
- * 1.2 GHz Dual core processor
- * 512 MB RAM
- * 4 GB storage expandable to 128 GB (via microSD card)
- * Single SIM slot (Jio 4G only)

- * VoLTE (HD voice calls)
- * WiFi 802.11 b/g/n, Bluetooth, USB
- * 2000 mAh Li-ion battery, Talktime upto 12 hours, Standby time upto 15 days.
- * 2 MP Rear camera, 0.3 MP Front camera

Related article: Airtel Karbonn A40 Indian hits JioPhone out of the ball park. Here's why, <http://indiatoday.intoday.in/technology/story/airtel-karbonn-a40-indian-hits-jiohone-out-of-the-ball-park-heres-why/1/1068009.html>

The JioPhone ties the user to Jio SIM only.

In the case of Karbonn A40 Indian, it works with any 3G/4G SIM, and is a dual SIM phone. To avail of Rs. 1500 refund over 36 month period one needs to use (one) Airtel SIM and Airtel 4G plan. If one is not interested in the Rs. 1500 (complex) refund over a 36 month period, then it seems that one can use any two companies 3G/4G SIMs and plans with the device, with the effective price being the full Rs. 2899 without any refund. Note that the phone is not yet available at Rs. 2899 price in regular outlets. However, it is available NOW for around Rs. 3,600 at Amazon India here: <https://www.amazon.in/karbonn-a-40-indian/dp/B074N3ZY5B>.

As the Karbonn A40 Indian is an Android (Nougat) phone, it will be able to run standard Android apps including apps like Facebook, one presumes. The JioPhone may be able to run only a smaller set of Jio apps. Its KAI OS is said to be a custom version of Firefox OS.

To put things in perspective, I re-visited these old blog posts of mine (written then with pseudonym Gabbar Singh and blog then being named gabbarsing.blogspot.com or something like that):

1) JXD 951 Quick User Review / Manual /

Notes, <http://ravisiermisc.blogspot.in/2008/09/jxd-951-quick-user-review-manual-notes.html>, dated 9th Sept. 2008

2) Reading Text files as images with large font on JXD 951 480×272 mp4

player, <http://ravisiermisc.blogspot.in/2008/09/reading-text-files-as-images-with-large.html>, dated 9th Sept. 2008

3) Viewing Sanskrit/Hindi documents on ipod

Touch/iPhone, <http://ravisiermisc.blogspot.in/2009/12/viewing-sanskrit-hindi-documents-on-ipod.html>, 6th Dec. 2009

4) Affordable Pocket ebook Reader for

Sanskrit/Hindi/English, <http://ravisiermisc.blogspot.in/2009/12/affordable-pocket-ebook-reader-for.html>, 9th Dec. 2009.

5) Setting up ipod Touch to be a Pocket ebook

Reader, <http://ravisiermisc.blogspot.in/2009/12/setting-up-ipod-touch-to-be-pocket.html>, 14th Dec. 2009

The above posts show that I was interested in having an affordable (for lower middle class Indian) pocket ebook reader in 2008 and 2009. In 2008, I bought a Chinese made JXD951 media player device with a 4 inch. display for Rs. 4650 and went through some hoops in trying to use it as a pocket ebook reader. Eventually in end 2009 I decided to switch to an iPod Touch 2nd Gen bought for Rs. 9,600 which was a very satisfactory pocket ebook reader when used along with some appropriate apps. It could also browse the Internet over a WiFi connection. From <https://everymac.com/systems/apple/ipod/specs/ipod-touch-2g-specs.html>: The iPod Touch 2nd Gen has a 3.5 inch touch screen display of 320×480 pixels resolution. It uses a 533 MHz processor and 128 MB onboard RAM.

Features wise, the Karbonn A40 Indian is superior (naturally) to the (old) iPod Touch 2nd Gen.: 4 inch touch screen, 800×480 pixels resolution, Quad core processor, 1 GB (onboard) RAM, WiFi and Android OS with Android apps market becoming accessible (as against iOS apps for

iPod Touch). AND it is a dual SIM 4G VoLTE phone!!! For less than 3000 Rupees!!!

From a features point of view (though one does not know how good the quality will be, especially as compared to great quality of the iPod Touch), the Karbonn A40 Indian device is a stunning winner! A pocket touchscreen ebook reader cum 4G VoLTE phone cum 4G Internet browser cum Android Nougat apps device!

Couple that with a 4G plan like Jio's Rs. 399 plan for 84 days (Rs. 143 per 30 days) giving 1 GB data per day at 4G speed (with beyond 1 GB data per day at 128 Kbps speed) AND FREE voice calls all over India!

Compared to the options I had in 2008 and 2009 for an affordable for lower middle class Indian, pocket ebook reader device, as reflected in above mentioned blog posts, in 2017, less than a decade later, my options have improved exponentially! And as my situ would be similar to that of tens or hundreds of millions of lower middle class Indians, imagine what revolutionary impact such affordable 4G smartphone touch screen devices in combination with affordable 4G Internet plans, will have on India as a whole in sectors like education, business, social media networking etc.

And then imagine a replication of what is happening in India, either already happening simultaneously or happening in the near future, in various other countries of the developing world in Asia, Africa, Latin America and even Eastern Europe! Perhaps the poor and lower middle class in developed countries in Western Europe, USA, Canada, Australia and Asia (e.g. China, Japan) would also be keenly interested in such very affordable devices and Internet service plans being made available to them.

On this front at least, I think the outlook is very, very bright for the world at large. Hats off to all the inventors, technologists and business people (men and women) in hardware, software and applications field that made this technology-cum-business miracle of very low cost 4G smartphone and low cost 4G Internet access possible. May Almighty God bless them all with love, peace and joy.

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An Indian correspondent (IC) wrote (and was OK with public sharing):

Dear Ravi

I am hesitant about these 4G plans. The 4G coverage in India is very patchy: even in Pune, there are areas with and without 4G coverage. I used to get Airtel 4G at home but then that became sporadic and I had to use my Jio 4G hub to provide connectivity.

So getting a device locked to one vendor's 4G will be very limiting if you expect to travel to different places.

The introduction of Jio 4G has really shaken up the market. Other vendors like Airtel and Vodafone have lost market share and are frantically busy trying to get new customers. One way they can do this is to change the alignment of their antenna slightly to bring new areas into the coverage (and of course give some existing customers a poorer service — it's a zero sum game).

I have complained to Airtel at all levels, from the CEO down; the message hinted at is that they do not have enough antennas to provide full coverage and, to save cost, they are going slow on installing new antennas.

—

I (Ravi) responded (slightly edited):

Interesting views, —.

To me, Reliance Jio 4G offering seemed to be too good to be true, when it first came out late last year. I have a great aversion, born from lots of experience over decades, of being on the bleeding edge of tech., whether hardware, software or a combination of them. But as I saw that

a good friend of mine in Puttaparthi was enjoying Jio 4G Internet over months, with initial months being FREE, I decided that it was worth trying out. So far, I have not regretted my decision to move on to low-cost Jio 4G as my primary Internet connection in Puttaparthi, disconnecting my landline BSNL broadband of nearly a decade. Note that my needs are not very high on speed and nor on availability. I mean, if it is slow (below 1 Mbps) for an hour or two and even not available for an hour or two, I can live with that.

Another thing is the free calls all over India thing. I feel like a fool now as I use a 3G phone and have to pay for my phone calls even though I have two Reliance Jio 4G SIMs in operation with free calls all over India facility. Granted I don't use my phone much but even then I feel like a fool as I am paying for those limited calls whereas many others in Puttaparthi using Jio 4G plans (or Airtel 4G plans) don't pay anything for the calls (but pay for the 4G Internet service plan, of course).

It is this feeling like a fool for having to pay for voice calls that is driving me towards buying a 4G phone. I was seriously thinking of going in for a Reliance JioPhone once it becomes more easily available for Rs. 1500 (refundable deposit). But now I have got the sub 3000 Karbonn A40 touchscreen Android dual SIM 3G/4G smartphone possibility. So that's what I am going to buy once it becomes available in Puttaparthi.

Will this low-cost 4G Internet thing be around for years down the line? Is it a bubble that will burst, inflicting serious damage on the companies that have gone down this road? I honestly don't know.

Right now I am going with the flow. And the flow is low-cost 4G Internet with people in Puttaparthi disconnecting their landline broadband connection in droves. I am quite sure this thing must be happening in many small towns and small cities all over India. The big city picture in India (Mumbai, Delhi, Bangalore etc.) may be somewhat different as the landline Internet broadband plans there may still be attractive as compared to 4G Internet, due to reliable and high-speed Internet they provide (> 50 Mbps).

IC wrote:

By the way, we had a long power outage last week, perhaps 6-7 hours. Sadly, both Airtel and Jio stopped functioning. This means they have limited power backup and cannot be relied upon in emergencies. Our BSNL telephone line (no broadband) continued to work! There's something to be said for that.

I (Ravi) responded:

About the power outage: Hmm. That's useful input.

About BSNL telephone line working during the power outage: I am not surprised as I have a good opinion of BSNL's reliability now. BSNL Puttaparthi is rock solid in its service, both on telephone line and on broadband. It is the price differential between its broadband and 4G broadband that made me reluctantly give up BSNL landline broadband. I hope BSNL landline broadband offers competitive price to 4G Internet at which time I will seriously consider reconnecting to BSNL landline broadband.

=====End of Post=====

1.78 billion hours of high-speed data

(video) and 3.78 billion GB of data consumption, and 2.7 billion Rupees loss for Reliance Jio for this Sept. quarter; Published: 16 Oct 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/10/16/1-78-billion-hours-of-high-speed-data-video-and-3-78-billion-gb-of-data-consumption-and-2-7-billion-rupees-loss-for-reliance-jio-for-this-sept-quarter/>

A correspondent passed on this article: 178 crore hours of video, 378 crore GB of data behind Reliance Jio's Rs 271 crore loss,

<http://www.businesstoday.in/current/corporate/reliance-industries-q2-resultsreliance-jio-video-playback-data-loss-voice-call-volte-4g/story/262023.html>, 13th Oct. 2017

The above article mentions that Reliance Jio reported Rs. 270.59 crore loss during Sept. quarter of this year (1 crore is 10 million; so 2.7 billion Rupees; and $2705.9/64.7 = 41.82$ million US Dollars with current exchange rate of 1 USD being Rs. 64.7).

The interesting data given in the article for Reliance Jio is as follows:

- * Total subscriber base: 138.6 million
- * New subscribers joining in Sept. quarter: 19.5 million
- * Old subscribers leaving Jio in Sept. quarter: 4.2 million
- * Net subscriber addition in Sept. quarter: 15.3 million
- * At end of last (Sept.) quarter, Average Revenue Per User (ARPU) per month: Rs. 156.4
- * Total wireless traffic in Sept. quarter: 378 crore GB (3.78 billion GB)
- * Average voice traffic in Sept. quarter: 267 crore (2.67 billion) minutes per day.
- * Per capita data consumption (per month) in Sept. quarter: 9.62 GB (highest among Indian telecom service providers)
- * High speed data (e.g. video) consumption per month in Sept. quarter: 178 crore (1.78 billion) hours

Reliance Jio which currently operates solely on the 4G network is reported to claim that it can easily migrate to 5G network. BTW somebody told me that BSNL, the mega public sector telecom company of India, which does not operate on 4G network and offers 3G network now, plans to directly jump to 5G network. Don't know how true it is and how long it will take for BSNL to provide those 5G services. Of course, users will then need 5G capable handsets/devices too!

=====End of Post=====

A few days back Jio 4G in Puttaparthi was down for at least an hour or two; Used Rs. 4 STV of BSNL 3G Internet to save my blog post; Published: 14 Oct 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/10/14/a-few-days-back-jio-4g-in-puttaparthi-was-down-for-at-least-an-hour-or-two-used-rs-4-stv-of-bsnl-3g-internet-to-save-my-blog-post/>

I thought it appropriate to record in this blog where I have been putting up lot of posts about Jio 4G Internet service in Puttaparthi, that a few days back Jio 4G network went down for at least an hour or two, during daytime/evening (not late night or early morning). The signal indicator showed red on the JioFi 3 router, with the WiFi connection to JioFi on the PC desktop showing No Internet, if I recall correctly. The Huawei 4G USB dongle with Jio SIM also could not connect to the Internet.

This happened while I was in the midst of updating a blog post of mine. So I had got a little stuck. I had disconnected my BSNL landline broadband connection around a couple of weeks back and neither of my two Jio 4G SIM connections were useful as the Jio 4G network itself in Puttaparthi was down!

BSNL 3G Internet came to my rescue. I used the bare minimum Rs. 4 DATA STV (Special Tariff Voucher) which gives 20 MB data valid for 1 day. I used Nokia Suite software on the PC and connected my Nokia E-52 phone with BSNL 3G SIM card on it via USB port, and connected to the Internet through BSNL 3G Internet service. I was able to save my blog post on the Internet and confirm that it showed up properly. After a few other small Internet operations, I had over 15 MB data leftover to play with.

I think it is great that BSNL offers such a minimal price STV of Rs. 4 making it a great emergency minimal Internet connection solution. The next higher priced STV of BSNL 3G is Rs. 17 STV giving 110 MB data with validity of 1 day. [For more info. see:

http://www.ap.bsnl.co.in/flashapnews/3g_prepaid_data_plan.html]

I should also mention here that during the recent festival days of Navarathri/Dassera, especially the last two to three days of it when Puttaparthi had lots of visitors, Jio 4G speeds were often in the hundreds of Kbps level during some periods in the day. Perhaps these periods corresponded to many visitors using Jio 4G Internet thereby heavily loading Puttaparthi Jio 4G network.

For more critical users, I think it would be ideal to have both Jio and Airtel 4G Internet services instead of having only one. Perhaps instead of one 2 GB per day plan from either vendor, having two separate 1 GB per day plans from each vendor (Jio and Airtel), or something like that, would be a better option from more reliable Internet connectivity point of view. Airtel's 4G service in Puttaparthi is said to be good, and their 4G plan prices now seem to be competitive

with Jio's 4G plans.

=====End of Post=====

JioFi 4G router at band 40 gives good 2 to 5 Mbps speeds but at band 5 occasionally gives poor 500 to 700 Kbps speeds in my Puttaparthi flat; Published: 14 Oct 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/10/14/jiofi-4g-router-at-band-40-gives-good-2-to-5-mbps-speeds-but-at-band-5-occasionally-gives-poor-500-to-700-kbps-speeds-in-my-puttaparthi-flat/>

At times the JioFi 3 router provided Internet speed in my flat in Puttaparthi, Andhra Pradesh, is in the range of 500 to 700 Kbps. Of course, I am talking of situations where I had/have not crossed my FUP limit of 2GB for the day. This can happen during daytime and even during late night time when the speed is typically in the 10 to 15 Mbps range. This happens even when the router is placed at a location where the signal quality is good (green indicator) and where I have got much better speeds of 2 to 5 Mbps during daytime, and 10 to 15 Mbps at late night time. Now I have noted that when I would be having these low speeds of ≤ 700 Kbps, and when I checked the status of the router on JioFi administrator page, <http://jiofi.local.html/>, the operating band would be 5.

Conversely, I have noted that when I get good speeds i.e. > 3 Mbps during daytime, the operating band would be 40.

On browsing the net on the issue I read that JioFi uses operating bands 3, 5 and 40 [See section, "Reliance Jio Band | Reliance Jio Bandwidth" in LTE frequency bands in INDIA, <http://www.rfwireless-world.com/Terminology/LTE-frequency-bands-and-4G-LTE-phones-in-INDIA.html>]. Band 40 gives the best speed. Bands 3 and 5 give poorer speeds.

But there is no mechanism in JioFi, as far as I know, for the user to safely change the operating band setting to 40. [How to Lock LTE Network to band 3, 5 or 40 [3 Solutions], <https://www.newstelecom.info/2016/07/how-to-lock-lte-network-to-band-3-5-or-40-3-solutions/>, mentions some pretty involved and perhaps unsafe solutions for handsets (not JioFi routers) to lock onto a particular band.]

My guess is that the JioFi router automatically switches to band 40 if it is available. So no user input is required. At times, perhaps the service provider themselves, may be making band 40 less available or not available and instead making only band 5 (and/or band 3) available. Perhaps one scenario when they do this is when there is high load on the mobile tower at which time, reducing/stopping band 40 availability may allow more people to use the network using band 5 (and/or band 3) but at lower speeds. However, all this is pure speculation on my part and could very well be completely wrong.

From a JioFi router user point of view, I think that when I get poor speeds of ≤ 700 Kbps, while

knowing that the JioFi router is not on Operating band 40 gives me some idea of the problem, I do not have any solution to increase the JioFi router speed. I typically have to either switch to using the Huawei 4G USB dongle and its SIM OR wait for the JioFi router to automatically move to Operating band 40. Typically I have seen that the JioFi router is stuck at Band 5 and lower speed (≤ 700 Kbps) only for half an hour to an hour. After that period the router switches to using Band 40 and typically gives 2 Mbps or higher speed.

Today (14th Oct. 2017) around 2.15 PM in the afternoon, I had this low speed of 500 to 700 Kbps problem (fast.com used to measure speed). This continued for about 20 to 30 minutes. Switching off and then switching on the router had no impact.

Then around 2.50 PM the operating band changed to 40 (on its own) without any effort on my part, and the speed jumped to 4.9 Mbps (fast.com). [I had just plugged in the Huawei 4G USB dongle with my other Jio SIM (whose initial validity of 84 days will expire in a few days time) but had not connected to the Internet with it. I don't think just plugging the Huawei 4G USB dongle in would have had any impact on the JioFi 3 router changing the operating band to 40. Once I saw that the operating band has changed to 40 and that the speed had got into healthy 2+ Mbps range, I unplugged the Huawei dongle (without having connected to the Internet with it).]

I have observed during such times of 500 to 700 Kbps speed of JioFi 3 router, if I use the Huawei 4G dongle (with another Jio SIM) instead, I get 2 Mbps+ speeds usually. But at times, even with the Huawei dongle, the speed goes below 1 Mbps touching 800 to 900 Kbps. In general though, the Huawei dongle gives a better speed solution when the JioFi 3 router is stuck at 500 to 700 Kbps speeds (and Operating band 5 (or 3)).

The Mobile Partner program that comes with the Huawei dongle did not seem to have any property field showing operating band. So I don't know what operating band it uses.

*) At 3.03 PM got 1.9 Mbps speed (fast.com) with JioFi 3 router (with operating band 40). 2 to 3 Mbps speed during daytime, in my Puttaparthi flat, is not unusual with JioFi 3 router (or with Huawei dongle). And this speed is typically good enough for quick viewing of images while scrolling down Facebook Timeline and seeing youtube videos without pause for buffering.

*) At 3.07 PM got 4.9 Mbps speed (fast.com) with JioFi 3 router.

*) At 4.35 PM got 8.5 Mbps speed (fast.com) with JioFi 3 router. Operating band is 40 and Bandwidth is 20 MHz.

*) At 5.12 PM got 2.2 Mbps speed (fast.com) with JioFi 3 router. Operating band is 40 and Bandwidth is 20 MHz.

=====End of Post=====

USB WiFi adapter on desktop computer connected to JioFi 3 router, improves Jio 4G Internet speed to 4 Mbps or more (in my Puttaparthi flat); Published: 28

Sep 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/09/28/usb-wifi-adapter-on-desktop-computer-connected-to-jiofi-3-router-improves-jio-4g-internet-speed-to-4-mbps-or-more-in-my-puttaparthi-flat/>

Last updated on 1st Oct. 2017

“TP-Link TL-WN725N 150Mbps Wireless N Nano USB Adapter”, <https://www.amazon.in/TP-Link-TL-WN725N-150Mbps-Wireless-Adapter/dp/B008IFXQFU> gives my PC desktop computer the ability to connect via WiFi to JioFi 3 4G router. It typically gives, as of now at least, a satisfactory speed (typically 4 Mbps or more, sometimes going up to 16 Mbps) Jio 4G Mobile Internet broadband access solution for me on my desktop computer, with JioFi 3 router placed in suitable position for good signal strength. I faced the less than 1 Mbps speed for short periods issue on fewer occasions than with USB tethering solution earlier.

Also procured a claimed high-quality 6 feet micro to regular USB cable,

<https://www.amazon.in/Chevron-Charging-FastLane-Unbreakable-Braided/dp/B073SGNYNT>.

As it is around 3 feet longer than the around 3 feet Jio supplied cable, it provided me more convenience in placement of JioFi 3 device for better signal strength, when using USB tethering to computer solution. That seems to have been the reason for improved Internet speed for the desktop computer seen in this arrangement.

The desktop computer Jio Internet connection solution that works best in my situation/case, from an Internet speed point of view as well as Windows 10 OS and Internet applications (like Chrome browser) stability point of view, is the WiFi USB adapter connected to JioFi 3 4G router one. So that's what I intend to use on a regular basis.

This post follows up on my previous post, Flaky/unstable solution to JioFi 3 4G router USB tethering to Windows 10 lag problem and perhaps freeze problem too, <https://goo.gl/nJs6A4>.

Readers who are not interested in details may please skip reading the rest of this post.

Detailed Log

Two or three days ago, I got delivery of “TP-Link TL-WN725N 150Mbps Wireless N Nano USB Adapter” which I had ordered from Amazon India, <https://www.amazon.in/TP-Link-TL-WN725N-150Mbps-Wireless-Adapter/dp/B008IFXQFU>. This USB adapter device would give my PC desktop computer the ability to connect via WiFi to JioFi 3 4G router.

The package contents looked good: the Nano USB adapter, a quick install leaflet, little more documentation leaflets, and an install CD. The package cover also mentions a 3 year warranty. I followed the simple quick install instructions which mainly were plugging in the tiny (nano) WN725N adapter into a USB port of my desktop computer and then installing the driver and utility software from the CD.

Towards the end of the install process, the WiFi networks the adapter could sense were listed, which included my JioFi 3 device related WiFi network. I connected to it and specified the password, when asked. It connected saying Secure something but added ‘No Internet’ or words to that effect! Browsing via Chrome reported no Internet connection.

I tinkered around the setup/config a little but did not get any solution. Then I called up TP-Link India support (listed in one of the leaflets in the package). I did not get through to a customer service rep. in the first attempt but got success in my second attempt. Unfortunately, the customer service rep. was not so helpful with my problem. She first told me that they (TP-Link company) do not recommend this product for connecting to JioFi router (or perhaps any 4G

router), and instead suggest another product. I did not buy that line of “support” and told her that their company is selling this product and so now I need help to connect to JioFi 3 with that product.

She later tried to help by suggesting that I change the WiFi channel on the JioFi router to 1, 6 and 11 (in turn) with the WiFi channel bandwidth being 20 MHz, and see if that works. This was new to me but I figured out that these settings would be on the administrator webpages of the JioFi 3 device. I asked her whether I should update the device’s driver with the latest driver from TP-Link website. She said that if her first suggestion does not work, then I could do so.

So I tried out her suggestion which involved changing the (default) Automatic setting of WiFi channel in JioFi 3 router using its web administration/configuration interface, to these values (in turn). But none of these changes solved the problem.

Then I tried updating the driver using latest version from TP-Link website. That involved running a setup program in the downloaded set of files (after unzip) which “repaired” the TP-Link installation. I also uninstalled some iPod/iPhone third-party software that I had installed (may not be connected with this issue at all). *[I was successful in using my old ipod Touch 2nd gen.*

device which I had not used for at least four years, maybe five or six years (since Bhagawan Mahasamadhi in April 2011 or little later after that), to connect to Jio Fi 3 router using WiFi and browse the Internet on the ipod Touch. It was in that connection that I had recently installed some iPod/iPhone third-party software on my desktop computer.]

On restart of the computer, the problem got solved! Now on connecting to JioFi 3 router’s WiFi network, I got the status message of “Connected, secured”. Browsing the Internet using Chrome worked! I don’t know what exactly solved the problem. It was not the WiFi channel setting suggestion as after the unsuccessful attempts with modifying the channel, I had set it back to its original (default) setting of Automatic. I also noted that the driver date remained the same (1st April 2016) even after the latest driver was installed from TP-LINK website. So I think the first driver installed by the initial CD setup may have been the same as the latest driver that I downloaded.

Anyway, now the Nano WiFi adapter had successfully enabled WiFi connectivity to JioFi 3 router from my desktop computer. This enabled me to place the JioFi 3 router closer to the outside balcony window area of my flat (which gave the best Jio 4G signal reception). Even placing it in my bedroom but near the closed balcony door, bumped up the Internet speeds on the desktop! Typically, even during daytime, I got 4 Mbps and above. At times, I got 10 Mbps and above. On only one or two occasions for a short period of time, I got below 1 Mbps speed (like around 500 Kbps).

Placing the JioFi 3 router in the balcony window sill, resting against closed insect-net window pane, gave me, at times, 15 Mbps speed during daytime (as obtained on desktop computer in bedroom corner through WiFi adapter). Here’s one such result, IIRC, associated with these tests: <http://beta.speedtest.net/result/6659374415> (16.44 Mbps DL speed, 27th Sept. 2017, 4.45 PM).

But this is the more typical speed (with JioFi 3 router on chair in bedroom near closed balcony door): 6.09 Mbps on 28th Sept. 2017 at 9.54 PM, <http://beta.speedtest.net/result/6663277326>.

So, as of now at least, a satisfactory speed (typically 4 Mbps or more) Jio 4G Mobile Internet broadband access solution for me on my desktop computer is using the WiFi Nano adapter and connecting via WiFi to JioFi 3 router placed in suitable position for good signal strength. I don’t know how often I may face the short period below 1 Mbps speed issues, but it seems to be lesser with this arrangement than when I was using JioFi 3 with USB tethering using Jio supplied around 3 feet cable.

A little before I got the TP-Link USB WiFi adapter, I received a claimed high-quality 6 feet micro to regular USB cable that I had ordered from amazon.in,

<https://www.amazon.in/Chevron-Charging-FastLane-Unbreakable-Braided/dp/B073SGNYNT>.

Note that the Jio supplied micro to regular USB data and charging cable is around 3 feet long. I must mention here that I had tried to connect the Jio supplied cable with a high-quality 3 meter (9.84 feet) USB extension cable, and use that arrangement to USB tether JioFi 3 to desktop computer. This arrangement failed as the computer was not able to properly recognize JioFi 3 device.

This high-quality 6 feet micro to regular USB data and charging cable worked better with USB tethering of JioFi 3 to desktop computer, than with JioFi 3 being connected with the Jio supplied around 3 feet cable. The additional 3 feet of cable length allowed me more convenience in placement of JioFi 3 device closer (lesser distance) to the balcony door. That seems to have been the reason for improved Internet speed for the desktop computer seen in this arrangement.

The solution that works best from an Internet speed point of view as well as Windows 10 OS and Internet applications (like Chrome browser) stability point of view, is the WiFi USB adapter connected to JioFi 3 4G router one. So that's what I intend to use on a regular basis. However, it is good to know of the possibility of more convenient and better Internet speed arrangement of USB tethering of JioFi 3 to computer using longer 6 feet cable.

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1st Oct. 2017 Update: After a few days of the TP-Link USB Wi-Fi adapter connecting to the JioFi WiFi network without any issues, when I started up my desktop computer today, I got the earlier problem mentioned in this post, of Connected but "No Internet" message on JioFi WiFi network connection (when connected through TP-Link WiFi adapter). Chrome browser also reported no Internet connection. Note that it had connected to JioFi automatically on computer startup perhaps because it was connected at shutdown time. I have NOT put on automatic connect for this WiFi connection.

Disconnecting the JioFi WiFi network connection (on the computer) and re-connecting it, did not resolve the problem. I thought of restarting the computer before I tried out any further other options. Restart resolved the problem! fast.com is reporting 5 to 6 Mbps speed (at around 8.50 AM, with JioFi 3 router placed on a chair in bedroom near open bedroom-balcony door).

=====End of Post=====

Flaky/unstable solution to JioFi 3 4G router USB tethering to Windows 10 lag problem and perhaps freeze problem too; Published: 22 Sep 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/09/22/solved-jiofi-3-4g-router-usb-tethering-to-windows-10-lag-problem-and-perhaps-freeze-problem-too/>

Last update on 25th Sept. 2017

This post follows up my recent post, Interesting info. on USB tethering on Windows 10 problems which I think applies to JioFi 3 4G router too, <https://goo.gl/SWRiFd>.

The above post covers the solution of using USB RNDIS6 driver instead of RNDIS5 driver for the Android device that is providing Internet through USB to solve lag and other problems with USB 4G routers connected to Windows OS (8.1 and 10).

I speculated that this solution may work with JioFi 3 4G router too, as the problems I faced with it were similar, namely, Internet lag when I browse after plugging the device to USB port of computer (with Windows 10 OS) and also sometimes Internet access freezing for some time.

Today I tried out this solution with JioFi 3 4G router, and it seems to have solved my above problems. Before I associated the USB RNDIS6 (from Microsoft) driver with the JioFi 3 device which is shown as an Android device in Windows 10, I created a Windows system restore point. This way, if the driver change/update created Windows 10 OS instability, I could restore Windows system back to the earlier created system restore point.

After USB RNDIS6 (with driver files rndismp6.sys and usb80236.sys) has got associated with Android device corresponding to JioFi 3, I have noted the following improvements over the earlier situation with RNDIS5 (with driver files usb8023x.sys and rndismpx.sys):

1) The Internet access icon on the taskbar comes up immediately on plugging the JioFi 3 to the USB port of the desktop computer (with Windows 10), but the icon has a yellow exclamation mark associated with it signifying some problem with the connection. However, in a few seconds the yellow exclamation mark goes away leaving a regular Internet access icon on the taskbar signifying proper/good Internet access (wired connection icon). With the earlier driver RNDIS5, an Internet access icon would come up on the taskbar when plugging the JioFi 3 but it would have a red X mark signifying that the connection is not working. That red X mark would remain till one attempted to browse the Internet and got data over it.

2) There is no perceptible lag when starting to using the browser to get Internet websites after JioFi 3 is USB tethered. Earlier there used to be a perceptible lag for initial use of the Internet connection.

3) So far, even when I have used the JioFi 3 USB tethered connection for over an hour, I have not faced any Internet connection freeze problem. Earlier I used to face Internet connection freeze problems intermittently though I did not note the period after which I faced it. However, I think that typically within an hour I would face at least one Internet connection freeze episode. So it seems to me that USB RNDIS6 driver association with JioFi 3 4G router on Windows 10 OS has solved my lag and intermittent freeze problems with JioFi 3 USB tethered Internet connection.

After the driver change was made, disconnecting the JioFi 3 router (USB connection) and then reconnecting it again after a few minutes, results in Windows 10 OS associating the USB RNDIS6 driver with JioFi 3. For the same USB port and same Windows user, it seems to remember the changed driver associated with JioFi 3. This was the case even when the computer was shutdown and restarted.

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25th Sept. 2017 Update: Over the past few days, I found that the above solution is not a steady one but is a flaky or unstable kind of solution. Sometimes the computer did not recognize the JioFi 3 4G router as a USB RNDIS6 device (even though I had changed the driver for the associated Android device that came up when I plugged JioFi 3 to the computer using USB cable), but viewed it as an RNDIS5 device (with RNDIS5 drivers being associated with it). Once even when it was mapped as USB RNDIS6 device, Internet connectivity failed. This

problem got resolved by unplugging the device, restarting the computer (Windows 10) and then plugging the device back in. And this time the device was viewed as an RNDIS5 device (with RNDIS5 drivers ...).

At another time, when the JioFi 3 was connected via USB to computer and mapped as an USB RNDIS6 device, after continuous usage of some hours, the display of the computer went blank (or something like that) and the computer had got hung. I was forced to restart the computer. Even after restart the JioFi 3 device did not get recognized/work properly, if I recall correctly. Subsequently I tried out something which I don't recall now (perhaps plugged it in to another USB port) that got it working again.

Now my general view is that the JioFi 3 4G router USB tethering option is not a well designed and stable solution for Windows OS. That it does not even provide a Windows OS driver for such operation shows that it is not a well designed solution. But then most JioFi 3 device users would be using it over WiFi! I think I too need to start using JioFi 3 4G router over WiFi and stop using it over USB. I have ordered a "TP-Link TL-WN725N 150Mbps Wireless N Nano USB Adapter" which will provide my desktop computer with ability to connect over WiFi to WiFi devices like JioFi 3. Hopefully that will work out well.

=====End of Post=====

Interesting info. on USB tethering on Windows 10 problems which I think applies to JioFi 3 4G router too; Published: 21 Sep 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/09/22/interesting-info-on-usb-tethering-on-windows-10-problems-which-i-think-applies-to-jiofi-3-4g-router-too/>

The problem: When I connect JioFi 3 via USB tethering to my Windows 10 OS desktop computer it takes some time for the browser to connect to Internet sites (a lag issue). After some lag it starts working, and works well for some time. Later it (Internet connection through JioFi 3) sometimes suddenly freezes or slows down terribly (hundreds of Kbps range speed). Chrome browser tends to get stuck/frozen then. At times, but not at all such freeze problem occasions, I even get a no Internet connection message on the browser! After some minutes, the Internet connection recovers on its own and the speed picks up, getting into Mbps range.

Just the speed drop could be attributed to poor location of JioFi 3 router from a signal strength point of view. But the no Internet connection message is a strong indicator of something wrong somewhere.

I browsed for solutions to this problem having JioFi router as part of Google search term. But I did not get suitable results initially as the Jio related result links (mostly from users and not Jio company) did not report such problems. But I think I saw some Windows 10 related links about USB tethering problems (Windows 10 was also part of some of my Google search terms during this browsing).

So then I thought maybe JioFi 3 router is facing a generic problem that 4G routers face with Windows 10 and USB tethering. So I used Google search term: NDIS usb Windows 10 problems

That led me to this link, “[FIX] USB Tethering lags/freezes on windows 8.1”, <https://forum.xda-developers.com/android/general/fix-usb-tethering-lags-freezes-windows-t3039183>. The solution, it says, is: “Update your NDIS 5 Driver to NDIS 6.x.” and gives the procedure to do so.

It also has this Microsoft link: “Slow startup of Modern Apps when RNDIS devices are connected”, <https://support.microsoft.com/en-us/help/2923775/slow-startup-of-modern-apps-when-rndis-devices-are-connected>. The problem listed is slightly different from but related to the problem I am facing. But the common issue is the RNDIS device. It says about the cause of the problem, “This issue may occur if the USB device is mapped to a incorrect RNDIS 5 based driver. If the underlying network device uses Remote NDIS (RNDIS) 5 drivers, you may experience slowness in loading the Modern Apps.” To identify whether the network device is using RNDIS 5 drivers, it says that Driver details for it will show files named “usb8023x.sys and rndismpx.sys”! These are the files shown for driver details of the Android device that gets shown under “Devices and Printers” when the JioFi 3 device is tethered via USB to my Windows 10 desktop comp! So that seems to be it. The incorrect driver is being used by Windows 10 for the USB tethered JioFi 3 router device!

The Workaround suggested by the Microsoft link above is: “Upgrade the drivers to use RNDIS 6.x driver. Contact your devices Hardware Vendor on steps to receive the files/steps required to update the driver so it uses RNDIS 6.x driver.”

But I don’t think JioFi 3 support is that sophisticated to provide (updated) driver files or any driver files for Windows 10 (or other Windows OS)!

However, the earlier forum.xda-developers.com article suggests an easier solution under its option 1 using manual driver update. But it does not have the specifics. Here’s a youtube video which shows how to do it: “FIX – USB Tethering on Windows 10”, <https://www.youtube.com/watch?v=tyBS3rVTxxU>, 2 min 7 secs. I had come across this youtube video earlier in my browsing but I was not sure whether what it suggested was safe to do. Now I am more confident about it given that Microsoft itself states that the drivers have to be upgraded to RNDIS 6.x. According to this youtube video, if after changing the driver as demonstrated by it, the driver file names are rndismp6.sys and usb80236.sys, the driver would have been updated to RNDIS version 6.

One issue in the above manual procedure is overriding a warning from Windows about installing the new driver (USB RNDIS6) possibly making the system unstable. I think I need to first have a proper system backup to fall back on, if the new driver installation trips up something. So I may explore using this solution only after a few days perhaps.

Overall, I think the above mentioned descriptions fit my JioFi 3 USB tethering to Windows 10 flaky connection problem, and so their suggested solution may resolve my problem.

=====End of Post=====

With Gigabyte GA-78LMT-USB3 Mobo upgrade on desktop comp, 5m long USB

cable conn to Jio 4G dongle and router is not working well; Published: 21 Sep 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/09/21/with-gigabyte-ga-78lmt-usb3-mobo-upgrade-on-desktop-comp-5m-long-usb-cable-conn-to-jio-4g-dongle-and-router-is-not-working-well/>

I recently upgraded my old Motherboard (Asus M2NPV-VM) based desktop computer to a new motherboard based one, which forced me to change processor and RAM too due to compatibility issues. The new motherboard is Gigabyte GA-78LMT-USB3 rev 6.0, <https://www.gigabyte.com/Motherboard/GA-78LMT-USB3-rev-60#ov>. Windows 10 OS is installed on the desktop computer.

Other aspects of my desktop computer are very satisfactory so far, but one disappointment is that, with its default settings at least, its USB 3.0 ports do not seem to work properly with a 5m long USB cable connection to either Huawei 4G dongle OR JioFi 3 4G router. This long cable arrangement works with the USB 3.0 ports of Dell mini-Laptop. So I expected it to work with the new motherboard USB 3.0 ports! I was told that some USB power related software is available on the Motherboard CD which I can use to increase the power on the USB 3.0 ports, which will solve the problem. I plan to explore that over the next few days. However, that it is not working out of the box (i.e. with default settings) is a disappointment.

Plugging the Huawei make 4G USB dongle directly to the USB 3.0 ports works. It gets detected as a USB device and its associated storage area (with Mobile Partner installation file) gets shown. During installation of Mobile Partner I think the USB driver for this device gets installed besides the Mobile Partner application. After installation, one can connect to Jio 4G either through Mobile Partner application or through Mobile Internet icon shown on taskbar (LoopMobile under Mobile broadband, if I recall correctly, has to be chosen).

Plugging the JioFi 3 router via its USB cable is not as well organized as the above Huawei 4G dongle case. *[But this issue is very similar to, or the same in the case of Dell Mini-Laptop with Windows 8.1 and JioFi 3 router. So it is a JioFi 3 router issue and NOT this Gigabyte Motherboard issue.]* No device driver/installation comes into play. The network connected icon also DOES NOT APPEAR on the taskbar. However, a few minutes after the JioFi 3 is connected via USB cable, using the browser to browse the Internet works. Then the Network connected icon gets shown on the taskbar. The description of the device/network under Network Properties is given as "Remote NDIS based Internet Sharing Device". The USB devices icon comes up indicating that the OS recognizes that this device is connected via USB but there is no entry for ejecting this device. In contrast, for the Huawei 4G modem/dongle, an eject device entry comes up corresponding to it (don't recall the name now) which one can use to eject the device before one physically disconnects it. In case of JioFi 3 one has to physically disconnect the device from the USB port of the computer WITHOUT any prior software command, which is NOT a nice way to disconnect a USB device.

I get varying speeds for the JioFi 3 router in this arrangement where it has to be placed close to the desktop as its USB cable is short (around 2 to 3 feet). Sometimes it is a healthy for my needs speed of 3 to 5 Mbps (during daytime) but sometimes it drops to below 1 Mbps (e.g. 560

Kbps – fast.com, 0.46 Mbps – Ookla Beta at one time today, 21st Sept., afternoon). The quick solution to improving these speeds by using a long 5m (or even 3m) cable (extension) which will allow me to place the JioFi 3 either closer to bedroom/balcony door or in the balcony where the 4G signal reception is better, is not available to me as the new Mobo's USB 3.0 ports do not work with long USB cable connected to JioFi 3.

With the Huawei 4G USB dongle directly plugged in to desktop comp., the speeds were in the range of 3 to 5 Mbps but sometimes dropped to slightly more than 1 Mbps. I don't think it dropped to below 1 Mbps in my casual tests.

Note that the Huawei 4G USB dongle works for some time with a 3m thick (copper wire) USB cable. However, Chrome tends to get stuck at times but then recovers after a minute or two. So there is some flaky (not reliable) success with 3m USB cable in case of 4G dongle with desktop PC and new motherboard. But it is not like the Dell mini-Laptop case which gives smooth working even with a 5m long (and thick) USB cable connected to Huawei 4G USB dongle.

=====End of Post=====

Speed tests of Jio 4G Internet connection through JioFi 3 router in my Puttaparthi flat; Published: 17 Sep 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/09/17/speed-tests-of-jio-4g-internet-connection-through-jio-fi-3-router-in-my-puttaparthi-flat/>

Last updated on 18th Sept. 2017

Summary of results from Jio 4G WiFi router (JioFi 3) Internet speed tests conducted today (17th Sept. 2017) in my flat in Puttaparthi, Andhra Pradesh, India are given below. Note that the Internet service provider is also Jio (JioFi 3 router has Jio SIM in it).

Typical speed of Internet connection on Dell Mini-Laptop using JioFi 3 router connected via WiFi or USB was above 3 Mbps touching 9 Mbps+ speeds at times, though there were a few outlier-type lower speed readings including some below 1 Mbps readings too.

JioFi placed on window sill of balcony seemed to give some high speed results of 6 to 9 Mbps but sometimes gave lower speeds. JioFi being placed on table inside the balcony was giving almost comparable high speed results in the range of 6 to 9 Mbps but the number of tests done is smaller than that done on window sill location.

JioFi placed in vertical position on computer table in bedroom next to laptop gave most results in the 3 Mbps to 6 Mbps range with some results giving as low as hundreds of Kbps speeds and some giving high 9 Mbps+ speeds.

[Updates on 18th Sept. 2017: Late night/early morning (1 AM to 2.30 AM) speeds were typically in the range of 15 to 20 Mbps, though a few outlier results were lower.

In the afternoon (1 PM to 2 PM) in a shop on Puttaparthi main road which, I was told, is quite close to the Jio tower in that area, I got 25 to 30 Mbps speeds with an outlier top speed of 37 Mbps! end-Updates.]

Overall, I can say that the Internet speed seen in my flat on Dell Mini Laptop when connected to

JioFi 3 router with 4G Jio SIM, via WiFi or USB, is satisfactory for my needs.
Readers who want to see the detailed speed tests may see the remaining part of this post.
Others may please feel free to skip reading rest of this post.

Detailed Speed Tests Log

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The (4G mobile Internet) signal strength indicator (middle icon) of the JioFi 3 router has four values (taken from leaflet documentation that came with JioFi 3 router):

- 1) Solid green: Good signal coverage
- 2) Solid blue: Fair signal coverage
- 3) Solid red: Poor signal coverage
- 4) Blinking red: No sim card/sim card error/No service

My observation has been that JioFi 3 router placed flat on the computer table in my bedroom usually gives solid blue indicator – Fair signal coverage, but sometimes gives solid green indicator – Good signal coverage. If I keep it standing almost vertically (within a cardboard box for stability as JioFi 3's vertical base is very thin), it sometimes gives a solid green indicator and sometimes a solid blue indicator.

I forgot to change the Windows Update setting of (Automatic) Check for Updates before I did most of these tests. So any traffic from (automatic) Check for Updates could have slowed down some of the speed tests given below. Towards the end of these tests I changed it to Never Update and the point at which I did it is mentioned in this log.

WiFi speed tests

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17th Sept. 2017, 4:55 PM, Location: Dell mini Laptop on computer table in bedroom, JioFi almost vertically placed on computer table next to Laptop, bedroom-balcony door open, Laptop connected to JioFi 3 by WiFi.

*) 5.5 Mbps, 4.59 PM, Fair signal, fast.com

*) 3.1 Mbps, 5.01 PM, Good signal, fast.com

*) 9.52 Mbps, 5.03 PM, Good signal, <http://beta.speedtest.net/result/6631424865>

*) 6.06 Mbps, 5.04 PM, Good signal, <http://beta.speedtest.net/result/6631427385>

Location: Dell mini Laptop on computer table in bedroom, JioFi almost vertically placed on table in bedroom near open bedroom-balcony door, Laptop connected to JioFi 3 by WiFi.

*) 5.9 Mbps, 5.08 PM, Fair signal, fast.com

*) 7.0 Mbps, 5.09 PM, Fair signal, fast.com

*) 5.63 Mbps, 5.11 PM, Fair signal, <http://beta.speedtest.net/result/6631438487>

*) 5.25 Mbps, 5.13 PM, Fair signal, <http://beta.speedtest.net/result/6631441896>

Location: Dell mini Laptop on computer table in bedroom, JioFi almost vertically placed on table in balcony near open bedroom-balcony door, Laptop connected to JioFi 3 by WiFi.

*) 9.8 Mbps, 5.16 PM, Good signal, fast.com

*) 8.2 Mbps, 5.17 PM, Good signal, fast.com

*) 6.75 Mbps, 5.18 PM, Good signal, <http://beta.speedtest.net/result/6631451918>

*) 7.68 Mbps, 5.20 PM, Good signal, <http://beta.speedtest.net/result/6631454536>

Location: Dell mini Laptop on computer table in bedroom, JioFi almost vertically placed on window-sill in balcony resting on closed insect-net window-pane (with JioFi front side facing bedroom; in all above tests the JioFi front side was facing the outside balcony window area), bedroom-balcony door open, Laptop connected to JioFi 3 by WiFi.

*) 7.8 Mbps, 5.24 PM, Good signal, fast.com

*) 7.0 Mbps, 5.25 PM, Good signal, fast.com

[Ookla Beta speedtests were not working!]

Changed JioFi front side to face outside window area (resting against insect-net window pane) [on balcony window sill]

*) 6.8 Mbps, 5.33 PM, Fair signal, fast.com

*) 4.6 Mbps, 5.35 PM, Good signal, fast.com

*) 12.36 Mbps, 5.36 PM, Good signal, <http://beta.speedtest.net/result/6631484040>

*) 5.61 Mbps, 5.37 PM, Good signal, <http://beta.speedtest.net/result/6631486509>

Changed JioFi front side to face bedroom (again) [on balcony window sill]

*) 9.38 Mbps, 5.40 PM, Good signal, <http://beta.speedtest.net/result/6631490953>

*) 5.11 Mbps, 5.43 PM, Good signal, <http://beta.speedtest.net/result/6631494882>

USB connection speed tests

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Now I got the JioFi router back to computer table, disconnected the WiFi connection and connected JioFi router to Laptop using USB data (and charger) cable (micro-USB on JioFi side). Note that the laptop has USB 3.0 ports which were used for these tests (and NOT USB 2.0 which may cap the speed to below 500 Kbps).

Location: Dell mini Laptop on computer table in bedroom, JioFi almost vertically placed on computer table next to Laptop, bedroom-balcony door open, Laptop connected to JioFi 3 by

USB (only)

*) 3.3 Mbps, 5.49 PM, Good signal, fast.com

*) 8.3 Mbps, 5.53 PM, Good signal, fast.com

*) 10.46 Mbps, 5.54 PM, Good signal, <http://beta.speedtest.net/result/6631517017>

*) 9.17 Mbps, 5.55 PM, Good signal, <http://beta.speedtest.net/result/6631520204>

Changed Windows Update setting from (Automatic) Check for Updates to Never Update. So that will prevent any traffic from Windows Update slowing down the speed test.

Changed JioFi 3 position to horizontal on computer table. Rest is same as above.

*) 4.7 Mbps, 7.48 PM, Fair signal, fast.com

*) 3.0 Mbps, 7.50 PM, Fair signal, fast.com

*) 1.69 Mbps, 7.51 PM, Fair signal, <http://beta.speedtest.net/result/6631747285>

*) 1.29 Mbps, 7.52 PM, Fair signal, <http://beta.speedtest.net/result/6631749548>

Location: Dell mini Laptop on chair in balcony, JioFi on balcony window sill (resting against insect-net window pane) with JioFi front side facing bedroom, Laptop connected to JioFi 3 by USB (only)

*) 6.3 Mbps, 8.00 PM, Good signal, fast.com

*) 410 Kbps (yes, Kbps), 8.01 PM, Good signal, fast.com

*) 6.0 Mbps, 8.02 PM, Good signal, fast.com

*) 2.22 Mbps, 8.04 PM, Good signal, <http://beta.speedtest.net/result/6631773341>

*) 4.32 Mbps, 8.05 PM, Good signal, <http://beta.speedtest.net/result/6631776702>

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A little after the above tests, as I was trying out some more casual speed tests but not recording them here (as that takes time), I saw the speeds drop to a few hundreds of Kbps. I thought that my many speed tests may have pushed my data consumption for the day on this SIM/account to 2GB after which the speed dropped (official speed after 2 GB limit is 128 Kbps).

But when I checked the Jio portal for this account, it showed 800 odd (or was it 900 odd?) MB data available for me. I thought the Jio portal may not have got updated with the latest data consumption.

Around 10 PM I checked the Jio portal again. It still showed 800 odd MB data available for me. I checked the speed on this SIM (in router) and was disappointed to see below 1 Mbps speed. In the interim I had changed to using my first Jio SIM on Huawei USB modem/dongle and that gave a healthy 2 to 4 Mbps on laptop on computer table in bedroom.

I wonder whether the speed cap is getting applied in my 2 GB/day case after 1 GB itself!

Did some (additional) proper speed tests on the new SIM and router.

Location: Dell mini Laptop on computer table in bedroom, JioFi almost vertically placed on computer table next to laptop, closed bedroom-balcony door, Laptop connected to JioFi 3 by WiFi.

*) 3.0 Mbps, 10.15 PM, Fair signal, fast.com

*) 4.5 Mbps, 10.16 PM, Fair signal, fast.com

*) 4.65 Mbps, 10.18 PM, Good signal, <http://beta.speedtest.net/result/6632055777>

*) 5.45 Mbps, 10.19 PM, Good signal, <http://beta.speedtest.net/result/6632058531>

The above tests show that my earlier fears about possibility of speed cap having been applied even though I had not crossed my 2 GB/day limit, WERE UNFOUNDED. The above speeds seem to be healthy for the location of the JioFi device. Perhaps there is some other explanation for the hundreds of Kbps speed results I got earlier.

Same arrangement as above tests, but with WiFi disconnected and USB cable connection made between JioFi router and Laptop.

*) 2.2 Mbps, 10.26 PM, Good signal, fast.com

*) 2.5 Mbps, 10.27 PM, Good signal, fast.com

*) 3.53 Mbps, 10.28 PM, Good signal, <http://beta.speedtest.net/result/6632077323>

*) 3.07 Mbps, 10.29 PM, Good signal, <http://beta.speedtest.net/result/6632079825>
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To know more precise values of signal quality than Poor, Fair or Good, the JioFi web admin interface under its Status tab/page has three fields RSRP (Received Signal Received Power), RSRQ (Received Signal Received Quality) and SINR (Signal to Interference-plus-Noise Ratio). [For more on these terms see: Making Sense of Signal Strength/Signal Quality Readings for Cellular Modems,

<http://blog.industrialnetworking.com/2014/04/making-sense-of-signal-strengthsignal.html>.]

The web admin interface page of JioFi 3 can be accessed by the URL: <http://jiofi.local.html/> in browser of computer connected to JioFi 3 (by WiFi or by USB).

The article, Understanding LTE Signal Strength Values,

http://knowledge.digi.com/articles/Knowledge_Base_Article/Understanding-LTE-Signal-Strength-Values, has a table with the value ranges of the three fields taken together, which are considered as Excellent, Good, Mid Cell and Cell Edge (signal strength).

Excellent has RSPR ≥ -80 , RSRQ ≥ -10 , SNR ≥ 20

Good has RSPR from -80 to -90, RSRQ from -10 to -15, SNR from 13 to 20

At 10:41 PM the web admin Status page shows RSRP of -80 dBm, RSRQ of -11 dB and SNR of 21 dB. At the same time, the solid green signal strength indicator is shown on the front panel of the JioFi 3 router, which means Good signal strength in JioFi 3 documentation terms (and not above digi.com article terms). The Good signal strength term in JioFi 3 documentation may be mapping onto both Excellent and Good signal strength terms in the digi.com article.

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Early morning of 18th Sept. 2017 speed tests

Location: Dell mini Laptop on computer table in bedroom, JioFi almost vertically placed on computer table next to Laptop, bedroom-balcony door closed, Laptop connected to JioFi 3 by USB (only)

*) 15 Mbps, 1.01 AM, Good signal, fast.com

*) 12 Mbps, 1.08 AM, Good signal, fast.com

*) 14.65 Mbps, 1.09 AM, Good signal, <http://beta.speedtest.net/result/6632409303>

*) 18.79 Mbps, 1.11 AM, Good signal, <http://beta.speedtest.net/result/6632412601>

Location: Dell mini Laptop on computer table in bedroom, JioFi placed on balcony window-sill next to closed insect-net window, JioFi front side facing bedroom, bedroom-balcony door CLOSED, Laptop connected to JioFi 3 by WiFi

*) 5.8 Mbps, 1.16 AM, Fair signal, fast.com

Changed JioFi front side to face outside window area

*) 8.0 Mbps, 1.19 AM, Good signal, fast.com

Opened bedroom-balcony door

*) 12 Mbps, 1.21 AM, Good signal presumed, fast.com

*) 8.7 Mbps, 1.22 AM, Good signal presumed, fast.com

*) 11.76 Mbps, 1.23 AM, Good signal presumed, <http://beta.speedtest.net/result/6632433920>

*) 12.47 Mbps, 1.25 AM, Good signal presumed, <http://beta.speedtest.net/result/6632436140>

Sat in the balcony with Laptop connected to JioFi 3 over USB. Initial 3 or 4 tests, IIRC, were done with JioFi on window-sill resting against closed insect-net window-pane. Later 3 or 4 tests, IIRC, were done with insect-pane window opened and me holding the JioFi in the outside window area.

*) 17 Mbps, slightly before 1.32 AM, Good signal, fast.com

*) 19 Mbps, 1.32 AM, Good signal, fast.com

*) 19.75 Mbps, 1.34 AM, Good signal, <http://beta.speedtest.net/result/6632453799>

*) 21.03 Mbps, 1.37 AM, Good signal, <http://beta.speedtest.net/result/6632458422>

*) 23 Mbps, 1.49 AM, Good signal, fast.com

*) 22 Mbps, 1.50 AM, Good signal, fast.com

*) 22.29 Mbps, 1.52 AM, Good signal, <http://beta.speedtest.net/result/6632484346>

Location: Dell mini Laptop on computer table in bedroom, JioFi almost vertically placed on computer table next to Laptop, bedroom-balcony door closed, Laptop connected to JioFi 3 by WiFi

*) 20.20 Mbps, 2.11 AM, Good signal, <http://beta.speedtest.net/result/6632515045>

*) 17.80 Mbps, 2.13 AM, Good signal, <http://beta.speedtest.net/result/6632518110>

*) 15 Mbps, 2.14 AM, Good signal, fast.com

*) 14 Mbps, 2.14 AM, Good signal, fast.com

*) 18.77 Mbps, 2.15 AM, Good signal, <http://beta.speedtest.net/result/6632521721>

*) 16.92 Mbps, 2.16 AM, Good signal, <http://beta.speedtest.net/result/6632523363>

At 2.19 AM, Jio portal for 2nd SIM (JioFi SIM) shows data availability as 756.00 MB from 2.00 GB! Also got an email notification from Jio at 2.11 AM about 50% usage on this number/SIM. So from around 12:00 AM (0:00 hours) to 2.19 AM, a little over 2 hours period, the above tests and some casual tests not recorded in above log, were the main consumers of 2 GB – 756 MB i.e. 2048 MB – 756 MB = 1292 MB of data!

Additional speed tests in Puttaparthi Main Road shop

Location: Tirupathi Rao Mobile shop on Gopuram Road (Main road), Puttaparthi. Dell mini Laptop connected via WiFi to JioFi kept horizontally on table inside shop. 18th Sept. 2017

*) 28.44 Mbps, 1.29 PM, Good signal I presume, <http://beta.speedtest.net/result/6633452749>

*) 37 Mbps, slightly before 1.44 PM, Good signal I presume, fast.com

*) 30.13 Mbps, 1.44 PM, Good signal I presume, <http://beta.speedtest.net/result/6633484115>

I was told that the surprisingly high speeds in the afternoon (on a weekday – Monday) in that location may be explained by Jio tower being close by. I was told that in that area the tower is about 100 feet from the main road (Gopuram road) on the side street leading to Shanti library.

=====End of Post=====

Bought a new JioFi (WiFi) Internet access device; Getting its free data offer to work needed calls to Jio customer

care; Published: 16 Sep 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/09/16/bought-a-new-jiofi-wifi-internet-access-device-its-free-data-offer-is-taking-time-to-work/>

Last updated on 17th Sept. 2017

Over the past few weeks I have got comfortable with using Jio 4G Mobile Internet via a USB modem (dongle) with a Rs. 399 plan giving 1 GB/day for 84 days [see <http://www.jio.com/en-in/4g-plans>], as my primary Internet connection. However, on some days I cross the 1 GB 4G speed data limit (after which speed drops to 128 Kbps), at which time I use the secondary Internet connection of BSNL landline broadband ULD 470 plan which comes with taxes to slightly over Rs. 550 per month, and gives 2 Mbps speed till 10 GB, and 1 Mbps speed beyond.

Now the Jio Rs. 399 plan for 84 days works out to Rs. 147.25 for 31 days, so we can say around Rs. 150 per month.

The secondary plan of BSNL broadband seems to be too expensive, in comparison! After a lot of exploration and thinking (including considering an Airtel 4G connection), I decided to go for a secondary Jio 4G connection, initially of 2 GB/day with another Jio Internet device. The Rs. 509 plan gives 2 GB/day for 56 days, which works out to Rs. 281.76 for 31 days, say around Rs. 280 per month. I decided to try out this plan as my secondary Internet plan and if that works out well, phase out the BSNL Broadband connection costing me around Rs. 550 per month, giving me a saving of around Rs. 270 per month.

Now if I want to have two active Jio Internet connections I will need to have two Jio SIMs, each with their own Jio 4G plans. And if I want to avoid swapping the two SIMs in and out of a single 4G modem/router, I will need to have two modem/router devices each having one Jio SIM. [For details on this see my post, To have two active Jio 4G Internet connections you need two Jio SIMs and two plans; One Jio SIM cannot have two active 4G plans, <https://goo.gl/LWA3mH>, dated 16th Sept. 2017.]

<https://www.jio.com/shop/en-in/jiofi/p/491193576> shows details of the Jio Fi 3 router device that I found to be of interest. Its main features are as follows:

- * Creates an Internet HotSpot using Jio 4G Internet service
 - * 10 WiFi enabled devices (laptop, smartphone, desktop with WiFi facility etc.) can optimally connect to the Hotspot (max is 31 such devices)
 - * One USB connection
 - * Portable (as it is small)
 - * Battery is claimed to last 7 to 8 hours
 - * Through a device (Android OS and iOS devices only, I guess, but NOT old Symbian OS devices like my old Nokia E-52 phone) having Jio4GVoice app. free voice calls can be made (local and STD) using the JioFi router's WiFi connection.
- [BTW the JioFi 3 (and JioFi 2) works with the battery removed from the device, if it is connected

to AC power source through its charger cable and AC adapter (both of which are supplied in the package). This aspect is NOT advertised by Jio but may be more of a discovery by JioFi users. In this video from around 3 min you can see a person demonstrate this:

<https://www.youtube.com/watch?v=-M05oBDsXtE>, around 5 mins, Feb. 21st 2017. One comment in this video page indicates that JioFi 3 when connected to laptop using the USB-cum-charger cable works without battery! However, as there does not seem to be any official word of this feature in the Jio website, I don't know whether such usage of JioFi 3 without battery is approved by Reliance Jio company.]

The online price is Rs. 1,999. But this price gets effectively reduced by a few interesting free data (and free voice) offers. Three of the four options are interesting, which are:

*) 1 GB/day for 28 days * 6 (close to six months)

*) 2 GB/day for 28 days * 4 (close to 4 months)

*) 60 GB for 60 days * 2 (around 4 months and 120 GB totally)

15th Sept. 2017 Log/Note (slightly edited)

Over the past two to three days or so, I was making inquiries in Puttaparthi local shops about this device and the free data offers. Sales persons at one shop which seems to be an only Jio and Jio authorised dealer shop, showed me the JioFi 3 device and also showed unopened JioFi 3 device packages available with them. The price quoted was Rs. 2200 and they also said that free data offers are available but the free offers they were saying did not exactly match what I read on the Jio website.

I was prepared to pay the higher price of Rs. 2200 for immediate delivery and activation support service as well as other support service that they were offering me. But I wanted to have the free data offers as per Jio website. So I went on 15th Sept. 2017 evening with my Dell Mini-Laptop (and my 4G USB modem/dongle with my first Jio SIM as my Mobile Internet connection) to the shop, and showed them the webpage detailing the free offer.

I think support to these shopkeepers/shop sales & support persons in Puttaparthi (rural town in India) from Jio representatives may not be all that great in terms of teaching them about all the details of their products and the various data offers and how to process such offers for customers. So I wanted to work with the shop sales and support persons to get something reasonable for me.

On showing the webpage with the data offer details, the shop persons agreed that these data offers would be available to me after I buy the device. So I went ahead with the purchase which involved some customer verification (by local Aadhar number and thumbprint on a fingerprint recognition device in my case) and some details being entered in some Jio sales software, I guess. While doing this process they told me that the 60 GB data for 60 days * 2 cycles free data offer was not listed in their online procedure/software system. But both the 1 GB/day for close to 6 months and 2 GB/day for close to 4 months options were available. I chose the 2 GB/day option as my free data option.

The formalities were completed, as per the shop persons, around 7.15 PM or so on 15th Sept. 2017. They had been kind enough to open the packed JioFi device box in front of me and explain its components. They had then put the SIM (taken from separate pack) into the JioFi device, and connected the battery to the JioFi device. The support person had switched on the JioFi device explaining to me the two simple buttons on the WiFi device.

That's it, they said. They told me it will take a couple of hours for the data to become available on the JioFi device.

At 7:13 PM I got an SMS about the SIM activation on my BSNL provider Nokia 3G phone which I had specified as an alternate number. The key part of the message was: "Your Jio Number xxxx has been successfully activated. Kindly insert your Jio sim in Sim slot 1 of your dual sim handset, ..." So the Jio setup procedure is geared for 4G smartphone and NOT the WiFi router. This created one problem for me which I have explained later on.

Around an hour or so later, in my apartment flat, I checked out the JioFi router connectivity with my Dell Mini-Laptop. That part was a breeze. Over WiFi on the laptop, the router showed up as the name/SSID written at the bottom of the cylindrical box package of the router. Its password was also printed there, which I entered when I clicked the connect to router WiFi SSID/name option on laptop. Then the laptop was connected to the router over WiFi. But it attempted to open some Microsoft link which failed and I got shown a (local) page stating that I have to recharge my account (SIM). As two hour period had not passed, I thought I should wait till that period is over.

However, there was NO PROBLEM in accessing the administrator settings of the router using the browser. I could also connect the router to the Laptop with its USB cable (micro-USB on router side), which started charging the device as well. [There is another separate charger provided which can be plugged into the mains and connected to router using the same USB cable. I tried that later on and it seems to do the charging properly. Note that one can switch off the router or keep it on while one is charging.]

Meanwhile I also tried to see if I could add this new Jio SIM to my Jio web portal account which already has one SIM associated with it (which is viewed as primary SIM/account, I think). The process of adding another 'account' (SIM) involved an OTP being sent to the same SIM via SMS! Now if I were using the SIM on a smartphone, I would have no problem as I could access the SMS on the phone. But here it was a WiFi device! In its web administration interface I could not find any SMS receiving & display facility!

Then there was the bigger problem that even at 9.30 PM or so (two hours after the new SIM had got activated), I still was not able to browse the Internet with the router and new SIM! So I realized that there was some problem that I would need to sort out using the help of shop sales and support persons.

However, I thought of trying out calling Jio customer care (1-800-88-99999), and seeing if I could sort out the problem using their help. Perhaps I made the first call around 10.15 or 10.20 PM. The service guy (getting to the service person required some navigation of automated interactions) understood my two above mentioned problems. For the first one he said that my BSNL number which was already listed with them, has to be made some 'alternate' contact number (or something like that) after which the OTP PIN will be sent to it, instead of the (new) Jio SIM. He then said that after that is done, I could use some voucher option to activate my 2GB/day free data offer (for 4 cycles of 28 days). He also initiated something which sent the OTP PIN (for new SIM account addition) to my BSNL cellphone.

After finishing the call (I am not that savvy with mobile phones to multi-task), I looked up the SMS received on my BSNL cell phone and used that to create an additional "Linked" SIM 'account' for the new SIM on my Jio web account portal. That part went through quite easily. Now there is a Primary Account which is my first SIM number associated account and a Linked Account which is this new SIM number associated account.

On choosing the Linked SIM 'account' on my Jio portal account page, I could see under Summary the message, "You are on a pay-as-you-go plan. Your usage will be charged from monetary balance. Check tariffs for your plan." Now, for prepaid plans (which is what I use), this is where the available data for the day is typically shown along name and validity period of Jio plan that is active (for that SIM)!

But under My Plans I saw an entry “1 Active Plan” and under it, “MRP 509 * 4 + PRIME”, with a message, “Valid Till 13 Oct 2017 19:13”. [15th Sept. 2017 19:13 to 13th Oct. 2017 19:13 seems to be the first of the four 28 day cycles. I think this 509 plan is the older Jio plan which was for 28 days giving 2 GB/day, and which is part of the JioFi data offer. The current plan is Rs. 509 for 56 days giving 2 GB/day but that is not linked to the data offer.]

It was good to see the free data offer plans listed and active. But Summary was not showing it! I looked around for any vouchers button/menu choice/option but did not find it. I even tried going through the Recharge procedure but backed off (cancelled it) when I was taken to a payment page! So I was stuck.

Around 10.45 PM I called Jio customer service again. The lady who responded confirmed to me that my Jio (new) SIM number had 509 plan * 4 cycles (2 GB/day x 28 days – 4 cycles) offer listed. But she said the store/seller did not ATTACH the IMEI number of JioFi device/router (listed at bottom of JioFi cylindrical box package) to the SIM (which is a separate pack/pouch)! Therefore the data is not being accessible to the JioFi router! But, on questioning her, she told me that the plan’s validity period meter had started!

She told me that I should wait till tomorrow by which time the problem would get fixed by the shopkeeper doing the task of ATTACHING the IMEI number to the SIM. I was not sure how that would happen as I told her that the shop staff felt that they had finished their work. She also told me that the ONLY persons who can ATTACH the IMEI number to the SIM were the shop/store persons and that even they – Jio customer care – could not do it. As I digested all this, I told her that perhaps the best thing was for me to approach the shop/store persons in the morning tomorrow, explaining all this and asking them to do this router (JioFi) IMEI number ATTACHMENT to SIM. She was very supportive of that. So that’s what I need to do tomorrow (16th Sept.) morning. Hopefully the shop persons will understand what I am saying and then do the needful. If not, I can call up Jio customer care from the shop itself and try to resolve the problem there itself.

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16th Sept. 2017 Note/Log

Today morning slightly after 10 AM I went to the Jio shop in Puttaparthi along with Laptop, WiFi Router, its box and SIM pouch. I explained the issue to the shop staff. I also demonstrated the lack of Internet access from router on laptop after WiFi connection was established.

The support guy called up his Jio support person who gave him some instructions. The support person that tried out some something on his phone app (connected to Jio software system I guess). But that did not solve the problem. He also tried changing settings on my Jio portal account. But that too did not help.

After half an hour or so of lack of progress, I suggested to the support person – a youngster – that I could try calling Jio customer care and see if they could help. He was not in favour of it. Sometime later, perhaps after additional fifteen to twenty minutes of no progress, I repeated my suggestion of me calling up Jio customer care, this time more forcefully. He did not object so much and so I called up Jio care. A lady came on the line and grasped the situation quite quickly, also referring to past two calls history of mine, I guess. I told her that the shop support staff are NOT able to solve the problem.

She then asked me for the IMEI number which I conveyed. She also confirmed the date and time of purchase. She said that she has filed a support request to ATTACH the IMEI number to the SIM number and that it will get done within 48 hours. She said I could track the request through my Jio account on the Jio portal. If it does not get done in 48 hours I can call Jio customer care again.

After the call got over, I checked on Jio portal -> Support -> Service Request -> Choosing my Linked Account instead of Primary Account. I saw an Open Service Request with details "Tariff Plans-Pack Activation/Deactivation", created on 16th Sep. 2017 at 11:13 and an estimated resolution time of 18 Sep. 2017 11:13.

As I type this is in, it is around 6.25 PM., the service request status is same as above. So no solution yet.

The shop support person said he would like to try something more, perhaps by calling his Jio support person. But I was not in favour of that. I did not want any new efforts by the support person to interfere with the service request initiated by customer care. So we decided to wait for Jio Care's service request to sort out the issue.

Overall, while I am disappointed that the free data offer did not kick in within a couple of hours after I had bought the router & SIM, and then activated the SIM, I am glad that Jio support is able to understand the problem quite well, and make clear suggestions about what I should do to attempt to solve the problem. Yes, the suggestion to go to the shop in the morning and get them to do the ATTACHMENT of JioFi router IMEI to SIM did not work. But that may be due to lack of knowledge about the process on part of the young support staff (perhaps due to lack of suitable training).

When I called up Jio support again today morning they did understand that I had made efforts from my side and perhaps that's why they decided to initiate the IMEI attachment request from their end. If it solves my problem, I think I will be happy even if I had to wait a few days (and lost a few days validity period) for the free data offer. The bigger thing/achievement would be that in rural town of Puttaparthi, I would have been able to avail of the free data offer.

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17th Sept. 2017 Note/Log

JioFi 3 router's free data 2GB/day plan is working now!

I was very happy to see around 12:30 PM today afternoon (17th Sept. 2017) the entry corresponding to my new Jio SIM Linked account on Jio web portal show 2 GB data available! BTW I had not checked this earlier today. So I don't know when exactly it got set.

Around 1:30 PM I checked whether Internet access is available now with my new JioFi 3 device having the new SIM. As expected it is available. So the Jio customer care people did solve my free data plan not working problem!

Under My Plans for the new SIM Linked account in my Jio web portal, two plans are listed as active.

1) MRP 509 * 4 + PRIME

[It shows a 'Tariff Charges' link]

Valid Till 13 Oct 2017 19:13

2) MRP 509 * 4 + PRIME

[This lists info. like 2 GB/day data, 100 SMS/day and Unlimited Mobile Voice.]

Valid Till 07 Jan 2018 03:30

— end of My Plans info. —

The second plan listed above was not there earlier (yesterday). It seems to have been added by

Jio support staff which has solved my data access problem. Note that it may have been done today, 17th Sept. 2017 at 03:30 AM due to which the 28 * 4 days validity period takes it to 07 Jan 2018 03:30. [Used <http://www.thecalculatorsite.com/misc/days-between-dates.php> to get the days period between these two dates. It is 112 days which is 28 * 4 days.]

So perhaps there was an additional issue related to the way the first plan entry above was created by the shop support person, as its validity period was only till 13th Oct. 2017 which would have been only 28 days from 15th Sept. 2017.

The new plan also resolves the lost two days of validity period issue I had with the earlier plan! So while I did face problems in getting the free data offer to work, Jio support staff were very co-operative, understood my free data offer related problem quickly and over 3 calls I made to them on the matter, gradually got closer to the solution and eventually gave me the solution without me losing out on validity period during this period of problem resolution. They were also polite and even apologetic that I was facing this problem in availing the free data offer. I am very happy with Jio customer care/support so far.

I plan to do some speed tests using the new JioFi 3 router and new SIM (with 2 GB/day) plan. But I have already noted that if I keep the JioFi router horizontal next to my laptop on my computer desk in my bedroom, its signal strength indicator shows blue color indicating medium strength. If I hold it vertically the signal strength indicator shows green color indicating good (best indicator value) strength. To keep it vertically and stable, one would need some arrangement to prevent the JioFi3 from falling, as its vertical base is very thin.

But even with blue color indicator (JioFi kept horizontally) on my computer table, I am able to scroll through Facebook with images showing up quite quickly, though at times one sees an image placeholder which quickly gets replaced by the image. Fast.com reported the speed as 1.1 Mbps. Note that Windows Update setting was (Automatic) Check for Updates and so there is a possibility of some automatic Check for Updates slowing down the fast.com speed test. Later speed tests with JioFi 3 kept in almost vertical position on computer table next to my laptop, gave speeds typically between 3 to 6 Mbps. The horizontal flat on computer table position for the Jio Fi 3 is a not a good position/placement and must be avoided.

=====End of Post=====

To have two active Jio 4G Internet connections you need two Jio SIMs and two plans; One Jio SIM cannot have two active 4G plans; Published: 16 Sep 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/09/16/to-have-two-simultaneously-working-jio-4g-internet-connections-you-need-two-jio-sims-and-two-plans-one-jio-sim-cannot-have-two-active-4g-plans/>

I wanted to know if I could have two Jio plans simultaneously associated with my Jio SIM, and could have the ability to switch from one plan to another on the same SIM, using the Jio web portal interface. Jio Customer care replied in the NEGATIVE. I thought it may be useful to some

readers if I shared a slightly edited version of my mail to them.

The main part of my mail to Jio care <care@jio.com> with subject “Is it possible to have two prepaid plans (not recharge plans) associated with same Jio SIM?”, dated 14th Sept. 2017, is given below:

Dear sir/madam,

I have Jio Number — and am currently on its Rs. 399 (JDDD 399) prepaid plan which gives 1 GB/day data at 4G speed (and 128 Kbps beyond).

I am aware that if I exhaust 1 GB 4G speed data on any day, I have the option of using recharge packs. But I find those recharge packs to be expensive.

Is it possible for me to simultaneously have another plan, like Rs. 999 prepaid plan, which I could normally keep as an inactive plan (suspend the plan) but on days when I cross 1 GB per day limit on my JDDD 399 plan, I make the JDDD 399 plan as inactive and make the Rs. 999 plan as active? If so, can I do that myself using the Jio account web portal?

Thanks & Regards

— end main part of my mail to Jio care —

[Note that the Rs. 999 plan seems to give 90 GB total data over a maximum period of 90 days without any quota per day or any limit per day [see <http://www.jio.com/en-in/4g-plans>]. So it seems that one can use, say 1 GB of data totally over the first 10 days, leaving one, at the beginning of the 11th day, with a data balance of 89 GB data expiring after 80 days. On the 11th day one could consume 20 GB of data, leaving one, at the beginning of the 12th day, with a data balance of 69 GB expiring after 79 days.]

—
Jio care mail response to me on 15th Sept. 2017, informed me that I cannot activate dual plans on my Jio number. *[I am not sharing the exact mail response as there is some standard confidentiality clause at the end of the mail response!!! I want to be a co-operative customer of Jio, which is giving me such a great and economical broadband Internet solution in my rural town of Puttaparthi, Andhra Pradesh, India.]*

Ravi: So if I want to have two active Jio Internet connections I will need to have two Jio SIMs, each with their own Jio 4G plans. And if I want to avoid swapping the two SIMs in and out of a single 4G modem/router, I will need to have two modem/router devices each having one Jio SIM.

=====End of Post=====

BSNL 3G Mobile Internet desperately attempts to compete with 4G service providers; BSNL 3G speed tests on 13th Sept. 2017 in Puttaparthi; Published: 13

Sep 2017

Post link (URL) on blog:

<https://ravisiyer.wordpress.com/2017/09/14/bsnl-3g-mobile-internet-desperately-attempts-to-compete-with-4g-service-providers-bsnl-3g-speed-tests-on-13th-sept-2017-in-puttaparthi/>

Last updated on 21st Sept. 2017

This post is more of a record of how Jio 4G Internet pricing and delivery (of decent speed mobile broadband Internet) has forced Indian govt.'s big telecom company, BSNL, to respond. BSNL does not have a 4G offering now. So it is trying to keep its 3G customers happy by offering them plans comparable in price, data usage and validity to Jio, even though its 3G speed cannot match Jio's 4G speed.

For users like me who need broadband Internet for desktop computer/laptop, it does not make any sense to consider BSNL 3G solutions when multiple vendors today in 2017 are offering 4G solutions (and so higher speed) at similar price in my town of Puttaparthi (in Andhra Pradesh, India). However, just a year ago, in 2016 (or for most of 2016 before Jio 4G became a reality in Puttaparthi and many other parts of India), most mobile Internet users in Puttaparthi were 3G mobile Internet users. For me, BSNL 3G mobile Internet was a workable bare-bones backup Internet connection if my regular BSNL landline broadband connection was not working, so long as I did not download hundreds of Megabytes (100s of MB) of data on it as that was expensive. So while I think BSNL 3G mobile Internet is now something that I can ignore for current and future needs, from a history perspective, I wanted to put up this post. Readers who are not interested in such history kind-of stuff may please ignore this post.

Over the past few months, Indian govt. run BSNL has offered 3G mobile Internet plans (BSNL is not yet into 4G) which is competing price and data limit wise with Jio and other 4G Mobile Internet vendors in India. It seems that that these BSNL plans have got good response from its users. Perhaps there are many BSNL users in India on 3G phones who cannot avail of 4G Jio or other comparably priced 4G service providers in India as their phones cannot use them, and so they found these BSNL offers attractive. Jio is trying to disrupt this market segment too by accepting bookings of a near future 4G phone on deposit of Rs. 1500 and no additional charge, which seems to have got overbooked already. [<https://www.jio.com/en-in/book-jio-phone> claims that millions have booked the Jio phone. Here is a news item from Jio about the Jio (4G) phone: <https://jioprime.org/reliance-jio-1500-phone-booking-registration/>.]

This article,

<http://www.moneycontrol.com/news/business/bsnl-unveils-cheap-data-plan-offers-270gb-data-for-rs-333-2264247.html>, dated 24th April 2017, mentions three BSNL plans that seem to be comparable to Jio in price and validity (but not speed as BSNL is 3G and Jio is 4G). Here are the important features of two of these plans:

1) Rs. 333 Triple Ace plan gives upto 3 GB of 3G speed data per day for 90 days, along with unlimited local area voice calls.

2) Rs. 349 Dil Khol Ke Bol gives upto 2 GB of 3G speed data per day for 90 days, along with unlimited local and STD calls.

In mid-June of 2017, BSNL launched the "Chauka" plan – see

<http://www.timesnownews.com/business-economy/article/bsnl-chauka-mobile-broadband-plan-44-4gb-data-90-days/63371>, dated 16th June 2017. The Rs. 444 plan offers upto 4GB of 3G data per day for 90 days. Looks like voice calls may NOT be free under this plan.

Now I don't know whether one can migrate to the above plans from one's current plan. I have an old Nokia E-52 single SIM phone which is 3G (and HSDPA which extends and improves 3G) capable which I use mainly for my mobile voice (and sometimes SMS) needs. On this mobile phone I use BSNL 3G service provider in Puttaparthi (I use BSNL SIM), and I am currently on BSNL Nestham plan with Rs. 450+ balance.

It seems that BSNL Andhra Pradesh (the state that I live in) is giving curtailed versions of the above, and also only data features of the above (not free voice calls) which, if I had wanted to, I could have used on my BSNL Nestham plan (without migrating to another plan). Here is what seems to be its current offerings for 3G DATA, which are typically through Special Tariff Vouchers (STVs) which deduct the amount associated with the STV, from the balance of the BSNL plan one is using:

http://www.ap.bsnl.co.in/flashapnews/3g_prepaid_data_plan.html.

The interesting DATA STVs are:

1) Rs. 333 which gives upto 1 GB of 3G speed data (and 80 Kbps afterwards) per day for 56 calendar days. [I don't understand its 3 paisa (0.03 Rupee) for 10 KB charge "after freebies". Does it mean that above 1 GB usage limit on a particular day, one has to pay 3 paisa for 10 KB (around 3 Rs for 1 MB)? I wouldn't be surprised if that's what it means which is a dangerous money-balance eating trap that users who cross the 1GB limit but are not aware of it, may fall into.]

2) Rs. 444 which gives upto 2 GB of 3G speed data (and 80 Kbps afterwards) per day for 90 calendar days. For this plan, the data charges after freebies is listed as NIL. So I think on this plan, the users don't have to fear the money-balance eating trap when they cross the per day data limit (2 GB) on any days.

These plans drop the effective rates for BSNL 3G data usage DRASTICALLY from what it was in 2016 (before Jio disrupted the market). The same link above provides the 2016 DATA STVs too, which are current now in 2017. I have listed some of them below to show how expensive they are in today's Jio 4G disrupted mobile Internet market.

3) Rs. 17 – 110 MB, 1 day validity

Rs. 39 – 200 MB, 5 day validity

Rs. 78 – 2 GB, 5 day validity

Rs. 549 – 10 GB, 30 day validity

Rs. 821 – 12 GB, 60 day validity

Note that without these STVs (or after crossing the data amount of these STVs), the regular charge of Rs. 0.03 for 10 KB of data will apply. If I understood it correctly, that comes to around Rs. 3 for 1 MB, around Rs. 300 for 100 MB, and around Rs. 3000 for 1 GB!!! So without using an STV, BSNL 3G data was prohibitively expensive in 2016 and continues to be prohibitively expensive today for standard/popular plans like BSNL Nestham which is what I am on.

But even with the above STVs, listed under point 3 above, we are seeing rates of around Rs. 50 per GB (or higher for the smaller data amount STVs). That is what made the 2016 BSNL 3G

data offerings even when used with STV, very expensive as a regular Internet facility for computer users like me.

The new offerings mentioned above of Rs. 333, Rs. 349 and Rs. 444 plans, as well as comparatively less attractive STVs of Rs. 333 and Rs. 444, giving 1 or 2 or 4 GB data/per day at 3G speeds for 56 to 90 days, makes BSNL 3G far more attractive cost wise as a mobile Internet service for regular computer usage (as against limited smartphone usage).

But what about the speed of BSNL 3G TODAY in Puttaparthi? Is it in the range of 0.4 or 0.5 Mbps (around 400 to 500 Kbps), in which case the speed may be too poor for activities like Facebook scrolling (lots of images are loaded) and youtube video watching on laptop/desktop computer or Windows Update downloads.

My initial tests today afternoon surprised me with fast.com and beta.speedtest.net initially reporting poor speed (less than 500 Kbps) but repeat tests taking the speed in the range of 1.5 to 2 Mbps!!! At that speed, Facebook wall scrolling showed the images quickly, youtube videos played without much pausing ... It was a pretty OK Internet usage on laptop experience.

But tests in the late evening and night gave very disappointing speeds of 100 Kbps, 140 Kbps etc. by fast.com. Beta.speedtest.net speed tests did not even work! No single fast.com test during this period gave 1 Mbps speed or above. In fact I think it never crossed 500 Kbps.

Perhaps the BSNL network gets heavily loaded during late evening and night time (I think there are voice call freebies that come into play after 9 PM every day which may be impacting 3G data throughput as well) resulting in the Internet speed dropping to very poor levels.

Given below is a detailed log of my tests. Readers who are not interested in such details may please skip reading the rest of this post.

Detailed Log

Dell Mini-Laptop on my computer table in bedroom. Nokia E-52 connected to it via USB cable (micro-USB connector on Nokia phone side). Service provider is BSNL 3G (one exception is clearly indicated). Date of tests: 13th Sept. 2017

On connecting to Internet via Nokia Suite I get a message that the speed is 460.8 Kbps or something like that. Now this message from Nokia Suite is MISLEADING. As the data below shows, some of the speed tests report significantly higher speeds.

<http://forums.whirlpool.net.au/archive/1860028> has a forum user stating, "Nokia Suite reports 460.8 because that has something to do with USB 2.0. If you run a speedtest on speedtest.net you will see that this 460.8 limit is irrelevant – I got a download speed of 7.38mbps to Telstra Melb!" From https://en.wikipedia.org/wiki/USB#USB_2.0, "USB 2.0 was released in April 2000, adding a higher maximum signaling rate of 480 Mbit/s (High Speed or High Bandwidth), in addition to the USB 1.x Full Speed signaling rate of 12 Mbit/s. Due to bus access constraints, the effective throughput of the High Speed signaling rate is limited to 280 Mbit/s or 35 MB/s."

[Update on 21st Sept. 2017: Note that the Nokia Suite WRONGLY reported speed of 460.8 is Kbps (Kilo bits per second) speed. Whereas even with USB 2.0 the above effective speed is 280 Mbps (Mega bits per second)!!! 460.8 Kbps is less than half of even 1 Mbps. So the USB 2.0 limit message above for WRONGLY reported 460.8 Kbps speed in Nokia Suite application is MISLEADING!! end-Update]

Note that my Dell mini-Laptop has USB 3.0 ports which is what I connected the Nokia phone to. However, my desktop computer has USB 2.0 ports and no USB 3.0 ports (an upgrade to new motherboard with USB 3.0 ports has been ordered as the old motherboard seems to have developed some problems). From https://en.wikipedia.org/wiki/USB#USB_3.0, "The USB 3.0

specification was released on 12 November 2008, ..” .. “The new SuperSpeed mode provides a data signaling rate of 5.0 Gbit/s. However, due to the overhead incurred by 8b/10b encoding, the payload throughput is actually 4 Gbit/s, and the specification considers it reasonable to achieve only around 3.2 Gbit/s (0.4 GB/s or 400 MB/s). However, this should increase with future hardware advances.” So USB 3.0 max achievable speed as per above statements (which could have been made obsolete by ‘hardware advances’) is 3.2 Gbps which is around 3200 Mbps, well above what BSNL 3G speed in Puttaparthi can deliver!

[Update on 21st Sept. 2017. I got confused between 480 Mbps USB 2.0 limit and 460.8 Kbps WRONGLY REPORTED Nokia Suite speed. The first sentence below was made in that context. end-Update]

I must say here that I did not realize that even in 2016 when, on very few occasions, I had used my Nokia phone’s 3G BSNL service connected to my desktop computer’s USB 2.0 ports, that the USB 2.0 port may have been limiting (to 460.8 Mbps) any higher than 460.8 Mbps speed that BSNL 3G may have delivered to my Nokia phone! *[21st Sept 2017 Update: How can BSNL 3G in Puttaparthi ever even dream to deliver 460.8 Mbps speed! I tripped up as explained earlier. I am retaining this trip-up after flagging it as an error as a record of such trip-ups. Hopefully I will not make such egregious mistakes in future. end-Update]*

But then I was using that arrangement as a bare-bones backup Internet service with limited data consumption (due to high cost of data per 100 MB) when my BSNL landline broadband failed (which was NOT often). Due to its high cost per 100 MB, I was not really interested in using BSNL 3G Internet service as a broadband kind of service even if it was offering speed of say 2 Mbps or more.

Today, when I tested with fast.com, initially the speeds were shown as around 500 Kbps but repeat tests took it higher! Later I tried with Ookla Beta – initial tests did not even run. First Ookla Beta test that ran gave 600 Kbps or so DL speed but over 1 Mbps upload speed. These results surprised me (pleasantly). So I ran two proper tests whose results are given below.

I am using STV DATA17 (110 MB costing Rs. 17 which gets deducted from balance available on BSNL plan).

*) 1.95 Mbps, around 3.24 PM <http://beta.speedtest.net/result/6620040187>

*) 1.1 Mbps, 3.29 PM, fast.com

Hmm. So I can get over 1 Mbps on my BSNL 3G connection via Nokia phone placed on computer table in my bedroom! That’s very interesting!

On disconnect, got a message on Nokia phone that last data usage was around 34.5 MB and that 75.5 MB balance is available in APSTV17.

Seated in balcony with Mini-Laptop and phone connected to it via USB

*) 1.9 Mbps, 3.46 PM, fast.com

*) 1.72 Mbps, 3.50 PM, <http://beta.speedtest.net/result/6620095545>

Checked out Facebook (including scrolling through Facebook wall), gmail, Google News, and few seconds playback of youtube video. It was not bad in terms of response speed. While it did seem to take some time especially for initial load (some seconds), it did not show image placeholders including when I was doing scrolling on Facebook wall. I mean, this was not 460 Kbps speed; it was 1 Mbps+ speed and more like 1.5 Mbps+ speed (though it seemed to me that the response time was not as good as with BSNL landline 2 Mbps plan speed).

I need to test more with youtube video before I can be sure. Meanwhile I am concerned about exhausting the 75 MB data left when I started this round of tests.

*) 2.2 Mbps, 4.02 PM, fast.com

On disconnect I get the message saying, 49.8 MB of last data (session) usage. Remaining data 25.6 MB from APSTV17.

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Just for comparison I did a couple of speed tests with Dell mini-Laptop back on computer table in bedroom and Huawei 4G USB dongle with JIO SIM directly connected to it. Bedroom-balcony door is open and the glass window pane is closed, with 4G dongle having direct line of access to outside (glass window covered) window area.

*) 4.8 Mbps, 4.33 PM, fast.com

*) 2.69 Mbps, 4.36 PM, <http://beta.speedtest.net/result/6620198601>

*) 3.54 Mbps, 4.38 PM, <http://beta.speedtest.net/result/6620201233>

*) 3.3 Mbps, 4.39 PM, fast.com

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11:05 PM: Around maybe 10.15 PM or so I was trying to check speed using fast.com on Nokia phone itself. It was showing numbers like 120 and 200 odd without specifying Kbps (instead it showed Mbps as I scrolled down on my tiny around 2.5 inch diagonal (non-touch) screen). I also tried some other sites. Text sites came up well. Youtube video listed videos but Real Player playback failed (I think that has to do with some settings perhaps on the phone).

Around 10.50 PM or so I connected my Nokia E-52 phone via micro-USB to USB cable to my Dell Mini Laptop and connected to 3G BSNL network. This time around the speeds were abysmally poor. Laptop is on computer table in bedroom. Phone was on computer table or on smaller plastic table next to it. The bedroom-balcony door was closed.

Fast.com repeatedly gave speeds way below 1 Mbps (100 Kbps, 140 Kbps etc.). Facebook wall scrolling showed placeholders instead of images.

Did some tests and browsing to exhaust remaining 24 or so MB of STV data. I wanted to see whether it rolls over to non-STV regular Nestham charge of 0.03 Rs per 10 KB of data without asking me about it. I think that's what happens. It just rolls over to non-STV very high data charge WITHOUT ASKING ME!!!

I was checking the data usage on the Nokia Suite application on Mini-Laptop. As it touched 24 MB I decided to disconnect. On disconnect, the message that came up on my Nokia E-52 phone was, "Your last Data usage 24Mb 640 Kb 545bytes. Remaining balance 0bytes in APSTV17. Call Cost 0.570. Main Bal Rs. 466.861".

I also (after disconnect) saw that an SMS had been sent from BSNL, "Reminder 2: Your remaining data volume is 9 Mb 636 Kb 648bytes."

Using *124# on mobile phone I got the last 5 call details. Only last call had GPRS call cost of 0.57 INR (Indian Rupees). The four calls previous to that had 0 INR cost (as it was getting adjusted with the STV).

So clearly there is a big danger while using BSNL 3G browsing with STVs, of exhausting the STV data (like I exhausted the 110 MB Rs. 17 STV) and getting onto non-STV very exorbitant rate of around Rs. 300 for 100 MB!!! Rs 0.03 for 10 KB makes it around Rs. 3 for 1 MB and so around Rs. 300 for 100 MB. And Rs. 3000 for 1 GB!!! Scary that inadvertently one can rapidly

empty one's balance with download of 100's of MB data after the STV data has got exhausted. But that's the reality with BSNL Mobile Internet model of charging users.

[Today evening I was discussing this very high non-STV data usage charge in BSNL regular plans (like Nestham) with a Puttaparthi shopkeeper who provides mobile related products & services among other things. He told me of a case some time back (perhaps a year or two ago) where a customer (serving in Puttaparthi ashram system, I guess) asked him to recharge her BSNL 3G plan on her phone by over Rs. 3000 using some recharge option that gave large amount of talk time. Her phone was a smartphone. Shockingly, most (or was it all?) of this recharged amount (over Rs. 3000) had got deducted from her balance over the course of the next two days or so! On checking, the BSNL customer support staff informed her that large amount of data had been downloaded. And she was not on any DATA STV! Perhaps she downloaded, say 1 GB of data either consciously or unconsciously (automatic downloads). As she was not on any DATA STV, that, say 1 GB of data would have cost her around Rs. 3000 (at Rs. 0.03 per 10 KB of data) all of which got deducted from her balance! What a money-eating trap these complicated BSNL charging schemes are for mobile Internet data usage!]

Readers who are interested in detailed log info. about a related post of mine done last year, may want to read this post of mine, June 2016: PC Net browsing via BSNL Mobile – Charges & Setup,
<https://ravisier.wordpress.com/2016/06/01/june-2016-pc-net-browsing-via-bsnl-mobile-charges-setup/>.

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Terry Reis Kennedy is a USA citizen who lives significant amount of time in Puttaparthi. She is a writer and is active on social media (Facebook), and mainly uses a Windows OS computer to do her Internet work (as against smartphone).

Terry responded over email (edited) and was OK with sharing it publicly (in edited way):

Wow! Good work, Ravi. You have written so clearly that even I am able to understand everything. This is proof to me that when a person writes clearly I can understand the subject...whatever it is.

[About some computer service person(s):] They are knowledgeable and are able to fix computer problems but not able to TEACH. Their communication skills to the user of the computer are not clear. If they were, I would understand what they are saying. They take the attitude that there is no need for me to understand..... just use the device and when it is not responding call them.....

I can see now that I will have to switch to the Jio plan later. ...

Thank you for your wonderful article. It *[Ravi: I think she is referring to Jio 4G Mobile Internet disrupting Internet service provider business due to its cheap price and reasonable broadband speed]* really is historic. BSNL has to do SOMETHING....and also get more than two people in our local office *[Ravi: I think she is referring to BSNL local office]* who can communicate not only in English....but in a language, computer user language, that people can understand.

Swami bless you for this seva,

I (Ravi) responded as follows (edited):

Thanks Terry. Such responses give vital feedback to me that my time spent in composing the public post DID help at least one person!

[Note that Terry is not computer hardware/ Windows OS software tech savvy. But she is a regular computer user and is experienced/savvy in using Internet applications like Gmail and Facebook. About her kind words about my writing which enabled her to understand everything in the post:]

Thanks. Well, I was a teacher or mentor for significant part of my nearly two decades in the software industry. And then I was a (free service) teacher of software lab. courses in Sathya Sai university for 9 years. So there is a lot of teaching/mentoring experience that I have. And in most of my free service social media work over the past 6 years I have consciously retained a teacher style of communication/writing using simple language, repetition [repetition helps to drive home a point to a student/reader who may not have properly understood or even heard/read it the first time] and a conversational style as against an expert writing to other experts in succinct and tech-jargon-heavy language style that would be hard to understand for most, if not all, non-experts.

At times though, it was necessary for me to use software expert-to-expert style of written communication even in some of my public social media posts. But I think such posts are quite limited and I usually put out a warning note to readers about the post/part of the post being technically detailed/involved.

[About some computer service person(s) attitude towards their computer user customers:]

That is the attitude a businessman who earns his living through such services, typically has. He is not a teacher and is not a free service man. To be frank, it is to his advantage commercially to not educate his customers and have some sort of customer dependency on him. When I was an international software consultant charging hourly rates, in the second half of the 90s and early 2000s, I would have had a similar approach, I guess, except for situations where I was being paid for teaching staff of a company. Time while providing my software expertise as a consultant to commercial orgns, was literally money for me then! Of course, during this period, I also provided some free services to my Sathya Sai samithi (local centre) with some computer work (and other non-computer work) – that was spiritual work and not commercial livelihood-earning work.

[About BSNL having to do SOMETHING and the suggestion of BSNL having more than two people in the local office who can communicate in computer user language that people can understand:] I think BSNL not only in Puttaparthi, but throughout Andhra Pradesh and throughout India, would be in a desperate mode now fighting to retain as many of its customers as possible (and so keep its loss of revenue to as low as possible), as so many of its customers (including me) seem to be migrating to 4G mobile Internet service providers like Jio. In such business wise grim situations, employing new staff for better customer interactions may not be so easy for a public sector (government owned) company like BSNL.

[About her Swami blessings to me:] Thank you very much, Terry. I do view such social media work of mine as Seva [service as a spiritual offering to society] and am happy that it has benefited you.

Terry responded (part of her response; slightly edited):

Personally, I think your post will help so many, many others. Here in rural India, we buy the equipment and then no one wants to show us how to use it. We have so many computer persons who will come and do the needful that if you knew how to do it, you'd not need to call them.

They will even agree to work for you. Where is the person who can teach?

I (Ravi) added the following links to previous blog posts of mine as they might help readers who want to know more about using Reliance Jio 4G Mobile Internet as a (primary) Internet service provider for their computer/laptop (as against smartphone).

- 1) Planning to have Jio 4G mobile Internet 399 pkg + Lower cost BSNL 470ULD Landline broadband, <https://goo.gl/icuH1G>, dated 30th July 2017
- 2) Changed BSNL BB plan to 470ULD; using Jio 4G mobile Internet as primary and BSNL BB as secondary, <https://goo.gl/CJHMsX>, dated 6th Aug. 2017
- 3) Q&A about how I bought & set up my Reliance Jio 4G mobile Internet connection in Puttaparthi for use with my desktop PC, <https://goo.gl/ypMGG8>, dated 9th Aug. 2017
- 4) Pune based correspondent tries out Jio 4G Mobile Internet; gets 25 Mbps speed, and is happy with it so far, <https://goo.gl/d2U3vK>, dated 1st Sept. 2017
- 5) Windows Update using Mobile Internet plan with 1GB/day 4G speed data limit in Puttaparthi, <https://goo.gl/xJRDQR>, 12th Sept. 2017

=====End of Post=====

Windows Update using Mobile Internet plan with 1GB/day 4G speed data limit in Puttaparthi; Published: 12 Sep 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/09/12/windows-update-using-mobile-internet-plan-with-1gb-day-4g-speed-data-limit/>

Recently a Facebook friend of mine, based in Puttaparthi (in Andhra Pradesh state of India), messaged me about problems she faced with her Airtel 4G plan with 1 GB/day 4G speed data limit, which she is using as the Internet connection for her laptop computer through an Airtel WiFi device. She was informed (or came to know) that she had exhausted her 1 GB data (at 4G speed) for the day without her having (consciously) used the Internet much on that day. One possibility that struck me regarding her issue was Automatic Windows Update having taken up most of her Internet data limit without her realizing it. Another possibility was that somebody else had got onto her wireless 4G Internet router/device by guessing or breaking (hacking) the password, and used her connection to download lot of data.

I suggested to her that she could try out disabling automatic Windows Update (and do manual Windows Update instead where she would be controlling when it is doing the download). That's what I do.

Now I have moved to Jio 4G (mobile) Internet quite recently – around one and a half months ago. My current Jio plan gives 1 GB data per day at 4G speed; post 1 GB the speed drops to a poor, NOT-BROADBAND speed of 128 Kbps. Note that I have downgraded my BSNL landline broadband plan from ULD999 plan (8 Mbps for 25 GB per month; 1 Mbps beyond) to ULD470 plan (2 Mbps for 10 GB per month; 1 Mbps beyond). So, as of now, I have two (broadband)

Internet connections.

I should also mention that both Jio and Airtel 4G services have other plans with higher limits of 4G data per day or with no limit at all. But the 1 GB/day plan is attractive from a cost point of view. Jio 4G has the Rs. 399 plan offering 1 GB data per day at 4G speed for 84 days.

Theoretically, if one uses all of the 1 GB data every day for these 84 days then at the end of this 84 days period, one would have used 84 GB of 4G speed data. But practically, most people (including me) do not do that and so their total consumption of 4G speed data over these 84 days is less than 84 GB. For more about Jio 4G plans see <https://www.jio.com/en-in/4g-plans>. Jio offers more expensive plans without any data limit per day – e.g. the Rs. 999 plan which offers 90 GB for 90 days. Note that in this plan, it seems that one can consume entire 90 GB data at 4G speed within one day OR consume varying amount of 4G speed data each day not limited to 1 GB or 2 GB as long as the total data consumed does not cross 90 GB and one is within the validity period of 90 days.

It seems that if in 90 days one does not consume 90 GB then the rest of the available data is lost. That is, it is not carried forward even if one buys another Rs. 999 plan.

If one exhausts 90 GB before the 90 days validity period one can continue to get “unlimited” data but at the poor NOT-BROADBAND speed of 128 Kbps. I am quite sure that one can also choose to buy another plan, say Rs. 999 plan again, to use Jio 4G speed data as soon as the 90 GB data is exhausted, and then switch to using that new plan instead of staying on the old plan with its poor speed of 128 Kbps. But I do not know how exactly one would do that.

Also, there are recharge plans of lesser amounts like Rs. 49/- for an additional 600 MB of 4G speed data than can be used when one crosses the 1 GB/day (or higher 2 GB/day) limit for 4G speed data in some Jio plans. However, these recharge plans are far more expensive per GB of 4G speed data than the regular Rs. 399 or even Rs. 999 plan.

Airtel and other vendors would be having similar such plans too.

The typical user though prefers the 1 GB/day 4G speed data limit plan as it is significantly more economical than the Rs. 999 plan (or equivalent from Airtel) without per day 4G speed data limits. This post focuses on how one manages to do Windows Update with such 1 GB/day 4G speed data limit economical plans of Jio, Airtel and other 4G service providers in Puttaparthi (and elsewhere in India). I have taken the example of Jio 4G which I use but I think most, if not all, of the general approach mentioned in this post would apply to other 4G service providers like Airtel too.

I had not yet done a Windows update using Jio 4G. My earlier Windows Update for both my (assembled) desktop and Dell mini-Laptop were done using the 8 Mbps till 25 GB BSNL landline broadband plan (which gave a real speed of around 6.5 Mbps that was a STEADY and RELIABLE speed till 25 GB limit was hit for the month).

Today (12th Sept. 2017) morning in my apartment flat in Puttaparthi, I did a Check for Updates, followed by download of its listed updates of 416 MB size according to Check for Updates, on my Dell Windows 8.1 mini-Laptop using my Jio 4G mobile Internet connection. I thought of making a detailed log of the process capturing the time it took, as well as a summary of it, both for my own reference needs in the future and for anybody else who might be interested in such information.

Windows Update's Check for Updates tells us how big the download may be. This is important in the case of 1 GB/day Internet connections as if one downloads close to 1 GB or 1 GB in the morning/afternoon then there may not be any more 4G speed data available to them for the rest of the day on that connection. Especially for those persons who have only one Internet high speed connection with such 1 GB/day limit, this is important to note. Such big downloads may best be done in the evenings with the knowledge that the connection's 4G speed data may not

be available for them after the download is done, till the per day data limit gets reset (few minutes after midnight in the case of Jio 4G).

Currently for me it is not so crucial as I have the additional BSNL landline broadband to fall back upon (even after crossing its 10 GB/day limit it will give me 1 Mbps speed; last month it continued, as an announced bonus kind-of thing, to give me 2 Mbps even after crossing the 10 GB limit).

Anyway, in my case the Windows update download size was reported by Check for Updates as 416 MB. So that's less than half of my 1 GB/day limit.

The higher speed of 5 Mbps or more during daytime that I can usually get from Jio 4G if the USB 4G modem/dongle is placed in my balcony, made Jio 4G the faster way to get the download done.

I started the Updates download (with Dell mini-Laptop placed on a small plastic table in the balcony and with USB 4G dongle directly connected to its USB port) at 10.29 AM. The initial part of the download seems to have got done very quickly as the reported percentage of download quickly moved to 39% (perhaps in 4 to 5 minutes). Then it got stuck at 39% for many minutes. Don't know whether that was a reporting issue or some real bottleneck. I was wondering what the issue was and did some Internet browsing on Windows Update (download) getting stuck (at a particular percentage). But when I later checked I found that it had jumped to somewhere in the 70's (completion percentage). The download got over at 10.45 AM (though the install of the updates process after that took more time).

So it took only 16 minutes for the 416 MB (Check for Updates reported) download from Microsoft Windows Updates server to get done using Jio 4G Mobile Internet.

The speed measure that I got from fast.com was around 7 Mbps or slightly more (RSSI typically in the -60s). Assuming speed of 7 Mbps, download of 416 MB should take 8 min 18 secs – for calc. see <http://www.download-time.com/>, if the server AND the Internet connection from server to client could provide sustained 7 Mbps speed. In my case, perhaps the (Microsoft Windows Update) server and/or the Internet connection from server to client could not deliver this speed. Anyway, around 15 minutes for 400+ MB Windows Update download is something that I am happy with.

Note that the previous successful Windows Update was done on this mini Laptop on 8th July 2017. The two month period between (successful) Windows Updates may be the reason for this Updates download to be over 400 MB.

The installation process got over at 11.29 AM (including restart and me having logged on with my regular userid). The installation process seems to have taken 10 minutes or so longer due to pauses for some of my notes about the installation process, Internet speed and data download figures reported by the 4G modem and Jio service provider.

So time taken for Windows Update was around 15 minutes for the download (416 MB) and 35 minutes for installation process (including restart of laptop) after that. If I had used my 2 Mbps BSNL Landline connection the download part may have taken half an hour to an hour, I guess. Of course, if I had done the same with my earlier 8 Mbps (real speed of around 6.5 Mbps) BSNL landline connection (about twice as expensive as the 2 Mbps plan), the time taken would have been similar to Jio 4G time of 15 minute download (of 416 MB Windows Update).

The detailed log given below may be skipped by readers not interested in such details.

Detailed Log

Dell Mini-Laptop on small plastic table in balcony with 4G USB modem/dongle directly

connected to its USB port and aligned in a way that the dongle has clear line of access to outside balcony window area through insect-net window-pane. Mobile Internet service provider is Jio (in Puttaparthi).

10:29 AM (12th Sept. 2017): Start of 416.2 MB Windows Update download

10:31 AM – 18 % downloaded message

Got stuck at 39% for some time (minutes) but seems to have resumed by itself with percentage downloaded jumping to 70's when I checked and noted that it had resumed.

10:40 AM – 91% complete

Speed tests done while download is going on

Fast.com speed – 7 to 8 Mbps

Ookla Beta speed – 6 to 7 Mbps

10:43 AM: Stuck at 93% complete

10:45 AM: Preparing to Install; So 100% of download is completed.

Speed tests

10:47 AM: Ookla Beta – 9.37 Mbps

10:48 AM: Fast.com – 7.2 Mbps

RSSI was in the -60s dBm typically, from beginning of events captured in this log. Some readings: -65, -67, -63 ... but went into -70s at times e.g -76 dBm; And at times was in the -50s e.g. -58 dBm; but usual value would be in the -60s.

10:50 AM: Installing update 1 of 6

Before starting this entire activity, I checked Jio 4G data availability. It was full 1 GB.

10:52 AM: Jio 4G data availability shows 655.76 MB. [Note that it seems to take some time for Jio usage details to get updated to current usage. So I should check half an hour or so later to get proper data usage.]

10:54 AM: Installing update 2 of 6

11:03 AM: Installing update 4 of 6 [Update 3 took long to install]

11:07 AM: Installing update 5 of 6

11:08 AM: Installing update 6 of 6

11:10 AM: 'Restart PC to finish installation' message is shown. [So installation of update 6 of 6 is also done.]

11:10 AM: Disconnected Jio connection using Mobile Partner. Due to slow response to disconnect, I finger-pressed again which resulted in additional Connect (after disconnect) which I disconnected immediately. So I did not see the message box giving Upload and download data for the first (and main) connection/session. Fortunately, Mobile Partner maintains a log of data

usage. From its log entry for the main session:

Start Time: 9/12/2017 10:23 AM; End Time: 9/12/2017 11:11 AM; Duration: 48 mins 20 secs

Upload Data: 30.99 MB; Download Data: 387.70 MB [So Total Data: 418.69 MB]

11:19 AM: Restarted Mini-Laptop [This is a 9/10 min pause for recording of data which should be deducted from total duration to arrive at download + install time for this Windows Update.]
[As Mini-Laptop is shutting down; Note that time is not shown on Mini-Laptop at this point]

Working on Updates – 21% complete .. Don't turn off your computer [Message shown on laptop]

[Stuck at 30% complete for some time.]

11:25 AM (Cell phone time): Restarting [Message on laptop]

11:28/11:29 AM (Cell phone time): Working on Updates – 62% complete [After restart I think I saw it pick up from 30% complete]

11:29 AM (Cell phone time): [Laptop computer is ready for login; Note that Laptop time shows 11:28 AM showing that it is behind cell phone time by around 1 minute]

11:29 AM (Laptop time): Logged on

Control Panel -> Windows Update & Check for Updates menu choice (NOT Check for Updates button) shows:

Most recent check for updates: Today at 10.29 AM

Updates were installed: Today at 11:10 AM

Update history shows that last successful updates were done on 8th July 2017. [On 1st and 2nd Sept. 2017 some updates were tried but failed. I think the Mini-Laptop was on Automatic updates on those days. Further, from sometime close to and after 8th July 2017 till 1st Sept. 2017, the Mini Laptop does not seem to have been used due to which it was not connected to the Internet and so did not attempt any Windows update.]

11:34 AM: All of the above work was done.

11:36 AM: Checked Jio a/c 4G data availability; Showed same figure as earlier – 655.76 MB.

12:42 PM: I think a little while before or at 11:36 AM I may have connected to Jio 4G to check Jio a/c data availability. Shortly after that I would have disconnected Jio 4G. Then I moved the mini Laptop back to my computer table in my bedroom and connected it to BSNL landline Internet. Using this connection I checked Jio a/c 4G data availability (at 12:42 PM). It shows it as 622.99 MB. That is, Jio a/c 4G data usage for Windows Update and small speed tests in this log is $1024 - 622.99 = 401.01$ MB.

5:51 PM (12th Sept. 2017): Jio a/c 4G data availability shows same figure of 622.99 MB (as shown at 12.42 PM). Under Usage details for 12th Sept. 2017 it has only one entry: 10:23:33 (AM) Consumed: 401.01 MB. Note that I am checking Jio a/c usage details on the web now using my BSNL landline broadband Internet connection.

=====End of Post=====

USB 4G Internet dongle in balcony connected to Laptop inside room using long (5m) USB cable improves speed significantly; Published: 06 Sep 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/09/06/usb-4g-internet-dongle-in-balcony-connected-to-laptop-inside-room-using-long-5m-usb-cable-improves-speed-significantly/>

Last updated on 7th Sept. 2017

My previous post, "How improved 4G signal strength helps usually to improve 4G Internet connection speed", <https://goo.gl/xoMURw>, showed that my Dell Mini-Laptop (ML) with Huawei USB 4G Dongle connected directly at one of its USB ports, got better quality 4G RSSI (Received Signal Strength Indicator) when it was kept in my balcony/sit-out as compared to when it was kept in my bedroom on my desktop PC monitor table. Further, this improved 4G signal strength led to improved 4G Internet connection speeds (on the Dell Mini-Laptop). Convenience wise, an interesting arrangement was to have my ML in my bedroom on my desktop PC monitor table but with the Huawei 4G USB Dongle in my sit-out/balcony, and connected to my ML with a 5 meter long, thick and good quality USB cable. Today (6th Sept. 2017) early morning I conducted some tests with this or similar arrangement whose data is given below. Note that my 4G Internet service provider is Jio.

Important Note for USB 2.0 users: My desktop PC uses an old (perhaps decade old) motherboard – ASUS M2NPV-VM – which has only USB 2.0 ports. Perhaps that is the reason why the Huawei 4G USB dongle does NOT get recognised properly as a USB device when it is connected via 5m long cable to USB ports on my desktop PC (I tried out multiple USB ports on both front and back side of my PC cabinet). So, as of now, I cannot use this 4G dongle in balcony connected via long USB cable to computer approach for my desktop PC with old motherboard. I plan to explore options like an extension card giving me USB 3.0 ports on my old mobo, thingies which boost power on the USB 2.0 cable connection etc. I should also mention that I have been using the 4G USB dongle with my desktop PC by directly plugging it on to its USB 2.0 ports, and have not faced significant problems with such usage.

My Dell Mini-Laptop has USB 3.0 ports which may be the reason why I face no problem in 4G USB dongle being recognised properly and working properly when connected to the Mini-Laptop via a (thick and good quality) 5 m long USB cable.

A) ML in room next to PC monitor, 4G USB dongle on chair in balcony; angular linear access (for dongle) to outside window area; window insect-pane put up. Note that the last figure below e.g. -72 dBm, is the RSSI (Received Signal Strength Indicator) value.

*)14 Mbps, 12:45 AM, fast.com, -72 dBm

*) 20 Mbps, 12:46 AM, fast.com, -69 dBm

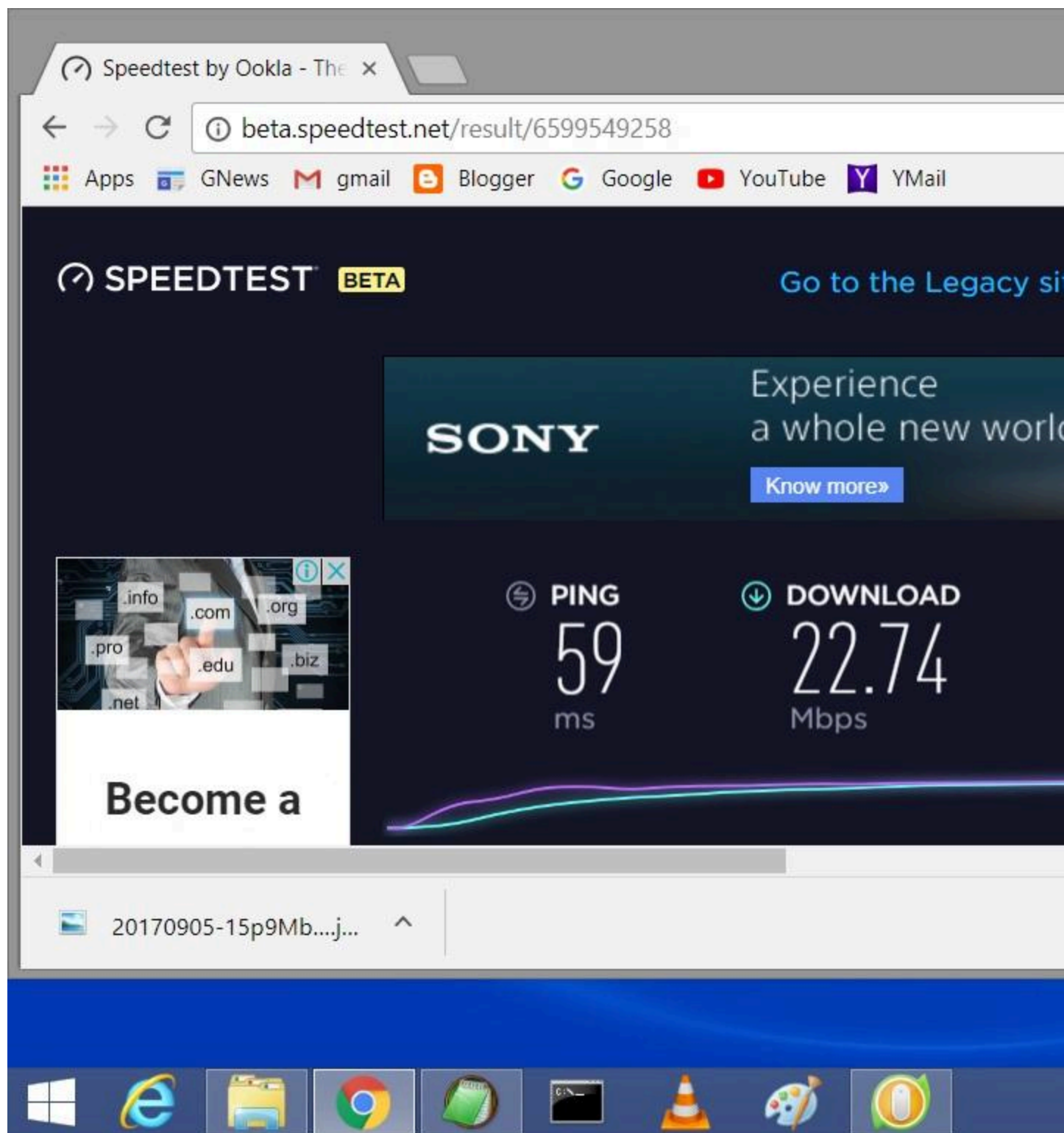
*) 11.63 Mbps, 12:48 AM, beta.speedtest.net, -72 dBm

[\[http://beta.speedtest.net/result/6599544604\]](http://beta.speedtest.net/result/6599544604)

*) 22.74 Mbps, 12:49 AM, beta.speedtest.net, -68 dBm

[\[http://beta.speedtest.net/result/6599549258\]](http://beta.speedtest.net/result/6599549258) See pic given below.

[General Note: Right-click on pics to open in new tab/window which can then be easily magnified (zoomed in) using browser commands.]



[Data usage on disconnect reported as 24.10 MB UL + 105.17 MB DL]

[Connected two 5m USB cables together and put up USB 4G Dongle at the end. Dell Mini

Laptop (Win8.1) did not recognize the device!! Back to single 5m USB cable with USB 4G dongle at the end.]

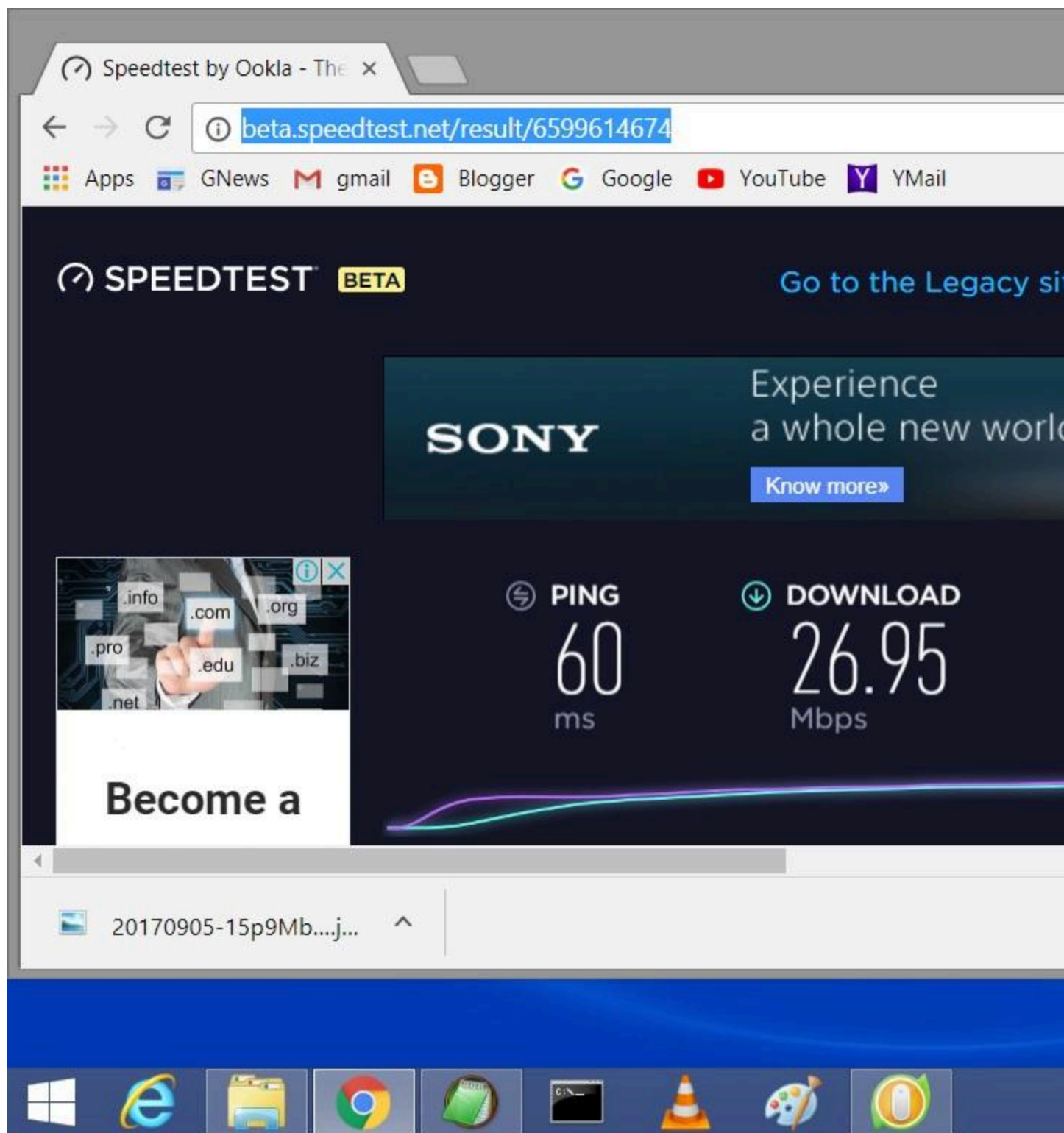
B) ML in room but closer to balcony; 4G USB Dongle next to insect screen (wire mesh) window 'pane' *[Moved ML (Mini Laptop) to bed (so closer to balcony) and stuck up the USB dongle next to the insect screen (is a wire mesh allowing for air to pass through) window 'pane'. Note that ML on PC monitor table and 4G USB dongle next to insect screen window 'pane' will need 6 to 7 m long USB cable. Therefore I had to move the ML closer to the balcony.]*

**) 24 Mbps, 1:13 AM, fast.com, -71 dBm*

**) 24 Mbps, 1:14 AM, fast.com, -64 dBm*

**) 26.95 Mbps, 1:16 AM, beta.speedtest.net, -65 dBm*

[<http://beta.speedtest.net/result/6599614674>]; see pic below.

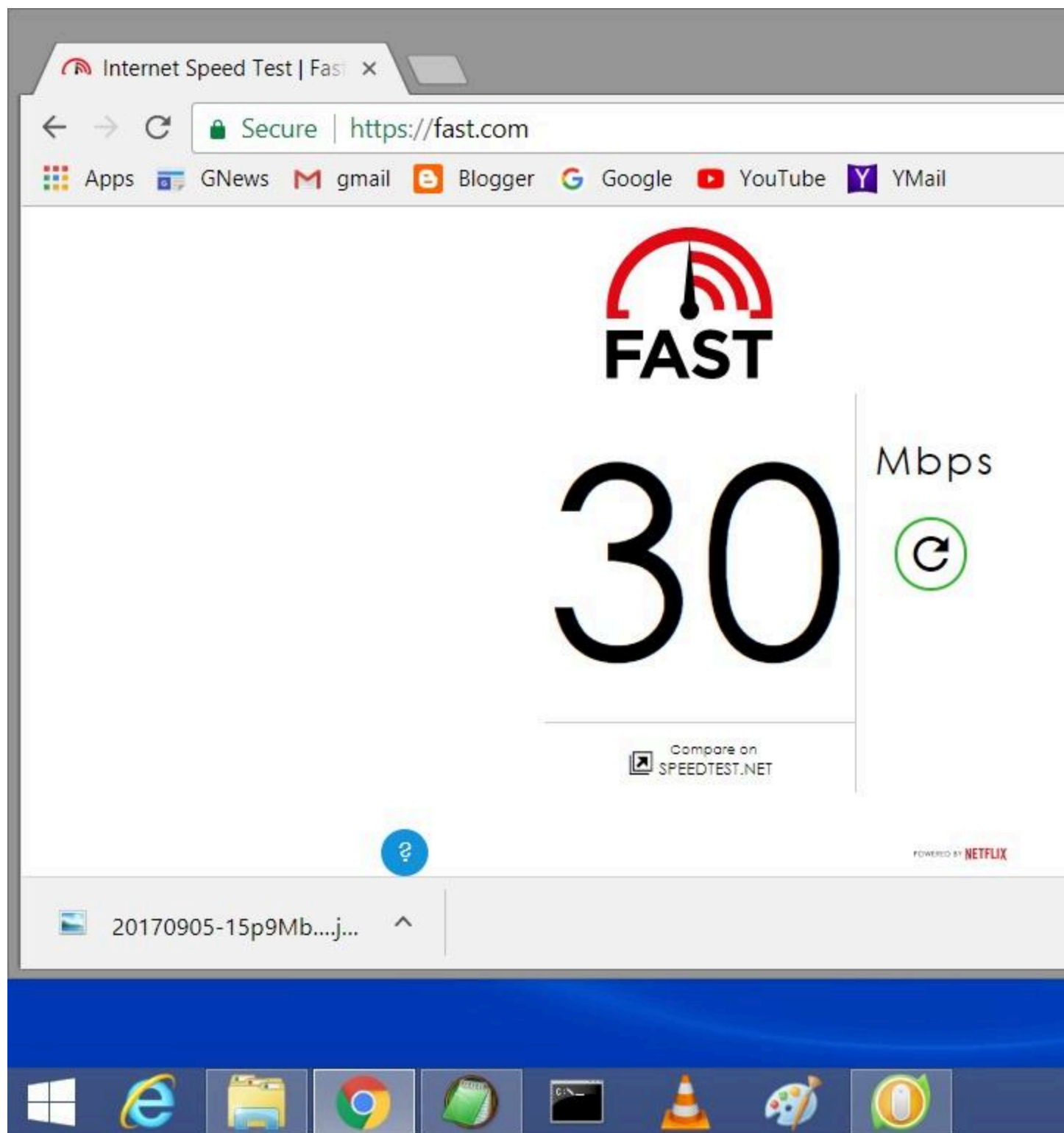


*) 24.13 Mbps, 1:21 AM, beta.speedtest.net, -70 dBm

I then took the ML and sat down on the chair in the balcony. Now I held the USB 4G dongle (connected to 5m USB cable) flush next to the insect net or close to it. I got RSSI readings of -70 to -64, if I recall correctly, and I got speed readings of around 23 Mbps. I did not do a proper record entry of them as I saw that the RSSI readings had not changed significantly from earlier. This is as expected as only the ML location had changed from bed in the room to chair in the balcony, but the 5m USB cable connection and the location of the 4G USB dongle was the same.

C) 4G USB dongle held few inches outside window, and connected to ML [Opened/slid out insect net window 'pane'. Held USB dongle outside open window (a few inches outside) at angle giving best RSSI. Note that as I was holding the 4G USB dongle outside the window I had the ML with me and I was seated on a chair in the balcony. If there was an additional person the ML could have been inside the room instead like in the above B) case (on the bed).]

*) 30 Mbps, 1:38 AM, fast.com, -58 dBm; See pic below.



*) 22 Mbps, 1:42 AM, fast.com, -57 dBm

*) 34.31 Mbps, 1:46 AM, beta.speedtest.net, -58 dBm
[<http://beta.speedtest.net/result/6599684914>] See pic below.

Speedtest by Ookla - The x

← → ↻ ⓘ beta.speedtest.net/result/6599684914

Apps GNews gmail Blogger Google YouTube YMail

Go to the **Legacy site** (Requires Flash)

ONLY Experience a whole new world 
[Know more»](#)

⚙ PING	⬇ DOWNLOAD	⬆ UPLOAD	SHARE
60 ms	34.31 Mbps	8.98 Mbps	  
			Result ID 6599684914

20170905-15p9Mb....j... ^

Windows taskbar icons: Windows, Internet Explorer, File Explorer, Google Chrome, Notepad, Task Manager, VLC Media Player, Paint, and a custom icon.

*) 18.06 Mbps, 1:53 AM, beta.speedtest.net, -56 dBm

[Disconnected: Data usage message: UL: 69.19 MB, DL: 526.28 MB

I did quite a few tests to get some feel of the speed some of which I did not record above. So I think that may have contributed to the high data usage reported above for the tests conducted.]

D) Directly connected 4G USB Dongle to ML;

Removed the USB cable and directly connected USB 4G dongle to USB slot in ML. Then I kept the ML on the window sill while still holding it, exposing the USB dongle a few inches outside the window. This would have been like when I had held the USB dongle a few inches outside the window. Then I checked the RSSI values for various orientations of the ML and so the USB dongle. The values were typically in the -63 to -60 range though at times it did touch -58 (dBm). So the RSSI values did not seem to differ significantly whether the USB 4G dongle that was kept a few inches outside the window, was directly connected to ML or was connected via a 5m USB cable!!! That is a very interesting conclusion suggested by this single test – no significant loss even though there is a 5 m USB cable in between!

[On disconnect, Data usage reported: UL: 6.81 MB, DL: 198.64 MB. Note that I had sent out this note as email to myself attaching 4 screenshot pics. Also after coming back to the bedroom I had made a few tests to check out speed inside the bedroom with 4G dongle plugged directly into ML.]

— end test data —

Conclusions

1) Huawei 4G USB dongle when connected via thick and good quality, long USB cable of 5 metres to my Dell Mini-Laptop worked well. Keeping the USB dongle on a chair in my balcony/sit-out which is connected to my Mini Laptop on a work table in the room seems to be a good solution for convenient workplace and very good (from my needs perspective) Internet speed of around 10 Mbps or more in the daytime and around 20 Mbps or more at nighttime. Of course, as I get 3 to 4 Mbps speed in daytime inside my bedroom when the 4G USB dongle is directly connected to my Mini Laptop (WITHOUT the long USB cable), and that suffices for most of my needs, I would need to use the long USB cable arrangement only when I need around 10 Mbps or more speed.

2) Huawei 4G USB dongle when connected via thick and good quality, long USB cable of 5 metres to my Dell Mini-Laptop gave as good signal strength (RSSI) (and Internet speed though I have not done a specific test today morning to confirm this) as when the 4G dongle was directly connected to the Dell Mini-Laptop.

3) Best Internet speed (around 20 Mbps or more at daytime and 30 Mbps or more at nighttime) is available when the 4G USB dongle is kept a few inches outside my balcony window. While it is not appropriate to keep the dongle in that position for regular usage, it suggests that an antenna attached to the 4G USB dongle with the antenna mounted on, say the external wall outside my window, may be a good regular arrangement (configuration) for best Internet speed. However, as of now I do not have a need for such Internet speeds and therefore need not look at such a regular arrangement solution.

=====

P.S. About antennas for 4G USB dongles, here's some info:

LTE speed tests using E3276 USB Modem and Poynting outdoor antennas (A-LPDA-0092) [in South Africa in 2013], <https://www.youtube.com/watch?v=v6jcKx68-Lw>, 3 min. 30 secs.

The above video shows speeds as follows:

*) No antenna: 2.2 Mbps

*) 1 antenna: 7.6 Mbps

*) 2 antennas: 12 Mbps

=====End of Post=====

How improved 4G signal strength helps usually to improve 4G Internet connection speed; Published: 06 Sep 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/09/06/how-improved-4g-signal-strength-helps-usually-to-improve-4g-internet-connection-speed/>

I conducted a few tests yesterday (5th Sept. 2017) afternoon using my Dell Mini Laptop and a Huawei 4G USB dongle model: E3276s-920 (supposed to work with 3G too). The 4G service provider is Jio. My desktop PC location inside my bedroom is about 18 to 20 feet away from my balcony/sit-out window. Further there is a bedroom to balcony wooden door in between that is usually closed. I conducted the tests with my Mini Laptop at my desktop PC (monitor) table, then on a chair in my balcony and then on the window sill of my balcony. Given below are the results.

A) Inside bedroom next to desktop PC

RSSI reading at 3:38 PM (5th Sept. 2017) -74 dBm with task bar icon showing 5 out of 5 bars (lit/white) which is the best value for that indicator.

[I think for all the tests below the task bar icon is showing 5 (lit/white) bars out of 5.]

*) 7.4 Mbps, 3:41 PM, fast.com

*) 11 Mbps, 3:42 PM, fast.com, -69 dBm

*) 4.53 Mbps, 3:45 PM, beta.speedtest.net, -72 dBm

[\[http://beta.speedtest.net/result/6598182639\]](http://beta.speedtest.net/result/6598182639)

*) 3.24 Mbps, 3:47 PM, beta.speedtest.net, -71 dBm

*) 4.0 Mbps, 3:49 PM, fast.com, -72 dBm

B) 3:52 PM: Moved to balcony

Seated in chair on balcony, so height wise the dongle is one foot or so below open window level but has angular open air line of access to outside window area

[I think for all the tests below the task bar icon is showing 5 (lit/white) bars out of 5.]

*) 14 Mbps, 3:56 PM, fast.com, -66dBm

*) 9.9 Mbps, 3:57 PM, fast.com, -64dBm

*) 15.68 Mbps, 4:00 PM, beta.speedtest.net, -69 dBm

[\[http://beta.speedtest.net/result/6598211398\]](http://beta.speedtest.net/result/6598211398)

*) 9.79 Mbps, 4:02 PM, beta.speedtest.net, -63 dBm

[\[http://beta.speedtest.net/result/6598215907\]](http://beta.speedtest.net/result/6598215907)

C) Mini Laptop placed on open window sill thereby giving best access to USB Dongle to outside window area

*) 14 Mbps, 4:07 PM, fast.com, -50dBm

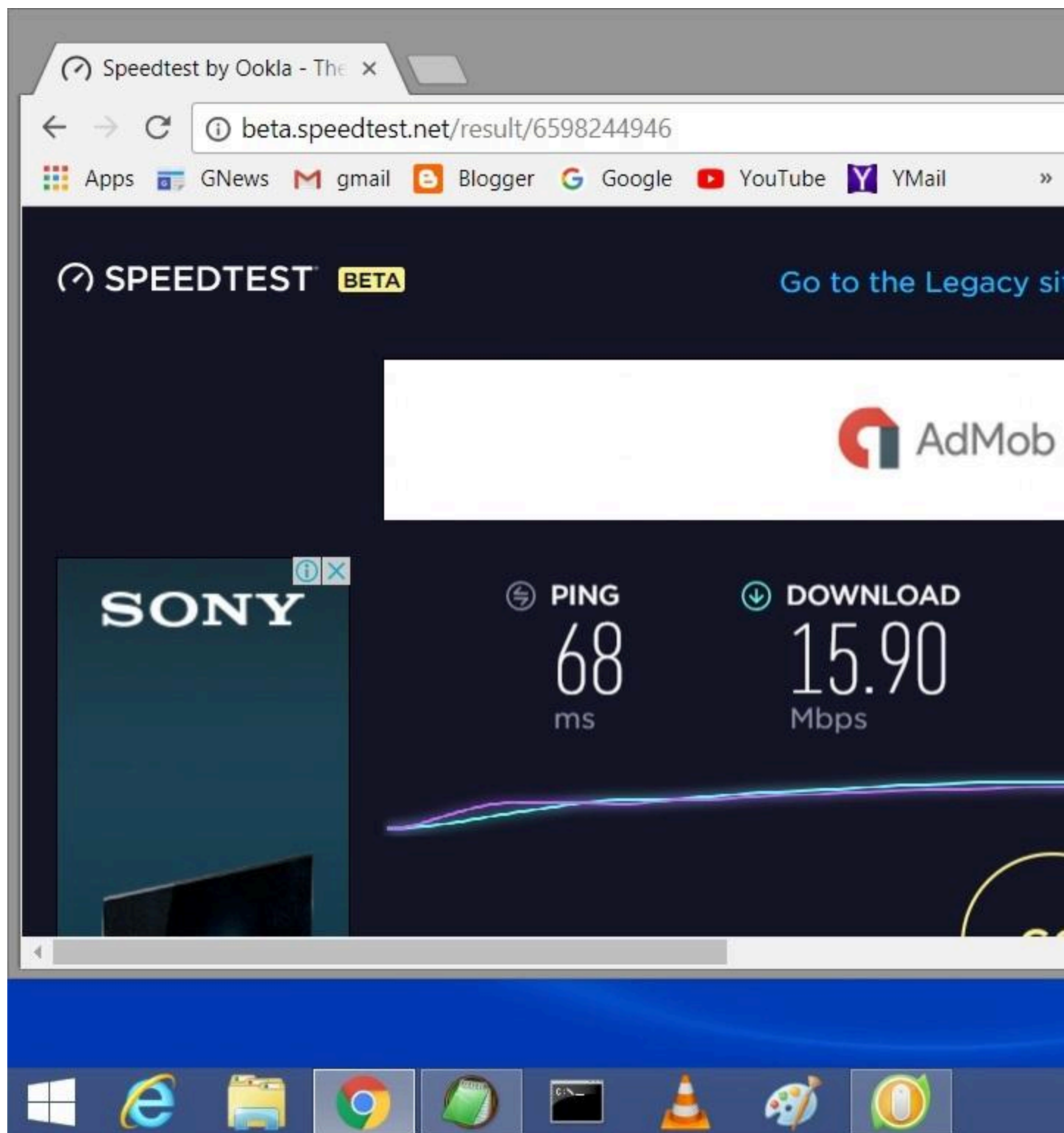
*) 12 Mbps, 4:09 PM, fast.com, -58dBm

*) 7.22 Mbps, 4:12 PM, beta.speedtest.net, -56 dBm

[\[http://beta.speedtest.net/result/6598237501\]](http://beta.speedtest.net/result/6598237501)

*) 15.9 Mbps, 4:16 PM, beta.speedtest.net, -53 dBm

[\[http://beta.speedtest.net/result/6598244946\]](http://beta.speedtest.net/result/6598244946) Screenshot captured – see pic below. *[Right-click on pic to open in new tab/window which can then be easily magnified (zoomed in) using browser commands.]*



— end test data —

A quick analysis of the above data tells us that better 4G signal quality does not always mean

improved 4G Internet connection speed. However, typically if the 4G signal quality is better then the Internet connection speed is better.

The typical speed in the above tests conducted around 4 PM can roughly be said to be as follows:

A) In bedroom next to desktop PC monitor

Around **4 Mbps** with the typical RSSI being around **-70dBm**

B) In chair on balcony (with angular open air line of access for Dongle to outside window area)

Around **10 to 14 Mbps** with RSSI around **-65 dBm**

C) On balcony window sill (with best exposure of Dongle to outside window area)

Around **12 to 15 Mbps** with RSSI around **-55 dBm**

=====End of Post=====

How to get precise 4G signal strength – RSSI – for Huawei USB 4G dongle for Windows PC?; Published: 06 Sep 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/09/06/how-to-get-precise-4g-signal-strength-rssi-for-huawei-usb-4g-dongle-for-windows-pc/>

Windows OS gives a measure of the 4G signal strength for a connected USB 4G dongle as a Taskbar icon with number of white bars out of a max. of 5 bars indicating the strength. All 5 bars being white is max. strength. The measure shown in other Windows OS property sheets/displays related to this is a similar x out of 5 bars indicator, with the color sometimes being green instead of white.

There is a more precise measure of this strength called Received Signal Strength Indicator (RSSI).

<https://www.speedguide.net/faq/how-does-rssi-dbm-relate-to-signal-quality-percent-439> states:

RSSI is usually expressed in decibels from 0 (zero) to -120db and the closer it is to zero, the stronger the signal is.

...

For example:

High quality: 90% ~= -55db

Medium quality: 50% ~= -75db

Low quality: 30% ~= -85db

Unusable quality: 8% ~= -96db

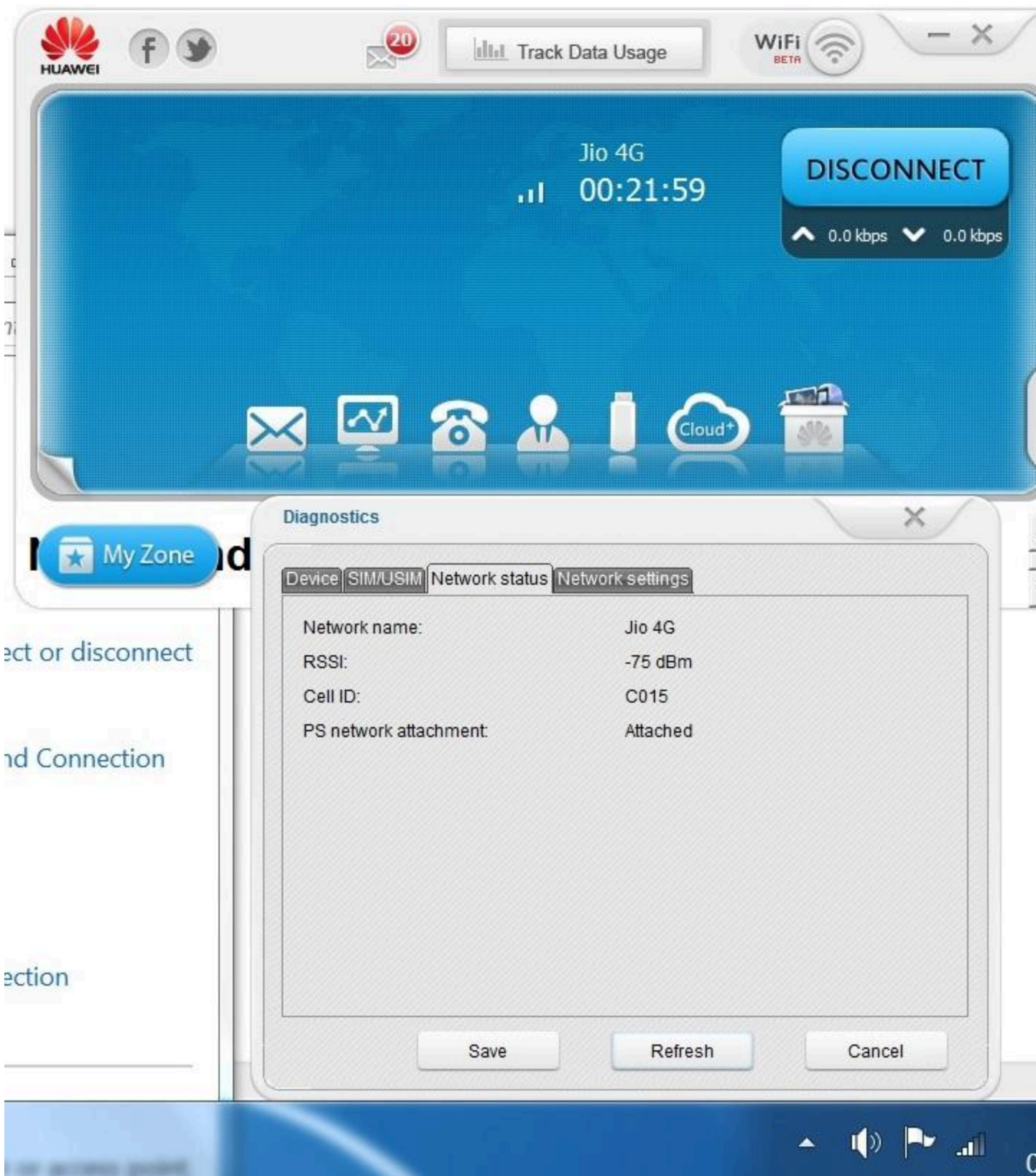
— end short extract from speedguide.net —

But how can one get the RSSI value for Huawei 4G USB dongle connection? I use Huawei E3276s-920 3G/4G Unlocked Dongle. As part of its setup, an application called Mobile Partner gets installed which can be used to connect to 4G service provider (in my case, Jio).

To check signal strength in Huawei Mobile Partner Application make the following menu choices:

Settings -> Operation -> Diagnostics -> Tab Network Status: RSSI

The above field gives the received strength of the signal in Decibels. Please see pic below showing the property sheet displaying the RSSI (as -75 dBm). The pic also shows the Windows OS taskbar icon (4G) signal strength indicator (as 3 white bars out of 5).



[I thank speedguide.net and have presumed that they will not have any objections to me sharing the short extract from their websites on this post which is freely viewable by all, and does not

have any financial profit motive whatsoever.]

=====End of Post=====

Pune based correspondent tries out Jio 4G Mobile Internet; gets 25 Mbps speed, and is happy with it so far; Published: 01 Sep 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/09/01/pune-based-correspondent-tries-out-jio-4g-mobile-internet-gets-25-mbps-speed-and-is-happy-with-it-so-far/>

A Pune based Indian correspondent (PIC) – same person whose correspondence with me is shared in my 9th Aug. 2017 post: “Q&A about how I bought & set up my Reliance Jio 4G mobile Internet connection in Puttaparthi for use with my desktop PC”, <https://goo.gl/ypMGG8> – wrote the following over email (slightly edited) on 15th Aug. 2017:

I am probably going the Jio 4G route. Someone will come tomorrow to check the reception in our flat [*Ravi: in Koregaon Park area of Pune*]. If it's OK, then I will go for their dongle/router offer: Rs.2000 for six months at 1GB a day, or four months at 2GB a day. No other charges for that period.

Based on my experience, I will decide about dumping the slow 3G Vodafone dongle that I currently use as backup, and indeed the Airtel 4G router that is my primary connection. Thanks for telling me about your experience with Jio. It gave me the courage to venture into trying another service provider!

—

I (Ravi) responded:

Interesting! All the best.

—

PIC wrote (on 19th Aug. 2017):

After 5 days of badgering people in the nearby Jio shop, I persuaded one of them to come to my house yesterday and check the 4G reception there. It is very good.

So I signed up for their 4 month 2GB a day deal for Rs.1999 and have started using their dongle. It gives me about 25Mbps [*Ravi: must be download speed*], which is as good as the best Airtel provided to me. Airtel 4G here is in bad shape now, breaks down often and provides a very patchy service. They admit this and say they will be going for a major upgrade but are not willing to commit when this will be.

I was very pleased to see the packaging of the Jio dongle: it matches Apple quality in design. The only drawback is that the device needs to be recharged every 6-7 hours. They do not have

a wireless router with a plug-in power supply.

I asked at the local shop where I get my cellphones from whether they could unlock my Airtel WiFi router so that I can use my Jio 4G SIM in it. They said they cannot do this and do not know anyone else who can!

I am curious about how you have put the Jio SIM into a third party WiFi router. Which make is it? The people in the Jio shop told me that if I remove the SIM from their device, the 4 month offer stands cancelled. So I will have to wait for that period to be over before doing anything. But I would like to see what possibilities there are for the future.

I (Ravi) responded:

[About the 25 Mbps [download] speed for Jio 4G Internet connection in his Koregaon park, Pune flat and reasonable deal for the [WiFi, I guess] Jio router (& SIM, I guess):] Very happy to hear that.

...

[About my Jio 4G Internet access device:] In my case it is a USB dongle and NOT a WiFi router. It is a Huawei 3G/4G USB dongle [More on it including some links can be seen on my post here: <https://goo.gl/ypMGG8>].

...

I am quite sure the market would have UNLOCKED WiFi hotspots that work with any Indian SIM card. Looked up Google for it. Here's one link on amazon.in that may be of interest: <http://www.amazon.in/Airtel-Hotspot-Unlocked-Network-Securitrionics/dp/B01C1HJF14>.

PIC wrote:

Thanks for the pointer to the unlocked Airtel router.
I think I should festina lente (Latin for 'hasten slowly!').

I (Ravi) responded:

:-). Learnt some new Latin today, thanks to you, –name-snipped–! Might help me when I am reading up on Pope Francis and Roman Catholic Church documents.

I (Ravi) wrote to PIC on 29th Aug. 2017 (about 10 days after our above mail exchange):

How is your Jio 4G Internet connection? Did you find it satisfactory over the past few days, since you started on it?

PIC responded:

I still try and use my Airtel 4G WiFi router as my primary connection with the internet. It seems to work during the early morning and night, though not every day or even at those times. I switch to Reliance Jio 4G when Airtel does not work.

The Jio 4G has not let me down even once so far. It gives me a good connection whenever I require it. One minor snag is that the Jio dongle needs to be charged every 6-7 hours (unlike the Airtel router which is a plug-in device). Fortunately, you can continue to use the dongle even when it is charging.

I complained to the Airtel CEO and in response someone rang me up and asked what problems I was facing. She had not even bothered to read my letter where I list the problems! Needless to say, nothing further has happened.

I think nothing further will happen for about four months, at which time I can remove the Reliance SIM from their dongle and put it in another device. The man in the shop had warned me not to do that before four months or my Rs.2000 deal would be off. (How they would know if I did move the SIM I do not know.)

Amazon sells WiFi routers exactly like the Airtel router I have been using. They claim that it will work with any 4G SIM. I may switch to one of those since no-one here seems to know how to unlock the Airtel router.

—

=====End of Post=====

Q&A about how I bought & set up my Reliance Jio 4G mobile Internet connection in Puttaparthi for use with my desktop PC; Published: 09 Aug 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/08/09/qa-about-how-i-bought-set-up-my-reliance-jio-4g-mobile-internet-connection-in-puttaparthi-for-use-with-my-desktop-pc/>

A Pune based Indian correspondent – same person whose correspondence with me is shared in my recent post: “Are JioFiber offers/rumours for real? 100 Mbps speed for 100 GB data for Rs. 500 per month! Comparison with other vendor plans in India”, [goo.gl/GwypHG](https://www.google.com/search?q=goo.gl/GwypHG) – wrote the following (over email; slightly edited). I have given my answers below (slightly edited), within his questions:

Dear Ravi

Some questions:

Q 1. Did you check the Jio speed at your location before deciding to switch to this service? How does one check this without making a commitment? (No one I know seems to have a Jio connection in this area.)

Ravi Answer: As I had got reports of decent Jio 4G speed not only in Puttaparthi but in nearby places from two trusted sources, I was confident that my speed with Jio would be reasonable.

Now I had bought an unlocked USB dongle (which I should be able to use with any 3G/4G mobile Internet service provider SIM including BSNL 3G service of Puttaparthi). That essentially was a generic mobile Internet device purchase not limited to Jio.

So I thought my initial Jio trial expenses would be only the Jio SIM expense of around Rs. 100 and the cheapest Jio connection plan (Rs. 19/- for 1 day, <http://www.jio.com/en-in/4g-plans>). So I felt I need not go to the extent of asking my friend who has a dual SIM smartphone with one SIM being Jio, to come to my home for testing Jio speed in my home. I mean, I thought that worst case, I would only have made a bad investment of slightly more than Rs. 100, and I could still use the Jio SIM for any future 4G phone I bought.

I think I should also mention that I was told that official sellers/distributors for Airtel and so for Jio too, I guess, are willing to make a visit to a buyer's location to check out signal reception quality. But they may want you to buy their company – Airtel/Jio (LOCKED) device (and NOT UNLOCKED device of other vendors).

Q 2. What sort of device do you use for your broadband at home? Does Jio provide one (or recommend one)?

Ravi Answer: I got a (used) UNLOCKED Huawei 3G/4G USB dongle through a computer seller/servicing person in Puttaparthi (named Sunny Sehgal, originally from Delhi). He is quite knowledgeable in such stuff and procured it for me using Amazon India or some other such site. He assured me the support for it and so I decided to go for it.

The Model of the dongle is E3276s-920. The official Huawei page for this model seems to be: <http://consumer.huawei.com/in/support/mobile-broadband/dongles/e3276s-in-sup.htm>.

This Amazon India link for “Huawei E3276 4G 3G Data Card Modem Speed 100mbps”, <http://www.amazon.in/Huawei-E3276-Modem-Speed-100mbps/dp/B00NGFO1JC>, is either the page from where my dongle was bought or similar to it. If I recall correctly, I paid around Rs. 2000/- for it.

Here's a more descriptive link about its features:

<http://www.geekbuying.com/item/Unlocked-Huawei-E3276-E3276s-920-150Mbps-4G-LTE-TDD-Wireless-Modem-3G-HSPA-WCDMA-UMTS-SIM-Card-USB-Wifi-Dongle-337631.html>.

About Jio devices: Yes, Jio not only provides the devices but recommends that you use them. Note that you cannot use the Jio provided devices with other vendors like Airtel or Vodafone (as it is LOCKED). Earlier when I was viewing Jio website, if I recall correctly, it showed a WiFi device and a USB dongle device which could be used for Internet access to computer (and other devices like smart phones, in case of WiFi device). Now I can see only the WiFi device on its website. Here's the page: <https://www.jio.com/shop/en-in/jiofi/p/491193576>. Its price is around 2000. I don't know what the bundled voice+data of Rs. 1999/- worth, exactly means.

Q 3. What commitment did you have to give to Jio on signing up? That is, three months, or advance payment, or whatever.

Ravi Answer: As I had an unlocked dongle which was not from Jio, the official Jio shop in Puttaparthi was not able to provide me the SIM. He directed me to another general mobile servicing & sales store in Puttaparthi.

There I got a package offer of around Rs. 550/- (or was it Rs. 500?) for the SIM and a Rs. 390 plan for 84 days 4G data speed till 1 GB/day. I had to provide my Aadhar number and provide my fingerprint on a small device they had to use the fingerprint for Aadhar verification. The shop service person also asked/confirmed my BSNL mobile number which got linked to Jio as I later got an SMS welcome message from Jio on it. Once these steps went through, the main formalities were over. I did not have to fill up or sign any paper form! That was a pleasant surprise.

The Jio mobile telephone number was written (not printed) on the package cover and the shop

service person had also told me the number. She had already put the SIM card into my USB dongle which I had taken with me – she needed some slight guidance from me on that (I had read the details about the USB dongle from the above mentioned websites, including how to insert the SIM into the dongle). The main shopkeeper (probably her husband) who is reputed to be the very knowledgeable about mobiles guy, was not present in the shop then. *[I was very happy to see the young lady do a pretty good job for my purchase and setup. I mean, it seems to be a young mom-and-pop kind of small mobile service shop run by a young local Andhra family. A young girl child was also in the shop then, playing around, and may be their daughter. Great to see this ability to adapt to & adopt new technology and make a living from selling and servicing it, from some young people of rural/semi-urban India. The lady did not seem to speak English but that did not come in the way of her doing an effective sales and setup task for me.]* After coming home I connected the USB dongle to the computer, had to go through an installation of an application that I was prompted to (seems to be on ROM on the dongle), and set jionet as the provider in some configuration property sheet (for which I was guided by Sunny Sehgal). Barring one issue I had due to some wrong configuration setting I made, that was it. I was onto Reliance Jio mobile Internet and could browse the Internet with it! Registering with Jio portal to get usage and other info. was a straight forward affair. So my total expenses for getting onto Jio were Rs. 2000 for the USB dongle for generic mobile 3G/4G Internet connectivity (not Jio 4G alone), and Rs. 550 (or Rs. 500) for SIM + 84 days 1 GB/day plan, i.e. a total cost of Rs. 2550 (or Rs. 2500). Hope that helps.

Ravi added: One other query that I recall I had was:

Q 4. How many SIM cards can we buy (officially in India)?

Ravi answer: Earlier on, I was given the impression that we were limited to two SIM cards (by Indian govt.) But the shop service person where I got the Jio SIM package told me that we can officially get 9 SIM cards (now). Don't know how valid that info. is.

Pune correspondent wrote (slightly edited):

Most helpful comments! Just the information I needed which no vendor will provide.

The nearest Jio vendor says Jio broadband is not yet available in Pune. I must find out if he means a wired link or a 4G connection.

Ravi responded:

Glad to have been of some help.

[Referring to Jio vendor comments:] Oh I see! Do keep me updated on this as and when you get more info. Today's The Hindu has an interview of Tim Cook of Apple, "Apple poised for big steps in India: Tim Cook",

<http://www.thehindu.com/sci-tech/technology/apple-poised-for-big-steps-in-india-tim-cook/article19452491.ece>, where Tim Cook says, "Add to this how Reliance Jio has got their network up and running faster than any other carrier in the history of the world."

So even Cook knows about the Jio impact on Indian 4G Internet sector. It would be pretty strange if some central parts of Pune are not being serviced by Jio 4G.

=====End of Post=====

Are JioFiber offers/rumours for real? 100 Mbps speed for 100 GB data for Rs. 500 per month! Comparison with other vendor plans in India; Published: 06 Aug 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/08/07/are-jiofiber-offersrumours-for-real-100-mbps-speed-for-100-gb-data-per-month-for-rs-500-per-month-mind-boggling-and-super-attractive-deals-if-true/>

Last updated on 8th Aug. 2017

From

<http://gadgets.ndtv.com/internet/news/jio-broadband-jiofiber-launch-reliance-mukesh-ambani-1727630>, dated 21st July 2017

According to the listing, and brochures its representatives have distributed in select home complexes, the company intends to offer 100Mbps connection with a 100GB data cap (with 1Mbps from there onwards) for free to customers for a period of three months.

From Jio Fiber Plans, Location Accidentally Revealed; Free 100GB Data P.M At 100 Mbps For 3 Months!, <http://trak.in/tags/business/2017/07/12/jio-fiber-plans-locations-price/> dated 17th July 2017

As per the contents of the hidden website accessed by us, Jio is going to offer 100 GB of data, at a speed of 100 Mbps, and the services shall be free for 3 months. Once 100 GB is consumed within a month, then the speed will drop to 1 Mbps.

...

Earlier, it was rumoured that Jio Fiber will offer 100 GB of data at Rs 500 per month, and the services would be launched from Diwali onwards.

Ravi: The article also talks about a security deposit of Rs. 4500.

The lucky cities where the leak says it will be rolled out first are Ahmedabad, Delhi, Hyderabad, Jaipur, Kolkata, Mumbai, Surat, Vadodara, and Vishakhapatnam.

7-Aug-2017 Update

I later came to know (details given later on in this post) that BSNL is offering in Hyderabad, a

fibre optic based service of 50 Mbps up to 150 GB for Rs. 1045 + tax per month, and a copper wire based service of 24 Mbps up to 100 GB for Rs. 1045 + tax per month. In Puttaparthi, the best speed plans of BSNL are 8 Mbps on Copper wire and I was using one of them till last month – 8 Mbps up to 25 GB for Rs. 999 + taxes per month (an alternate of 8 Mbps up to 60 GB was also available for around the same price, which I had not noted). Puttaparthi does not have fibre wire Internet (from BSNL at least).

Given this data, the Reliance JioFiber option for big cities in India (like Hyderabad) is a more attractive choice but cannot be viewed as very disruptive. It will become disruptive in India ONLY IF Reliance JioFiber penetrates smaller cities and towns (like Puttaparthi) in India, where BSNL currently provides only 8 Mbps max speed connections and there seem to be practically no other competitors to BSNL today for even 8 Mbps fixed line broadband. I mean, Reliance Jio Mobile 4G LTE Internet being offered in Puttaparthi became a game-changer (very disruptive force) in Puttaparthi Internet broadband services field. This was for both mobile and landline broadband, as many but not all landline broadband connections – mainly BSNL but I guess that it would have been similar for a small private operator who was the only fixed line Internet alternative to BSNL in Puttaparthi – were closed due to people switching to Jio 4G Mobile Internet. If Reliance JioFiber is offered in Puttaparthi then it surely will be another and more powerful than Jio 4G LTE, disruptive (game-changer) force for BSNL, the main fixed line Internet broadband provider in Puttaparthi.

I felt it appropriate to do some reading up on very high speed (100 Mbps to 1000Mbps/1Gbps) fixed line (landline) Internet services in India. I have been living in Puttaparthi, Andhra Pradesh, for nearly 15 years now, where the only big company fixed line Internet service is from the govt. owned BSNL which, as far as I know, does not have fibre optic cables laid in Puttaparthi. My around decade old BSNL fixed line service is currently provided through a copper wire connection which is an overhead line (as, I guess, underground cables are hard to lay in Puttaparthi town). The BSNL fixed line broadband options that I can avail of are, as far as I know, what's shown in this webpage:

<http://www.ap.bsnl.co.in/flashapnews/Un%20Limited%20BB.html>. Note that the highest speed for any plan in this webpage is 8 Mbps. The more optimal for broadband usage alone is the “BBG Combo ULD 995 CS186” plan giving “8 Mbps upto 60 GB, 2 Mbps beyond” for Rs. 995 (+ tax) per month and is available in many telecom areas including Anantapur (which services Puttaparthi) but not all telecom areas in Andhra Pradesh. Note that SSAs are Secondary Switching Areas which I am translating as a telecom areas in this post.

While I was aware that cities in India do have much higher speed fixed line broadband options from BSNL itself, besides Fibre based Internet from private companies, I did not spend much time on getting to know those options. I had the impression that those options were much more expensive than the around Rs. 1000 + taxes per month plans that provided 8Mbps speed in most telecom areas of BSNL Andhra Pradesh including Puttaparthi.

On looking up the Internet, here's what Hyderabad (and a few other cities/telecom areas) has on offer now from BSNL itself:

<http://www.ap.bsnl.co.in/flashapnews/HTD%20specific%20plans.html>. Note that these plans are NOT available for Anantapur SSA (which is what services Puttaparthi) and so not available for me. The best speed non-Fibre (Copper wire, I guess) plan is “BBG Super speed Combo ULD 1045 VDSL CS 149” giving “24 Mbps upto 100 GB beyond 4 Mbps” for Rs. 1045 (+ tax) per month, available ONLY TO HTD SSA [HTD seems to stand for Hyderabad Telecom District]. There are two best speed 50 Mbps fibre plans. The less expensive one of them is “Fibro Combo ULD 1045 CS35” giving “50Mbps upto 150GB, 4 Mbps beyond” for Rs. 1045 (+ tax) per month, available to Hyderabad and Medak telecom areas ONLY. The webpage does not list any fibre

plans available for any other telecom areas in Andhra Pradesh and Telengana. So that means only Hyderabad and Medak areas seem to be serviced by Fibre optic Internet by BSNL Andhra Pradesh and Telengana.

I find the 24 Mbps till 100 GB copper wire plan and 50 Mbps till 150 GB fibre wire plan of BSNL both of which are priced at Rs. 1045 (+ tax) to be very attractive. However, I repeat, they are available ONLY in Hyderabad and Medak and not in Anantapur telecom area!

This page, Broadband Internet service on FTTH,

http://www.bsnl.in/opencms/bsnl/BSNL/services/broadband/bb_ftth.html, seems to give the general BSNL Fiber broadband (FFTH) service plans. It does not mention the areas where these services are available. For the 100 Mbps plan it lists, "FiBro ULD 16999" giving "upto 100 Mbps till 800GB, Upto 4 Mbps beyond", the price is an astronomical Rs. 16999 (+ tax) per month! *[I think I must have seen such very expensive high speed (50 Mbps +) plans of BSNL in my earlier browsing (say a year or two ago) and so ignored them as they are not only well beyond the affordable range of most Indian middle-class homes, but are hard to justify for most of those relatively fewer Indian middle-class homes that can afford it.]*

Here's a recent news article, BSNL to offer ultra-fast 1,000 Mbps broadband connection,

<http://www.livemint.com/Industry/w3LceGfpoPP2z3DNoFspdJ/BSNL-to-offer-ultrafast-1000-Mbps-broadband-connection.html>, 14th July 2017

Some small extracts from the article are given below:

"Telecom minister Manoj Sinha on Friday launched a next generation optical fibre-based technology on the BSNL network that will enable the state-run firm to provide broadband connection with download speed of up to 1,000 Mbps.

Bharat Sanchar Nigam Ltd (BSNL) at present offers broadband facility with top download speed of 100 Mbps on its fibre-to-the-home network."

...

"BSNL chief general manager (CGM) Anil Kumar Jain said the company is offering top speed of 24 megabit per second for fixed line broadband connection and 100 mbps speed on FTTH network.

"With this upgradation, we will be able to provide connection with speed of up to 1 gigabit per second on FTTH networks in all state capitals and other top cities," Jain said."

Ravi: So this recent news article confirms that as of middle of last month, BSNL copper wire top (Download) speed is 24 Mbps and Fibre wire (to home) top DL speed is 100 Mbps. BSNL plans to upgrade its fibre (to home) top DL speed connections to 1000 Mbps/1 Gbps. But that will be available only in big cities in India. Puttaparthi is not a big city and so one wonders if and when BSNL will provide fibre Internet (to home) connections in Puttaparthi.

The fastest wired broadband internet service providers in India,

<http://www.firstpost.com/tech/news-analysis/the-fastest-wired-broadband-internet-service-providers-in-india-3698701.html>, 3rd March 2017.

The above article covers a lot of private and govt. telecom companies' very high speed broadband offerings.

It reports that Airtel slashed its prices (around March 2017). In Mumbai, Airtel was offering Fibre broadband of 100 Mbps up to 500 GB data for Rs. 3,999 per month, and a cheaper plan of 100 Mbps up to 200 GB for Rs. 2,099 per month.

MTNL (a govt. owned company) in Mumbai, is offering 50 Mbps up to 375 GB at Rs. 4,999 per month, and 100 Mbps up to 900 GB at Rs. 7,999 per month.

Hayai (never heard that name before) is offering in Mumbai, a 10 Gbps (yes, 10 Giga bits per second) plan up to “all you can eat” i.e. no limit whatsoever, for Rs. 19,999 per month. The cheapest plan listed is 1 Gbps up to 750 GB for Rs. 7,349 per month.

You Broadband (don't think I heard this name earlier) offers 100 Mbps up to 250 GB for Rs. 1,572 per month in many cities in India including Mumbai, Hyderabad, Chennai and Bengaluru.

[Ravi: Hmm. This seems to be quite attractive.]

Act Fibrenet is offering in Hyderabad, 1 Gbps up to 1000 GB (1 TB) for Rs. 5,999 per month.

Nextra Fibrebold is offering in some (housing) societies in Delhi, 100 Mbps up to 50 GB for Rs. 2,999 per month.

Tata Docomo is mentioned as offering 100 Mbps plans in cities in many states of India. In Mumbai, its 100 Mbps plan up to 200 GB is priced at Rs. 3,299 per month.

The article also mentions BSNL Fibro ULD servicing 97 cities in India costing a steep Rs. 16,999 per month for 100 Mbps up to 600 GB. [I have mentioned this or a similar plan earlier in this post update.]

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8-Aug-2017 Update

A Pune based Indian correspondent wrote in response to above (over email and was OK with sharing publicly):

You mention the maximum promised speeds of various networks. One question is, what is the average speed as that is the figure that is important. Potentially, a network may be capable of delivering 100Mbps speeds but in practice the speeds may be slower. That is my experience with Airtel 4G, Vodafone 3G dongle and BSNL.

The BSNL high speed service is also patchy in some cities. We live in Koregaon Park, which is fairly central, and the maximum speed offered is 8Mbps (and the actual speed close to 1-2Mbps). BSNL people say the maximum speed depends on the local exchange (our exchange is fairly new). Perhaps around government offices the speed is higher.

The other networks in this area are Hathway which reputedly gives up to 50Mbps on a line and You (which you have already mentioned). Any service relying on a line (fibre or copper) will depend on whether the provider has permission to lay lines, as well as space for a base/distributor station. I have contacted Hathway several times and while they have reached Koregaon Park they say it will take time before they can offer the service in our lane. By the way, Hathway has a good reputation in other parts of the city.

My Airtel service is down for about two days a month. It was down on Sunday and Monday and I contacted their help line to be told that they have identified the problem and the solution and are working out how to implement it smoothly. No time line offered: customers must wait and see.

The service seems to be working today (Tuesday) with maximum download speed at 7:00am of around 6-9Mbps. Perhaps the customer help line people don't really know what is going on and just give stock answers!

Airtel used to charge me Rs.2000 (plus taxes) for 25GB per month and have now revised it to 30GB for the same price. I don't have much choice but to stay with them until I hear what Jio is like in this area.

I will be interested to know how well Jio performs in Puttaparthi: both the average speed and the reliability. No hurry — you can tell me after you have used it for a few months!

—

I (Ravi) responded (slightly edited):

Thanks —name-snipped— for your response. It brings in real-life Internet broadband issues faced by you in Pune which is vital info. in the context of advertised claims of Indian broadband

service providers, especially with respect to speed.

The fact that even though you live in a central part of Pune, a major city in India which is serviced by some fibre broadband private companies, as of now you still do not have the Fibre broadband option in your lane, is a reality that perhaps would be shared by many in major cities in India. I hope that changes quickly for you. Hathway, the service you mentioned, has this very attractive “HD ELITE” fibre plan for Pune with 50 Mbps up to 50 GB per month for Rs. 2549 for 3 months (less than Rs. 1000/- per month), <http://www.hathway.com/Broadband/HomeBroadband>. I would not be surprised if this fibre fixed line plan would give you a consistent speed band between, say, 30 to 40 Mbps. You had mentioned that one reading you got from your Airtel mobile broadband was 27 Mbps but that the service itself goes down at times [see <https://ravisier.wordpress.com/2017/06/06/mobile-4g-speeds-plans-and-donglehotspot-devices-in-india-3g-speeds-bsnl-landline-broadband-plan-speed/>]. Your Airtel monthly charges of Rs. 2000 for 30 GB compares poorly with the above Hathway plan.

I should also mention that the govt. of India TRAI speed information site,

<http://www.myspeed.trai.gov.in/>, gives a DL speed figure of 8.11 Mbps for Airtel in Pune.

Perhaps if you test your Airtel connection on working day evenings between 6 PM to 8 PM when the load seems to be typically high, you will get a different speed from the 27 Mbps you got earlier.

Noted that BSNL broadband gives only 1 to 2 Mbps average speed in your area (even for its ‘up to’ 8 Mbps speed plan) with the BSNL people saying that the speed depends on the local exchange. That is UNACCEPTABLE SERVICE from BSNL for any central part of a major city like Pune. I tried looking up BSNL Maharashtra/Pune for the plans. I landed up here:

http://www.bsnl.in/opencms/bsnl/BSNL/services/broadband/BB_plans_high_speed.html. The around 1000 Rs. plans are 4 Mbps plans. Perhaps the 1-2 Mbps actual speed you mentioned may have been for one of the 4 Mbps plan. The minimum price for an 8 Mbps plan in BSNL Maharashtra (servicing Pune) seems to be 1441 (+ tax) (‘up to’ 8 Mbps till 40 GB).

Moving on to other parts of your mail, I think the point you raised about average speed vs. maximum promised speed is very important in the Indian context. There are a couple nuances here, as I see it based on my experience in Puttaparthi.

The first nuance is that fixed line (landline) broadband service providers advertise specific ‘up to’ (peak download) speeds like the ‘up to’ 8 Mbps speed that I had been using with my BSNL landline service from a few years back till last month priced at Rs. 999 + tax (though it dropped by Rs. 200 one or two months ago). They have different plans with different prices based partly on speed (and partly on FUP Data usage limit). Towards the end of last month, after I decided to make Jio mobile Internet my primary broadband service provider, I switched to a cheaper BSNL broadband plan (Rs. 470 + tax) with the claimed ‘up to’ speed of 2 Mbps (till FUP data usage limit of 10 GB). Note that the copper wire/data pipe is the same and has the capacity for higher speeds but that’s the way BSNL (and most, if not all, other fixed line broadband providers in India) segments its customers, for business purposes.

My experience with peak speed for the ‘up to’ 8 Mbps BSNL broadband plan I had was around 6.5 Mbps as the peak speed measured by Ookla, fast.com and/or att speedtest.

In contrast, from whatever I have seen of 4G LTE Mobile Internet broadband service provider plans in India – I have seen mainly Reliance Jio and Airtel plans but also had a quick look at Idea plans, if I recall correctly – they do NOT advertise/claim an ‘up to’ speed in their various plan offerings. Neither are their plans differentiated on ‘up to’ speed like landline broadband service providers. Now there is the max. technology supported speed – I think the official 4G technology standard sets 100 Mbps as the peak speed for high-mobility communication (trains & cars) and 1 Gbps for low-mobility communication (stationary and pedestrians). But that’s just

a standard and neither Jio nor Airtel claim to provide peak speed of 100 Mbps on any of their plans, as of now. Note that they use the term 4G LTE (Long Term Evolution) which seems to be a way of saying that they are shooting for 4G standard but they are not there yet – but I am not sure of that. What I am quite sure about is that a 4G label for a mobile Internet service does not mean a claim of delivery of 'peak' 100 Mbps speed for high-mobility (e.g. trains and cars) and 1 Gbps for low-mobility (e.g. pedestrians and stationary) service in India (and USA and elsewhere too, I guess). In contrast, the fixed line 'up to'/peak speeds mentioned in their plans are claims of the service providers.

This lack of clarity about mobile Internet broadband service actual/delivered speed (or speed range) makes it rather problematic for an Indian customer considering to buy these 4G LTE plans. It becomes a buy and try affair which is one of the reasons why I spent a lot of time blogging on my 'buy and try' experience with Reliance Jio as that might help others to make informed decisions.

My experience with peak (download) speed, as measured by fast.com, Ookla and/or att speedtest, of Reliance Jio at my home flat in Puttaparthi is around 16 Mbps typically at late night/early morning like between 1 AM and 3 AM. Note that I am excluding rare spikes with a max of 21.70 Mbps – have attached a pic of that below. I am excluding them as it was really rare – once or twice. In contrast, I did get around 16 Mbps speed around five to ten times, I think.

 **SPEEDTEST**

Try Speedtest Beta



PING
51 ms



NEW SERVER

 **geekbuying**

 **MAKIRES**



AMAZFIT

DTNOI

BIG BRAND SALE

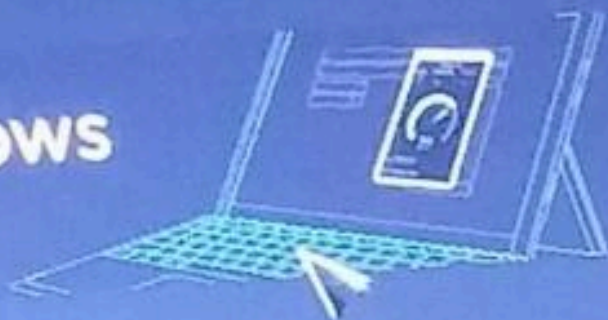
MORE COUPONS FOR NEW WATCH



One must not forget that Mobile Internet speed including that of 4G LTE of Jio is dependent on signal strength (mine shows as excellent rarely and good typically but sometimes drops to fair in the property sheet which shows up on click on Windows 7 taskbar icon for the mobile Internet connection and mouse hover over Connection status). Perhaps if one measures Jio speed in Puttaparthi where the signal strength is the best – all five bars of the measure-graph are white – it would be higher. Another Puttaparthi resident using Jio Net around the time I did, using the same/similar model of the USB unlocked dongle that I am using – got a peak speed of 32.72 Mbps. I have given a pic of that below. I just noted that this pic shows ALL 5 BARS of the Mobile Internet connection icon as white indicating best signal strength (of Jio mobile Internet, I presume), whereas my measure-pic of 21.70 Mbps shows 4 out of the 5 BARS as white indicating one notch lesser than best signal strength! So the location from where he did the test seems to have the best signal strength whereas mine has reasonable signal strength. So he, I think, will get better Internet speeds with Jio than I.

Go to the Legacy site (Requires Flash)

Best for Windows
easy to use



by OOLIA

AGAIN

Jo

157.48.12.175

★★★★★

DOWNLOAD

32.72 Mbps

UPLOAD

7.56 Mbps

SHARE THIS RESULT



Describe your overall satisfaction with
your current internet service

Very Satisfied

SUBMIT

The second nuance is the consistency band, so to speak, of broadband speed. My experience with BSNL fixed line broadband has been that it has a very good consistency band. With my 'up to' 8 Mbps plan, I used to consistently get between 5.5 Mbps and 6.5 Mbps speed. This was very satisfying. This CONSISTENTLY good speed range/band made youtube viewing usually a seamless and happy experience without having to wait for buffering in most cases. Even live streaming from youtube channels like New York Times or PBS (USA) was typically without any buffering! The video being played on full screen on my 21.5 inch TFT/LCD monitor allowed me to very comfortably and in quite detail, follow USA political events from the comfort of my home (small apartment flat) in a rural/semi-urban town in an economically backward district, Anantapur, of India! I mean, I have followed the USA 2016 presidential campaign including the Republican and Democratic national conventions and the election day results, important USA Congress events etc. EITHER live sitting in Puttaparthi OR if I was busy to watch it live, I would watch it the next day. I am talking of watching 1 to 2 to 3 hour videos sometimes at a stretch, sometimes with a break.

And then I have watched so many documentaries, spiritual discourses, movies, pop and spiritual song-videos etc. on youtube which have GREATLY ENHANCED my learning and understanding of life and, many times, given me lots of pleasure too. All of this was made possible by my 'up to' 8 Mbps BSNL landline broadband plan giving 5.5 to 6.5 Mbps speed CONSISTENTLY. Note that I was able to do this sort of video watching on a regular basis from around mid-2012 after I parted ways with the ashram university that I was associated with in Puttaparthi, and decided to lead a home-based individual life. In these five years or so, it is BSNL Landline broadband that has made all this Internet experience enriching my life possible. I am deeply grateful to BSNL and to Indian and Andhra Pradesh govt. which own & operate BSNL at a top-level, for the same and am therefore very reluctant to disconnect my BSNL broadband line even though its charges are too expensive now with Jio 4G Mobile disrupting the economics of Puttaparthi broadband service. I mean, a few months down the line, BSNL could make their broadband plans competitive with JioFiber by raising their 'up to' speeds to say 16 Mbps (on Copper wire), FUP data limit to 100 GB and drop the price to Rs. 500 per month. Then I would consider switching to that BSNL plan, making it my primary Internet service provider, and use Jio Mobile Internet as a backup service. I think around Rs. 500 per month (+ tax) is a fair price that I am willing pay for CONSISTENTLY FAST Internet with a reasonable data usage limit like 50 to 100 GB.

I have been over a week now with my currently backup/secondary Internet service provider BSNL landline broadband plan of 'up to' 2 Mbps till 10 GB data (and 1 Mbps after 10 GB) for Rs. 470 + tax per month. This too is proving to be in a strong speed consistency band. To my surprise, the band is between 1.5 and 2.5 Mbps (before 10 GB data limit is crossed) as reported by fast.com, Ookla and/or att speedtest. I had expected to get 1 – 2 Mbps speed range. In contrast, the Jio 4G Mobile speed varies dramatically during the day (and night). The equivalent 'consistency band' is from 2 to 16 Mbps with lower range speeds being common during evenings and higher range speeds being seen during late nights and early mornings. From a reliable and consistent high speed Internet point of view, in Puttaparthi based on my experience, BSNL landline broadband is far superior to Jio 4G Mobile Internet.

Now one might derive an average speed from the band of 2 to 16 Mbps speeds that I get from my Jio Net connection. Mathematically it would be accurate to call it an average speed. But when viewed from how it will be interpreted by users, I think there is a grave possibility of users being misled by an average speed mention of say, 5.5 Mbps of Jio, WITHOUT MENTIONING the wide variance of speed during the day and night.

Before I conclude, I should also mention that I have focused on Download speeds and ignored

Upload speeds. But I could easily note that the Upload speed of Jio Mobile 4G Internet is far superior to the poor upload speed of even the 'up to' 8 Mbps download speed BSNL landline broadband plan that I used for so many years. So for those who have regular uploads of big files e.g. videos, Jio (and perhaps other) mobile Internet broadband providers may be a significantly better choice.

I noted your interest in knowing my experience with Jio over the coming months in terms of reliability and average speed. Will bear it in mind. Though I think I may not be spending much time on such measures in an organized way with records to back up my statements. It will be more of a quick speed check now and then WITHOUT a record/log (as that eats up time).

To conclude, I would like to say that in Puttaparthi, fixed line broadband, as one would expect, offers superior reliability and consistency but is priced too high. Mobile Internet broadband (besides Jio, Airtel is said to be an important player in Puttaparthi now in this space), in Puttaparthi, offers speeds that are good enough for youtube viewing without much need for buffering, and while the speeds vary a lot during the day and night, the speeds do touch 16 Mbps which is more than two times the highest speed of around 6.5 Mbps that I got for the best speed 'up to' 8 Mbps fixed line broadband plan in Puttaparthi.

P.S. Here's an interesting USA based article, How Fast Are 4G and 3G Internet Speeds?, <https://www.lifewire.com/how-fast-are-4g-and-3g-internet-speeds-3974470>, 13th June 2017. It quotes a study giving top 4G LTE speeds for major vendors in USA.

1) AT&T: Avg. DL speed of 18.6 Mbps, max speed – 19.6 Mbps

2) Verizon: Avg. DL speed of 14.3 Mbps, max speed – 49.3 Mbps

3) Sprint: Avg. DL speed of 10.3 Mbps, max speed – 32.7 Mbps

To compare with India, here's the TRAI speed tracker site, <http://www.myspeed.trai.gov.in/>, listing the following Average DOWNLOAD speeds for all over India, **today (8th Aug. 2017)**, for 4G operators:

1) Jio – 18.8 Mbps

2) Vodafone – 12.4 Mbps

3) Idea – 11.0 Mbps

4) Airtel – 9.0 Mbps

The Pune based Indian correspondent responded (slightly edited):

Thanks for your very informative message. Yes, Airtel is not the ideal service provider but at my location I do not have any other choice except BSNL. To me, Jio is an unknown and I will wait to see what experience other people get in this area.

By the way, the Airtel service has now been down for three days (from Sunday morning)!

I (Ravi) wrote (slightly edited):

Sad to know that your Airtel (mobile Internet broadband) service is down for three days since Sunday! That sort-of downtime is too long. Your alternate mobile service provider (Vodafone, if I recall correctly) would have come to your rescue. Hmm. Lets hope Hathway or You broadband reaches your lane in Koregaon Park quickly and provides much more regular service than Airtel. So far I have not faced ANY downtime from Jio in Puttaparthi – maybe it was down at some times when I was not using the service and so did not note it. BSNL broadband over the past few years has become more reliable and goes down once in, say six months, but is usually back up within a day or so. However, I can't recall BSNL broadband being down this year so far! Even in the rains the landline has worked decently and provided decent broadband service! I do earnestly wish that you quickly get a more reliable and regular broadband service that is cost-competitive.

[I thank ndtv.com, trak.in, livemint.com and firstpost.com, and have presumed that they will not have any objections to me sharing the above small extracts from and references to their website on this post which is freely viewable by all, and does not have any financial profit motive whatsoever.]

=====End of Post=====

Changed BSNL BB plan to 470ULD; using Jio 4G mobile Internet as primary and BSNL BB as secondary; Published: 06 Aug 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/08/06/changed-bsnl-bb-plan-to-470uld-using-jio-4g-mobile-internet-as-primary-and-bsnl-bb-as-secondary/>

This post has log entries and follows up on this post: Planning to have Jio 4G mobile Internet 399 pkg + Lower cost BSNL 470ULD Landline broadband, <https://ravisier.wordpress.com/2017/07/30/planning-to-have-jio-4g-mobile-internet-399-pkg-lower-cost-bsnl-470uld-landline-broadband/>, dated 30th July 2017.

Log entries covering 30th Jul and 31 Jul 2017

A little before 6 PM on 30-Jul-2017 initiated via BSNL selfcare website, change of BSNL landline Broadband (BB) plan from ULD999 to ULD470. Got an SMS that the request has been received and that it may take 2 to 3 business days to implement

Around 11 PM on 31-Jul 2017 I logged into selfcare BSNL and noted that it showed that plan change to ULD470 was done today (31-Jul-2017). I did not get any SMS saying so!

DL Speed on ULD470 BSNL (landline) BB plan can be noticed as slower than earlier plan. But

speed is still OK as given below (have not tried youtube videos yet).

- Ookla – 2.69 Mbps
- fast.com – 1.7 Mbps
- att speedtest – 2.18 Mbps
- Ookla beta – 1.41 Mbps

6-Aug-2017 Update

I got an SMS on Aug. 1st 2017 that my “request for Modify (Broadband Modify)” which would be referring to my BSNL BB plan change request from ULD999 to ULD470 has been “provisioned” (made effective).

So from 1st Aug. 2017 I have been first using Jio Mobile Internet and when its usage crosses 1 GB resulting in very slow speed of around 130 Kbps, which has happened for some though not all days so far in Aug, I switch to BSNL (landline) BB. BSNL (landline) BB, I am glad to say is giving me 2 Mbps or slightly above 2 Mbps speed (never touched 3 Mbps, if I recall correctly but did show around 2.5 Mbps at times) as measured by fast.com, att speedtest and Ookla [advertised speed for ULD470 is 2 Mbps till 10 GB usage in a month after which it drops down to 1 Mbps.] Watching youtube videos on this 2 Mbps speed connection usually does not involve pausing for buffering, but sometimes (and for some youtube channels particularly) it does pause for buffering. Facebook wall scrolling at times shows no images and one has to wait a few seconds for the images to be shown. So one can see the slightly negative impact of 2 Mbps speed connection (as compared to BSNL landline ULD999 plan 8 Mbps speed and even Jio most-of-the-time speed of 4 Mbps or higher) on youtube video viewing as well as Facebook wall scrolling.

On one particular day where I was using the Internet for a couple of hours after midnight seeing a lot of videos and pics (e.g. Facebook wall scrolling shows a lot of pics), Jio crossed 90% of the 1 GB per day limit! So exhausting 1 GB limit (or even 2 GB limit if I take such a Jio plan) on some days seems to be NOT UNUSUAL for me.

I also had some questions about whether Jio data usage reporting is accurate. I made an attempt to use BitMeter2 to measure data usage but that did not work out well (perhaps I did not use it properly), and so I have uninstalled BitMeter2.

Don't know how long the 10 GB data limit (for 2 Mbps speed) of my current BSNL plan – ULD470 – will last this month.

Just checked “Cumulative Unbilled Usage” using BSNL selfcare portal from 1-Aug-2017 to 6-Aug-2017 (today). The total (download + upload) figure is given as 849.62 MB! Hmm. Less than 1 GB data usage so far! I think I avoided viewing lots of videos when I was on BSNL BB, in this month. Perhaps that's the reason why I have not crossed 1 GB total usage so far on BSNL BB.

The “BB Session Unbilled Usage” gives the detailed break up for above period (1st Aug. to 6th Aug.), as follows:

Session Start Date & Time	Session End Date & Time	Upload(MB)	Download(MB)	Total Units(MB)

04-08-2017 22:22:56	05-08-2017 00:14:54	12.55	118.32	130.87
04-08-2017 20:36:55	04-08-2017 21:38:57	6.93	57.75	64.68
04-08-2017 15:04:39	04-08-2017 17:09:12	24.02	493.7	517.72
02-08-2017 23:20:13	03-08-2017 00:59:46	9.25	127.1	136.35

—

Interesting! I think 4th Aug. was when I had consumed 90% of Jio 1 GB data limit in the early morning hours. In the late morning and afternoon I may not have watched videos or seen pages with many pics which is why the 1 GB data limit got crossed only around 3 PM, at which time I switched to BSNL landline BB (ULD470).

I don't recall whether on 1st and 3rd Aug. I had stayed within 1 GB Jio limit and so had not used BSNL landline BB. Tried to check with Jio Data usage stats. Unfortunately it is showing 0 data usage for Aug. 1st to Aug. 3rd (which is an error as I surely have used Jio on those days quite a bit; unfortunately Jio portal data usage stats are not maintained/shown properly; BSNL selfcare portal is far superior to Jio in this matter as its broadband data usage stats are maintained and shown well). The Jio usage shows (in MB) 1096 for Aug. 4th, 482 for Aug. 5th and 407 for today, Aug. 6th, so far [It is around 9 PM now]. I don't recall using BSNL BB yesterday (5th Aug.) and so far today (6th Aug.)

Readings of Jio 4G Mobile Internet speed (before crossing 1 GB per day limit on 399 Plan) on 6th Aug. 2017

At 10:31 PM using fast.com – 6.3 Mbps

At 10:35 PM using Ookla – 2.71 Mbps

At 10:36 PM using att speedtest – 2.15 Mbps

At 10:37 PM using fast.com – 7.3 Mbps

At 10:38 PM using Ookla – 4.32 Mbps

At 10:40 PM using att speedtest – 4.28 Mbps

Disconnected Jio connection and removed Jio USB dongle.

Switched on BSNL landline Broadband (470ULD plan with 2 Mbps speed till 10 GB consumption per month; am way below 10 GB consumption for this month as of today).

Readings of BSNL landline BB speedtest:

At 10:46 PM using fast.com – 2.1 Mbps

At 10:47 PM using Ookla – 2.54 Mbps

At 10:49 PM using att speedtest – 2.44 Mbps

At 10:50 PM using fast.com – 2.2 Mbps

At 10:51 PM using Ookla – 2.60 Mbps

At 10:52 PM using att speedtest – 2.15 Mbps

=====End of Post=====

Planning to have Jio 4G mobile Internet 399 pkg + Lower cost BSNL 470ULD Landline broadband; Published: 29 Jul 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/07/30/planning-to-have-jio-4g-mobile-internet-399-pkg-lower-cost-bsnl-470uld-landline-broadband/>

Last updated on 14-Aug-2017

My usage of, and speed tests of Jio mobile 4G over the past few days [see Jio Mobile 4G and BSNL landline Broadband ROUGH speed data for my home PC in Puttaparthi <https://ravisier.wordpress.com/2017/07/29/jio-mobile-4g-and-bsnl-landline-broadband-speed-comparison-for-my-home-pc-in-puttaparthi/> for details] have made me think seriously about changing my Internet broadband plans from what I have now.

For the past few years I have been using the Rs 999 + service tax (coming to slightly less than Rs. 1150) per month plan of BSNL Landline broadband named BB Home Combo ULD999 which claimed to provide upto 8 Mbps speed (actual speed would be btw 5.5 and 6.5 Mbps) for first 25 GB of data in a month, and 1 Mbps speed beyond that. [See <http://www.ap.bsnl.co.in/flashapnews/Un%20Limited%20BB.html> for info. about these plans.]

My Internet usage is heavy with a lot of youtube video watching as well as Facebook wall scrolling (lots of images get shown on Facebook wall) on a 21.5 inch desktop screen, which I think consumes significant amount of data. It is not unusual for me to cross 30 GB data usage in a month.

Till Reliance Jio 4G Mobile Internet came into the picture in Puttaparthi some time last year, I did not have any good alternatives IN PUTTAPARTHI to the above BSNL broadband plan, which (alternative) gave me say around 4 Mbps speed for 25 GB for a month. Jio has been a game changer. Under its Rs. 399 plan for Jio Prime members, I get 2/3 Mbps to 9 Mbps speed for 1 GB data per day, for 84 days. Adding the Jio Prime membership annual fee of Rs. 99/-, that works out to somewhere around Rs. 150 per month.

Jio also has other plans with 2 GB per day limit and without any data limit per day, <https://www.jio.com/en-in/4g-plans>.

[14-Aug-2017 Update. The following statements of the post (in quotes) are incorrect, "A month back my BSNL ULD999 plan's total charges per month came down by around Rs. 200, from slightly less than Rs. 1150 to Rs. 958 per month. So the Jio effect seems to have reduced my BSNL landline broadband charges."

Today (14th Aug.) I got a BSNL broadband bill for Rs. 1356, which is Rs. 200 more than the usual around Rs. 1150 p.m. that I used to be charged earlier. On looking at the details I saw that I was charged for three periods:

- a) 26/06/2017 to 30/06/2017 (as per ULD999 plan, I guess) – Rs. 166.50
- b) 01/07/2017 to 30/07/2017 (as per ULD999 plan, I guess) – Rs. 966.77

c) 31/07/2017 to 31/07/2017 (as per ULD470 plan, I guess) – Rs. 15.16

That totals to 1148.43. Adding Rs. 1 (after discounts) for local calls and GST of Rs. 206.90, the total bill comes to Rs. 1356.33 (rounded to 1356.00).

I wasted some time trying to unsuccessfully locate my previous bill (for June 2017). Fortunately, I was able to download a softcopy from BSNL selfcare site. That bill states that due to “administrative reasons” (I guess, GST is the reason), the bill was for period up to 25.06.2017 and that the next cycle will have the bill from 26.06.2017. I did not read this stuff in the paper bill a month ago, as I had only a fleeting glance at it then, leading me to **WRONGLY** think that BSNL may have reduced the price of its ULD999 plan to compete with Reliance Jio. end-Update of 14-Aug-2017.]

I am somewhat hesitant to continue with the BSNL ULD999 plan. Neither do I want to terminate my BSNL landline + broadband connection. I think a good solution would be to have both – a reasonable Jio 4G plan and a reasonable BSNL landline broadband plan.

I will use the Jio 4G plan as my main plan. But on days where I exceed 1 GB data limit I will switch to the BSNL landline broadband plan. Of course, if for some other reason Jio 4G is down (before 1 GB data limit is reached for the day), BSNL landline broadband becomes my backup Internet broadband connection.

I am seriously considering moving from BSNL ULD999 plan to BBG Combo ULD470 plan which gives 2 Mbps speed till 10 GB per month and 1 Mbps speed beyond that. Note that the ULD470 plan is the lowest priced BSNL broadband plan for existing customers (new customers have a 249 plan which automatically upgrades to ULD470 after a year, if I recall correctly).

The monthly charges are listed as Rs. 470 (+ 18 % tax). This could be viewed as minimum landline monthly charge of around Rs. 240 + Rs. 230 for broadband Internet (+ 18 % tax). Total charge should be $470 + 85 = 555$. So I will save around Rs. 400 from the Rs. 958 per month I am currently paying for ULD999 plan. As Jio 4G 399 plan with annual Prime membership fee of Rs. 99, comes to around Rs. 150 per month, the effective saving will be Rs. 250 per month.

A downside will be that the BSNL BB connection speed will not be 8 Mbps (claimed) and its upto 2 Mbps speed claim may turn out to be around 1.5 Mbps in practice.

BSNL allows broadband plan change once a month from its self care service website. BSNL landline broadband helpline told me that the change is done immediately (meaning partial bills for two separate parts of the month if plan is changed during the month). So I intend to make the above mentioned plan change and see how it works out.

=====End of Post=====

Jio Mobile 4G and BSNL landline Broadband ROUGH speed data for my home PC in Puttaparthi; Published: 29 Jul 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/07/29/jio-mobile-4g-and-bsnl-landline-broadband-speed-comparison-for-my-home-pc-in-puttaparthi/>

Given below are the rough conclusions drawn from my detailed speed tests (given towards the bottom of this post) done from 25th July 2017 to 29th July 2017 on my home desktop PC in Puttaparthi, Andhra Pradesh, India:

[I am on 25GB_8Mbps BSNL landline broadband plan, and 399 plan on Jio which is 4G speed upto 1 GB data per day. I recently procured a (used) Huawei unlocked 3G/4G USB Dongle and then got a Reliance Jio SIM and connection package. I do not use the Jio SIM with a phone – I don't have a 4G phone. I use the JIO SIM, as of now, only with the USB dongle plugged in to my PC.]

A) BSNL Landline broadband speed is consistent in the range of 5.5 to 6.5 Mbps throughout the day.

B) Jio speed varies over time. This variance is over time periods like morning, afternoon, evening, late night and early morning, and also within each of these time periods. But one gets an idea of the average speed range within such time periods. Given below are my rough conclusions about typical speeds by quick look at the data and not a thorough analysis (so there could be slight errors in the rough conclusions). Further the data set is also not exhaustive.

TYPICAL JIO 4G SPEED for my home desktop PC (location) in Puttaparthi

- 3 to 7 Mbps: Morning and afternoon (say 6 AM to 5 PM) speed
- 2 to 6 Mbps: Evening (say 5 PM to 10 PM) speed
- 4 to 9 Mbps: Late night and early morning (say 10 PM to 6 AM) speed. There are transient highs of upto 16 Mbps

Typically with speeds of 3 Mbps and greater (and perhaps for 2 Mbps speeds too), youtube video playback is smooth without need (or very rare need) for pauses to buffer and even when playing it in full size on 21/22 in. desktop screen, the video is sharp and quite well-defined. Also Facebook loads fast and scrolling down on Facebook wall loads up images quickly (there may be some times when its loading of images is slow but that is usually transient, at such download speeds).

Youtube and Facebook are my litmus tests for acceptable Internet speed. In the above cases, the speeds are acceptable and sometimes really good (better than just acceptable).

After the 1GB data limit is crossed, Jio speed drops to 0.10 to 0.13 Mbps range [Official Jio post 4G speed is 128 Kbps]. Typically with such low speeds youtube video playback becomes sluggish needing multiple pauses for buffering, and the video becomes fuzzy especially on my 21/22 inch desktop screen. Also Facebook page loading is slow and scrolling down on Facebook wall shows up blank icons for images which take time to fill out with the actual images.

Unsurprisingly, these are unacceptably slow speeds for my regular Internet usage on desktop PC (perhaps mobile Internet performance may not be so bad).

Note that Jio data limit reset happens a few minutes after midnight 12:00 AM after which I get 4G speed again on the Jio connection.

C) I also checked out BSNL 3G mobile Internet speeds (as of now BSNL does not offer 4G Mobile Internet as far as I know, and for sure it does not offer 4G Mobile Internet in Puttaparthi). But it is offering pretty attractively priced mobile Internet data plans! So I thought of checking out BSNL 3G speeds. I got three readings of 0.12, 0.37 and 0.97 Mbps. I think typical BSNL mobile Internet speed when connected to my desktop in Puttaparthi would be around 0.5 Mbps. While this is better than the 0.10 to 0.13 Mbps range of post 4G data limit speed of Jio, it still is not good enough speed for my regular usage as youtube videos playback and Facebook loading of images would be slow.

DETAILED SPEED TEST LOG

Readers may feel free to skip the rest of this post as it has only the detailed log given below for the speed tests I conducted from 25th Jul 2017 till 29-Jul-2017.

Speed Tests for BSNL Landline Broadband, Jio 4G and BSNL Mobile 3G in end July 2017 are given below.

Only Download speeds are given below (using speedtest.net unless otherwise specified). Note that at times speedtest.net seems to have given faulty results.

There are two ways to connect to the Internet using Jio on PC. One way is to use the Huawei Mobile Internet application installed by installation process. This process is a little involved as one has to key in administrative password and then wait for the application user interface to come up. Then one can choose Connect in the app to make the Internet connection. The other way is to simply click the Windows 7 task bar LoopMobile icon which can be setup to automatically connect to Jio Internet on restart of PC. I was not sure initially whether there could be some speed differences between Huawei Internet Mobile app initiated connection and the Windows 7 Taskbar LoopMobile initiated connection, and so specified in the detailed log which connection mechanism I used to connect to the Internet. Now I don't think there is any speed difference between these two ways of connecting to the Internet.

On 25-Jul-2017

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Around 8.30 PM, Jio 4G on Dongle (using Huawei Internet Mobile App.) got speed of 2.06 Mbps

and a little while later 4.35 Mbps

At 10.34 PM it (Jio 4G speed) was (around) 3 Mbps

Switched to BSNL Landline broadband. Between 10.35 PM to 10.40 PM got speeds of (around) 6.5 Mbps

and 5.5 Mbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 11:28 PM – 5.93 Mbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 11:34 PM – 2.53 Mbps

Using Huawei Mobile Internet App APN connection (jionet), at around 11:40 PM – 3.63 Mbps
On 26-Jul-2017

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Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 1:14 AM – 5.45 Mbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 1:16 AM – 4.19 Mbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 1:18 AM – 12.77 Mbps

With beta.speedtest.net

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 1:22 AM – 8.12 Mbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 1:25 AM – 3.72 Mbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 1:25 AM – 7.18 Mbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 1:43 AM – 7.09 Mbps

Using Huawei Mobile Internet App APN connection (jionet), at around 1:55 AM – 8.84 Mbps

Using Huawei Mobile Internet App APN connection (jionet), at around 2:03 AM – 8.45 Mbps

Using Huawei Mobile Internet App APN connection (jionet), at around 2:30 AM – 8.53 Mbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 2:31 AM – 8.29 Mbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 2:32 AM – 8.66 Mbps

[Continuing tests in evening of 26-Jul-2017]

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 9:43 PM – 2.37 Mbps

Used SMS DATA4 on 3G BSNL Nokia phone to get 20 MB data access (at lower price)

Connected Nokia E-52 to PC. Got prompt to run some Nokia setup program. Ran it.

Nokia PC Internet Access window popped up. After detecting it showed three bsnl connection options. Went with the first bsnlnet. It connected.

Using BSNL 3G connection (bsnlnet) on Nokia PC Internet Access, at around 10:06 PM – 0.12 Mbps

Using BSNL 3G connection (bsnlnet) on Nokia PC Internet Access, at around 10:06 PM – 0.37 Mbps

Using BSNL landline broadband, at around 10:37 PM – 5.61 Mbps

Using BSNL landline broadband, at around 10:42 PM – 4.84 Mbps

Using BSNL 3G connection (bsnlnet) on Nokia PC Internet Access, at around 10:47 PM – 0.97 Mbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 11:15 PM – 4.05 Mbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 11:29 PM – 6.29 Mbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 11:34 PM – 0.12 Mbps (midway; test takes too long to complete)!!!!

[Confirmed from Jio My Account that my Data balance from 1 GB limit for today (26-Jul-2017) is showing as 0!!!

No wonder Jio speed drops to something close to its specified 128 Kbps speed after crossing 1 GB for the day.

Even opening up youtube page with icons of its various videos is very slow.

Playing one video saw it stop at times for buffering and full window size video was not so clear.]
Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 11:47 PM – 0.14 Mbps (midway; test takes too long to complete)

[Facebook opens up quickly but takes a lot of time to finish loading. Scrolling down on Facebook wall shows blank icons instead of images.

Blogger loads a little slowly but is manageable.

Gmail is slow but manageable.

Google News opens a little slowly but images take time to get loaded.]
On 27-Jul-17

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Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 12:14 AM – 8.85 Mbps

[Hmm. So the 1 GB data limit has got reset and my speed has jumped up to 4G levels. I was checking the speed a few times after 12:00 AM using fast.com (it gives the speed more quickly but don't know how accurate it is) and Ookla too, if I recall correctly but it was at the 128 Kbps level for the first ten or twelve minutes after 12:00. Checking the Jio My Account (refreshing it every time) multiple times during this period gave Data as 0 (indicating limit has been crossed and data limit has not been reset).

But at 12:17 AM when I checked (after refreshing) Jio My account, it showed Data as 1 GB with a message "Renews in 23 hours".

Therefore Data reset is not at 2.00 AM as I was informed by somebody in the past. It is just ten to fifteen minutes after midnight now. Maybe it was being reset at 2.00 AM in the past.]

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 12:28 AM – 9.88 Mbps

Using BSNL Landline Broadband, at around 12:42 AM – 6.69 Mbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 10:48 AM – 3.18 Mbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 12:38 PM – 6.14 Mbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 12:40 PM – 21.79 Mbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 12:44 PM – 11.50 Mbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 12:56 PM – 5.40 Mbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 2:54 PM – 5.72 Mbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 2:56 PM – 1.81 Mbps
Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 3:47 PM – 5.66 Mbps
Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 4:16 PM – 4.31 Mbps
[<http://www.speedtest.net/my-result/6489677436> has record. Note time is 10:46 AM GMT not 4:16 PM IST]

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 4:21 PM – 5.99 Mbps
[<http://www.speedtest.net/my-result/6489687629>]
Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 6:21 PM – 7.18 Mbps
[<http://www.speedtest.net/my-result/6489960067>]
Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 9:43 PM – 10.42 Mbps
[<http://www.speedtest.net/my-result/6490503286>]
Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 10:24 PM – 2.09 Mbps
[<http://www.speedtest.net/my-result/6490608927>]
Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 10:25 PM – 4.33 Mbps
[<http://www.speedtest.net/my-result/6490612592>]
Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 10:26 PM – 3.24 Mbps
[<http://www.speedtest.net/my-result/6490616002>]
Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 11:14 PM – 8.64 Mbps
[<http://www.speedtest.net/my-result/6490735699>]
[11:49 PM: I crossed 1 GB Data limit as per Jio My Account info. So 4G speed is not available till I get a Data reset sometime around 00:10 to 00:15 on 28-Jul-2017]

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 11:58 PM – 0.10 Mbps
[The speedtest progress bar seems to freeze in the middle though the current speed changes at times (usually in 0.10 to 0.13 Mbps range).]

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 11:59 PM and using fast.com – 170 Kbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 12:00 PM and using fast.com – 170 Kbps
28-Jul-2017

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Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 00:02 AM and using fast.com – 170 Kbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 00:04 AM and using fast.com – 170 Kbps
[The Data reset seems to have happened between 00:04 AM and 00:06 AM as 4G speeds were resumed.]

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 00:06 AM and using Ookla – 12.11 Mbps [<http://www.speedtest.net/my-result/6490862168>]

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 00:07 AM and using

fast.com – 13 Mbps

[12:10 AM: Jio My Account shows 1023.99 MB (remaining) Data from 1 GB with message “Renews in 23 Hours”.]

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 00:22 AM and using Ookla – 1.31 Mbps [<http://www.speedtest.net/my-result/6490901013>]

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 00:23 AM and using fast.com – 5.4 Mbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 00:25 AM and using Ookla – 8.42 Mbps [<http://www.speedtest.net/my-result/6490909394>]

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 00:32 AM and using Ookla – 9.30 Mbps [<http://www.speedtest.net/my-result/6490929442>]

[12:34 AM: Jio My Account shows 932.94 MB (remaining) Data from 1 GB with message “Renews in 23 Hours”.]

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 01:47 AM and using Ookla – 16.73 Mbps [<http://www.speedtest.net/my-result/6491104328>]

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 01:50 AM and using fast.com – 14 Mbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 02:11 AM and using fast.com – 14 Mbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 02:13 AM and using Ookla – 15.97 Mbps [<http://www.speedtest.net/my-result/6491157056>]

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 02:15 AM and using Ookla – 14.74 Mbps [<http://www.speedtest.net/my-result/6491160194> – Note result here shows 14.75 a 0.01 Mbps higher figure than in main window.]

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 11:10 AM and using Ookla – 8.97 Mbps [<http://www.speedtest.net/my-result/6492026831>]

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 2:39 PM and using Ookla – 7.86 Mbps [<http://www.speedtest.net/my-result/6492407839>]

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 4:26 PM and using Ookla – 4.80 Mbps

[Around 4:56 PM I saw a youtube video having to buffer while playing. As I had got a 90% of 1 GB data for the day used at 16:10 hours notification mail from Jio, I was expecting it to cross 1 GB while I was watching videos later on. So it seems to have crossed 1 GB limit around 4:56 PM.]

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 4:57 PM and using fast.com – 28 Kbps

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 5:00 PM and using Ookla – 3.93 Mbps [<http://www.speedtest.net/my-result/6492703809>]

[Oh! That means I have still not crossed 1 GB data limit! Maybe the earlier slowdown was a passing tech. problem OR wrong results from fast.com.]

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 5:04 PM and using Ookla – 8.21 Mbps [<http://www.speedtest.net/my-result/6492708699>]

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 5:06 PM and using fast.com – 170 Kbps

[5:07 PM: Jio My Account shows 0 MB Data (remaining). So I have crossed the 4G speed data limit for today.]

[5:13 PM: Youtube video playback is sluggish and the video, especially at full screen (on my 21/22 inch desktop screen), is fuzzy.]

Using Windows 7 Taskbar LoopMobile APN connection (jionet), at around 5:16 PM and using Ookla – 4.07 Mbps [<http://www.speedtest.net/my-result/6492735306>]

Hmm. The above speed does not match my sluggish youtube video playback! Or slow Facebook load and slow display of images in it.

This behaviour of Ookla speedtest puts into doubt all Ookla results above!!!

Looked up other speed test links.

5:30 PM: Using <http://speedtest.att.com/speedtest/> – 0.06 Mbps

5:34 PM: Using <http://www.bandwidthplace.com/> – 0.16 Mbps

5:36 PM: Using Ookla, <http://www.speedtest.net/> – 4.39 Mbps !!!! Something has gone drastically wrong with Ookla.

[5:40 PM: Disconnected Jio. Removed USB Dongle. Put on BSNL Landline broadband.]

5:43 PM: Using speedtest.att.com/speedtest/ – 5.13 Mbps

5:45 PM: Using bandwidthplace.com/ – 1.50 Mbps

5:46 PM: Using fast.com – 4.4 Mbps

5:47 PM: Using Ookla, speedtest.net/ – 6.53 Mbps

5:50 PM: Using Ookla BETA, beta.speedtest.net/ – 3.16 Mbps

[At 5:54 PM: Youtube video playback (same video which had become sluggish and fuzzy) has become smooth (no pause for buffering) and the video has become clear. I think that's what really matters to me in my regular Internet usage. If youtube video playback is without pauses and the video is clear/sharp (not fuzzy) on full screen on my 21/22 inch screen then I have the Internet speed that is adequate for my regular needs.]

29-Jul-2017

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Am now on Jio 4G (BSNL Broadband modem SWITCHED OFF).

At 10:27 AM, using speedtest.att.com/speedtest/ – 3.73 Mbps

At 10:29 AM, using fast.com – 4.4 Mbps

At 10:30 AM, using speedtest.net/ – 7.90 Mbps

At 10:31 AM, using beta.speedtest.net/ – 6.20 Mbps

At 4:32 PM, using fast.com – 7.33 Mbps

At 4:34 PM, using speedtest.att.com/speedtest/ – 8.43 Mbps

At 4:36 PM, using speedtest.net/ – 2.85 Mbps

At 4:32 PM, using fast.com – 120 Kbps

At 4:55 PM, using speedtest.att.com/speedtest/ – 0.09 Mbps

[At 4:56 PM My Jio account shows 0 MB data (available) from 1 GB. This time around I did not get 50% or 90% used notification mails from Jio! That explains the drop in speed in above two tests.]

[At 5:00 PM. Disconnected from Jio and removed USB dongle from PC. Switched on BSNL Landline broadband.]

At 5:01 PM, using speedtest.att.com/speedtest/ – 6.39 Mbps

At 5:02 PM, using fast.com – 5.3 Mbps

At 5:03 PM, using speedtest.net/ – 6.22 Mbps

At 5:05 PM, using beta.speedtest.net/ – 6.08 Mbps

[Around 5:15 PM: My Jio Account gives a blank Usage graph. There seems to be some reporting problem here.]

=====End of Post=====

Dell Support's automatic diagnostic program fixed no audio problem on Mini Laptop after Windows 8.1 upgrade; Published: 10 Jul 2017

Post link (URL) on blog:

<https://ravisiyer.wordpress.com/2017/07/10/dell-supports-automatic-diagnostic-program-fixed-audio-problem-on-mini-laptop-after-windows-8-1-upgrade/>

Recently my desktop PC had a CMOS battery dead problem due to which it was down for some time. Meanwhile I switched to my alternative computer (alt comp), a Dell MiniLaptop.

I needed to see some videos about desktop PC not beeping and not showing the BIOS startup screen, which I had searched for on youtube and Google. On playing the videos I did not hear any audio. I spent fair amount of time checking out and trying to fix the builtin audio of the Mini Laptop, mainly with Control Panel Sounds program/app but got no success! I then tried to hook up an external speaker to the alt comp but once again I got no success with the sound.

Google search on the problem of Dell Mini Laptop having no audio (and audio being opened by another application as that's the error I got on trying some configuration options for Sound) led me to various possible diagnoses and solutions.

1) One interesting situation that some had encountered was that they lost sound after upgrading from Windows 8 to Windows 8.1. Now that's what I had done around a month back (in early June 2017, see

<https://ravisier.wordpress.com/2017/06/06/upgrading-dell-mini-laptop-from-windows-8-to-8-1-3-62-gb-750-mb-download/>). Perhaps that's when I lost the audio but did not notice it as I did not play any video/audio then, and had kept aside my alt comp after the 8.1 upgrade, and worked on my regular desktop instead.

One solution suggested was restoring to previous system (using System Restore). I did not want to go back to Windows 8 due to the security vulnerability in it (Ransomware exploits) which is why I upgraded to 8.1.

Another solution was to uninstall a specific Windows update identified by its KB number. I searched for that KB number in the updates on my alt comp but did not find it.

2) Another solution mentioned was reinstalling some audio driver. I decided to try that option. To reinstall the audio driver I was directed to DELL support site.

I was surprised that when I went to the DELL support site link (perhaps it was some "Drivers & downloads" link), I was given the option to detect my system problem or something like that. The model name/entry for my DELL Mini Laptop was "Inspiron 3137". I don't recall the exact option name now but I chose something that indicated that it would automatically examine my system for any audio category problems.

I think this was the link that I was at:

<http://www.dell.com/support/home/in/en/indhs1/product-support/product/inspiron-11-3137/diagnose>. I chose Sound Card (only) and then chose "Test Selected Devices" or something like that.

That needed me to download and install some DELL support program, which in turn needed another support program (Dell SupportAssist). Once I had done that, it went through some tests which required some input from me (interactive). It asked me to check sound from speakers by clicking on some icons and, to my surprise, the sound worked! So the process of the DELL support program automatically checking the sound (card) in the system, solved the problem for me! The rest of the diagnostics got over quickly with success result.

I was very impressed with DELL support website and its automatic diagnostics program.

=====End of Post=====

Desktop motherboard CMOS battery replacement; Published: 10 Jul 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/07/10/desktop-motherboard-cmos-battery-replacement/>

Some days ago (two to three weeks ago perhaps), my desktop PC's clock was losing time, a sign of CMOS battery dying. A few days later the BIOS startup screen started showing messages of corrupted CMOS but still allowed me to boot up the machine. Three or four days after that the PC did not even show the BIOS startup screen.

I found out that the battery to be replaced is CR 2032. Looked around for it in Puttaparthi as my regular computer service person was temporarily not available. Was directed to Oblesh watch repair guy, a friendly watch repairer who I have interacted with many times. Oblesh's son was manning the shop and gave me a CR 2032 H battery of Maxell for Rs. 50/-. This was perhaps three or four days ago.

I think this is the first time I am replacing the CMOS battery in my desktop PC. So, on my alternate comp. (DELL Mini Laptop), I tried to search for some info. on it. Here's a short video, How to Replace CMOS Battery in a Desktop Computer's Motherboard, <https://www.youtube.com/watch?v=iNw-D7GEWQw>, 1 min. 54 secs, which demonstrates how to use a screwdriver's flat edge to push against the clip and into the battery circular rim/edge to pop it out.

Putting in the new battery is simple. Just push it in the slot. The clip should automatically lock it in place.

Following the above instructions I replaced the old battery with the new one. But my PC did not show the BIOS screen. So changing the battery did not solve the problem.

Read up some articles on those who faced similar problems. Clearing the RTC RAM (CMOS battery powered memory) was a suggested step. The ASUS M2NPV-VM manual explains the procedure. Essentially the battery has to be removed, then the RTC RAM jumper position has to be changed for 5 to 10 seconds, after which the jumper has to be put back in its original position. Then the battery has to be put back in. That finishes the clearing RTC RAM (CMOS battery powered memory) procedure.

Followed these instructions. Struggled to remove the RTC RAM jumper with my fingers alone. Finally used a screwdriver head to hold one side of the jumper and succeeded in prising it out. Another jumper nearby was creating some interference. So I removed that jumper too. Putting the jumpers back on was quite easy.

However, even that did not solve the problem! The PC processor fan would spin but that's it. No beep from motherboard and no BIOS startup screen was being shown!

Read articles on the issue (using Google search) and saw some videos too. One suggestion was to remove the memory RAM sticks and check that the computer beeps on power on with no RAM. I tried it and I did get the beeps.

Plugged the RAM sticks back in and powered on the computer. Once again no beep and no BIOS startup screen.

Thought that the CR 2032 H battery may be the problem as the earlier (dead) battery was CR 2032 plain (no H). Was lucky to find a CR 2032 plain battery with another person in Puttaparthi for Rs. 20/- only. It stated Maxell on the packing but after I had come home and removed the battery from the packing, I saw that the battery itself states Maxtel instead of Maxell! So I seem to have got a Chinese low quality brand. Anyway, I decided to try it out. Putting this Maxtel battery in the motherboard did not solve the problem! Still no beep and no BIOS startup screen. Eventually I thought I should reduce the RAM sticks on the motherboard. Reduced it from 3 sticks to 2 (each 1 GB RAM) with the 2 GB RAM stick removed. Now the computer powered up and booted OK! Success! What a relief!

Shutdown the computer. Now I added the 2 GB RAM stick. I think I may not have placed this 2 GB RAM stick properly earlier. Maybe that's what tripped everything up. This time around I seem to have placed it correctly as when I powered on the computer, it booted and picked up

the additional RAM (total 4 GB RAM)!

So problem was finally solved. But Oblesh told me today when I met him and spoke about the CR 2032 H and CR 2032 plain label batteries, as well as the Maxtel branded battery, that 2032 H should also work with the PC. He also said that the Maxtel brand is a “Chinese” brand and that it will not last long.

I guess I will continue with the Maxtel brand battery for now. I have the CR 2032 H, Maxell battery as spare.

=====End of Post=====

Reliance Jio 4G perhaps a long-term game-changer for affordable Internet broadband access in Puttaparthi (and elsewhere in India); Published: 07 Jun 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/06/08/reliance-jio-4g-perhaps-a-long-term-game-changer-f-or-affordable-internet-broadband-access-in-puttaparthi-and-elsewhere-in-india/>

After I put up my recent post (and sent it on my very small mailing list) titled, Mobile 4G speeds, plans and dongle/hotspot devices in India; 3G speeds; BSNL landline Broadband plan & speed, <https://ravisier.wordpress.com/2017/06/06/mobile-4g-speeds-plans-and-donglehotspot-devices-in-india-3g-speeds-bsnl-landline-broadband-plan-speed/>, I was informed about a very satisfactory experience with Reliance Jio 4G Internet service of a person (P) who resides in a village between 5 to 10 kms from Puttaparthi, and also spends time in Puttaparthi town. Reliance Jio seems to have been made available in Puttaparthi and other parts of India around Sep/Oct. 2016. [<https://en.wikipedia.org/wiki/Jio> states the Jio 4G service launch date throughout India as Sept. 2016.] They came out with an extraordinary 4G Internet and phone calls service which was announced as free for three/four months (till Dec. 2016). P was using the same BSNL landline broadband plan in a Puttaparthi town flat, as mine – 8 Mbps till 25 GB per month, after which speed drops to 1 Mbps, at price of Rs. 1149/= per month (includes service tax). Now P not only uses the download facility extensively (seeing videos etc.) but also uploads large videos!

P decided to try out Reliance Jio in December 2016. It cost him just Rs. 100/= for the SIM card. P uses a Samsung DUAL SIM phone. So he had BSNL mobile SIM and Reliance Jio mobile SIM on his Samsung smartphone handset. The Jio 4G service itself, both Internet and phone calls, was free till end December 2016!! P was astonished not only with good download speed he got with Jio 4G as he could see videos without any buffering issues but saw that he could upload his large video files using his Reliance Jio mobile (after copying the large video file from his Laptop computer to mobile) in 1/3rd the time it took with BSNL landline broadband!!! Note

that BSNL landline broadband upload speed is not all that great. For large (HD) video files, P would need around 10 to 12 hours (if I recall correctly) to upload using BSNL landline broadband. But with Reliance Jio 4G mobile Internet it took only 3 to 4 hours! Further P found that Reliance Jio signal strength and 4G facility was pretty good across Puttaparthi and surrounding villages. So he could have the upload going on, on his mobile, while he was travelling around Puttaparthi and surrounding villages!

In P's village which is 5 to 10 kms away from Puttaparthi town, due to some issues, BSNL landline facility is not available. But Reliance Jio 4G facility worked well for him in his village too!!

P was overwhelmed with this ***free*** 4G service provided by Reliance Jio!! Further, Jio extended its free facility for three months till end March 2017. So P was able to enjoy 4 months of totally free 4G service from Reliance Jio. All he had to spend was Rs. 100 for the Reliance Jio SIM card!

P decided to cancel his BSNL landline broadband (Rs. 1149/= per month) as Reliance Jio was delivering him what he wanted for free initially, and at lesser cost after the free period got over!!! For Internet connectivity on his Laptop computer, P used his Samsung phone as a HotSpot device, enabling his Laptop to access Internet from his Samsung phone (and Reliance Jio 4G service) over WiFi!

P had not measured download and upload speeds for his Jio connection. But it was good enough for watching Internet videos without buffering and significantly faster than BSNL landline broadband for uploading large files. That's what mattered to him!

After the free period got over, P took the around Rs. 500 plan (current data shows Rs. 509 for 84 days validity) which has a 2 GB per day limit. He tends to cross the 2 GB daily limit typically around 10 PM or so, at which time he simply stops using the Internet. Next day (at 2 AM the next day, to be precise), 4G speed Internet is available again to him on his mobile. And the plan lasts for nearly three months!

Ravi: I am astonished at how beneficial Reliance Jio has been to P even in his rural village in a rural district, Anantapur, of Andhra Pradesh. Mukesh Ambani, the billionaire boss of Reliance Jio, said, "Data is the new oil", and seems to have bet big money on a possibly game-changer 4G mobile broadband Internet service in India.

The question is whether Reliance Jio will be able to sustain these prices and these speeds over the long term. *[Reliance Jio download (DL) speed was shown as 18.4 Mbps average across India when I checked with <http://www.myspeed.trai.gov.in/> app. on 6th June 2017.]* If Reliance Jio can sustain it then they will have to be credited with an extraordinary improvement in affordable Internet broadband using mobile 4G in many parts of India, including Puttaparthi and surrounding villages. That would be an extraordinary contribution from Reliance Jio to India's (material) development as affordable broadband Internet access is a vital factor for such development. I congratulate Reliance Jio and its billionaire boss, Shri Mukesh Ambani, for delivering these services for the past around nine months so far in Puttaparthi and surrounding villages, and in other parts of India. Great contribution sir!

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After I came to know of the above very happy customer experience of P, I came to know of another Puttaparthi person's (P2) very happy experience with Reliance Jio broadband. In December 2016, P2 was astounded to hear a person who was using Reliance Jio Postpaid plan (which provides better speed it seems than the then free service and now Prepaid service) on a Coolpad (Chinese brand) mobile phone, state that he was getting very high (download) speeds on his mobile Jio 4G Internet service. P2 who had so far seen only around 1.6 or so Mbps top

speed in Puttaparthi for mobile Internet did not believe him and so used Ookla (<http://beta.speedtest.net/>) to check out the speed. P2 was astounded to see a speed of 81 Mbps on the other person's Coolpad phone using Reliance Jio 4G Postpaid plan in Puttaparthi!!! P2, who is a kind of hardware and computer & mobile systems seller and servicing tech-wizard who moved to Puttaparthi from a big city in India, quickly got a Reliance SIM card for his phone(s). It cost him a similar Rs. 100 or so to get the Reliance Jio SIM. The 4G and phone calls service was free (till end March 2017)! P2 measured the (peak) speeds he got with Reliance Jio 4G free service (not the postpaid plan) in Puttaparthi and found it to be 54 Mbps!! I double-checked that P2 did really get 54 Mbps in Puttaparthi!

Using his phone and help from friend(s) who also took Reliance Jio SIM card(s), he was able to use three mobile phone Internet connections in combination to do large downloads at night with each phone connection providing around 54 Mbps speed. P2 claimed that he downloaded 460 GB of data in this manner over the four months from Dec. 2016 to Mar. 2017 when the Jio 4G service was free!!! Unbelievable!!!

P2 is now on the Rs. 500 or so plan of Reliance Jio and continues to be very happy with its Internet speeds. But I don't know whether he gets 54 Mbps speed now on Reliance Jio 4G in Puttaparthi.

Prior to using Reliance Jio 4G, P2 was using a private Internet over cable service which was giving 1 or 2 Mbps speed. Like P1 cancelled his BSNL landline broadband after experiencing Jio 4G Internet, P2 cancelled the private Internet cable service he was using, after he got very satisfied with Reliance Jio 4G.

But P2 also mentioned that he did face 4G coverage issues while he was moving around in Puttaparthi town especially for phone calls. He is of the view that 3G coverage for phone calls from providers like Idea, when he is moving around in Puttaparthi town, is significantly superior to Reliance Jio 4G.

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Ravi: I think Reliance Jio 4G service in Puttaparthi seems to have become a game-changer so far. What remains to be seen, especially from rural Puttaparthi perspective, is whether Reliance Jio 4G is here to stay or may disappear or become significantly more expensive in the coming months and years.

Going by its track record so far as well as the big name of billionaire Mukesh Ambani's Reliance mega corporation behind it, there does not seem to be any reason to seriously consider that it will not be there for the long term. I think I too need to seriously consider exploring Reliance Jio 4G broadband in Puttaparthi and if it works out well for me, then scale back my BSNL landline broadband plan to something much lesser, if something reasonable is available, than the Rs. 1149/= per month that I pay now.

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Open Signal (global) June 2017 4G LTE report notes Reliance Jio significantly boosting 4G availability in India

Open Signal LTE report seems to be a well known global 4G LTE report. Here's its June 2017 report, <https://opensignal.com/reports/2017/06/state-of-lte>.

Right in the beginning section of the report it notes the impact of Reliance Jio 4G (LTE) on India's 4G network availability. It states, "India shot up our LTE availability rankings, reflecting a rare instance in which a single operator can have an outsized impact on a mobile market in just a short time. Jio's nationwide 4G launch in September attracted 100 million LTE subscribers, making 4G services far more accessible in India but at the expense of lower average speeds." In its global 4G availability chart, India now is ranked 15th in the world (over 100 countries seem to be listed), with a 4G availability of 81.56%! South Korea tops the chart with 96.38% 4G

availability.

In what seems to be its immediately previous report dated Nov. 2016,

<https://opensignal.com/reports/2016/11/state-of-lte>, India's 4G availability was 71.6% with a rank of 24th in the world.

But in the global 4G speed chart (of June 2017 report) which goes by "average download connection speed", India is the second-last (over 100 countries seem to be listed)! India's average download connection speed for 4G is shown as 5.14 Mbps. Singapore tops the chart with 45.62 Mbps average download connection speed for 4G.

Ravi: Reliance Jio 4G has made a mark on the global 4G world by acquiring 100 million subscribers in India in six months (with its free offer for seven months from Sept. 2016 to Mar. 2017).

[I thank opensignal.com and have presumed that they will not have any objections to me sharing the above short extract and short data references from their report on this post which is freely viewable by all, and does not have any financial profit motive whatsoever.]

=====End of Post=====

Mobile 4G speeds, plans and dongle/hotspot devices in India; 3G speeds; BSNL landline Broadband plan & speed; Published: 06 Jun 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/06/06/mobile-4g-speeds-plans-and-donglehotspot-devices-in-india-3g-speeds-bsnl-landline-broadband-plan-speed/>

Last updated on 7th June 2017

This post is a note capturing some information that I have dug up and analyzed over the past two days (5th and 6th June 2017). It is not a comprehensive analysis and is more of a casual capturing of information mainly for my future reference. But I thought some others may be interested to read at least some of the info. in this note and so I have put it up as a public post. *Note that BSNL is owned by Indian government (public sector company) and seems to take on the burden of govt. policies of servicing rural and semi-urban India, including Puttaparthi where I live. As BSNL is govt. owned, for people like me who live in rural India, there is a significantly higher level of confidence in the longevity of its services as compared to private sector companies (Reliance Jio, Airtel, Idea, Vodafone and Reliance Communications are private sector companies in India) who may close down their services to any rural part of India anytime, if the business is not good there.*

A) Looked up some data for Mobile 4G broadband speeds and plans in India, especially that of Reliance Jio which seems to have shaken up the market. Note that Reliance Jio is available in Puttaparthi and seems to have many happy customers who were particularly pleased with their

initial free/very limited monthly charges offer. But I don't know whether even 4G Internet was provided as part of that free/very limited monthly charge initial offer.

B)

<http://gadgets.ndtv.com/telecom/news/reliance-jio-4g-download-speed-fastest-in-india-once-again-idea-second-trai-data-1676837>, dated 3rd April 2017 lists the following as the fastest 4G mobile download speeds based on data from TRAI's MySpeed app [I guess TRAI stands for Telecom Regulatory Authority of India, <http://trai.gov.in/>]:

1. Reliance Jio – 16.487 Mbps
2. Idea – 12.092 Mbps
3. Airtel – 10.438 Mbps
4. Vodafone – 7.933 Mbps
5. Reliance Comm. – 2.958 Mbps

C) <http://www.myspeed.trai.gov.in/> allows us to check the estimated speeds of mobile Internet provides based on some samples ***now***. I can also specify location as Puttaparthi!!! DL below stands for Download and UL for Upload (speeds).
For Puttaparthi now on 6/6/2017

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4G Jio is listed as 3.42 Mbps DL and 2.96 Mbps UL

And it lists speeds ***only*** for Reliance Jio under 4G. Airtel and BSNL show no data for 4G!!
Hmm. I don't know how good the application's data is for Puttaparthi. I think it would be best to make specific speed tests using an Internet connection of the provider to be sure of the speed in Puttaparthi, in general, and, in particular, in the location where one is exploring the possibility of using it (e.g. home/workplace). Note that signal strength at the location where one is accessing mobile Internet is a critical factor in the speed of mobile Internet at that location. Poor signal strength in a particular location (home/workplace), I am told and which seems to be very logical, leads to poor mobile Internet speeds even though nearby locations in the same area (town/city) get good signal strength and so good mobile Internet speeds.

The limited data shows that Mobile 4G Broadband in Puttaparthi seems to be at significantly lesser levels of availability from mobile service providers, as of now, and when available, its speed may be significantly lesser than in other parts of India, especially its big cities.

D) <http://www.myspeed.trai.gov.in/> data for India (as a whole) on 6/6/2017

4G DL speeds

1. Jio – 18.4 Mbps
2. Idea – 11.8 Mbps
3. Vodafone – 11.5 Mbps
4. Airtel – 9.9 Mbps

3G DL speeds

1. Vodafone – 4.8 Mbps
2. Airtel – 3.5 Mbps
3. Idea – 3.0 Mbps
4. Tata DoCoMo – 2.6 Mbps
5. Aircel – 2.1 Mbps
6. BSNL – 2.1 Mbps
7. Reliance – 2.1 Mbps
8. MTNL – 1.2 Mbps

E) <http://www.jio.com/en-in/4g-plans> gives its monthly plans (cost)

Its plans have a validity period (in days), a speed upto a data limit which may be per day and/or across the whole validity period, and a very poor speed (128 Kbps) after the data limit per day and/or across the validity period is over. So essentially after the data limit is crossed, the connection speed drops to very poor but still alive, at which time, for the case where data limit for the entire validity period is crossed, one perhaps is expected to recharge with a new plan . For the case of the data limit being crossed for that day alone and not for the entire validity period, one simply has to wait for the next day (tomorrow) or use an alternate means to get high speed Internet.

I have given below three of its plans.

- Rs. 309 – 84 days validity, 84 GB limit over 84 days including 1 GB limit per day.
- Rs. 509 – 84 days validity, 168 GB limit over 84 days including 2 GB limit per day.
- Rs. 999 – 120 days validity, 120 GB limit; NO LIMIT per day.

For my particular situation, if Reliance Jio gives 8 Mbps or above DL speed in Puttaparthi and at my apartment flat, then its Rs. 999/- plan (I presume service tax is included in it) which is essentially for 120 GB data, competes very well with my current BSNL Landline broadband plan of Rs. 999 + 15 % tax = Rs. 1149 per month giving 8 Mbps DL speed and 25 GB data limit (with that claimed/advertised speed)! At an average 30 GB data per month consumption, I will be able to pay for over four months for my Broadband usage with Reliance Jio that I am currently paying BSNL for one month!!! But The big question is whether Reliance Jio delivers that speed in Puttaparthi, and in my flat (as signal strength may be an issue), and how consistent it is with that speed (or thereabouts) over the entire month.

F) Besides 4G being available on smartphone, one can use a dongle/WiFi hotspot device with a SIM to act as a kind of mobile broadband Internet device providing USB and/or WiFi broadband connectivity to computers including desktop computers (like the one I use for regular work).

Here are details for “JioFi HotSpot Device”,

<https://www.jio.com/shop/en-in/jiofi-4g-hotspot/p/491193575>, which claims “True 4G speed” and is recommended to connect upto 10 devices (WiFi) + 1 (USB tethering). It is priced at Rs. 1,999/=.

I guess similar devices would be available for other Mobile 4G providers in India like Airtel, Idea, Vodafone and Reliance Communications (RCom).

Here is an interesting link, Best Data Cards / USB Internet Dongles in India,

<http://www.mi-fi.in/best-data-cards-india/>. It states, “Now(a)days data card and USB dongle are used synonymous(ly) which refers to USB modem [Ravi: I think it should be device NOT modem] which lets you access the internet using mobile network via SIM card.”

The first dongle/data card it mentions is the “Huawei E3372 4G USB Internet Dongle/Data Card”, which it says is a universal “data card” in India which supports 4G LTE.

[https://www.digitaltrends.com/mobile/4g-vs-lte/ explains, as per my understanding of it, that 4G specification speeds are too high for mobile service providers (100 Mbps to 1 Gbps/1000 Mbps, if I got that right), and so the term 4G LTE (Long Term Evolution) was introduced which sort-of means that one is aspiring for 4G speeds but not there yet. Most mobile service providers in India who claim 4G speeds are actually 4G LTE speeds and NOT official 4G specification speeds.]

The above mentioned mi-fi.in best data cards in India article claims that the above mentioned “Huawei E3372 4G USB Internet Dongle/Data Card” works with all providers (UNLOCKED seems to be the key word here). So one has to just insert the mobile provider/network’s SIM in the device and start using it for mobile Internet access. It says that it also works outside India, and that it is affordably priced! Sounds like a winner from a budget and utility point of view. But it

does not have Wi-Fi i.e. it cannot act as a WiFi Hotspot device. I think, however, some people may prefer not having Wi-Fi support (at hardware level itself instead of it being a software settings configurable option) in such a device, and view that as a security advantage. Here's this device being listed on Amazon.in for Rs. 2,999/=, (note the link may become obsolete in the near

future) <http://www.amazon.in/Huawei-Unlocked-E3372-Mbps-Dongle/dp/B01HBOB7DQ>. The description for it on the page is as follows: "What this product does? Huawei E3372 is a high-speed 4G dongle that provides you with a secure and reliable internet connection. All you need to do is insert a data sim card of your choice, as the dongle is UNLOCKED, then it is ready to use. The best feature about the 4G dongle is that it has a fast download speed reaching up to 150 Mbps (megabit Per Second) so it is not just your average dongle. It is fast and extremely easy to operate; so mobile users can experience the best features of the E3372. A perfect companion if you travel to work by train, just plug in and enjoy your instant connection to the internet whenever and wherever you are. Fast Connection A secure download of 150 Mbps and upload speed of 50 Mbps. Allowing you to stream or download videos and films in no time! Travel Travelling to a different country and have no access to internet connection. Purchase a 4G Huawei E3372 and you will have no problem connecting to the internet abroad. Purchase a data sim card from the local area you will be staying in, connect and there you go internet access on holiday or at home!"

There seem to be cheaper such non Wi-Fi UNLOCKED (USB) dongles which claim to work for all networks (SIMs of various mobile service providers). E.g. Rs. 1,899 for Retail One Airtel Huawei 4G/3G/2G Data Card – Unlocked, weighing around 160 gms,

<http://www.amazon.in/dp/B01CI5C9AS>.

G) Airtel wireless 4G devices, <http://www.airtel.in/4g/index#!plans-and-devices/on-the-go>, lists a 4G Hotspot at Rs. 1950/- and a 4G (USB?) dongle at Rs. 1500/-. But it does not list Puttaparthi as a 4G city, as of now. Hopefully that will change over the next few months.

The Airtel 4G prepaid plans do not seem to be competitive with Reliance Jio at least for heavy 30 GB per month kind of broadband usage.

http://www.airtel.in/4g/index#!on-the-go_prepaid-carousel lists at the extreme right of its list, a 20 GB prepaid plan with validity of 28 days costing Rs. 994/-.

H) Idea 4G prepaid plans seem to be even less competitive than Airtel and Reliance Jio.

<https://www.ideacellular.com/4g> has a 15 GB prepaid plan for Rs. 1495 with 1 year validity.

I) BSNL does not seem to be in the 4G market yet!

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Remaining points below deal with my landline broadband connection and NOT Mobile broadband

J) My BSNL broadband plan is "BBG COMBO ULD 999 – 8MBPS_25GB / 1 MBPS" i.e. 8 Mbps (and not 8 MBbs; it is Mega bits per second and not Mega Bytes per second) speed till 25 GB limit is crossed for a calendar month; after 25 GB limit is crossed speed drops down to 1 Mbps for the rest of the calendar month.

My usage in April 2017 in my bill is shown as 29553457 KB which one can ROUGHLY convert (divide by 1000 which is what BSNL may be doing for its bill calc. instead of dividing by 1024) as 29553.5 MB which can in turn be roughly converted as 29.6 GB!!! Hmm. So in April 2017 I used nearly 30 GB Broadband data! I think I must be averaging between 25 to 30 GB data usage per month on my BSNL broadband line.

The price per month is Rs. 999/= plus service tax (seems to be 15%), and so the total bill per

month comes to Rs. 1,149/=.

K) Some places (telecom circles) in Andhra Pradesh get 8 Mbps upto 60 GB under the same plan mentioned above (that I use)!

From <http://www.ap.bsnl.co.in/flashapnews/Un%20Limited%20BB.html>

BB HOME COMBO ULD 999, for ATP circle, 8 Mbps upto 25 GB, 1Mbps beyond

HYD circle and some others get for the same BB HOME COMBO ULD 999 plan: 8 Mbps upto 60GB, 2Mbps beyond

<http://www.apbsnl.info/2012/11/bsnl-unlimited-broadband-plans-in.html> states that “Revised Broadband Plans from 16-Aug-2016:” include:

Speed in Anantapur, Chittoor, Kurnool, Nellore, Warangal and West Godavari SSAs, for BBG Combo ULD 999, 8Mbps upto 25GB, 1Mbps beyond

It also confirms the higher 60 GB data limit (and higher after 60 GB data limit speed) for HYD and other circles for the same plan.

L) The extract below is from my recent post, Upgraded Dell Mini-Laptop from Windows 8 to 8.1; 3.62 GB + 750 MB download, posted on June 6, 2017,

<https://ravisier.wordpress.com/2017/06/06/upgrading-dell-mini-laptop-from-windows-8-to-8-1-3-62-gb-750-mb-download/>. The extract deals with the time taken to download 3.62 GB of Windows 8.1 upgrade installation files and 750 MB Windows Update files after that on my home BSNL broadband connection.

- <http://www.download-time.com/> provides a quick calculator to “calculate download time for a file depending on download speed.”
- At (supposed) 8 Mbps, 3.62 GB Windows 8.1 Download should take 1 hr, 4 min, 46 secs (presumes fast Download server not acting as a bottleneck).
- I guess what I typically get is between 6 to 7 Mbps download speed based on tests I have conducted in the past and also today on <http://bsnlspeedtest.in/>. The test today (6th June 2017 at 4:14 PM Indian Standard Time/10:44 AM UTC), <http://openspeedtest.com/results/11979195>, gave a download speed of 6.9 Mbps.

At 6.5 Mbps, 3.62 GB Windows 8.1 Download should take 1 hr, 19 min, 43 secs (presumes fast Download server not acting as a bottleneck).

- The above is very close to the 1 hr 15 minutes time my log puts down for the actual download of Windows 8.1 upgrade. Hmm. Somehow I did not realize that I could get a Windows upgrade of 3.62 GB size from Microsoft site downloaded so fast in Puttaparthi, a rather rural place in India, all said and done. But that’s what I got! Great!
- At 1 Mbps, 3.62 GB Windows 8.1 Download should take 8 hr, 38 min, 15 secs (presumes fast Download server not acting as a bottleneck).
- Using the above calculator at 8 Mbps speed:

1 GB download – 17 min. 53 secs (presumes fast Download server not acting as a bottleneck).

- Using the above calculator at 6.5 Mbps speed:

1 GB download – 22 min. 01 secs (presumes fast Download server not acting as a bottleneck).

— end extract from

<https://ravisier.wordpress.com/2017/06/06/upgrading-dell-mini-laptop-from-windows-8-to-8-1-3-62-gb-750-mb-download/> —

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A Pune, India based correspondent wrote (and was OK with sharing):

A few quick points:

1. I use Ookla to check broadband speed: <http://beta.speedtest.net/> Works with any carrier.
2. Airtel 4G dongle just gave me about 27MB *[Ravi: I think Correspondent meant 27 Mbps]* download and 1MB *[Ravi: 1 Mbps meant, I think]* upload speed.
3. Airtel fails around once a month. There is either antenna failure, proxy failure or a planned shutdown. They are good at sending you endless messages in response to a complaint but slow at fixing the problem. They claim they will respond in three days: I told them they should call themselves the dumbphone network and not the smartphone network that they claim to be. I pay Rs.2300 for 30GB a month postpaid. The rate came down slightly after Jio arrived on the scene.

There are few alternatives. The BSNL wired broadband is very slow where we live (often under 1MB *[Ravi: 1 Mbps meant, I think]* download) and there are frequent line problems. Jio is not sufficiently better to warrant a change. Vodafone and others are just getting into the 4G space in my locality.

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=====End of Post=====

Upgraded Dell Mini-Laptop from Windows 8 to 8.1; 3.62 GB + 750 MB download; Published: 06 Jun 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/06/06/upgrading-dell-mini-laptop-from-windows-8-to-8-1-3-62-gb-750-mb-download/>

Summary

The Windows 8 to 8.1 upgrade (3.62 GB download) of my Dell Mini Laptop including Windows update to bring the computer up to latest (important) updates from Microsoft on Windows 8.1 (750 MB download), using Microsoft online upgrade & update facility, took from around 11 AM on 5th June 2017 to 4:40 PM the same day, i.e. around 5 hours 40 minutes, using a claimed 8 Mbps (perhaps giving around 6.5 Mbps download speed) BSNL landline broadband connection.

Detail

My regular desktop PC ran into some hardware issues over the past few days. That prompted

me to switch to my fallback/alternative comp – my Dell mini Laptop. Now, I had not used it for months and I knew that the first thing to do was to invoke the free upgrade from Window 8 (no longer supported by Microsoft) to 8.1 which was enabled on this mini Laptop, followed by Windows Update. This would resolve any exposure to Wannacry and similar Ransomware threat exploiting the known flaws of Windows OS.

I had wanted to do the upgrade sometime in the beginning of this month anyway to ensure protection from Wannacry and similar threats. I have a (supposed/claimed) 8 Mbps upto 25 GB per month BSNL landline broadband connection with my broadband usage sometimes crossing 30 GB a month. I had already crossed my 25 GB limit quite early last month and so had then felt early June 2017 was a good time for the Dell Mini-Laptop Windows 8.1 upgrade. The regular desktop computer hardware issues forced me to do it anyway.

Given below is a short account of the upgrade as a log/record mainly intended for myself but published as a public post just in case it may be helpful to some others as well.

1) Started the Windows 8 to Windows 8.1 upgrade around 11 AM on 5th June 2017. Checked that shutting the Dell MiniLaptop Computer (MLC) and then restarting picked up the download from where it had left off. But I had to go through the process of going to Windows Store and choosing 8.1 upgrade again, which had initially led me to believe that the entire download would start from scratch.

2) According to my detailed handwritten log, while Windows 8.1 upgrade process did not seem to clearly specify when the download process got over and when the install of the downloaded setup files started, going by some messages about activity being done, it seems that the Windows 8.1 download got over around 12:13 PM (same day). That is it took around 1 hr 15 minutes.

3) Now let me get in some download time calculation stuff.

- <http://www.download-time.com/> provides a quick calculator to “calculate download time for a file depending on download speed.”
- At (supposed) 8 Mbps, 3.62 GB Windows 8.1 Download should take 1 hr, 4 min, 46 secs (presumes fast Download server not acting as a bottleneck)
- I guess what I typically get is between 6 to 7 Mbps download speed based on tests I have conducted in the past and also today on <http://bsnlspeedtest.in/>. The test today (6th June 2017 at 4:14 PM Indian Standard Time/10:44 AM UTC), <http://openspeedtest.com/results/11979195>, gave a download speed of 6.9 Mbps.

At 6.5 Mbps, 3.62 GB Windows 8.1 Download should take 1 hr, 19 min, 43 secs (presumes fast Download server not acting as a bottleneck)

- The above is very close to the 1 hr 15 minutes time my log puts down for the actual download of Windows 8.1 upgrade. Hmm. Somehow I did not realize that I could get a Windows upgrade of 3.62 GB size from Microsoft site downloaded so fast in Puttaparthi, a rather rural place in India, all said and done. But that’s what I got! Great!
- At 1 Mbps, 3.62 GB Windows 8.1 Download should take 8 hr, 38 min, 15 secs (presumes fast Download server not acting as a bottleneck)
- Using the above calculator at 8 Mbps speed:

1 GB download – 17 min. 53 secs (presumes fast Download server not acting as a bottleneck).

- Using the above calculator at 6.5 Mbps speed:

1 GB download – 22 min. 01 secs (presumes fast Download server not acting as a

bottleneck).

4) Though the Windows 8.1 upgrade download seems to have got done around 12.15 PM, the setup of Windows 8.1 on the MLC took significantly more time. The entire setup process (done mostly without any need for intervention, except for one or two cases of responding to prompts to restart the system and then login as administrator) took upto 3.02 PM at which time I had logged in as administrator and checked that the system details showed Windows 8.1 (as the OS instead of Windows 8). One particular point at which the setup process seemed to take very long was after the first computer restart in the install process when it showed a message of Setup (in progress, I guess) with an 82% completed figure. I think it was stuck at this 82% for over an hour – between 1:13 PM at which setup was at 75% and 2:31 PM at which setup had moved to 84%!!! Note that the 1st computer restart in the upgrade installation process was done around 1:00 PM. I am not sure if I had to restart the computer only once as part of the Windows 8.1 upgrade – but I think I had to do it only once.

5) After upgrade had completed, I did Check for Windows Update. As the internet cable connection wire had got twisted near the point at which it connected to the MLC (the housemaid had come in and was cleaning the flat which created some disruption and some stuff had to be moved around), the connection broke one or two times. That created some issues for Windows Update. Then I ensured that the cable is connected properly and undisturbed through the Windows update process. Within 5 to 10 minutes after fixing this issue, Check for Updates completed successfully listing 38 important updates (and 8 optional updates which I ignored). This got done at around 3:20 PM.

6) Chose Install (important) updates around 3:22 PM. It showed a message that it was downloading 36 (not 38!) updates with a total size of 655.4 MB. The download seems to have got over (going by message that it was installing) around 3:38 PM. So 655 MB got downloaded in around 16 minutes. <http://www.download-time.com/> calculation: at 6.5 Mbps, 655 MB download should take 14 min. 5 secs. So my Broadband download speed would have been around 6.5 Mbps or slightly lesser for this 655.4 MB updates download from Microsoft updates server.

5) It took up to 4:12 PM for the updates install process to prompt for restart. After restart (at which time, before the login prompt comes up, some more installation/configuration work is done), the system was ready for use at 4:20 PM. The Last Check for (Windows) Updates and Windows Update history reflected the timestamps as per above mentioned events.

6) As 36 out of 38 important updates had been downloaded and mysteriously two had been omitted, I decided to repeat the Check for Updates. Did Check for Updates at 4:26 PM which got finished in one minute stating that 5 important updates and 8 optional updates are available.

7) Chose to Install 5 important updates (99.8 MB) at 4:28 PM. [That takes the total Windows updates download to 655.4 MB + 99.8 MB i.e. around 750 MB.] The download part of it seems to have got over at 4:32 PM. The installation of updates prompted for computer restart at 4:36 PM. After restart, logged in as administrator at 4:40 PM (and was shown the desktop). The entire upgrade followed by Windows Update had been completed, at last!

=====End of Post=====

Great solution perhaps to speed up Windows 7 Check for Updates;

Published: 16 May 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/05/16/great-solution-perhaps-to-speed-up-windows-7-check-for-updates/>

Here's a small extract from my previous post, Updating my Windows 7 system to protect against WannaCry/WannaCrypt ransomware,

<https://ravisier.wordpress.com/2017/05/15/updating-my-windows-7-system-to-protect-against-wannacrywannacrypt-ransomware/>, dated May 15th 2017 that gives the context for this post.

“One problem I am facing now is that Check for Updates is very slow! It seems to need days to finish! I think I will need to use Hibernate on my system instead of Shutdown till Check for Updates completes successfully and then updates my system. Perhaps the nearly 8 month gap since my last full Windows update is the reason for this unusual amount of time, Check for Updates is taking.”

To try to speed up Windows Check for Updates, I referred to this article, How to speed up Windows 7 Update scans—forever, by Woody Leonhard, Senior Contributing Editor, Infoworld, <http://www.infoworld.com/article/3136677/microsoft-windows/how-to-speed-up-windows-7-update-scans-forever.html>, dated Nov. 4th 2016.

I tried out the steps outlined in the article (on 16-May-2017) and got great results! Essentially I had to follow step 3 (Install KB 3020369) and then step 2 (Try to install KB 3172605) of the article. I could omit step 1 as I don't use Intel bluetooth drivers. Then when I tried Check for updates again it got over in around 10 minutes!! What an extraordinary improvement over my previous hours long multiple attempts at Check for updates that did not complete!!

I am very thankful to Woody Leonhard, Senior Contributing Editor, Infoworld [Facebook: @WoodyOnWindows , <https://www.facebook.com/WoodyOnWindows>] for these great tips in his article which resolved my Check for updates problem. I have also Facebook-Liked his Facebook page and so am now following him on Facebook.

The Check for updates listed 253 important updates as selected (for download) with a size of around 1,394 MB. I was able to download that over my BSNL Unlimited Broadband landline connection, over around 2 hours or so with a half an hour to one hour electric power supply cut in between during which I had to hibernate my computer system and restore (restart) it from hibernation after the power supply got restored. At around 6:23 PM (on 16-May-2017) the Windows update process had finished the updates download and was creating a restore point. The installation of updates went from around 6:24 PM to 11:42 PM (slightly over 5 hours) with 240 updates succeeding and 13 updates failing. Restart of system was needed during which the system took some time both during shutdown and at restart, to configure the Windows updates. Around 11:54 PM the system had completed the configuration and restarted Windows 7 with the new configuration. At last, my system had got updated with the latest updates from Microsoft (excluding a few update failures which I plan to look into), with the Windows Control Panel Windows Update status showing that Updates were installed “Today at 11:41 PM” (Today being 16-May-2017).

For the future, I plan to keep Windows Update setting on “Check for updates but let me choose whether to download and install them”. I plan to do the updates manually like I did today perhaps once every month, and whenever there is a report of a major vulnerability in Windows and a patch from Microsoft is available to fix that vulnerability. I think such a manual update process allows me to know more of what is happening during the update and also have some

small level of control over the update process. It also means that I need to keep aside time every month or so for doing a manual update and observing the process. I think I am willing to invest in that time. Note that I am able to multi-task the manual update work with other tasks including some Internet browsing (the speed is slow perhaps due to demand on both processor(s) and Internet connection). However, I try to keep such additional load on the PC to a minimum while the Windows Update process is going on.

I came across an article by the same author, Woody Leonhard, 10 reasons you shouldn't upgrade to Windows 10,

<http://www.infoworld.com/article/2972298/microsoft-windows/10-reasons-you-shouldnt-upgrade-to-windows-10.html>, dated Aug. 1, 2016. Essentially it states that for people who don't need the new features of Windows 10, the annoyances of Windows 10, makes staying on Windows 7 or Windows 8.1 a better option. So I have decided to stay on Windows 7 (and Windows 8.1 on my alt computer, a Dell Mini Laptop) but ensure that it is updated with patches from Microsoft, around once a month.

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Given below is a detailed log of what I tried out on 16-May-2017 from the afternoon spilling on to early hours of 17-May-2017. Readers who do not want to know the details may skip reading the rest of this post.

- Step 1 deals with Intel Bluetooth driver. As I don't use Bluetooth on my Windows 7 PC I could skip step 1. Note that the article states that the key KB 3172605 patch installation (step 2) suffers from an Intel Bluetooth related drawback: "It crashes a very common set of Intel Bluetooth drivers."
- Followed step 3 (Install KB 3020369) and then step 2 (Try to install KB 3172605) of the article. First attempt at step 2 right away failed. Then did step 3 which succeeded followed by step 2, which succeeded this time around.
- Now I have initiated Check for Updates again. Let me see if it does it faster now.
- It got over in perhaps less than 10 minutes, showing a message 253 important updates selected, 1,394.3 MB – 1,394.5 MB. What an extraordinary improvement!!! The most recent check for updates timestamp has now been changed to "Today at 3:38 PM", whereas my previous hours long attempts of Check for Updates, over the past few days, did not result in any change of that timestamp (which earlier was mid Sept 2016). But it did line up a few updates (around 10, most of which were Microsoft Office updates, if I recall correctly) which got installed at shutdown time.
- Have initiated download of updates. Current message is "Downloading 253 updates (1,394.5 MB total, 6% complete).
- I don't know whether there are any problems other than the Intel Bluetooth drivers problem mentioned earlier, associated with this method to speed up Windows 7 Check for Updates. I presume it is safe as it involves installing two KB patches of Microsoft itself. If I face any unusual Windows update or other Windows OS problems in the near future, I plan to report them on this page.
- Lost electric power for perhaps half an hour to an hour. As my PC UPS can be relied on to deliver power during electric power supply cut, for ten minutes or so, I hibernated my PC with the Downloading updates progress message box showing around 50% complete. On restoring PC from hibernation after power supply got restored, the Windows Update picked up from where it had left off. At 5:29 PM it shows 65% complete status.
- 6:21 PM – Windows Update shows the message: Preparing to install [Ravi: That implies 100% of download of updates is complete!]
- At or before 6:23 PM a message was shown that it was creating a restore point.

- 6:24 PM – Installing update 1 of 243
- 7:34 PM – Installing update 101 of 243
- 10:45 PM – Installing update 206 of 243
- Around 11:42 the installing update process gave message box prompt to Restart with a tally of 240 updates succeeded and 13 updates failed.
- 11:54 PM: The system configured the updates taking some time prior to shutdown and lesser time after startup. Now Windows Update shows that Updates were installed “Today at 11:41 PM”.
- As some updates (13) had been listed as failed, I decided to Check for updates again around 11:58 PM.
- Around/slightly before 12:15 AM (17-May-2017) the Check for updates finished listing 16 important updates selected, 97.9 MB [It also stated 18 important updates are available and 47 optional updates are available.]
- 12:16 AM: I chose install updates (or something like that). The Downloading updates progress window came up showing message “Downloading 16 updates (0 KB total, 0% complete). Also the Most recent check for updates now shows “Today at 12:13 AM”.
- 12:18 AM: Now the message shows “Downloading 16 updates (97.9 MB total, 69% complete)
- 12:19 AM: It shows Preparing to install (so 100% of updates were downloaded). Creating a restore point.
- 12:20 AM: Installing update 5 of 16
- 12:25 AM: Installing update 14 of 16
- 12:28 AM: Prompt for Restart with status: Succeeded: 14 updates, Failed: 2 updates. Error(s) found: Code 643 Windows Update encountered an unknown error ...
- 12:29 AM: Clicked on Restart.
- 12:31 AM: The configuration update during shutdown and restart was fast. Windows Update status shows that Updates were installed: Today at 12:28 AM.
- I don't want to try Check for updates again to try to fix the 2 failed updates now. I plan to do it today (17-May-2017) afternoon.
- Went through the update history. Interestingly it showed the two failed updates for the latest update (17-May-17) They deal with:

a) Update for Microsoft XML Core Services 4.0 Service Pack 2 for x64-based Systems (KB973688)

b) Security Update for Microsoft XML Core Services 4.0 Service Pack 2 for x64-based Systems (KB954430)

- There are similar details for failures in earlier update done on 16-May-17.
- I think I should Google for what one should do for such failures in Windows Update.
- 12:41 AM: Changed Windows Update setting to “Check for updates but let me choose whether to download and install them”. That takes away the red flag from Taskbar status.

=====End of Post=====

Updating my Windows 7 system to

protect against WannaCry/WannaCrypt ransomware; Published: 15 May 2017

Post link (URL) on blog:

<https://ravisier.wordpress.com/2017/05/15/updating-my-windows-7-system-to-protect-against-wannacrywannacrypt-ransomware/>

As news broke of WannaCry/WannaCrypt ransomware attacks across the world including some rare reported attacks in India, I spent good part of my day today to understand the threat and take steps to protect myself from it. My Facebook post,

<https://www.facebook.com/ravi.s.iyer.7/posts/1907471216136113>, and comments is a log of my actions and thoughts on it today. This post is a refined version mainly extracted from that log.

1) Here's a good article on defending one's Windows system from WannaCry/WannaCrypt ransomware attack:

<http://www.zdnet.com/article/how-to-defend-yourself-against-wannacry-global-ransomware-attack/>.

2) Here's the main Microsoft link which gives overview instructions for all Windows systems, and details links specific to various Windows versions, to protect against vulnerability exploited by WannaCry/WannaCrypt: Microsoft Security Bulletin MS17-010, <https://technet.microsoft.com/en-us/library/security/ms17-010.aspx>, version 1.0, published on March 14, 2017.

3) My main desktop system uses Windows 7 SP 1. The link for individual security update for Windows 7 to prevent Wannacry attack is:

<http://www.catalog.update.microsoft.com/search.aspx?q=3212646>.

I have x64 Windows 7 and so chose "January, 2017 Security Monthly Quality Rollup for Windows 7 for x64-based Systems (KB3212646)" Download link. The download file is listed as 142.7 MB size.

4) After downloading the individual update mentioned above that fixes vulnerability exploited by WannaCry, I faced a peculiar problem on trying to install it. The installation procedure got stuck on searching for updates (on this computer) – I don't recall the exact words now. I let it run for an hour or so but it still was stuck!!!

Google searching for why I was facing this problem led me to the two following links:

a)

<https://superuser.com/questions/1044528/attempting-to-install-msu-hotfixes-results-in-searching-for-updates-on-this-com>

b)

https://answers.microsoft.com/en-us/windows/forum/windows_vista-update/updates-not-working-it-has-been-searching-for/92cd6922-17f6-4730-b46b-91a480b95dd3

As I went through them these lines from the first link, "WUSA.exe, which is used to install MSU updates, is just a wrapper to Windows Update. After Windows Update installed an update it hangs again in a loop to check if updates apply or not and those checks are useless after an install and this loop blocks you from installing other MSU updates.

To speedup the Installation, stop the WindowsUpdate service via GUI (services.msc) or via

elevated (running as admin) command line (net stop wuauserv). Now the loop is stopped and updates install faster.” struck me as a possible indication of my problem.

What they essentially say is that Windows Update service needs to be stopped. So I changed the Windows Update settings to Never (not recommended), and restarted my system.

Interestingly link 2 above has something similar suggested though I focused on it only after I tried out the above, “Disable automatic Windows Updates [Windows Update | Change settings | Important updates | Never check for updates (not recommended)] and re-boot to terminate any Windows Update sessions currently running in the background on your system.”

When the system restarted I checked that Windows Update settings was set at Never, and that Check for Updates was NOT running. Then I ran the individual installation file again. This time it DID NOT GET STUCK at searching for updates (on this computer)!!! It took a little while to go through the process of individual installation giving appropriate status messages letting me know of what it is doing. In perhaps around 10 minutes or so the installation was done and I was prompted for a restart of the computer which I did.

The shutdown and restart resulted in Windows configuration messages coming up. When the system was up after these procedures, I used the View Update history to see whether it reported the new individual update as installed. The first line had, “Security Update for Windows (KB3212646), Status: Successful, Importance: Important, Date Installed: 15-May-2017”

That’s it!!! My Windows 7 x64 system was now protected against the vulnerability that WannaCry ransomware is reported to have used.

I then changed the Windows Update settings to Automatically Update, and also initiated a Check for Updates, which will bring in all the other updates from Microsoft site since I did my last full update in Sep. 2016. Note that I was not using automatic update regularly as it slowed down my Net connection.

One problem I am facing now is that Check for Updates is very slow! It seems to need days to finish! I think I will need to use Hibernate on my system instead of Shutdown till Check for Updates completes successfully and then updates my system. Perhaps the nearly 8 month gap since my last full Windows update is the reason for this unusual amount of time, Check for Updates is taking.

5) Copy-paste of email I got dated May 15, 2017 at 12:24 AM, from Indian govt. portal MyGov on handling Wannacry ransomware threat is given below:

Dear friends,

It has been reported that a new ransomware named as “Wannacry” is spreading widely.

Wannacry encrypts the files on infected Windows systems. This ransomware spreads by exploiting vulnerable Windows Systems. The Indian Computer Emergency Response Team has issued advisory regarding prevention of this threat.

In view of high damage potential of the ransomware a webcast has been arranged to create awareness among users/organisations.

The webcast on the topic “Prevention of WannaCry Ransomware Threat – session by CERT-In” will be broadcast on <http://webcast.gov.in/cert-in/> on 15th May 2017 at 11 AM

Please do tune in to the broadcast to learn more and protect yourself.

Team MyGov

— end copy-paste of email —

This MyGov webcast link, <http://webcast.gov.in/cert-in/>, given above, has a video of around 16 minutes. But the video tends to get stuck. I eventually managed to see the whole 16 min video. It is worth watching as it provides a lot of information about cyber help services Indian govt. provides to users (presumably all residents of India) to protect and respond to such cyber

attacks in India.

Here's the website for Indian govt. agency that did the MyGov video: <http://cert-in.org.in/>. On its home page, under Current Activities section, click on the link, "Wannacry / WannaCrypt Ransomware – CRITICAL ALERT" to see associated webpage.

6) Here's an interesting related blog post, Patching is Hard,

<https://www.cs.columbia.edu/~smb/blog/2017-05/2017-05-12.html> by Computer Science Prof.

at Columbia University, Steven Bellovin, https://en.wikipedia.org/wiki/Steven_M._Bellovin.

Bellovin raises the very valid concern in some contexts, about the dangers of applying OS patches. I tend to agree with his views in the context of keeping sophisticated application software systems running on various Operating Systems. Applying a patch of an OS could break important application software systems which may get impacted in unusual and unanticipated ways.

But I should also mention that as a Windows home PC user over the past five years with almost zero, if not zero, software development activity and minimal custom application software usage, I have not had any serious issues of Windows OS patches breaking the minimal software apps. that I use on my Windows home PC. And over the past few years I have become primarily an Internet apps user using either Chrome or Internet Explorer, with Microsoft Office being the only other major application that I use. I think due to this profile of my Windows home PC use, I have not had any serious issues with applying Windows OS patches.

=====End of Post=====

Hard Disk failure and SYRMA BSNL Broadband modem problem and solution; Published: 10 Sep 2016

Post link (URL) on blog:

<https://ravisier.wordpress.com/2016/09/10/hard-disk-failure-and-syrma-bsnl-broadband-modem-problem-and-solution/>

A few days ago (perhaps a week to ten days ago) my regular desktop computer went down (Windows OS not booting) due to some SMPS and a hard disk (yet to be sure of the hard disk) issues. Later the PC SMPS was replaced. That did not solve the Windows booting problem. I noted that of the two hard disks on my PC, a 160 GB Seagate HDD and a (less older) 500 GB Seagate HDD, the 500 GB Seagate HDD which had the Windows OS installation (but NTLDR was on the 160 GB HDD; so I needed both to boot successfully), was not showing up at times on the BIOS screen! Tightening the power and signal wire plugs did not resolve the problem. The PC repair guy said that the PC is having is having a HDD (hard disk drive) problem. He said he could make out by the noise being made by the HDD(s). The PC repair guy booted the system with a Linux Live type/variant CD (Zorin OS if I recall correctly). It showed the 160 GB HDD but not the 500 GB HDD. Fortunately some important personal data (which I had not backed up for months) was on the 160 GB HDD. Note that I backup my social media blogs onto Google Drive. So that data as a backup was available on the cloud besides the blogs themselves being available on the cloud. The issue was my personal data which I had not

backed up for months. Last proper back of all relevant data was done in Feb. 2015!!!
Fortunately the 500 GB drive which was not showing up had only some recent desktop directory data which I did not have a backup copy of. Rest of it was used mainly for audio and video and Internet downloaded documents stuff of which I don't think I added much since Feb. 2015. In other words, my backup devices have most of the stuff that was on the 500 GB drive.
Once the repair guy used his Zorin (Linux variant) OS to show the 160 GB HDD data, I backed up all the required data from it onto my Western Digital 1 TB Backup (Passport) device and also backed up the important personal data onto a SanDisk 64 GB USB stick. Ah! That felt so good. Now I had two copies of my important data.
But I was stuck with a not working PC even after the SMPS replacement was made! The PC Repair guy suggested buying a new fast speed solid state drive on which we can install Windows. I agreed and he has ordered for a 64 GB Corsair solid state drive from Delhi which will take a few days to get delivered to Puttaparthi.
Meanwhile I decided to install Windows 7 (which is what I was using for a year or two now, and found it comfortable enough for me not to go for newer versions of Windows; myDELL mini Laptop alternative comp. has Windows 8 on it) on the 160 GB Seagate HDD which was working fine. To avoid any interference, I physically disconnected the 500 GB drive. The Windows 7 installation went through without a hitch. So my PC is back into running shape (including Internet connectivity). Some settings have to be changed (like using larger size font by default for this old guy (me) 😊) but I will get that done over time.
I then did full data backup of relevant data from the 160 GB drive to another big backup device that I have – a 2 TB Seagate MyBook (or similar type) USB hard disk.
I then reconnected the 500 GB drive to the PC. Windows showed it for a short while as a drive, and showed its logical partitions/drives too. But attempts to display contents of the partitions resulted in Windows (File) explorer hang or being very slow, and NOT showing any contents eventually. Disk Manager administrative program also got hung. So I guess the 500 GB drive is in bad shape. Data recovery possibility using specialized services (the PC repair guy said he could try) may be an option. Need to see how much time, money & effort that might entail. If it is significant I may decide to just forget about the data on the 500 GB drive.
Internet Connectivity problems

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As mentioned above my desktop PC ran into a few problems a few days ago (perhaps a week to ten days ago). So I then switched to an alternate computer (DELL mini Laptop). I connected my SYRMA ADSL2+CPEs Type W2 DSLW200-SY BSNL Broadband modem via LAN Ethernet cable to the DELL mini laptop. Initially the Internet connectivity was not going through. I wondered what's wrong.

Trying to open the administrator page of the modem (note Wireless feature of modem was turned off) by visiting <http://192.168.1.1> in the browser. The page did not open!!!
Meanwhile, rather mysteriously, the Internet connectivity got enabled. Perhaps some of the Net configuration attempts that I was doing had done the trick. Or perhaps the system detected something over time. I don't know what exactly happened.
The key config changes that I was trying was the Network adapter IPv4 settings. I don't think I changed it significantly. Anyway the settings that I went for were:
M/c IP: 192.168.1.x [x being 5 or 6 or 10 or 25 in various attempts]

Net mask: default of 255.255.255.0

Default Gateway: 192.168.1.1

Primary DNS: 192.168.1.1

Alternate DNS: blank

After Internet connectivity got working but 192.168.1.1 was still not opening, when I attempted to fix that, I tried different DNS IPs including 8.8.8.8 and 8.8.4.4 for Primary and Alternate respectively (Google DNS server IPs, if I recall correctly).

When I loaded USB Browser OS (Browser Linux and Just Browsing) the Internet connectivity failed even with Ethernet LAN cable connecting modem to PC.

SOLUTION

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On reading some forum posts on this matter of 192.168.1.1 not opening up (for modem administration), I read that manual reset of the modem worked as a solution for some. So I used the less pointed end of a plastic toothpick to reach into the reset hole of the modem and keep it pressed for a few seconds (5 to 10 seconds). I could hear and perhaps feel a switch popping up when I released pressure on the toothpick to remove it from the reset hole. [I had tried it with a ball point pen but that did not go so deep and I did not hear or feel any switch popping up after I removed the ball point pen tip from the reset hole. So less pointed end of plastic toothpick seems to be a good instrument to access the modem reset button.]

A few minutes after the reset, even without the phone line (DSL) connected to the modem, I was able to ping 192.168.1.1 (the PC IP was 192.168.1.10, which also I was able to ping)!!! I then tried opening up 192.168.1.1 on the browser and hey presto, the admin login appeared.

Appropriate admin id & password got me into the admin web pages.

My BSNL broadband connection userid and password were lost in the reset process. The userid showed was multiplay. Just to check, I tried Internet connectivity after plugging in the phone line (DSL) into the modem. But, as expected, the PC did not get Internet connectivity.

Using the modem admin pages I changed the Userid from multiplay to my userid and password for my BSNL broadband connection. That did the trick. Now Internet connectivity was available on the PC.

I have kept the wireless feature of broadband modem off. That seems to be the default setting (as it showed as off after reset too).

=====End of Post=====

Booting ASUS M2NPV-VM mobo PC (mine) with USB OS for browsing the

Internet; Published: 09 Sep 2016

Post link (URL) on blog:

<https://ravisier.wordpress.com/2016/09/09/booting-asus-m2npv-vm-mobo-pc-mine-with-usb-os-for-browsing-the-internet/>

My PC has ASUS M2NPV-VM motherboard with AMD dual core processor. I was wondering whether I could boot my PC with an Internet browser OS on a USB stick. The answer is yes and the details of my successful experimentation are given below.

Tried the following on 8th and 9th Sept. 2016. Note I have Windows 7 installed on my PC hard drive. All the steps below were done on Windows 7

1) **Browser Linux 501 OS**

Downloaded 94 MB iso file of Browser Linux 501 [See <http://www.browserlinux.com/>]

Downloaded UNetbootin from <http://unetbootin.github.io/> and ran it to put Browser Linux image on Transcend USB 1 GB stick [I had emptied/formatted the USB stick earlier (FAT32)]

2) **Just Browsing OS**

Downloaded 629 MB iso image [probably from <https://sourceforge.net/projects/justbrowsing/>] http://justbrowsing.info/start/#usb_win has instructions on copying image to USB. Followed those. Specifically:

a) Downloaded Win32 Disk Imager and then installed it on PC

b) Ran it to put JustBrowsing iso image on 2 GB Kingston Data Traveler USB stick (had formatted it earlier (FAT32))

3) **ChromiumOS**

Downloaded 32-bit ChromiumOS tar.xz file (430 MB) from <http://chromeos.hexxeh.net/>

Used 7Zip to unpack it to ChromiumOS base image tar file (0.98 GB)

Used 7Zip on tar file to get ChromiumOS base image bin file (3.33 GB)

Had also downloaded RMPrepUSB utility (from here I guess, <http://www.rmprepusb.com/home>) to put Chromium OS on 2 GB USB stick. But saw that Chromium OS downloaded needs an at least 4 GB capacity stick. So have put this step on hold till I get a spare 4 GB or more USB stick <http://www.rmprepusb.com/tutorials/chromium-os-on-usb-stick> has some instructions on putting Chromium image onto a USB stick using RMPrepUSB utility.

To get PC to pick up USB OS

Press F8 while BIOS screen is showing. That leads to an option list of Removable OS drives including the connected USB drive to choose from. Choose USB drive.

Tried out both Browser Linux 501 and Just Browsing USB image sticks. Both worked in terms of coming up with an X GUI.

A1) Browser Linux 501 is too barebones and asked a lot of questions (it perhaps is also risky as it offered to save settings but warned that settings should be saved on an NTFS

filesystem ONLY after defragmenting the filesystem!!!). So I think it is safe to use Browser Linux 501 USB stick ONLY with all hard disk drives of PC PHYSICALLY DISCONNECTED.

Firefox is the browser program installed and used by Browser Linux 501

[Update: Key config. settings to be made when Browser Linux 501 starts up on my ASUS M2NPV-VM mobo PC:

- Xorg driver: nv [That's for NVidia I guess which is the graphics chip integrated in the mobo]
- Monitor: h31.5...LCD Panel 1440×900 [I guess that (and the video mode setting below) is suitable for the ViewSonic VX1932WM 19" LCD monitor that my PC uses]
- Video mode: 1440x900x24

With the above settings BrowserLinux opens up an GUI interface (X Windows, I guess) properly. On shutdown, OS gave the option of saving the session (which then gets reused at next boot skipping above config questions which is very convenient, and remembering some other stuff too). It recommended a 512 MB ext2fs file to be made on the USB stick (leaving some 300 to 400 odd MB free in the 1 GB USB stick). Chose that (after trying out a smaller one first and running into warnings). Provided ravi as the name-tag for the saved session/settings file which was given the full file name of lupsave-ravi.2fs (or something like that). end-Update]

A2) JustBrowsing was a much smoother startup (very few questions) but a slow startup. JustBrowsing provides Chrome as a browser option (I think the other option is Firefox). However I could not browse the Internet from both OSs!!! So there seems to be some settings issue which needs to get fixed for these OSs to work with my BSNL Internet modem. Plan to work on it and will update document shortly.

[Update: Fixed my SYRMA ADSL2+CPEs Type W2 DSLW200-SY BSNL broadband modem problem by physical reset followed by entry of my BSNL broadband connection userid/password in the modem's administration web pages. Now Internet browsing is possible from both Browser Linux 501 and JustBrowsing (without any Internet configuration changes being done on either of the two USB OS installations). Essentially the id/pwd stored in the modem is enough to provide Internet via any LAN cables connected to its ports (4) or over wireless (I have turned off the wireless feature of the modem). So one needs to only plug an Ethernet LAN cable from PC or any other browser device to the modem for the PC/other browser device to have access to the Internet.

Also tried disconnecting all physical hard disk drives (removing both signal and power cables) and then booting from USB drives (for both OSs above, if I recall correctly). It worked like a charm. As there was only one boot drive available, F8 to choose USB boot drive was also not required as by default the PC BIOS booted with the only boot drive (USB) available.

I think my decision to buy a fairly reliable and high-end for desktop user needs (NOT developer or gamer needs) ASUS motherboard at the time I purchased the mobo, around maybe 7 or 8 years ago, is serving me very well. end-Update]

=====End of Post=====

Home Internet connection problems and solutions in Puttaparthi and Pune: Individual experiences of around a decade; Published: 05 Jun 2016

Post link (URL) on blog:

<https://ravisier.wordpress.com/2016/06/05/home-internet-connection-problems-and-solutions-in-puttaparthi-and-pune-individual-experiences-of-around-a-decade/>

Last updated on 6th Jun 2017

This post came about through a mail conversation I had on a recent post of mine, My BSNL Broadband (landline) speedtest: 6.6 Mbps, <https://ravisier.wordpress.com/2016/06/03/my-bsnl-broadband-landline-speedtest-6-6-mbps/>. A Pune, India, based correspondent (referred to as PuneC hereafter) and I (Ravi), who am based in Puttaparthi, India, had a long exchange where we shared our experiences with Internet connection problems and solutions over a period of around a decade. I have given below a modified version of that mail exchange.

PuneC wrote:

Your experience with BSNL seems generally fairly good. *[Ravi: BSNL is the public sector/govt. owned Telephone giant company of India. Airtel, Vodafone and Reliance are private telecom companies in India (and abroad). end-Ravi]*

My experience was so poor that after 10+ years I decided I had had enough. The line was down frequently, I rarely got the promised speed (download was between 1-3 MB at the best times, below 1MB most of the time).

BSNL is hopeless in dealing with complaints. "Talk to so-and-so in your exchange," "You should see XX in the main office — he'll sort out your problem," etc. I made many visits to different offices, met different people, was promised improvements but none came. Government-run agencies are no good at dealing with customers — they have not got over the feeling that they are doing you a favour in giving you any service at all!

My experience is limited to the Koregaon Park exchange in Pune. It is possible that those connected to other exchanges in Pune have different, possibly better, experiences.

I finally gave up and switched to Airtel 4G wireless wifi in December. It is far better and gives me 5MB download speed most of the time. It does have blackout periods from time to time (so I need a backup and use a Vodafone 3G dongle). And it is more expensive: about Rs.2660 per month for 25GB download (there are cheaper plans for smaller download limits). It is not flawless by any means but it operates for most of the time. I wonder how well it will work in the rainy season (and will soon find out!).

Ravi responded:

Well, I got onto BSNL landline Internet service perhaps close to a decade ago in Puttaparthi. In 2006/2007 BSNL landline was the ONLY Internet option for Puttaparthi residents, if I recall correctly. There were no other landline options and I don't think there were any, or at least any reasonably priced, Mobile Internet options in Puttaparthi then.

I too faced quite a few issues with my BSNL landline Internet connection. Initially I got pretty frustrated with lack of proper responses from BSNL Puttaparthi people. However, my Puttaparthi life experience from Oct. 2002 kicked in, and I realized that like in so many other things in small town Puttaparthi, the supplier was King and the consumer had to not only pay the supplier for products & services but also be polite to the supplier and try to work with the supplier for

improved product/services. That approach with BSNL Puttaparthi paid off. Over time, I got to understand the typical causes of failure or poor connection quality/speed in my particular case (but which would apply to others too, I guess). I thought I should capture them as they may be useful for others too. They were and, some still are, as follows:

a) Rain and wind disturbing the wire joining my landline connection to the BSNL main cable line. The lineman was the key person who had to simply open the join, clean it up and join it again.

b) In the initial years, the main BSNL cable line was not of good enough quality for Internet data traffic. So the connection quality was frequently not good enough. Later it was replaced by a thick copper cable which was better suited for Internet Data traffic. See the BSNL

Telephone/Internet cable photograph below that I took from my apartment flat sitout/balcony today. Monkeys, who visit Puttaparthi town quite frequently, use this cable as a kind of ropeway to cross over the field next to my building!



Above pic: BSNL Telephone/Internet Cable going to Ravi's apartment building

I have also given below a BSNL Telephone Tower photo that I took today from my apartment flat balcony/sitout again, where you can see the BSNL Telephone tower next to the pink building.

The tower is at the exchange and so you can see that the cable distance from the exchange to my building is not much. Perhaps that helps in better landline broadband quality. The tower itself would not impact the landline broadband quality – I mentioned it as it shows the location of the telephone exchange.



Above pic: Puttaparthi BSNL Telephone Tower next to pink building

c) Some of the slots in the main telephone exchange equipment (board?) that the landlines were connected to, had some issues leading to connection drops and the DSL signal not coming up (on the modem). I learned this from some interactions I had with the JTO (Junior Telecom Officer?) who was the main technical man handling the Internet connections at the exchange (and perhaps voice connections too). My politeness and willingness to work with the JTO (and spending fair amount of time with him on the occasions where I had trouble) paved the way for the JTO to share this info. with me. So I would request that my line was not connected to any of the problem slots. Further, if I started facing weird connection problems I would check whether my line was connected to a problem slot (just in case they had changed it). Note that the JTO changes every few years.

d) Initially I got caught up in the pass-the-buck game between the lineman and the JTO for any Internet connection problem I faced. I later learned that the lineman was the guy who was responsible to remove any audible noise I heard on the telephone line (audible noise was a clear indicator of poor landline connection which would negatively impact Internet data transmission). So I would insist on the lineman ensuring no/limited audible noise on the telephone line. Further, if the DSL (Digital Subscriber Line) light did not come up on the modem then the probability was high that the problem was at the Telephone exchange and so the JTO was the person who should look into the problem and fix it. But if the DSL light did come up but the connection quality was poor (lots of disconnects or poor speed) then it could be a line quality problem which the lineman should look into. After I gained this knowledge I was largely successful in avoiding getting caught up in a pass-the-buck game between the lineman and JTO for any Internet connectivity problem that I was facing. Of course, I also went the extra mile to "remember" the lineman on Dassera day every year :-).

e) Sometimes the main server (a few years ago it was at Anantapur or Kurnool) of BSNL handling Internet traffic from Puttaparthi would be down. Then one just had to wait till it came back up (usually it would be back up within a day).

f) Using a splitter from the telephone line to split the line into a voice line for the telephone and a data line for the modem was recommended.

g) I figured out the modem configuration part. I had a strange problem of my BSNL supplied modem automatically changing the username to multiplay (instead of my username) which resulted in Authentication failure with the ISP (BSNL). Others too have faced this problem; see <http://www.raveeshkumar.com/2009/04/bsnl-dsl-router-username-reset-problem.html> OR <http://ccm.net/forum/affich-411436-bsnl-modem-dna-a211-i-ppp-username-reset-prob>.

Understanding some of the modem configuration settings and diagnostics helped me to troubleshoot problems and understand whether they were modem related or NOT modem related.

h) Another learning was that sometimes the BSNL Internet connection would be working but BSNL DNS servers would be down. So browser requests using url names would fail as the DNS was not available to convert url names to IP addresses. If one changed the configuration to use the apparently more reliable Google Open DNS servers (8.8.8.8 and 8.8.4.4) that solved the BSNL DNS server down related Internet browsing problem. For more see <http://www.bsnlteleservices.com/2015/05/bsnl-dns-server-address-ip-broadband-speed.html> and <https://developers.google.com/speed/public-dns/>.

i) In the past few years the 1500 complaint line for BSNL broadband is excellent. It provides a 24 hour (at least on working days) response to complaint. I think it also creates some statistics issue for the local BSNL exchange persons as they request me to contact them directly instead! So from the early years where I had to make quite some effort to catch the Telephone exchange

people to report and look into my Broadband problem, nowadays they want me to call them up (instead of me logging a complaint with 1500 BSNL complaint line)! That is a refreshing change. I think these changes may have been prompted by management policy changes as BSNL realized that landline phone calls revenue was dropping and that mobile and Internet were the revenue sources to be pursued.

I can understand your poor experience with BSNL at Pune, and your disappointment with the way they handle complaints. But you somehow managed to endure them for 10+ years!

Perhaps you too did not have convenient alternatives in the past.

I am glad to know that you are getting 5 Mbps speed on your Airtel 4G Mobile Internet service!

Noted the price of Rs. 2660 per month for 25 GB download limit. Here's a related Feb. 2016 article, Airtel 4G Internet Speed Test Review,

<http://trak.in/2014/airtel-broadband-4g-speed-test-review/>, that seems to give an average of 8 Mbps speed in Pune (your city) with a 4G dongle (USB).

Over time, mobile Internet services became available in Puttaparthi from multiple vendors – BSNL, Airtel and Reliance have been and still are the major mobile Internet service providers in Puttaparthi. I am not well versed with mobile Internet services in Puttaparthi as I have very rarely used it via my Nokia E-52 phone as a backup when my landline broadband fails. I recall that when I connect my Nokia E-52 phone to the PC and use it to connect to the Internet, I get a popup showing the speed as 460 Kbps. I did not bother about that speed as it was a backup mechanism for a day or two max. before the landline broadband got fixed.

But I did some browsing just now to get more info. on it. BSNL 3G speeds have been reported to be 7.24 Mbps download and 1.78 Mbps upload by a user located in Bangalore in Oct. 2014; see post towards bottom of the 1st page here:

<https://broadbandforum.co/threads/what-is-the-maximum-speed-for-bsnl-3g-networks.75936/>.

Here's another related link: <http://trak.in/tags/business/2011/03/18/real-3g-speeds-mbps-india/>.

So my BSNL mobile speed of 460 Kbps (if I got that correctly), is low!!! The handset shows 3.5G in the display and so the connection is used as a 3G (or 3.5G) connection and not lower speed 2G. But why then is the speed low? If I get the time or the inclination I will investigate this.

PuneC responded:

>> Airtel ... an average of 8 Mbps speed in Pune (your city) with a 4G dongle

Depends very much on your location. I am fortunate in getting any 4G signal at all (mine is a little weak) and someone two kilometres away gets no signal. The man who installed the dongle at my flat said the speed depended on the strength of the signal — mine shows one bar and a good signal would have three bars.

[Ravi: That aspect should have struck me. Hmm. Then you are really fortunate to get an average speed of 5 Mbps. This is a strong downside of mobile Internet which perhaps balances out its strong upside of very easy setup, config & maintenance (as compared to landline broadband).

Recently I was speaking to a Puttaparthi mobile services shop guy. While such guys may be pretty weak theoretically and from understanding specifications point of view, sheer experience gives them a lot of know how. He was telling me about how tricky the signal strength issue in Puttaparthi is when it comes to buying/using a wireless dongle/pod. He talked of a foreign customer who had bought an Airtel 3G USB dongle from him for around Rs. 2000/- but returned

it to him as he found signal reception to be poor at the place where he was staying in Puttaparthi. He asked the shopkeeper to offer it to somebody else for Rs. 1500/- (in which case he will lose only Rs. 500/-).

The shopkeeper advised me that before I buy a wireless dongle/pod for mobile Internet – I was considering Reliance or Airtel as a preferred alternative Internet service, as I already had BSNL landline and BSNL mobile phone – I should check the signal strength in my flat for the mobile services company I was considering (say Reliance or Airtel) by using some friend's phone which uses that mobile service provider. He also said that the distributor guy for Reliance or Airtel wireless dongle/pod could be asked to visit my flat though I got the impression that that would be a little cumbersome to arrange. Note that typically such distributor persons are not based in Puttaparthi and have to travel an hour or two by road from Anantapur or other nearby cities that they typically are based in, to service Puttaparthi customers. end-Ravi]

As I said, Airtel does have blackouts with their 4G transmission and their server. It is more stable now than a few months back but it can fade out for a few hours with no notice.

Re: BSNL, I was always very polite, helpful and showed interest in their work. They willingly came to our flat from the local exchange to check things out. But their infrastructure is basically poor: bad lines, poor junction boxes etc. That will not change in a hurry. They advertise Fibre-to-home but that is not available in our part of Pune.

By the way, in Kochi a friend used to climb on a ladder to the junction box on nearby wall to fix the connection of his link! He said it was very hard to get the BSNL people to visit so he now does this much himself.

[Ravi: My God! This is quite interesting. It never has come to that for me in Puttaparthi as the BSNL guys would always come around even in the past, within a day or two of the complaint being made. end-Ravi]

I was impressed by the detailed analysis you made of the BSNL service. I am curious to know how much of the download volume charged to you is actually useful information and how much is BSNL overhead. For example, there will be repeated transmissions if the line is poor: I assume the consumer pays for all the bits that come across the line, irrespective of this.

[Ravi: I think your assumption is right. Some of the trade practices followed by BSNL (including redirects in browser everytime the modem is switched on or automatically reset; see <http://telecomtalk.info/bsnl-redirecting-broadband-users-mail-bsnl-in/143602/>, as well as popups in the browser perhaps through injected JavaScript code;

see <http://www.medianama.com/2016/05/223-bsnl-injecting-banner-ads-broadband/>) come across to me as quite questionable. I guess they must be getting squeezed by the competition and so are doing, and perhaps overdoing, all sorts of marketing and maybe worse tricks to win more users and earn extra money.

BTW I also wanted to add that around a year ago a private landline/cable as well as wireless Internet provider started these services in Puttaparthi. He claims to have a few towers! I have spoken to the main guy, a youngster, quite a bit over the past year or two. He started with PC, laptop, computer accessories, UPS ... sales & service.

As the Internet cable service of his is around for a year (though I have not talked to any customer of his), I guess he has shown that he is in the business for the long term in Puttaparthi. I don't know who is the underlying Internet Service Provider for him. I mean, he will have to connect to some big ISP's servers to provide Internet service to his Puttaparthi customers. Does he use Airtel or Reliance OR are there other big ISP players in India who do not come directly to the customer but go through front end businesses like this young man's small business in Puttaparthi? end-Ravi]

PuneC responded:

By the way, an Airtel representative came to my flat and tried out the device in different places before he said it would work for me. That seems to be their normal practice (at least here). The dongle works in one room (fortunately where I want to keep the wifi transceiver) and not in most of the rest of the flat.

The Airtel wifi dongle-cum-transceiver is powerful and from one corner room covers most of our flat (which the earlier wifi transceivers did not). In principle, you can take out the 4G SIM and use it in your mobile telephone (assuming it is 4G enabled). I have not tried that.

Ravi responded:

Interesting info. Thanks. The transceiver being placed at a location where it gets best signal quality which the transceiver through WiFi makes (Internet) accessible over most of the entire flat, is a pretty convenient solution.

As I went out in the late evening I dropped in at the private Internet Broadband services shop in Puttaparthi. The main guy (owner) was not present but an assistant (younger relative of his, if I recall correctly) was present. I got the flyer shown below from him.



High Speed **B**



8333050199



Tariff

ENJOY ** HIGH SPEED WITH HIGH

With **UNLIMITED BROADBAND**

BROADBAND PLAN	MONTHLY CHARGES	SPEED	FUP LIMIT	POST FUP SPEED	HALF YEARLY (IN RS.) SUBSCRIPTION	SAVING
ULD 400	400	512 KBPS	NOT APPLICABLE	NOT APPLICABLE	2200	200
ULD 600	600	1 MBPS	10 GB	384 KBPS	3300	300
ULD 799	799	2 MBPS	15 GB	512 KBPS	4394	400
ULD 1250	1250	3 MBPS	15 GB	512 KBPS	6875	625

It seems to essentially be a cable Internet service though he told me that he also provides wireless Internet services (and has some “towers” for that purpose in Puttaparthi). The owner had told me that he had laid cables in many parts of Puttaparthi town (connected to his Internet server) due to which providing new cable connections to Puttaparthi town people (at least central parts of Puttaparthi town) was quite easy. I guess it would be somewhat like how TV cable guys provide new connections.

As phone or modem is not involved the connection seems to involve less hassles. Since no mobile SIM card would come into play there would be limited or no paperwork wrt authorities, I guess. Especially for foreigners in Puttaparthi, such a quick and rather hassle free way to get broadband cable Internet connectivity may be very convenient.

My BSNL landline broadband connection costs Rs. 1,144 providing a claimed 8 Mbps speed for 25 GB data per month *[6th June 2017: earlier I had wrongly written 8 GB data per month instead of 25 GB data per month; it was 25 GB limit even in June 2016]*. Three relevant MONTHLY offers from this private party's cable Internet services are:

1) Rs. 600 plan with claimed speed of 1 Mbps for 10 GB data (lower speed beyond at no extra charge)

2) Rs. 799 plan with claimed speed of 2 Mbps for 15 GB data (lower speed beyond at no extra charge)

3) Rs. 1,250 plan with claimed speed of 3 Mbps for 15 GB data (lower speed beyond at no extra charge)

—

PuneC responded:

I have been buying my computers and cellphones from the same place for many years. They have wifi set up through their office (two floors, about 2000 sq ft total I would guess). The man there said they use a wired Reliance link because of its capacity. They need to download about 200GB a month and the Reliance link has no limits. On the other hand, speed is limited to 1-2MB, which is fine for them as they pay only Rs.800 or thereabouts a month.

Airtel (and BSNL) have what they call a ‘fair usage policy’: that means that after you hit your download limit for the month, your speed drops to a maximum of 500kbps, effectively of course much less.

In the US, I read that a court ruled that you cannot sell a service claiming ‘unlimited’ if you have limits, even the fair usage kind of limits. ‘Unlimited’ must mean having no limits.

—

PuneC added:

One more input: I was having what looked to me like a proxy server problem and I asked the BSNL person where the Pune proxy server was. He said that BSNL operates with a single all-India proxy server based in Bangalore. My guess is that this is to help them to monitor traffic and block sites etc.

There were DNS problems too and I find that these do also occur occasionally with Airtel 4G.

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=====End of Post=====

My BSNL Broadband (landline) speedtest: 6.6 Mbps; Published: 03 Jun 2016

Post link (URL) on blog:

<https://ravisier.wordpress.com/2016/06/03/my-bsnl-broadband-landline-speedtest-6-6-mbps/>

Last updated on 5th June 2016

I tested my BSNL (landline) broadband connection speed today around 11 PM
using <http://bsnlspeedtest.in/>

The results are available at: <http://openspeedtest.com/results/2674960>

I have copy-pasted (selection of part of screenshot of) the results below:

MY SPEEDTEST RESULT



I checked my BSNL Landline bill to confirm the exact BSNL (unlimited) Broadband plan that I am on. It states my plan as BBG COMBO ULD 999 – 8MBPS_25GB / 1 MBPS <http://www.apbsnl.info/2012/11/bsnl-unlimited-broadband-plans-in.html> confirms that the above plan is what is available in Anantapur, Andhra Pradesh (the telecom district for my landline broadband connection). The corresponding entry states, “8Mbps upto 25GB, 1Mbps beyond”. As it is only 3rd of this month I am surely below the 8 Mbps speed download limit of 25 GB for

the month. The test shows the download speed as 6.6 Mbps. Not bad! However, I did the test a little after 11 PM Indian Standard Time (5:42 PM UTC in the pic above would be 11:12 PM IST; see <http://www.timebie.com/timezone/universalindia.php> for conversion details). Perhaps if the test were done during regular office hours or even in the early evenings, the speed would be slower.

[Update: I tested on 5th June 2016, Sunday, at 4:52 PM IST. The download speed was 6.30 Mbps and the upload speed was 0.18 Mbps, <http://openspeedtest.com/results/2695548>.]

The ULD 999 part of the plan name seems to stand for Unlimited Download and the 999 is the (per month) charge of Rs. 999/- before Tax. After tax the figure comes to Rs. 1,144/-

The COMBO part of the name is because some free landline BSNL network phone calls (400) are provided in this plan.

The upload speed is less than 0.2Mbps. I don't know how good or bad that figure is. I rarely do big uploads and so it is currently not an important factor for me.

=====End of Post=====

June 2016: PC Net browsing via BSNL Mobile – Charges & Setup; Published: 01 Jun 2016

Post link (URL) on blog:

<https://ravisier.wordpress.com/2016/06/01/june-2016-pc-net-browsing-via-bsnl-mobile-charges-setup/>

This post is essentially a log of my exploration of using my Nokia E-52 phone's BSNL Mobile Internet service, to do Internet browsing from my PC. It is primarily meant for my own reading and so I have not focused on readability for others. But perhaps the info. may be useful for some others too (and so I put it up on this blog).

I am now on BSNL Nestham plan.

BSNL Nestham plan Data rates

From <http://www.apbsnl.info/2011/03/3g-nestham.html> : Data Usage Charges : Rs0.02/10KB

[Must be Kilobits, so Kb and not KB i.e. Kilo Bytes]

Ravi: So that makes it Rs. 2 for 1 Mb.

Ravi: Browsing via Nokia Suite on PC shows the MB download figure. As Desktop browsing (as compared to browsing on E-52 mobile) takes up larger data, a short load of gmail and then Facebook on Chrome, took up over 1 Mb data.

Given the rate of Rs. 2/- for 1 Mb data download, it is important to explore STV (Special Tariff Vouchers) which give a more reasonable rate.

Some entries from <http://www.apbsnl.info/p/special-tariff-vouchers.html>:

Uniform 2G&3G Data plans:

STV Free Data Validity Days SMS keyword to '123'

4	20MB	1	STV DATA4 (ends at 11:59pm, on same day)
17	110 MB	1	STV DATA17
28	150 MB	3	STV DATA28
39	200 MB	5	STV DATA39
56	250MB	27	STV DATA56

— end short extract—

Ravi: Note that there are many other options too. The above seem to be the ones most appropriate for short term usage as a backup when landline Broadband fails.

To enable a particular STV one has to send an SMS to 123 with the appropriate keyword as given above.

Prior to STV DATA4 SMS to 123

Bal. 282.7566

I sent STV DATA4 SMS to 123, and got acknowledgement messages as follows:

1) Data STV activated. If unable to access data, send SMS "START" to 1925.

2) Subscription of STV 20 MB for 1 Day @Rs3.4800 is successful

After Bal. 279.2766. But no other message in balance status indicating that STV4 is active!

To be on the safer side I sent SMS "START" to 1925.

I got an acknowledgement message: Your request for GPRS activation is received. Pl wait for confirmation message – BSNLMOBILE.

Did not receive any additional confirmation message over the next few minutes. [Update: As noted later in this document, I got a message after a lot of time that it has got activated. But I think it is a useless message. SMS "START" to 1925 is not needed in my case.]

So decided to try connecting to Internet via Nokia phone E-52 (connected to PC via USB using Nokia Suite option) and via Nokia Suite software. The home tab of Nokia Suite software provides a "Connect to BSNL South with E52" option (once the E-52 is connected; the first time I had to choose India as the country and BSNL South as the provider in India). Note that I have switched off the BSNL landline modem.

Connected successfully to BSNL South. If I recall correctly it showed the speed as 460 Kbps. One concern I have is whether other apps besides the browser will start using the Internet connection (I don't want that to happen typically). One way to check that is to not start the browser initially and confirm that while the connected time count goes up (now it is 02:33) but the data figure is 0.0 MB.

I checked out my gmail a/c in Chrome. Saw two short messages. Responded to one. Then closed the Chrome tab (and so app as there was only one tab open). The data figure shows 1.5 MB (and is frozen there after Chrome was closed). Connected time is 06:10

Open Chrome again and loaded Facebook. Scrolled down though my wall for a little. The data figure jumped to 3.3 MB in no time! Connected time is 08:23.

Disconnected.

Got a message on phone (Nokia E-52): Your last call of 3 Mb 307 Kb 530 bytes was charged from DATASTV4. Remaining Balance 16 Mb 716 Kb 494 bytes. Your Main account balance: Rs. 279.277

Ravi: So that's pretty good reporting. The data usage did not impact my main account balance and impacted only the STV's balance! Superb.

Let me see if BSNL user account on web provides me a log of these messages. As they are not SMS messages I guess they disappear from the phone once one chooses Exit. To check this out I switched on the BSNL landline modem (and did not use BSNL Mobile Internet).

Browsed to <http://selfcare.sdc.bsnl.co.in/selfcare/start.swe>. This was not appropriate website as it is meant for Landline Broadband.

Could not find any selfcare link for BSNL mobile Internet usage history.

Instead came across this mechanism to get last five calls history:

Dial *124#

Then follow menu commands (by sending suitable option as another SMS).

From this I got the details of my earlier to STV4 BSNL mobile Internet call. But the message stays on for limited time and then disappears! So I had to retry and hastily capture the details as below:

Call type= GPRS 117 secs 5.37 INR called on 1/6/2016 Call time 15:05 , call volume = 1.7454 MB (or was it shown as Mb?)

— end details —

1.7454 * 1024 makes it 1787.2896 Kb.

10 Kb costs Rs. 0.02/- (2 paisa) for Nestham plan without STV. So the above should be around Rs. 3.57/- Perhaps I got the above Rs. 5.37 figure wrong in my haste.

Without STV Nestham plan costs around Rs. 2/- per Mb

With STV4 per Mb cost is Rs. 0.20 (20 paisa) with limit of 20 Mb and time validity till midnight same day

With STV17 per Mb cost is Rs. 0.1545 (15/16 paisa) with limit of 110 Mb and time validity of 1 day (perhaps 24 hours since it is started).

With STV28 per Mb cost is Rs. 0.1867 (18/19 paisa) with limit of 150 Mb and time validity of 3 days

With STV56 per Mb cost is Rs. 0.224 (22/23 paisa) with limit of 250 Mb and time validity of 27 days

....

BTW I just got the message (at 5.19 PM on 1st June 2016) that my request to activate data services is carried out successfully! I guess that is a useless message as it was already active earlier.

...

I then setup Nokia Suite on the DELL Inspiron 11 mini-laptop and used it to connect to the Internet. Now I found that even if I closed Chrome browser window the download count was ticking away. Perhaps some software is doing an auto download of its updates. The software to check would be McAfee Anti Virus and Windows download. So in two sessions as I was figuring this out, around 14 Mb got used up pretty fast even though I did very limited browsing Google News, one News linked site and Radio Sai. All of it was taken from STV4 (so no extra charge) leaving 2 Mb balance in the STV4 option that I had chosen.

Just checked that Windows Automatic Update is off. That leaves McAfee Anti-virus (and perhaps Adobe reader/flash player download). Saw from Control Panel tht Flash player settings were Notify me to install updates.

Somehow I think the Windows 8 (or is it 8.1) OS on the Dell mini-laptop will have something or the other that will do auto download. I think it will not be possible to block all such auto downloads. So some auto download cost will have to be factored in when using mobile phone Internet via Dell mini-laptop to do Internet browsing.

Connected to the Internet directly using the E-52 phone Internet connection (connected using "bsnlnet" option on E-52 phone). Used Facebook application for maybe a minute or so. That used up around 181 Kb from the same DATA STV4 option leaving 1 Mb 849 Kb balance in it. Interestingly I also got an SMS: "Reminder 2: Your remaining data volume is 1Mb 849Kb 71bytes."

Connected to PC and used Internet from E-52 (turned off BSNL Landline broadband). Wanted to exhaust 1.8 to 1.9 Mb. Did so with some browsing. But that browsing took it to somewhere around 2.5 Mb. Then disconnected.

The message on E-52 phone was, "Your last call of 1 Mb 849 Kb 71 bytes was charged from DATASTV4. Remaining balance 0bytes. You Main Account Balance: Rs. 276.517"

Got 5 last call details using *124# and then 8

GPRS 2.46 INR 229 sec 2.6219MB

GPRS 0.00 INR 131 sec 181.441KB

Earlier 2 calls in the list had INR 0.00 like the above reflecting GPRS calls that got adjusted against DATA STV4

The fifth call was a voice call.

The Rs. 2.46 charge seems to fit in with the remaining balance of Rs. 276.517 though I don't recall exactly whether the earlier balance was around 278.97. However the data usage shown seems to be the total of both the amount adjusted against DATA STV4 and the spillover which was charged. So the spillover would be 2.6219 Mb less 1 Mb 849 Kb 71 bytes i.e. 1.6219 Mb – 849 Kb 71 bytes i.e. around $(1.6219 * 1024) \text{Kb} - 849 \text{ Kb}$ i.e. $1660.8256 \text{ Kb} - 849 \text{ Kb} = 811.8256 \text{ Kb}$ i.e. around 812 Kb.

812 Kb seems to have got charged Rs. 2.46/- That seems to be higher than the listed 0.02 Rs for 10 Kb. It should have been $81.2 * 0.02 = 1.624!!!$ But it is not worth digging deeper into the matter. It is clear that browsing using BSNL Nestham Mobile Internet MUST BE DONE using a DATA STV. Short spillover beyond the limit of the DATA STV may be getting overcharged by BSNL. But if the spillover is around 1 Mb we are talking of extra charge of a Rupee or so beyond the stated charge of Rs 2/- for around 1 Mb. That is simply not worth spending more calculation time.

!!!The rule to remember is that spillover beyond DATA STV should not cross 1 Mb!!!

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=====End of Post=====

Simple User (non-developer) Windows XP to Windows 7 migration; Published: 07 Nov 2014

Post link (URL) on blog:

<https://ravisier.wordpress.com/2014/11/07/simple-user-non-developer-windows-xp-to-windows-7-migration/>

The Windows 7 installation itself was quite straight forward even on my old PC. For more please see Installing Windows 7 on ASUS M2NPV-VM Motherboard based PC, <https://ravisier.wordpress.com/2014/10/28/installing-windows-7-on-asus-m2npv-vm-motherboard-based-pc/>

Next was the task of choosing the minimal set of software to be installed for a user level Windows 7 setup as against a developer level setup.

BTW my Windows XP was a developer setup as at the time I installed and then used it on this old PC of mine, over maybe five years back, I was teaching programming in a deemed university, and was also into fair bit of tinkering as a developer. For the past two years or more I have become a simple non-developer user who uses the computer mainly to browse the Internet including shopping and some banking work, blog, maintain some home stuff spreadsheets, create some documents, watch video, listen to audio and pick up photos from my phone (a Nokia E-52) as well as backup my phone data. So for the Windows 7 setup I chose a minimal set of software to be installed based on my current usage of my computer.

The software packages installed on top of Windows 7 were as follows:

1. Microsoft Office 2007 Enterprise
2. Chrome
3. iTunes
4. VLC media player
5. Adobe Reader
6. Editpad Lite (Free version)
7. Dropbox
8. Microsoft Security Essentials [Free Antivirus software from Microsoft; Faced some problems with AVG Anti-Virus Free version which are given in the notes below.]
9. Nokia Ovi Suite
10. Microsoft FreeCalc
11. APC PowerChute

Total space taken so far

I installed Windows 7 and all the above software on a 40 GB partition (logical drive) which seems to have taken up around 21 GB disk space.

Users created

The first user created as part of Windows 7 install is the administrator user. I created an additional non-administrator user (regular user) which is the user id that I will be using primarily.

Time taken for install

I did the installation piecemeal over a few days (three to four days I think). But I think doing all the above installations at one shot (without facing any problems like the AVG Antivirus software

interfering with some Windows 7 functions, which took me some time to figure out and fix) should take around two to three hours, four hours max.

Notes

1. AVG Antivirus 2015 Free version – Faced surprising problems with Windows after AVG antivirus was setup as some functions of Windows control panel just froze (would not open) like create accounts, device manager. Uninstalled it using some AVG remove tool from AVG site and then control panel started working. Later I installed Microsoft Security Essentials and that has not broken the earlier mentioned control panel functions (at least so far).

2. Hibernate was resulting in auto restart. Using Device Manager, Keyboards & Mice entries, I unchecked the “Allow this device to wake the computer” checkbox in Power Management tab of the Keyboard and mouse. Did the same for NVIDIA nForce Networking Controller in Network Adapters. That solved the problem of auto restart. Also changed default action for power off button to Hibernate (using some Control Panel option/program).

3. Dropbox data migration was complex. Maybe I missed out the simple solution. After installation of Dropbox and signing in with Dropbox id/pwd, it automatically tried to download the data on the net folder down to the new dropbox folder! I tried to change the Dropbox folder location from the default to the location where I had it in XP. It seemed to give some warning about creating a folder named Dropbox, which led me to believe that it would not accept the existing folder as its new location. But, on hindsight, I think I should have tried setting it to the XP folder.

Another issue I faced was that Dropbox installed as admin user was not showing up as regular (non admin user). So I uninstalled Dropbox under admin and reinstalled it as regular user (on W7). [Maybe there was a simpler solution like changing some setting in the Dropbox software installed as administrator, but I also wanted to explore afresh the setting of the Dropbox data folder immediately after installation and so I preferred to reinstall.]

To resolve the data issue, immediately after login to Dropbox, I paused the sync., changed the location of the folder to another drive (G:) where it automatically created the folder Dropbox (I had renamed the old XP dropbox folder to dropbox-old). Then I exited Dropbox. After which I copied over the data from the XP dropbox folder onto this new dropbox folder (around 830 MB of data). Then I restarted Dropbox expecting that it would now find that the data is in sync. and skip any lengthy work. Instead, I found that after downloading the filelist it went through a process of syncing 30,000 odd files! Don't know what exactly it did – did it compare contents of each file? Why did this syncing get triggered? Maybe the copying of data created new file creation timestamps which triggered off syncing of all the data. While I did not properly note the time taken for this syncing I think it took around half an hour to three quarters of an hour.

4. (Microsoft) Backup on Windows 7 is quite different from that of Windows XP. It requires a drive to be chosen as the backup device as against a file in XP. But at the end of the backup the data is shown as a file entry, and that file entry can be copied like any other file. Automatically some folders are chosen to be backed up which can be overridden (I did override it). It does not seem to show options like full or incremental backup but perhaps they can be accessed via some Advanced menu which I have not spotted yet.

=====End of Post=====

Installing Windows 7 on ASUS

M2NPV-VM Motherboard based PC;

Published: 28 Oct 2014

Post link (URL) on blog:

<https://ravisier.wordpress.com/2014/10/28/installing-windows-7-on-asus-m2npv-vm-motherboard-based-pc/>

Last updated on November 7th 2014

Today (Oct. 28th 2014) I was able to easily install Windows 7 (fresh install) on my quite old PC, on one of my logical hard drives. I used a removable USB DVD drive to boot & install Windows 7. While I did not note how much time the fresh install took, I think it was less than or around an hour. I was quite surprised and very pleased by the no-hassle installation of Windows 7 on my old PC.

I had thought that booting via a USB DVD drive was not possible on my ASUS M2NPV-VM motherboard based PC. I was wrong. Pressing F8 while booting showed up the boot menu including a DVD drive connected via USB, which showed up as a CDROM drive. Perhaps one may be able to boot via USB memkey (flash drive) too using the F8 key.

Some more info. is available here:

http://vip.asus.com/forum/view.aspx?board_id=1&model=m2a-vm&id=20080504225134421&page=1&slanguage=en-us

I did not have to update the motherboard BIOS. Though I may have done so around two or three years ago – I am not sure.

The various folders related to the Windows 7 OS (PerfLogs, Program Files, Program Data, Users and Windows) take up around 8 GB on the installed drive.

I chose x86 installation (and not x64).

So now I have a regular XP OS, an alternative XP OS and a Windows 7 OS installed on my PC, and can choose to boot from any one of them.

In the near future, I plan to upgrade my regular XP OS to Windows 7, and then, perhaps some time later, phase out the alternative XP OS. [I know that I should NOT be on Windows XP given the huge amount of security vulnerabilities that it has, and that Microsoft has stopped support for it now. Well, I do most of my work (which is not-for-profit), including Internet based work, from a non-admin account, and use two-step authentication for sensitive work, and so I thought I was reasonably protected. Further, I had thought that upgrading to Windows 7 would have needed me to upgrade my PC making it a bigger affair especially in terms of time spent, and so I kept on postponing it. Glad to see that at least x86 version of Windows 7 installation is a very smooth affair on my over five year old ASUS motherboard (integrated graphics) based PC setup.]

P.S. on Nov. 7th 2014: My old PC RAM (2 Kingston 1 GB DDR2 667 MHz sticks in use from 2008) seems to be creating some issues. The computer reset, out of the blue, three times over the past few weeks, and then the Motherboard got into a loop of giving a long beep followed by two short beeps (without going further to boot up the machine). This is not connected to Windows 7 as the problem occurred with both Windows XP and Windows 7. Solution has been to open the box, clean up stuff, remove the RAM sticks, do some casual cleaning (not with

alcohol as I don't have it with me yet) and put it back in. Plan to get some alcohol and clean up the gold contacts of the RAM sticks. Even with that if problems persist then I guess it may be time for me to upgrade the over five year old ASUS M2NPV-VM Motherboard + RAM combo to something fairly current.

=====End of Post=====

Python or C++? For Indian Junior College – XIth and XIIth; Published: 29 Dec 2013

Post link (URL) on blog:

<https://ravisier.wordpress.com/2013/12/29/python-or-c-for-indian-junior-college-xith-and-xiith/>

A former student of mine wrote me that it appears that the Indian central school board, [CBSE](#), is introducing Python as a programming language (as a second language paper) to be taught at XIth and XIIth grades. One particular school has been teaching C/C++ as a programming language for over a decade now at XIth and XIIth grades with outstanding results. The school now has an option to switch to Python or to continue with C++. He wanted to know my opinion on the need for a switch.

This is how I responded (slightly edited):

I have not programmed with Python. However, I have heard a lot about it. I believe it is used as a powerful scripting language which is quite popular for many web tasks and server/system administration tasks. Its wiki page,

[http://en.wikipedia.org/wiki/Python_\(programming_language\)](http://en.wikipedia.org/wiki/Python_(programming_language)), mentions that Python programs can be compiled into standalone executable programs as well.

Also I have not taught at junior college levels – so I don't have a true feel of how those students handle programming.

Given the above, here are my views – take them with a few pinches of salt due to the above. Even at under-graduate and post-graduate levels (for Mathematics degrees which included some programming courses that I have taught) I have seen a few chaps getting really put off by programming in C++ (or even 'C'). These few students develop a mental block and turn off programming/computer science and stick to Maths for further studies! However, most students get very excited and interested with C/C++ as they see the power and reliability it gives them to write sophisticated programs. Further C/C++ has a tremendous reputation in Indian academia which perhaps is not matched by any other programming language and so most students are eager to learn it and be able to claim that they know C++ programming.

But the few (Mathematics degree) students that got put off by C/C++ seemed to be OK with MATLAB (which they used for some of their Mathematics work). What could be the reason? Perhaps the reason is that MATLAB programming is, I believe, script language programming. Script languages have the great benefit of easy learning of the simple stuff and give the joy of seeing results almost immediately for the simple stuff. That builds confidence. The awe and fear of programming starts melting, I guess. And then some languages like Python, used often as a script language (interpreted and does not need variable declaration before use), are so powerful

that one can build on the confidence of the simple programs and get on to far bigger stuff. One will also be able to make some sense of all the Python programs available on the Internet. C++ is strongly typed and an industrial-class programming language. One would, I guess, typically not write a web browser program or a web server program in Python – it perhaps may not be efficient enough, robust enough and have some of the capability that a program in C++ can have due to the features C++ provides. But as I do not know Python I am not sure whether my earlier statement is completely accurate. However, I can say that I have come across tons of complex system software code in C++ but hardly any complex system software code in Python. [I should also say I have been somewhat out-of-touch with the complex system software world for some years now.]

In contrast to some concern about Python as a choice, C++, for sure, would be a great choice for writing a sophisticated and robust web browser or a web server program.

For junior college (XIth and XIIth) students, I think the programming language firing up their interest, being easy to play around with and even give the ability to do something useful on the web with it etc. are the vital factors rather than training them on an industrial class programming language. So I think Python would be a good, perhaps excellent, choice as the first programming language taught at junior college level. Here's a small article on Python vs. C++ as first programming language,

<http://www.thehelloworldprogram.com/why-python-should-be-the-first-programming-language-you-learn/>.

Of course, at undergraduate and graduate level (masters level) a strongly typed and industrial-strength language like Java, C++ or C# would be the appropriate choice and not Python typically. [BTW some may claim that Python is strongly typed and industrial strength but I don't think Python is used heavily for infrastructure programs like a network stack implementation or a sophisticated and robust browser.]

Hope this helps. And don't forget the few pinches of salt!

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=====End of Post=====

Home Data Backup Strategy In Today's Computer and Internet Age; Published: 21 Dec 2013

Post link (URL) on blog:

<https://ravisier.wordpress.com/2013/12/21/home-data-backup-strategy-in-todays-computer-and-internet-age/>

Last updated on 6th January 2014

The contents of this post were triggered by a rather stressful event that happened to me a few days ago. My primary backup device, a 1 TB external hard disk, suddenly was not

getting recognized by Windows and so my primary backup data effectively became inaccessible to me [1]. I was somewhat taken aback by all the primary backup device data being lost to me, right out of the blue (no warning signs whatsoever), and all at one stroke. I did not have a secondary backup (on separate media/device) to fall back upon. In today's computer & Internet age, losing all of one's data can be a catastrophic event. In my case, I still have the data on my internal hard disks (and the critical data has now been backed up to two flash drives/memory keys of 2 GB and 1 GB). But till I have all my data from the internal disks backed up at least on one backup device, I am very vulnerable as if, God forbid, something happens to my internal disks now then I will have a data loss catastrophe on my hands.

I should also mention that I am retired from commercial work and do home-based blogging and "email-writing" (writing privately to a mail group) on software development practice in academia, software development, spirituality, religion and some more topics of current and general interest. I started thinking about a more robust home data backup strategy than what I was using so far, and corresponded with my friends and acquaintances on the matter. I received a lot of suggestions and have learned a lot of things from these suggestions. This post captures my thoughts and my understanding of the various suggestions and input I received from many correspondents. These correspondents are India based and US based. I thank my correspondents for their valuable suggestions and input.

Before one looks at a backup strategy I think one needs to talk about the data that needs to be backed up. In my case I have a lot of audio files as well as video files which increase my data size significantly. However, they typically are not changing critical data for me. An overview picture of my data sizes, as of now, is as follows:

1) (Changing) Critical Data: In compressed form slightly less than 4 GB (excluding gmail backup); gmail backup – again slightly less than 4 GB [In the past couple of years or so I have not had the time and resolve to delete all/most old and possibly not useful mail from my gmail account.]

2) Audio: around 100 GB (including some duplication)

3) Video: around 60 GB

4) Other Data: around 50 GB (includes software installables, OS images, documents & books, images etc.)

[* I had lots of movies and documentary videos taking up hundreds of GB space on the external disk. I did not consider them vital and so did not have a copy anywhere else. With the external disk becoming inaccessible I have lost those movies and documentary videos. But, to be honest, it has not bothered me so much. I guess, if I really want to see some movie/documentary that I recall was on that backup I should be able to get it from somewhere else.]

Now about the backup strategy. I think it would be quite safe to have two backup media/devices – a primary backup and a secondary backup. Given the fact that there is no guarantee about hard disk or any other media not failing/crashing, one has to take into account the very real possibility of one backup media/device, suddenly and without any prior warning whatsoever, becoming inaccessible (as mentioned earlier, that happened to me). If there is only one backup then there is a window where there is only the source data and no backup copy of it at all. That window (till a new backup is made) is a tricky one where another disaster or a mistake or a virus could result in data (and so, work) being completely lost. Having a secondary backup makes the situation far more comfortable. [There is always the danger of a virus going onto the backup media too thereby corrupting the backups. I have presumed that the system uses a good

anti-virus software that catches viruses quickly i.e. even if a virus affects some source (internal hard disks) data files it gets detected quickly after which the virus can be removed by the anti-virus software and the affected source data files replaced by data files from the backup (if available).]

So a safe approach would be to have a 1 source + 2 copies backup strategy with each copy being on separate media/device.

[As I am covering (simple) home data backup I am not getting into more sophisticated RAID solutions. Another point is that I am not looking at having the data copies in separate locations. So if there is a disaster that affects the entire home then the source + 2 copies may all get lost/become inaccessible at one stroke.]

But there may be some cost/other issues. So I think one can look at the following two specific solutions:

A) Two large and separate external hard disks of suitable size (500 GB or 1 TB). This solution allows for all the data mentioned earlier to be covered under a 1 source + 2 copies approach.

B) One large external hard disk of suitable size (500 GB or 1 TB) and a somewhat large flash drive (memory stick/key) say of 32 GB or even 64 GB. This solution will permit the (changing) critical data (and some additional data) to be covered under the 1 source + 2 copies approach. But (most of) audio, video and other data will have only 1 source + 1 copy.

[* Online storage services like DropBox and Google Drive were suggested as good Backup media. I feel that for the large amount of critical data I have (of the order of 8 GB including gmail backup) I will face bandwidth and Internet usage issues on my Broadband connection. Further, for sensitive data, there may be some privacy concerns. For more about the online storage option please see Note [3].]

For either solutions (A and B), when data is lost/becomes inaccessible on either the source or the backup copy(ies), as soon as possible/feasible, a new copy (or restoration of source) must be done so that one is back to the situation of 1 source + 1 copy/2 copies.

For the changing critical data a convenient way to do easy and usually quick regular backups would be to use full backup followed by incremental backup using software like Microsoft Backup. This would typically need a decent organization of changing critical data and inclusion of all relevant folders in the folder selection list for the Backup program. I have followed this approach (full backup followed by incremental backups using Microsoft Backup) for changing critical data over the past couple of years or so, and found it to be very convenient and well worth the initial setup effort and critical data folders organization discipline.

Notes:

1. I had bought a Seagate external hard disk FREEAGENT 1TB, model no. ST310005FDM201-RK in May 2009. It worked like a charm till a few days back. Suddenly the disk stopped getting recognized by Windows. The device was recognized by Device Manager but Windows (File) Explorer froze up. Disk Management showed it as a blank filesystem with no data! Seagate Manager software reported that the disk needed servicing.

I looked up some forums via Google Search and tried out some stuff – no luck. Lots of guys seemed to have faced the same problem.

Fortunately the internal disks are working OK which allowed me to take critical data backup on two flash drives (Memory stick/key) that I currently have of 2 GB and 1 GB.

2. A blogpost that may be useful to some readers: Backing Up Gmail Mailbox with Labels to Desktop PC (or Laptop),

<https://ravisier.wordpress.com/2013/05/18/backing-up-gmail-mailbox-with-labels-to-desktop-pc/>

3. Online storage is a popular service nowadays and some correspondents suggested it as a

backup medium. [Dropbox](#) and [Google Drive](#) seem to be the main contenders in this space. Dropbox provides free service of max. 2GB and higher capacity at a price. Google provides a max. of 15GB free space shared between Google Drive, gmail and Google+ photos.

I was told by a correspondent that Google and Dropbox store user-uploaded data in multiple data centers so that even if a whole data center is destroyed by an earthquake or fire or something, unlikely as it may be, you still have your data. And they immediately replicate it over to a new data center, so there are two copies. In comparison onsite backup (local external hard disk, flash drive etc.) is not protected against catastrophic events like fire, earthquake, burglary etc.

I think I have an internet usage as well as upload bandwidth issue with online storage but others may not have such internet connectivity issues like me. I live in Puttaparthi, Andhra Pradesh, India, and now have an “unlimited” plan which is actually (upto) 4 Mbps till 8 GB (in a month) and then 512 Kbps for the rest of the month (the [BSNL plan is BB Home Combo ULD 950](#)). As I extensively watch internet videos (mainly youtube) I have been crossing the 8 GB limit typically by the middle of the month. I come to know by videos pausing for download (and which I sometimes confirm by using a network traffic size meter tool – BitMeter). BTW the youtube videos I watch reflect my areas of interest like higher education teaching quality, software, spirituality, religion, world economic challenges, history and current world events. I have found youtube to have a fantastic collection and variety of videos, including documentary videos from eminent media channels like BBC and PBS, which are of great educational and informative value (to me at least).

Considering the size of my critical data (around 4 + 4 GB) and my Internet connection I cannot consider online storage as my main backup medium. But I can consider a very critical but non sensitive subset of that data for online backup. [And I did that. Now I have slightly less than 750 MB uploaded to my new (free) DropBox account's online storage area (limit of 2 GB). It took a lot of time for the upload – maybe around half a day (I think I had already crossed my Internet connection high-speed usage limit of 8 GB for the month and so was at 512 Kbps download & upload speeds). One issue I faced is that DropBox does not seem to take a list of folders as input – so I had to individually copy-paste selected folders from local disks to the Dropbox folder (which gets automatically copied online). Another issue is that I had to manually create the parent directory hierarchy structure for some of the selected folders (as its sibling folders were not to be copied). Dropbox seems to be more of a set of folders online storage service and so seems to be lacking some of the features of a sophisticated backup program like Microsoft Backup.]

There are some other concerns with online storage which were raised by some other correspondents.

A correspondent wrote that (edited somewhat) Google may not help if anything is lost on Google Drive. Moreover, Google makes everyone sign the disclaimer that they won't be liable/responsible if docs/files are stolen/hacked away.

Ravi: That is really an important matter. I mean, we take it for granted that it will be available because of our experience. But if there is some great crash/problem, legally and perhaps even morally, we are nowhere. With a backup device the company is responsible legally for its product at least during the warranty period. Yes, it is not legally responsible for the data. But, I mean, there is something – like data recovery service for a price, e.g.

<http://www.seagate.com/services-software/data-recovery-services/>. When I ran Seagate manager software on my problem external disk it detected the problem and asked me to contact Seagate. So there is accountability of some sort here. With the free Google Drive cloud service (and its gmail service) I think the accountability is *ZERO*. That's the truth and one should not

lose sight of this truth no matter how much we use Google's wonderful free services. [They may still respond to support requests but it is their choice and, I guess, the reality is that Google support simply cannot seriously service all support requests. As far as I know they don't charge for such data recovery support service. Perhaps even if they charge reasonable money they still may not be able to service all support requests.]

But I should also state that in my experience with gmail over at least five years, I don't think I ever lost any data! That is an awesome statement of the data reliability that Google has delivered at no charge to users like me. I thank Google for this wonderful free service that they have provided me.

[One correspondent responded that DropBox provided good support for data recovery for him even when he was using its free service.]

Personally, having the data physically with me gives me a bigger comfort feel. Yes, it is not as (seemingly) ironclad as the datacenters with their (virtually) failsafe mechanisms, but for the usual media problem cases, I have the data physically with me and so have some chances to recover the data. Also, even if some critical Internet backbone undersea cable gets cut due to which Internet access from India to some country(ies) hosting the data center(s) becomes sluggish, I don't get affected for my critical data. I think physically having the data within my control is a vital factor for me even if that does not take care of earthquake, fire, burglary etc. Perhaps I am wary of cloud data backup services due to lack of in-depth exposure to it though I have quite a bit of stuff in my gmail mailbox anyway. Maybe it is a reluctance to embrace the new-for-me approaches. I think that's it. Having had some bleeding edge experiences in the past over a variety of tech. and non-tech. stuff I try to avoid getting onto new territory in some areas like tech. and prefer the beaten track for those areas. That colours my view of the online vs. onsite storage debate. It is a feeling (intuition perhaps) + intellectual analysis thing for me when it comes to such decisions. And the feeling about not getting into new-for-me tech. approaches for a critical area like data backup makes me go for more conservative even if somewhat lesser quality solutions.

Another issue which is a sensitive one but I think it must be looked at, is the possibility of political tensions between the country where one is living and the country(ies) having the data centers where one's cloud data resides. What if these tensions lead to some arm-twisting stuff like the country(ies) with the data centers blocking access to them to the country one is living in? These decisions, I think, are in the hands of the government of the countries involved – the tech. companies may not have a choice. I mean, even if we have a global Internet, we do not have a global government – it is individual countries' government.

A correspondent responded that data centers are spread across the globe to be resilient to natural disasters and politics as well! [Ravi: Perhaps that's true for some services of some online storage providers but I am not sure whether it would apply to all services of any well-known online storage provider. I mean, I have not seen any statement from cloud service providers promising to adhere to such globally spread redundant datacenters for their free services. However, as of now, I just don't know enough about the matter to take a considered view.]

Another correspondent mentioned the privacy issue. Ravi: Regarding the data privacy concern I think I am OK even if my backup data gets snooped by some government chaps. What may be a problem is if such data gets passed on to any Tom, Dick and Harry. That is a worrying matter for me. So, I don't think it is a good idea to put very sensitive data (like personal financial info.) on online storage.

4. A correspondent mentioned a concern with external HDD which is that these are still electro-mechanical drives with relatively higher potential to fail compared with flash drives or

solid state disks (SSDs).

I looked up external SSDs (I have not used any so far) on a Chennai based net it store, http://www.theitdepot.com/products-USB+Hard+drives_C25.html (you have to choose External SSD in the Category check boxes on the top left of the page to view only external SSDs). 120 GB drive minimum price is around Rs. 13,500! Whereas a 1 TB external hard disk is available around Rs 5,000 to Rs 6,000.

SSDs seem to be more in use currently as internal disks. A correspondent wrote that their main advantage is that they are superfast. Boot times are cut in half, apps open instantly, files up to many tens of mb or more copy instantly without a progress bar... Apple's ssds can read or write almost 1gb per second. They also consume less power. But they are very expensive — hundreds of dollars. A 1tb ssd may cost 500 dollars or more. They make no sense for backup.

5. A correspondent mentioned that he read somewhere that all brands hard discs are equally unreliable due to cost cutting.

6. A correspondent provided a good analysis of backup strategies. I have provided that below: Protecting against disk failure can be simple as 1:1 backup to more elaborate, depending on what you want:

1. Data availability (ie., your application or OS should not see a disruption if one of the disks fail)
 1. Solution choices center around some kind of redundancy; one of the most efficient mechanisms is RAID, whereby the data is stored across redundant drives, with sufficient additional info to enable reconstruction of the contents of a failed disk using the contents of others. Both hardware RAID controllers and software RAID stacks are available. You will need more than one drive.[RAID reconstruction on disk failure is not always non-disruptive, depending on the RAID mode/client OS capabilities. Also, there are ways to make a data replication based solution non-disruptive as well, by using 2 servers and switching over between them on failure.]
2. Data protection (ie., your application or OS should be able to regain access to the data without corruption)
 1. You would use some form of replication, ie., multiple disks. It can be as simple as full or incremental backups; to automatic replication to a destination drive whenever something on the source drive changes. You could do this at granularity smaller than a drive, of course, such as selected directories and their sub-dir/files. Various flavors of rsync are available for this.

You could also do combinations of the above.

He uses the B.i option, using multiple drives, hooked up to a \$15 pogoplug NAS server:

http://www.adorama.com/COCPOGOP21.html?gclid=CPKLq7OatbsCFU_NOgod1mUA9A.

Here is a link to different model of the POGOPLUG device with a single USB port, sold in India for Rs. 2125: <http://www.junglee.com/Pogoplug-Backup-and-Sharing-Device/dp/B005GM1Q1O>

For reference, the advantages of a box like the POGOPLUG (there are other options, including using a Raspberry Pi based NAS server), are:

- cheap
- the extremely low power consumption, ~ 5 w/h by the server
- the current generation of drives spin down on idle, saving more power
- noiseless, no fans
- no need to have a big PC up and running if only a smartphone or tablet needs access to

content on the server

- flexibility to run other services on the box (like a DLNA server, hook up a printer) that can be accessed by clients on the home intranet

7. A software veteran shared a wise rule: I have made a new rule for myself: if I bring anything new into the house, I must get rid of something (or things) that are equivalent. So if I get a new shirt, one or more old shirts must be given away.

I try and follow this rule also in accumulating data. I have tried to keep my Google data usage to about 20% of the permissible free limit. When I cross that, I start to delete old stuff. I have not yet deleted anything that I later regretted (or even noticed!).

Update (6th Jan. 2014)

I now have all my data backed up to a 1 TB Western Digital Passport (USB) external disk, and all my critical data plus some other data (some audio & video) to a 64 GB Sandisk USB Flash drive (Memory key/stick). [This corresponds to Solution B in the strategy.]

I have also now got a free Dropbox account with 2GB cloud space on which I have put my very critical data (but not sensitive data due to privacy concerns).

One correspondent had suggested that I try RMA for the failed Seagate disk. Well, thanks to him, I tried and it worked, even after more than four and a half years since I bought it (as it was under five year warranty). The Chennai (India) based agency partnering with Seagate for this sent me a 2 TB Seagate Go Flex disk as a replacement which I received yesterday. [There was a hiccup in the tracking information as Seagate (Singapore office going by email name) mailed me a wrong courier tracking number but that was very minor stuff in exchange for a 2 TB disk.] I have yet to check out the 2 TB disk.

So now I can go for Solution A as well if I want :).

Well, the key thing, is that the vulnerable window I was in without a full backup has been closed, and I am reasonably safe with my data. Sure, it is not fool-proof but I feel I have done the due diligence for my home data. If, God forbid, I still lose it, I will put it down to destiny/God's will :).

A correspondent who uses a Macintosh laptop computer wrote (slightly edited) in response (partial extract) to an email similar to the above update:

Clearly, backup is important.

I use Apple's TimeMachine software, which backs everything up automatically on hard disks both at work and at home, so I have two backup copies.

Time Machine works effortlessly, behind the scenes. And it has been a real help. Every once in a while, I overwrite a file that should not be overwritten. To get a back-up copy, I just open Time Machine and go back 1 hour, 1 day, 1 week, whatever, seeing the internal hard drive the way it looked at that time, copy the file I want, get out of Time Machine, and paste the file somewhere.

I wrote back (slightly edited):

Wow! I think that is where Apple is perhaps unbeatable – they make the software/system so easy to use. I was not aware of such an elegant backup solution but then I am not a backup expert either. I had heard that name (TimeMachine) in the computer field with respect to the Internet but not an OS.

A correspondent passed on this very interesting article, "Did You Know Windows 8 Has a Built-In Time Machine Backup?",

<http://www.makeuseof.com/tag/did-you-know-windows-8-has-a-built-in-time-machine-backup/>. It

describes a new feature in Windows 8 called, "... File History, a built-in backup feature that functions similarly to Apple's much-loved Time Machine."

=====End of Post=====

Uploading a long video to youtube and Making a Transcript of it; Published: 18 Nov 2013

Post link (URL) on blog:

<https://ravisier.wordpress.com/2013/11/18/uploading-a-long-video-in-youtube-and-making-a-transcript-of-it/>

I recently uploaded a couple of hour + videos (Hislop videos) to youtube and made a transcript of one of them. This post is a rather rough log/note of the activity.

Upload of these around one and a quarter hour videos (file sizes are 220 MB and 260 MB) took an hour or so (on 4 Mbps broadband but with 512 Kbps upload speed I presume) followed by processing at which time you can switch off the computer. [BTW for long videos youtube needs some extra authentication of the youtube account done using a text/audio message sent to one's phone. The message took a lot of time to get delivered to me – meanwhile I was trying various options with country code and without country code as well as text and audio.

Eventually, maybe half an hour to an hour from when I started the attempts, I got some message with the code and that worked.]

I found that when the processing part was reported done on some evening/night, next day morning when I tried to view the video I was given the option of improving it. [But I don't recall whether I tried playing it that evening/night itself immediately after processing was reported as done.] Choosing the option to improve it shows some Editing in progress message on Youtube video manager for that video, which also was a long process (what was started in the morning had got done by that day afternoon).

The transcript is automatically created – but in this case with a lot of errors. However when I first tried the Hislop video upload the transcript did not get automatically created! That could have been because I fiddled with the caption button rather quickly after the video was uploaded which took me to the manual creation of transcript step (IIRC the transcript tab icon was not showing up and so I tried fiddling with the caption button to see if that brings up the transcript button). So maybe the automatic transcript creation gets done, especially for long videos, a few hours after the video is uploaded. Meanwhile my fiddling with the caption buttons may have misled youtube software to mark the video as a manual transcript one and thereby drop the automatic transcript part.

I then deleted the video and re-uploaded it, without fiddling around with the caption buttons prior to automatic transcript creation. The automatic transcript did get created for the first Hislop talk video this time around. IIRC the upload got done at night and when I checked again the next day morning the automatic transcript was available.

When I tried editing the captions (transcript) I initially got fazed by the browser tab (entire web page display) freezing up. After some time it unfroze and allowed me to edit the captions/transcript. I guess the long video is causing time delays for such actions associated with the video.

Clicking on the time stamps plays only the segment associated with that timestamp. This is

convenient for checking, and if required, correcting the transcribed text for that segment. To collapse two segments into one, you can copy the text of one segment into the other, then delete the segment (remove button, IIRC) and finally edit the timestamp(s) of the remaining segment to cover the time period of both segments. Save Changes created an alternate transcript. Then I deleted the automatically created transcript to keep only one transcript around and avoid confusion. To save the transcript to local computer the Actions drop-down at the top of the transcript display gives the associated actions which includes downloading the transcript in various file formats to local computer. Once when I tried the sequence of Save Changes followed by Actions -> Download the downloaded file did not have the recent changes! From then on, to play safe I would go one step back by clicking Track lists. And then choosing the transcript again. This would take time to load up. But after it has loaded up Actions->Download would download the transcript file with the latest changes included. It was quite a cumbersome process to correct the automatic transcript which was full of errors for the hour + video. In the first round I mostly focused on correcting the transcript and did not usually attempt to collapse segments. In the second round I focused on catching errors I missed in the first round including some parts which I could not clearly understand – shown in parentheses or as ... In this round I also collapsed less than 3 sec segments with its immediately prior or next segment. I transcribed only one of the two videos. Here's the finished work, Sathya Sai Baba's Advaita Teachings By John Hislop Ph.D., <http://www.youtube.com/watch?v=DI9izOvsUJg>

=====End of Post=====

Backing Up Gmail Mailbox with Labels to Desktop PC (or Laptop); Published: 18 May 2013

Post link (URL) on blog:

<https://ravisier.wordpress.com/2013/05/18/backing-up-gmail-mailbox-with-labels-to-desktop-pc/>

Overview

I was using Outlook Express 6 with POP3 to backup my gmail mailbox. A serious problem was that Outlook Express did not show the gmail labels. I also faced some unusual problems with Outlook Express as my gmail mailbox started touching 2 GB, even though there was enough space on the disk drive on the PC where Outlook Express was storing the mail. Maybe the problem was that I was using an old Outlook Express version with old POP3 protocol. A friend reported that he used/uses Outlook 2013 and IMAP to download mails from his gmail mailbox and is able to see the gmail labels.

Anyway, I decided to explore other options to backup my gmail mailbox than Outlook Express 6 and POP3.

Google Takeout looked promising but it does not handle gmail service as of now. Sharing gmail

password (even application specific password) with an unknown/not-well-known gmail backup software seemed somewhat risky and so that ruled out such software.

Eventually I decided on seriously trying Mozilla Thunderbird with IMAP even though I was informed that work on Thunderbird has been recently stopped. I guess it should be fine for a few years even without further development.

It worked like a charm (so far). Gmail labels are mapped to folders in Thunderbird. The mail data is stored in one of the mbox family formats, and is a text format. Each folder (label) has a separate data file.

Thunderbird does not seem to backup the Contacts. I used Google Takeout to backup Contacts. If you would like to know details of using Thunderbird to backup gmail mailbox you may read on.

Details

BTW I am on Windows XP now (plan to move to Windows 7 in a month or two).

Mozilla Thunderbird for Windows can be downloaded (for free) from:

<https://www.mozilla.org/en-US/thunderbird/>.

For setting up IMAP a/c in Thunderbird for my gmail a/c I primarily followed instructions from gmail help, "Get started with IMAP and POP3":

https://support.google.com/mail/troubleshooter/1668960?hl=en&ref_topic=3026306. At times I also referred to Thunderbird help, "Thunderbird and Gmail":

<https://support.mozillamessaging.com/en-US/kb/thunderbird-and-gmail>.

Thunderbird set the imap and smtp server (automatically at some stage in the account creation process) as googlemail something. I changed it to conform to the above referenced gmail help instructions (specific part copy-pasted below)

Incoming Mail (IMAP) Server – Requires SSL
imap.gmail.com

Port: 993

Requires SSL: Yes

Outgoing Mail (SMTP) Server – Requires TLS
smtp.gmail.com

Port: 465 or 587

Requires SSL: Yes

— end copy-paste —

Another important point is that I created an application-specific password in gmail for Thunderbird to access my gmail a/c, and specified this password to Thunderbird instead of my regular gmail password. To create such application specific passwords in gmail click on the drop down icon next to your email id shown on the top right in gmail window. In the dropped down box click on Account. Then go to Security -> Manage Access (of 'Connected Applications and sites'). Now you will be on the Application-specific passwords page. You may follow the instructions in it to create one for your mail client like Thunderbird or Outlook (Express).

One fleeting concern I had is that the default settings in Thunderbird for the account created to access gmail has 'Authentication method' as 'Normal password' but with 'Connection security' as 'SSL/TLS' (this can be seen under Account Settings -> Server Settings). I went with the

default which may be okay as SSL option being chosen should result in Thunderbird doing the tough encryption of the password before it is put out on the public Internet. This would be similar to how the password typed in the gmail login page on the browser is encrypted by the browser before being put on the public Internet. So I guess it is not a matter of concern. [There are other options like 'Encrypted password' and 'Kerberos ...' for 'Authentication Method' but perhaps those options may be useful if the 'Connection security' is not 'SSL/TLS' (e.g. 'None').]

Then I clicked on some 'test' button on a page in the Account creation process in Thunderbird. It seemed to show that the test worked by showing some details of the connection settings. I don't recall the details now.

Either at this point or earlier I wondered about the location where the mail retrieved from gmail using IMAP would be kept on local disk. 'Account Settings' -> 'Server Settings' for the gmail a/c entry created in Thunderbird has a 'Local directory' field at the bottom of the page, which by default was set to some folder related to Thunderbird in the system drive (C:). I changed that to another folder on a non-system drive. The 'Account Settings' page lists another entry called 'Local Folders'. Clicking on it shows another 'Local directory' field which was also mapped to some Thunderbird related folder on the system drive. I changed that folder also to some non system drive. [I had first changed the local directory field of 'Local Folders' and then the gmail a/c related to Thunderbird one.]

Once all this configuration was done, without me initiating any message download Thunderbird automatically started downloading info. from my gmail a/c. Initially it gave a message that it is downloading the message headers and showed all the gmail folders (system ones and the user created 'label' folders) very quickly! Then it started downloading the message details and was giving some info. about it on the status bar.

It has two files on local disk related to each folder/label – one has the same name as the folder/label but without an extension and another has the same name with extension msf. The file whose filename is without an extension seems to be the data file as its size seems to be reflective of the message data downloaded. The download process is quite slow.

The format of the data file (filename not having an extension): From

<https://en.wikipedia.org/wiki/Mbox>, "The Mozilla family of MUAs (Mozilla, Netscape, Thunderbird, et al.) use an mboxrd variation with more complex From line quoting rules." mboxrd is part of a family of formats known as mbox. From the same wiki, <https://en.wikipedia.org/wiki/Mbox>:

"mbox is a generic term for a family of related file formats used for holding collections of electronic mail messages. All messages in an mbox mailbox are concatenated and stored as plain text in a single file. The beginning of each message is indicated by a line whose first five characters consist of "From" followed by a space (the so named "From_ line" or "From ' line" or simply "From line") and the sender's e-mail address. A blank line is appended to the end of each message. For a while, the mbox format was popular because text processing tools can be readily used on the plain text files used to store the e-mail messages."

Some useful links regarding the mailbox files:

<http://www.z-a-recovery.com/thunderbird-email-database.htm>

http://kb.mozillazine.org/Importing_and_exporting_your_mail

Regarding messages associated with two or more labels in gmail: From

<https://support.mozillamessaging.com/en-US/kb/thunderbird-and-gmail>,

'Note that a message can have multiple labels (for instance, "Personal", "Travel", "All Mail" and "Starred"). In this case, a copy of this message will be downloaded and displayed in all the corresponding Thunderbird's folders.'

Thunderbird help notes that BCC message recipients are not listed in the mail downloaded to Thunderbird via IMAP from gmail,

<https://support.mozillamessaging.com/en-US/kb/thunderbird-and-gmail:>

'When you are using a mail client (such as Thunderbird, Outlook, Entourage, etc) with a Gmail account and your account is configured to synchronize mail using the IMAP protocol, you cannot see BCC message recipients when you look at the message in the Sent Mail folder.'

There is a Tools -> Activity Manager command which opens up a window showing progress bars for download for each folder/label.

The downloading/sync of messages stopped in Thunderbird at some stage perhaps due to me closing Thunderbird and then re-opening it. Later it was automatically checking only for new messages.

But the File -> Offline ->Download/Sync Now command initiates old messages download/sync too. Download/Sync had to re-initiated some 2 or 3 times. But eventually all mail seems to have got downloaded. It took fair amount of work time of 2 days – though not continuous usage (my gmail mailbox size was around 2 GB). Download/Sync goes through each folder, downloads messages that have newly come/changed in some folders, and then stops showing any status messages indicating that all download has been done. As a double-check that all mail has been downloaded I repeated Download/Sync after all messages had been downloaded – it went through all folders without downloading any messages (as there were no new/changed messages), the last folder reported in the Status bar being Trash, and then stopped showing any status messages.

Concluding Words

I am quite satisfied with the Thunderbird backup of my gmail mailbox. I have got my gmail labels in the backup. The mail data file for each folder can be read in a text editor! Yes, there are a lot of headers and format stuff which makes it difficult to read but you still can read the mail content and even search for some string in the data file if Thunderbird is not available! There may be possibilities of easy conversion/import to other mail clients as the mail data format is an open one. That is a significantly different situation from Outlook Express' proprietary format .pst mail data file.

=====End of Post=====

Handling Others' Making Money From One's Free & Open Source Software; Published: 30 Dec 2011

Post link (URL) on blog:

<https://ravisiyer.wordpress.com/2011/12/30/handling-others-making-money-from-ones-free-open>

[-source-software/](#)

For the creator of a particular FOSS product it can be a wrenching feeling to see others profit from the product while he/she himself does not make the same kind of money. It can become acute if the guys making money or benefiting otherwise from a FOSS product don't even bother to give any credit to the FOSS product author(s). To get an idea of that pain you can view the following link, but be warned that the language is quite graphical at times – so view it only if you can handle some tough language: http://zedshaw.com/essays/why_i_gpl.html

My comments on this issue from raviyer.org perspective are given below:

For my “service to society” spiritual needs I don't mind if some or all mods. don't come back.

Apache license gives attribution so the writer's lack of attribution issue with BSD does not come into play for me & contributors to raviyer.org.

And I definitely will not be envious of somebody who buys a sports car by making money from raviyer.org software :). I will be happy for him/her.

So I am still on the Apache side of the license fence.

But I empathise with the author's views considering his goals/viewpoint for his Open Source software. If his view of how Open Source software is nowadays getting exploited by VC backed companies focused on only making profits with no thoughts of giving back to the community is true then I can understand his 'pain' on this point. It would then be pretty unfair and would discourage the social incentive to “give” FOSS. However I am too far removed from that world and so am not sure of the exact situation.

Moral of the story for me: If you cannot handle others becoming richer than you by using your Open Source software, don't do Open Source. Try the proprietary option. If you just need recognition/credit for the Open Source software that you authored, it can be easily handled by going for a FOSS license that requires attribution (e.g. GPL, Apache).

=====End of Post=====

Software Patent Violations – Very Tricky Issue Abroad – But Not Valid in India; Published: 29 Dec 2011

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/12/29/software-patent-violations-very-tricky-issue-abroad-but-not-valid-in-india/>

Last Updated On December 30th 2011

United States International Trade Commission (US ITC) has asked HTC to change a software feature in its Android phone as it has ruled that the software feature violates an Apple patent! HTC has agreed to comply and is going to run its proposed software feature changes through the United States International Trade Commission. Wow! While software patents getting enforced may not be new to current techies, for a guy like me who is getting back into the tech. thick of things after nearly a decade, this has been a kind of eye-opener. Having some idea now

about legal issues of software I think this is another significant learning for me. Hardware patents are different – IFIRC that was being enforced decades ago. Please note this a software patent issue – not a software copyright issue. HTC/Android/Google seems to have implemented a software feature using their own code which is similar to Apple's patented software feature! Here is an article from NY Times on it, "U.S. Backs Apple in Patent Ruling That Hits Google": <http://www.nytimes.com/2011/12/20/technology/apple-wins-partial-victory-on-patent-claim-over-android-features.html>):

The patent violation is about the feature that allows the user to finger-tap once on a phone number in an e-mail or text message to call the number. Apparently the resolution to the patent violation is that HTC will not provide a list of options to save the number, dial it or SMS it; instead it will allow only dialling the number.

If HTC does not change the feature then it will not be able to sell its phones in the US after 19th April 2012!

A friend informed me that it seems that Apple asserted 4 (or maybe 5) patents as violated in its US ITC complaint. The US ITC disagreed with almost all of them, except for two claims on one of the patents (typically each patent has dozens of claims). That doesn't take away from the fact that the US ITC held that HTC's implementation violated Apple's patent.

Also it seems that this is not the first software patent ruling against a big corp. I am a newbie to this area and this was the first, as a newbie, that I am seeing on the big stage.

During my industry career days, I dimly recall that I had heard/read about the LZW and RSA patent issues. But that was not relevant for most software developers as it concerned very specific algorithms (<http://en.wikipedia.org/wiki/Lempel%E2%80%93Ziv%E2%80%93Welch>, http://en.wikipedia.org/wiki/RSA_algorithm). The LZW patent issue got famous as Unisys tried to make money from its LZW patent which is used in gif images. See http://www.jamesshuggins.com/h/tek1/burn_all_gifs.htm. RSA gave up its patent in 2000: <http://www.rsa.com/rsalabs/node.asp?id=2322>.

Then (the late 80's and 90's) the far bigger issues were copyright & monopolistic trading practices. I do not recall a single case in my software career involving customers and/or software teams in the US, Europe, Japan, Korea, Middle-East as well as Far-East for system software/application software involving product development or customized software development where anybody had to worry about or was charged with a software patent infringement for the software they developed!

Times have changed now. Though, based on my reading today, it is quite a grey area. The OSS licensing area seems to be far better as it is quite well defined in comparison.

HTC announced the same day that that have a workaround

(<http://www.bgr.com/2011/12/19/htc-responds-to-itc-ruling-says-it-has-a-solution-ready-to-address-apple-patent-violations/>):

Overall I think this software patent thing especially when used for minor algorithms & UI features is quite scary. I mean, somebody/some company may not even know of the existence of a patent regarding some small software feature (UI or processing) and could write his/her/its own code and sell the software. And then it could get hit with a patent violation claim! Did I get this right?

Assuming I got it right, what does the poor software developer do? First search the software patents database to know which UI features and algorithms/processing are patented; then do his software in such a way that it does not violate a patent; and then go a little further to file a patent for his/her software so that nobody creates a future patent that can invalidate his software. Maybe I got some of the stuff a little mixed up but overall I think I have a case here about software patents making life very difficult for software creators.

A few days later:

I was informed that I did get the danger of violating software patents right. It seems to be so bad that the chances of violating someone's patent while writing software is quite high!

Here is Paul Graham on software patents: <http://www.paulgraham.com/softwarepatents.html>

The only practical approach seems to be to just go ahead and write software without bothering about patents. Maybe care is taken to avoid infringing on known software patents – but no effort is made to discover & study existing software patents related to one's software – perhaps that is an impossible task. Later if some patent infringement claim is made the company's legal team will handle it – it is not the bother of the software developer team.

Perhaps in some cases the developers feel it is best to not even read up on patents. As then the danger of any patent violation being considered willful infringement will be higher. Willful infringement will attract a heavier punishment/penalty than ignorant infringement. This really is a complex and very unsatisfactory situation.

Here is an interesting blog on “bad” software patents:

http://badpatents.blogspot.com/2011_06_01_archive.html

Here is Prof. Donald Knuth's letter in 1994 against software patents to the US Commissioner of Patents & Trademarks:

http://www.pluto.it/files/meeting1999/atti/no-patents/brevetti/docs/knuth_letter_en.html

Arguments against software patents in India, Feb. 2010:

<http://www.cis-india.org/a2k/blog/arguments-against-software-patents>

Interestingly, Indian law-makers (Parliament) have rejected software patents. So for software developed for Indian users the software developers can blissfully ignore software patents.

Wonderful! So raviyer.org does not need to worry about software patent violations. That's a very happy conclusion of this exploration of mine on software patent violations.

Additional Info.

A friend wrote: Awareness of software patents was relatively high in embedded/real time systems community. Especially in telecom and wireless software development in the late '90s. The issue did not get hot in applications software, until business process patents became legal in some countries. With that, if you developed inventory management software that could email your supplier to automatically refill the bins, you had to worry not to violate somebody else's patents. Searching on Google for “inventory management software patent” gives a large number of hits!

Here are some links for your future reference:

1. For a very detailed coverage of patent law related topics, see: <http://www.patentlyo.com/>
2. For a pro-FOSS/GPL/Linux coverage of legal issues and probably the most popular blog/forum in that genre, see: <http://www.groklaw.net>.
 - o <http://www.groklaw.net/article.php?story=20111220082732451> covers the recent ITC ruling in Apple v. HTC
3. For a contrary view, supporting patents, but more focused on video game related IP issues: <http://www.patentarcade.com/>
4. For an unmoderated democratic view: <http://slashdot.org/>.

=====End of Post=====

Attribution May Be A Key Motivation Factor to Contribute Data/Content;

Published: 15 Dec 2011

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/12/15/attribution-may-be-a-key-motivation-factor-to-contribute-datacontent/>

As I think about how I can invite interested persons to contribute English & Telugu sentences text & audio content to raviyer.org's Spoken English app., I am realizing that some persons/organizations may be interested to contribute data only if they get attribution. So raviyer.org using CC0 (see: "Using CC0 license for Data": <https://ravisier.wordpress.com/2011/12/10/using-cc0-license-for-data/>) may turn them off. Here's how Wikipedia seems to be handling it. It uses CC-BY-SA (Attribution and Share Alike). Share-Alike forces re-users to share mods. using same licensing terms, in this case, CC-BY-SA. It also used/uses GNU Free Documentation License. More details are available here: <http://en.wikipedia.org/wiki/Wikipedia:Copyrights>.

Interestingly the page states that contributors retain copyright to materials contributed – text and media. So contributors can republish and relicense their own data in any way they want. However the license for the copy of the materials given to Wiki by a contributor cannot be altered or retracted.

The list of contributors to a wiki page can be accessed via the "View history" link/menu at the top of the page.

Wikipedia also has disclaimers about validity of its content.

For raviyer.org the Share Alike aspect of the CC license is not so important. I would like it to be permissive in terms of sharing. So CC-BY (<http://creativecommons.org/licenses/by/3.0/>) may be appropriate which allows people to freely use & modify & license on their terms but they have to give attribution to the data contributors. The data should include the names of the data contributors in text and, if appropriate, other forms like database table. The page having the download link for the data could also have a contributors link listing contributors.

The application using the data should ideally have a command which will list the data contributors (and the source code contributors).

This kind of approach may be satisfactory and motivating for some, if not most, contributors of data/content to raviyer.org.

Disclaimer of validity of content is an issue that has to be examined. Does CC-BY have adequate disclaimers? If not, what disclaimers should raviyer.org use?

=====End of Post=====

Using CC0 "license" for Data;

Published: 10 Dec 2011

Post link (URL) on blog: <https://ravisiyer.wordpress.com/2011/12/10/using-cc0-license-for-data/>

Last Updated on Dec. 15th 2011

http://wiki.creativecommons.org/CC0_use_for_data lists many organizations that use CC0 for data sharing.

And here is a list of some organizations that use other CC licenses (Attribution, Attribution-Share Alike, Attribution-Non Commercial-Share Alike):

http://wiki.creativecommons.org/Data_and_CC_licenses

An interesting post, "The legal and ethical reasoning behind using CC0 for Safecast data":

<http://blog.safecast.org/2011/09/the-legal-versus-ethical-reasoning-behind-using-cc0-for-safecast-data/>. It differentiates quite nicely between legal & ethical aspects of sharing/using data under CC0 license.

The CC0 FAQ: http://wiki.creativecommons.org/CC0_FAQ

Here's the text for the CC0: <http://creativecommons.org/publicdomain/zero/1.0/>

I feel raviiyer.org should use CC0 as the default "license" for its data. Re-users and re-distributors need not give attribution to raviiyer.org & its contributors.

=====End of Post=====

Open Software and App. Stores (Walled Gardens); Published: 07 Dec 2011

Post link (URL) on blog:

<https://ravisiyer.wordpress.com/2011/12/07/open-software-and-app-stores-walled-gardens/>

Last Updated On December 18th 2011

I have recently realized that the Open Software and App. Stores topic is a very sensitive & deeply divisive one. So, from a mail exchange with friends on it, I have captured below only factual and non-judgemental information which I felt is relevant to raviiyer.org.

A friend passed on this article on a Harvard Law & Comp. Sc. Professor's view of Open software and App. Stores (Walled Gardens):

http://www.law.harvard.edu/news/2011/11/30_zittrain-the-personal-computer-is-dead.html

Another friend passed on another take on this issue here:

<http://arstechnica.com/tech-policy/news/2011/10/the-icconstitution-how-to-protect-user-freedom-in-an-app-store-world.ars>.

GPL license incompatibility with Apple AppStore

FSF's license compliance engineer in May 2010 on a GPL app (GNU Go) and iOS:

<http://www.fsf.org/news/2010-05-app-store-compliance>

&

<http://www.fsf.org/blogs/licensing/more-about-the-app-store-gpl-enforcement>

He states, "So today we have written to Apple and asked them to come into compliance. We would be happy to see Apple distribute these programs under the GPL's terms, but unfortunately, it seems much more likely that they'll simply make the problem go away by removing GNU Go from the App Store. "

Apple responded by removing GNU Go from the App Store.

The VLC story seems similar to GNU Go (except that it perhaps is more well known):

<http://www.zdnet.com/blog/open-source/no-gpl-apps-for-apples-app-store/8046>

This VLC developer/contributor raised the issue to Apple; the link also gives his justification for the act: <http://mailman.videolan.org/pipermail/vlc-devel/2010-October/077325.html>

Once again, Apple responded by pulling it out.

This link has some more info on it including what the VLC-iOS port team feels about it:

<http://arstechnica.com/apple/news/2010/11/the-vlc-ios-license-dispute-and-how-it-could-spread-to-android.ars>

So this means that one single VLC contributor, though a major contributor, from Finland, it seems, went on his own without the backing of the VLC team in general and had the POWER to get the "derived" VLC-iOS app. pulled out of AppStore in the US!!! This seems to be an international license compliance action (Finland & US). This is an important learning for me about the POWER that any single contributor to a Free & Open Source and even Free & Open Data project has.

Now I am not questioning the ethics of the VLC contributor who sent the legal notice. It may be a completely ethical action. I do not want to comment further on the ethics of this particular case.

But what is important for me to note is the POWER of any contributor living in any country to raise a notice about license violation to any user/re-user of a software that he/she contributed to.

So ravisier.org should bear in mind the SERIOUS IMPACT that license compliance issues can have for any of its future FOSS products.

=====End of Post=====

Source Code Under Apache License; Data Under Creative Commons License; Published: 04 Dec 2011

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/12/04/source-code-under-apache-license-data-under-creative-commons-license/>

Ravi General Note: I would like to say that these licensing related discussions are helping me arrive at licensing policy decisions for raviyer.org's future software products in general, besides just the "Spoken English App.". I mean the same issues would crop up for "Rural Agricultural Portal" if that work is taken up in future.

One of the reasons why I am capturing all these discussions (in suitably edited form) as posts here is that raviyer.org can be a model which other interested persons, in India at least as legal matters vary from country to country at least in implementation, can use for starting their own small social web "service to society" software activities. The key word here is "small". One single person should be able to start it off and manage as a part-time volunteer activity. Perhaps to keep the management effort limited the number of contributors could also be limited to a small number.

Significant numbers of such small "Software Seva Volunteer Social Networks" may unlock and productively channelize the great potential that India's large & capable software professional community has to serve the nation through part-time volunteer Software Seva and derive joy (Ananda) from such happy & useful service activities.

The discussion below builds on the post, "Are Text & Audio – Data/Content – covered by Apache License?":

<https://ravisier.wordpress.com/2011/12/03/are-text-audio-datacontent-covered-by-apache-license/>.

<http://highearthorbit.com/the-need-for-clear-data-licenses/> gives a picture of data licensing as of Nov. 2009. But this post also does not clearly say whether GPL or Apache license cover the data part of the released software.

Maybe a solution is to provide two releases:

a) The software with just test/limited data – Under Apache License

b) The database with full content – Under CC0 or Open Data Commons Open Database License (ODbL) (<http://opendatacommons.org/licenses/odbl/>).

Setting up the database (b) to work with (a) should be made a very simple process for the user. Some click-and-run install script like stuff.

This sounds like an interesting solution. We are not getting into dual license mess as we do not have two licenses being applied to the same entity.

Mail exchange with friends on the above is given below:

Friend 1 wrote: It does not seem uncommon that different parts of a distribution be differently licensed. I do recall something on those lines from work, but not the details at the moment. I am unsure of how good/reliable this is, but the page talks of more than one license:

<http://code.google.com/p/funnytouchscreen/>

Ravi responded: That's a useful find. It uses two licenses and since the license coverage area is different – source code & multimedia content – I think "dual license" confusion does not come into play.

Friend 1 wrote: Perhaps http://en.wikipedia.org/wiki/Free_content may help you a bit more? It has separate sections for Media & Software.

Lastly, <http://www.copyright.com/media/pdfs/License-Your-Multimedia-Content.pdf> seems to be a service very specific to multimedia content. I am not suggesting you pick this service, rather, it appears to indicate that different content can and is licensed differently.

Ravi responded: Thanks for the links. Did a quick read. Will do detailed read, if required. Useful links, for sure.

Friend 1 wrote: Don't you know anyone in the legal who could give you general advise? I mean,

how ever careful one is, an expert with real-world experience is any day a safer bet. Ain't it? Ravi responded: The legal guys I knew back in my software industry days were not into this kind of stuff at that time, at least. Anyway am out of touch with them. Don't know any other legal guys.

A later mail exchange with friend 1:

Friend 1 wrote: When replying this morning, I did look at the very famous open-sourced, GPL licensed, LAME MP3 encoder – I am unable to find the exact links right now and I don't recall why I did not send out the link this morning – but here goes: they have just two MP3 files shipped with the source (and it is hardly a second long or so).

Ravi responded: Interesting. But as it is shipped only with two small sample kind of MP3 files it really does not have to bother about audio files licensing. Any "other files" clause in the license is enough to take care of it.

Friend 1 wrote: Coming to the present case, yes, it would be very sensible to set up the database and scripts – but if spoken English is the contribution, I guess the major contribution would be the audio files for the translation and speaking. I mean, the software to play them back and relate Telugu sentence with the English part would not be a major contribution, IMO, as much as the audio files (or equivalent). Am I right?

Ravi responded: Yes, you are right. Not only the audio files but the text sentences too will be the major contribution; the code, in comparison, would be quite minor but not minor enough to not be licensed properly.

Friend 1 wrote: If yes, then setting up the DB to work with the software etc., is fine, but the major benefit of the work (the audio files) would not be shipped with the open-source software. Is that correct?

Ravi responded: Well, the software and data (db schema + db content) have to be downloaded separately. And both will be free & open source licensed. So that opens up the following benefits for users:

a) Those who want to use "Spoken English App." software + data can do so.

b) Those who want just the code of "Spoken English App." but want to use it with their own or different data set can do so.

c) Those who only want the data of "Spoken English App." can download it, modify it and redistribute it, without bothering about the code at all.

Friend 1 wrote: Also, can you check with (a gentleman who has a Telugu/English "free" website) if he has any thoughts/suggestions on this? I mean, IIRC, he hosts PDF/Page Maker files that contain translations – those are not source code files in the sense of programming language sources (but could/may fall under the 'source' definition of Apache Licence).

Ravi responded: (The gentleman who has a Telugu/English "free" website) seems to be a very helpful, service oriented person. However he does not seem to be tech-savvy.

I don't think he would know much about licensing. When I was asking whether I could use his stuff, his response was a polite but surprised but-you-can-download-it-so-whats-the-problem kind of one. At that time I did not know enough about copyright & licensing. Now I know that since his site does not have an open data license (e.g. CC0), legally he owns the copyright for it even if he has provided a download link.

Legally either he needs to put his stuff under a CC0 kind of license OR I need to have an agreement from him that he has contributed his stuff for my app. – a Contributor License Agreement kind of thing. Once I figure out the Data licensing part for raviyer.org the next thing I will look at is Contributor License Agreement. Starting a social web software activity is NOT

EASY :(.

Friend 1 wrote: Another project just came to mind: The Khan Academy (<http://khanacademy.org>) – they do work similar to what you intend: provide material/services for Educational Training.

Their work is licensed under <http://creativecommons.org/licenses/by-nc-sa/3.0/us/> Perhaps if you delve deeper, you may find something more with this project?

Ravi responded: I feel Khan Academy using a CC license is a straightforward solution. Viewed their site again but this time from a licensing point of view :). Confirmed they are using a CC license. They don't seem to have any downloads of the software used to run the site. The downloads are only content related.

A mail exchange with another friend is given below.

Friend 2 wrote: I spent some time looking for info. Chromium (the open-source version of the Chrome browser) does not seem to use a different license for artwork. See

<http://src.chromium.org/viewvc/chrome/trunk/src/ui/resources/> These are the png files used in the UI, and there are no license file in this directory or in its parent (src/ui). The nearest license is that of top level (src), which is a BSD license (not Apache as I'd said earlier).

Ravi responded: I think the artwork (png files etc.) for Chromium would be just a few files. So licensing may not be issue. In fact, they may not want the artwork to be freely copied and used by others! I mean, it will be odd for some other browser to use the Chrome logo (I presume it has one).

Friend 2 wrote: You can confirm by asking on the list chromium-discuss:

<https://groups.google.com/a/chromium.org/group/chromium-discuss/topics?pli=1>

The similar mailing list for Android is: <http://groups.google.com/group/android-discuss>

But probably the best list is the Apache Legal list:

<http://www.apache.org/foundation/maillinglists.html#foundation-legal>

Ravi responded: I think it may be a good idea to seek advise about it from Apache-legal list. Let me think about it. Thanks for this tip.

A later mail exchange with friend 2 is given below.

Friend 2 wrote: I thought they treat the logo differently from other art, like icons. The former are trademarked and not under an open license, even in the case of Firefox.

Ravi responded: Ah! So logo is treated different even though it must be part of the source download (as a gif/png file perhaps).

From <http://en.wikipedia.org/wiki/Firefox#Licensing>

Firefox source code is free software. Most of it is tri-licensed under the Mozilla Public License (MPL), the GNU General Public License (GPL) and the GNU Lesser General Public License (LGPL).[citation needed] These licenses permit anyone to view, modify, and/or redistribute the source code, and several publicly released applications have been built on it; for example, Netscape, Flock, Miro, Iceweasel, and Songbird make use of code from Firefox.

...

Mozilla not only forbids creating derivative works from the Firefox logo (i.e. modifying it),[147] but also strongly discourages creating independent but similar logos.[148]

— end extract from wiki Firefox#Licensing —

And Firefox is tri-licensed! So MPL, GPL & LGPL licenses do not cover the logo image file. Perhaps that is why these licenses are referred to as “(source) code licenses”.

Ravi Concluding Remarks: I think it is clear to me that the “common sense” and “widely accepted” understanding of “code licenses” is that they are limited to source code sharing & modification (& object code sharing) & distribution of such derived works. They do not clearly

cover non-code stuff which will include art-work as well as data. So icons & sample data fall into the “grey area”. As long as the usage is trivial nobody will make an issue of it (even legally such trivial usage matters being raised to court may be treated as “frivolous” and wasting the court’s time).

I am further quite convinced that the “common sense” understanding of this matter is that sharing significant amount of data will need a different (data) license.

Now I feel I don’t need to mail to the Apache legal mailing list.

To conclude, the right decision for raviyer.org licensing seems to “Source Code Under Apache License; Data Under Creative Commons License”.

The specific Creative Commons license (CC0, say) needs to be thought through; the other data license, ODbL, is nowhere near as well known as Creative Commons.

=====End of Post=====

Are Text & Audio – Data/Content – covered by Apache License?;

Published: 03 Dec 2011

Post link (URL) on blog:

<https://raviyer.wordpress.com/2011/12/03/are-text-audio-datacontent-covered-by-apache-license/>

For “Spoken English App.” besides source code we will have data or content. In fact, the source code may be minor and the major chunk of the app. will be the Sentences Text and Audio content/data.

So a question crops up: Does Apache license cover data/content?

From Apache License 2.0 text (<http://www.apache.org/licenses/LICENSE-2.0.txt>):

“Source” form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

— end extract —

The above statement seems to imply that the term “source form” when used later on like in the Grant of Copyright License section, given below, includes other stuff like Sentences Text and Audio content/data too.

From Apache License 2.0 text (<http://www.apache.org/licenses/LICENSE-2.0.txt>):

Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

— end extract —

But the explicit terms data/content are absent from Apache License. That is perhaps a weakness of a “code sharing license”.

An alternative is to use Creative Commons license for data/content. But then we will have two licenses, one for code and another for data, which seems to be a rather messy solution.

=====End of Post=====

Can Google Translate be used for “Spoken English” App.?: Published: 02 Dec 2011

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/12/02/can-google-translate-be-used-for-spoken-english-app/>

A frequent question posed to me is why have a Learn Conversational English from Telugu software when Google Translate can do the job!

Here’s how Google Translate handled three sentences that I tried a couple or so days ago, with comments (slightly edited) on the translation from Telugu friends:

We plan to meet at the mandir today.

ఈనాడు మనం మందిర్ వద్ద కలిసే ప్రణాళిక.

Friend wrote: Sounds correct. A Telugu-speaking colleague confirmed that the last word is

correct; I didn’t know it 😊 But she also says that the whole thing [all three examples] is archaic/pure Telugu that isn’t spoken widely any more.

Ravi responded: I need current widely spoken Telugu. So this translation is not good enough for me.

Rama dropped in to meet us.

రామ మాకు కలిసే లో పడిపోయింది.

Friend wrote: This reads like nonsense. An English translation would be “Rama fell down like meeting us” 😊 [Though the gender in the Telugu doesn’t match. Rama is male, and padipoyindi is female.]

Ravi responded: Complete failure here.

Another Friend wrote: My initial reaction to ‘Rama dropped in to meet us’ was that the sentence uses idiom unknown to the Telugu language, but then it even failed on ‘Rama came to see us’ & ‘Rama came to meet us’ – and failed badly.

The children enjoyed themselves thoroughly.

పిల్లలు బాగా తమని తాము ఆస్వాదించాను.

Friend wrote: Kind of okay, except that

a) it should be “aswadincharu” not “-anu”. The “-anu” ending is used for the first person, and “aru” for plural (or in a respectful sense). So “nenu bank ki veltanu” means “I will go to the bank” and “vallu bank ki veltaru” means “they will go to the bank”. Notice the “-anu” vs “-aru” ending.

Though you probably know all this stuff anyway by now 😊

b) “aswadincharu” is not appropriate in this context, according to my colleague, who says it’s

used to denote thorough pleasure via one of the five senses (like taste, perhaps).

Ravi responded: I need it to be accurate as it is a 'teacher' software. So even this fails the test.

Friend wrote: Yea, quality-wise Google translate doesn't cut it. I thought it's widely known that this kind of automated translation software isn't teaching-quality or even meant to be used for important stuff. There are a lot of jokes caused by machine translation on the internet.

Ravi conclusion: So, as of now at least, Google Translate is just not reliable or accurate enough to be an English/Telugu 2nd Language teacher.

Machine Translation Accuracy in General

The website of Prof. Harold Somers,

<http://personalpages.manchester.ac.uk/staff/harold.somers/>, states that he is a Professor of Language Engineering (Emeritus) whose main interest has been Machine Translation (MT) and related technologies.

A presentation on his site, "Does Machine Translation have a role in language learning?":

<http://personalpages.manchester.ac.uk/staff/harold.somers/Untele.ppt>, in its concluding slide states, "MT may be a nice toy – a novelty – but it's not designed as a language-teaching tool, so you shouldn't use it as one"; "If you want to haul hay, get a tractor". However the latest date mentioned in the presentation is 2003. So I don't know whether this conclusion stands even today.

Here is a March 2010 NYTimes Op-Ed article

<http://www.nytimes.com/2010/03/21/opinion/21bellos.html?pagewanted=all> by David Bellos, Director of Princeton's Program in Translation and Intercultural Communication (http://en.wikipedia.org/wiki/David_Bellos). It does not touch upon MT and 2nd language teaching but does comment on advantages/disadvantages of MT including Google Translate.

Google Translate API – Google May Turn It Off Anytime!

The wiki page on Google Translate: http://en.wikipedia.org/wiki/Google_Translate, states that Google announced in May 2011 that it will shutdown the API on December 1, 2011.

Subsequently there was a lot of criticism which led Google to cancel their termination plan and instead offer a paid service. See comments on

<http://googlecode.blogspot.com/2011/05/spring-cleaning-for-some-of-our-apis.html> to get an idea of the developer pain caused by the shutdown announcement.

I think it will be wise for raviyer.org to stay far away from Google Translate API. Anyway it is a paid API now and so we cannot use it.

But Google Translate website is still available free. Though, due to its quality not being great for English/Telugu translation I feel we should steer clear of it too.

Sentences Content & Categorization Are Essential

Even if some free machine translation software did accurate translation, there is the big task of choosing/composing sentences and categorizing them for the lessons to be followed by "Spoken English" students. Conversational language learning techniques seem to use scenarios

(to get some idea see: <http://www.freeenglishnow.com/>). So “Spoken English” software & content would be required anyway (even if MT were used).

=====End of Post=====

Follow Up Discussion on Apache License Seeming To Be The Right Choice For raviyer.org; Published: 01 Dec 2011

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/12/01/follow-up-discussion-on-apache-license-seeming-to-be-the-right-choice-for-raviyer-org/>

Last Updated On December 18th 2011

This is a follow up discussion (slightly edited) to the post, “Permissive License like Apache seems Best Choice For Maximum/Inclusive Use/Re-Use of Software Products”:

<https://ravisier.wordpress.com/2011/11/29/permissive-license-like-apache-seems-best-choice-f-or-inclusive-re-use-of-software-products/>.

GPL friend wrote: About GPL vs ASL, I know you have made your choice.

Ravi responded: No, I have not yet finalized. But I sure am quite confident now that ASL is right for me. I will perhaps take the final call when I have to make it. Like when I have to accept software/data contributions OR, for sure, when I release the first version of the software.

GPL friend wrote: I just wanted to make sure you are aware of all the information.

Ravi responded: Your information is gratefully acknowledged :).

GPL friend wrote: ASL is a good license, so if you are inclined that way, that is quite alright. It just happens to conflict with my principles, but that's my personal preference.

Ravi responded: I respect your principles and your personal preference. And you have tons of software guys for company 😊

Thanks a lot for giving me the GPL side of the matter. I think your valuable input has helped me get close to taking an informed decision rather than an emotional/arbitrary decision.

ASL (Apache License) Friend wrote: It's not just proprietary software and iOS apps that can't use GPL v3-licensed stuff, but also Apache-licensed software and even GPLv2 (only) software can't use any code from GPL v3 software.

Ravi responded: Oh! So GPLv2 software guys will need to migrate to GPLv3 for a new version which would like to use other GPLv3 software. But perhaps that's not a big deal. I mean, GPLv2 guys would probably have no philosophical issues with GPLv3. Though some GPLv2 folks could probably have some minor issues with GPLv3 migration over technicalities.

ASL (Apache License) Friend responded: I disagree. They may think GPLv2 is an acceptable

license, but GPLv3 is going too far into Stallman-land. Linus Torvalds himself is of that opinion: <http://www.informationweek.com/news/198002077> . He says that it's not his job to tell people what they can or can't do with the kernel, like DRM, and that the kernel is the wrong tool to fight DRM and the like. He says he never agreed with the FSF's philosophical views. He used GPL only because he wanted changes to the kernel to be open, too.

Something else I learnt from this article: GPLv2 and GPLv3 are mutually incompatible. Code licensed under one cannot be used in a project under the other license. It's just that a lot of projects that we think are GPLv2-licensed actually say "version 2 or later". So, if a project says that it's licensed under GPLv2 or later, it can obviously be converted into GPLv3 and used in a GPLv3 project. But other than that, both versions of GPL are incompatible.

So, if you use GPLv3, your code cannot be used in:

- iOS Apps
- potentially some or a lot of Android tablets (like Amazon Kindle and Barnes & Noble Nook)
- projects that use permissive licenses like BSD, Apache
- GPLv2 only projects

Ravi responded: Thanks for the input. I confirmed your points from

<http://www.gnu.org/licenses/gpl-faq.html#AllCompatibility>.

And I can empathise with Linus Torvalds not wanting to license his code as "version x or later" as he has no idea of what the later licenses will be like. It would be like signing a blank cheque.

I found this "GPLv3 position statement" in Sept. 2006 from Linus Torvalds very interesting:

<https://lkml.org/lkml/2006/9/25/161>.

ASL (Apache License) Friend wrote: General discussion unrelated to your project: LGPL is an interesting mid-point between Apache/BSD and GPL, where you can use LGPL code in any software, but modifications must be LGPL-ed. None of the other popular licenses make that distinction between using and modifying — either both are permitted, or both are ruled out.

Another friend wrote: Sounds reasonable (Apache License seeming to be the right choice).

A very motivating factor seems to be the fact that Google releases most of the open source software under the Apache license.

Ravi responded: Agreed.

=====End of Post=====

**Permissive License like Apache seems
Best Choice For Maximum/Inclusive
Use/Re-Use of Software Products;
Published: 28 Nov 2011**

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/11/29/permisive-license-like-apache-seems-best-choice-f-or-inclusive-re-use-of-software-products/>

Last Updated On December 18th 2011

GPLv3 may be the most inclusive license currently for allowing incorporation of existing FOSS code as well as allowing FOSS contributors of various FOSS license philosophies to contribute (For an analysis see the post: Is GPLv3 the Best Choice License for Most Inclusive Incorporation of Existing Social Code/Coders?:

<https://ravisier.wordpress.com/2011/11/26/is-gplv3-the-best-choice-license-for-most-inclusive-social-coding/>).

But from maximum/inclusive use & re-use of software released under a particular license point of view GPLv3 seems to have disadvantages as compared to Apache 2.0 (ASL 2.0). Some of them:

1) Proprietary/Closed software cannot re-use GPLv3 software.

2) Apple AppStore cannot host any GPLv2/GPLv3 software or its derivatives. (See the post: GPL Software Cannot Be Used On Apple AppStore!:

<https://ravisier.wordpress.com/2011/11/28/gpl-software-cannot-be-used-on-apple-appstore/>)

In the past few days as I was considering using GPLv3 for ravisier.org I did not pay much attention to maximum/inclusive use & re-use aspect of software produced by ravisier.org. But now I feel that it is quite an important aspect to be considered. If more people are in a position to use & re-use ravisier.org's software then more people are served which is very important. In fact, I now feel it is far more important than maximum/inclusive permission to incorporate existing FOSS code & more number of potential contributors. From a "Service to Society" point of view, more people being served is better "Service to Society".

Note that these "disadvantages" of GPL may be viewed as its "strong advantages" by some FOSS license ideologues who want to ensure open source freedom. I respect their view and their choice. But I am of a more permissive bent of mind. I am willing to trade some "open source freedom" for more people using ravisier.org's software.

Apache 2.0 therefore seems to be a better choice than GPLv3 for ravisier.org. Yes, the disadvantage will be that GPLv2 and GPLv3 software which seems to account for almost 50 % of FOSS today according to <http://osrc.blackducksoftware.com/data/licenses/>, cannot be incorporated into ravisier.org software products. But MIT/BSD-licensed, Apache-licensed and LGPL-licensed software can be incorporated.

Another disadvantage is that some "open source freedom" enthusiasts will not want to contribute to Apache License (permissive license) FOSS products. I guess I can't win them all. I have to respect their view & choice and make do without their potential contributions.

One particular scenario illustrates the matter quite well. God willing, we will have a "Spoken English" App. done sometime in the not too distant future. As this app. will have English & Telugu sentences the same app. can also be viewed as a "Spoken Telugu" app. which can be used by English speaking persons to learn Telugu. Somebody may be interested in porting the "Spoken Telugu" app. to iOS so that it can be used by iPhone, iPad & iPod Touch users. She may even be willing to offer the ported iOS app. free & open source. Quite a few iDevice users may benefit & enjoy using such an app. to learn Spoken Telugu.

This scenario breaks down if GPLv3 is used for the “Spoken English” App. as GPL software cannot be used/re-used on iOS/Apple AppStore. I will be quite uncomfortable if such a thing happens. And so I cannot go with GPL for raviyer.org. With ASL 2.0 (Apache License 2.0) the above scenario is possible.

The above scenario may be possible with new-BSD & MIT etc. licenses too. But Android uses Apache License 2.0 (<http://source.android.com/source/licenses.html>). Also in a five year old ZDNet article but perhaps still relevant, Greg Stein, Google Lead Open Source Engineer and Apache Foundation Chairman, is quoted saying, “That is one of the reasons that Google chooses the Apache License (2.0) as the default for the software it open-sources. It is permissive like BSD, but (unlike BSD) actually happens to mention the rights under copyright law and gives you a license under those rights. In other words, it actually knows what it is doing unlike some of the other permissive licenses.” From

<http://www.zdnet.com/blog/burnette/google-says-no-to-license-proliferation/192>.

So I feel Apache License 2.0 is a safer bet for raviyer.org than BSD or MIT.

=====End of Post=====

GPL Software Cannot Be Used On Apple AppStore!; Published: 28 Nov 2011

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/11/28/gpl-software-cannot-be-used-on-apple-appstore/>

Edited email exchange with friend is given below.

ASL Friend wrote: As an aside, GPL software is not compatible with iOS. This is probably the last thing that matters to you (though it matters a lot to me), which is why I called it as aside.

Ravi responded: While I was thinking of Android tablets (including Aakash) as potential platforms for raviyer.org software, the news that GPL software cannot be used on Apple AppStore is a bombshell!!

Did some browsing to confirm it. See

<http://www.zdnet.com/blog/networking/android-vs-iphone-the-gpl-question/535> &

<http://www.cerebralgardens.com/blog/entry/2011/01/09/open-source-the-gpl-and-the-app-store>.

Seems like the philosophical aspects of GPLv3 did not fit with Apple's DRM. And so iPhone/iPad/iPod Touch customers lose out (could not use free VLC). That's a serious concern for me!

Assuming I go with GPLv3, if some iOS app developer wanted to pick up raviyer.org's SpokenEnglish app [hopefully will happen sometime in future :)] to modify and release it for use on iOS he cannot do it even if he is willing to keep it Free & Open Source!!! So the huge numbers of iDevice customers out there will be denied the possibility of using raviyer.org's SpokenEnglish App! That's a show-stopper for me, man.

I need to think this through. Thank you so much for this VITAL, VITAL input.

ASL Friend responded: As for the Apple App Store, even GPLv2 is incompatible, as the article says — not just GPLv3. The same issue could hypothetically arise with the Amazon Kindle Fire, which is likely to be the most popular Android tablet. Users on that device can install apps only from Amazon's marketplace, and Amazon can set any terms they want. It's the Apple model.

Ravi responded: Oh! That's another piece of VITAL input.

ASL Friend wrote:I'm always glad to be of help.

Ravi responded: Am I glad to be able to receive your help, brother :)!

=====End of Post=====

Flexible Option: Start with Apache License; If Required, Move to GPL Later On; Published: 28 Nov 2011

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/11/28/flexible-option-start-with-asl-if-required-move-to-gpl-later-on/>

Last Updated on November 29th 2011

Edited mail exchange with ASL (Apache License) Friend in response to “Is GPLv3 the Best Choice License for Most Inclusive Social Coding?”:

<https://ravisier.wordpress.com/2011/11/26/is-gplv3-the-best-choice-license-for-most-inclusive-social-coding/> post, is given below. [Update: The post was modified slightly, including its title, later on.]

ASL Friend wrote: Wow, you're really doing a thorough job with this 😊 I read the 4/5 blog posts about this.

Ravi responded: 😊 I am being forced to learn.

ASL Friend wrote: I disagree with the patent stuff being an argument for GPL — Apache license also protects against patent lawsuits.

Ravi responded: Noted your view.

ASL Friend wrote: As for compatibility, you're right that GPL-licensing your software lets you use the maximum amount of libraries in your software. Note that if you use Apache, you can still use libraries that are MIT/BSD-licensed, Apache-licensed and LGPL-licensed.

Ravi responded: See <http://osrc.blackducksoftware.com/data/licenses/> which lists GPL 2 & 3 to account for nearly 50% of the FOSS that it tracks. So if one uses ASL then you get cut out of a big chunk of FOSS.

ASL Friend responded: Good to get hard numbers. However, the relevant number is that of libraries rather than apps like, say, Firefox.

Ravi responded: Libraries for sure. But if I find some code which I would like to re-use but is in an app. like Firefox, I guess I should be able to do it as the license may allow for part-re-use and part-re-distribution as well (don't know for sure).

ASL Friend responded: Interesting; yes.

I used to try to re-use available company code partially or fully quite extensively during my commercial career days. As I get into software development again I would like to have that option but this time with the Open Source software out there. For example if I need to do some parsing of HTTP requests, I may want to check how Firefox does it, and if I like its code (just this part), I would like to copy-paste and modify it to suit my needs. Other potential contributors may

have similar thoughts.

ASL Friend responded: I don't have numbers, but I thought a lot of libraries are at least LGPL-licensed for this reason. There's tons of unencumbered software (Apache, Android, Python, FreeBSD, Google Chrome), etc, so I do think you'll be able to get enough libraries.

Ravi responded: Very valuable input as it is from current experience. Noted it.

ASL Friend wrote: As for ideology, I think it cuts both ways — I'd rather work on an Apache/BSD project than GPL (to say nothing of GPL3), because as I said, I want everyone to use my work, so if you use GPL, that's less of a reason for me to contribute to it.

Ravi responded: Noted. However GPL seems to have the numbers (in people-terms) & track-record behind it. So, as of now at least, potential loss (in terms of numbers) of license-ideologue contributors would be more if I go with ASL instead of GPL.

ASL Friend wrote: I think the flexible option is the following:

1. Start with ASL (Apache License). That gives you the maximum flexibility in terms of people using your code to help society in various ways. It's unlikely, but still possible, for a company to build something using it.

Ravi responded: Valid point.

ASL Friend wrote: Similarly, a GPL advocate can fork your code into a GPL version and take it forward from there.

Ravi responded: Well, forking implies the person starts off a "competing" software, isn't it? I mean, he does not team up with existing contributors and add to the pool. So forking may be something that is best avoided.

ASL Friend responded: Agreed. I was just trying to say that forking is not ideal, having someone fork your code and take it forward is better than ignoring it. I was just trying to say that if a person who feels strongly about GPL comes across an ASL-licensed project that he thinks is valuable but doesn't like the license, he at least has the option to fork it into a GPL project and work on it, whereas that option isn't there with a GPL-licensed project. This is a minor point; feel free to ignore it.

Ravi responded: Your point is valid and noted. Thanks for confirming my understanding of forking.

ASL Friend wrote: Why rule out all these possibilities by going with GPL on day one?

Ravi responded: You may not agree with the views presented here but I found it to be a quite valuable point of view: Make Your Open Source Software GPL-Compatible. Or Else:

<http://www.dwheeler.com/essays/gpl-compatible.html>. Note that I understand that the article recommends GPL-compatible licenses which sort-of includes ASL (not compatible with GPLv2 but compatible with GPLv3). But going GPL seems to be such a safe & trusted option among the FOSS community that I get the feeling that I can't go badly wrong by going GPL.

ASL Friend wrote: 2. If and when you come across a library that's GPL (not LGPL, which is compatible, as I said), for which no equivalent ASL-compatible library exists, then you can weigh the pros and cons and switch to GPL, which is trivial (the opposite is hard and requires you to get all contributors' agreement).

Ravi responded: Are you sure? I get the impression that even license switch from ASL (Apache License) to GPL will need approval from all contributors — just like the case of license switch from GPL to ASL. Yes, it seems to me that for contributed code as against contributors, ASL contributed code can continue to be used if license is switched from ASL to GPL, whereas GPL contributed code will have to be replaced if license is switched from GPL to ASL.

ASL Friend responded: I could be wrong, but since ASL is compatible with GPL3, I thought anyone has the right to convert ASL code into GPL (or make changes and not release them,

etc). Basically, it's not a copyleft license. However, this needs to be validated before you go with it.

Ravi responded: My take on it is that yes ASL code can be taken into a GPL product – no issues there. But if 5 persons contribute to a software project which is using ASL license, then assuming these 5 persons continue to contribute to a future release where the license is to be changed to GPL then decency would demand that all these 5 persons' agreement be taken. Somebody might not agree and that would create friction in the team.

ASL Friend responded: Agreed, again. I was looking at only the legal angle.

It is to avoid such potential friction in any contributor team that gets formed in raviyer.org that I would like to avoid changing the license mid-stream. The ideal situation may be to stick to one license for considerable length of time. And so I want to think through this license choice quite carefully.

ASL Friend responded: In any case, since you seem to have made your decision, that's fine by me 😊 Let's not go down the license rathole too much unless you think it's useful.

Ravi responded: The input you have provided has been VITAL for me being able to make some sort of informed decision. Some times one takes decisions which are proved wrong in hindsight. That's OK by me if at the time the decision was taken it was done with reasonable information. So, I repeat this information you are providing is VITAL for me.

And I have not yet finalized the decision. It's a tough one – more contributor/existing code inclusiveness & popularity of GPL vs. ASL being more inclusive in potential re-users of the software. But so far, based on the information gathered from you & other friends, and some browsing, GPL seems to be more appropriate for my needs. But I am open to criticism of this line of thinking.

What I think I need to do is carefully analyze possibility of proprietary software re-using raviyer.org software. As I am typing these words I am realizing that I have not thought enough about it. Plan to do some serious thinking on it.

ASL Friend wrote: So, I'd suggest you keep your options open and not spend even more time on this matter.

Ravi responded: That is what I had felt earlier. But now I feel I must think it through now itself. raviyer.org ideally should eventually play a FOSS for Indian rural society collaborative coding/social coding enabler role. So making it acceptable to most FOSS contributors is VITAL. It is not an issue of how to quickly develop some particular software like "Spoken English App.". It is an issue of how to enable & encourage more software developers to participate & get joy from service to rural society social coding efforts.

From this point of view I think GPL is the safest bet.

ASL Friend wrote: Have you thought about SCM? The powerful option these days are the distributed version control systems, like Git and Mercurial. I've spent some time reading about these, and the bottom line is: if you or one of the contributors is going to use Windows, use Mercurial, since that works better on Windows. If not, use git, since that has the bigger community and some things are easier (for example, renaming a file in git does not require you to tell git that you're renaming it — you can rename it normally and git figures it out, whereas mercurial requires you to run the "hg rename" command).

Again, don't spend too much time on this. Just pick one of these two.

Next is hosting — if you're using git, go with github or (second option) Google Code. github has a very active community. If you're using mercurial, go with google Code. I don't know of any other popular/big name hosting providers.

Ravi responded: I had not thought about SCM (Source Code Management, I presume) or

hosting. Thank you so much for your thoughts. I am a newbie here too (I mean I know SCM of a decade back but not the new Internet based SCM) – poor me, am I being forced to learn tons of stuff :). But I think this is a bridge I can cross a little later. I mean, I can look at it once many code contributors come into play and SCM & hosting becomes a necessity.

ASL Friend responded: I thought you need to have a project that people can check out and build, in order to attract contributors, rather than just a statement of intent.

Ravi responded: I feel that SCM & hosting can be a demand-driven decision. I mean if another serious person joins in and then we face problems due to lack of SCM & hosting, that's the time we get into it. It does not seem to be a very divisive and complex issue like choosing the FOSS license under which any software will be released.

ASL Friend responded: Agreed. It's just infrastructure.

Ravi responded: For licensing I think I have got a fair idea now and can arrive at a decision shortly.

Ravi responded to the whole mail response: Thank you very much for your valuable input. I mean it – this is like a minefield, man.

=====End of Post=====

Is GPLv3 the Best Choice License for Most Inclusive Incorporation of Existing Social Code/Coders?; Published: 26 Nov 2011

Post link (URL) on blog:

<https://ravisiyer.wordpress.com/2011/11/26/is-gplv3-the-best-choice-license-for-most-inclusive-social-coding/>

Last Updated on November 29th 2011

raviiyer.org would like to develop FOSS products which can be most inclusive in the following aspects:

A) Permission to incorporate/re-use existing free software components/contributions.

B) Allowing FOSS contributors of various FOSS license philosophies to contribute.

I am really a newbie at this Open Source license business. So I may be making some huge mistakes in my analysis. With that disclaimer out of the way :, let me first examine A)

Permission to incorporate/re-use existing free software components/contributions.

My understanding of the license compatibility picture

(<http://www.gnu.org/licenses/quick-guide-gplv3-compatibility.png>) from GPLv3 Quick guide

(<http://www.gnu.org/licenses/quick-guide-gplv3.html>) is that software (components) released

under a host of other licenses including ASL 2.0 (Apache License 2.0) can be used by software which uses GPLv3 license.

But software (components) released under GPLv3 license cannot be used by software released under ASL 2.0.

So if raviyer.org uses GPLv3 license then a larger set of FOSS components becomes available for use/incorporation as compared to ASL 2.0. Perhaps GPLv3 license will allow the maximum range of FOSS components to be used/incorporated, and therefore, perhaps, GPLv3 is the most inclusive license for incorporating/re-using existing FOSS components/contributions. Now let me examine B) Allowing FOSS contributors of various FOSS license philosophies to contribute.

Some GPL proponents may not be willing to contribute to software to be released under ASL as the latter allows for proprietary/closed software to use FOSS released under ASL (and some other reasons too perhaps).

ASL proponents may not mind contributing to software to be released under GPL. They would prefer that it be ASL but may not refuse to contribute simply because the license used is GPL. Other “permissive license” proponents (like BSD & MIT) may also have a similar mindset. So GPLv3 may be the most inclusive license for allowing FOSS contributors of various FOSS license philosophies to contribute.

Therefore GPLv3 seems to be the best choice license for most inclusive incorporation of existing social code/coders, and so raviyer.org should go with GPLv3 instead of ASL 2.0. The downside will be that proprietary/closed software cannot use raviyer.org software products. But given that raviyer.org has a focus on service to relatively poor rural society and not on a rich “market” that may be a far more acceptable downside than having lesser range of software components to use and lesser number of contributors.

Of course, at this point of time, raviyer.org has no software products at all – don’t know whether it will really produce useful products in future – so all this discussion is really in the air, as of now :). But in case it really gets going then this license decision may turn out to be an important one. Now I feel I should go with GPLv3 for raviyer.org. Plan to get comments/views from friends on this post before finalizing the decision.

=====End of Post=====

GPL vs. ASL (Apache License); Published: 25 Nov 2011

Post link (URL) on blog: <https://ravisier.wordpress.com/2011/11/25/gpl-vs-asl/>

Last Updated on December 18th 2011

Edited mail exchange with my “GPL friend” is given below.

GPL friend wrote: I followed the link to the Apache discussion:

ASL (Apache License) friend wrote: As for gpl, I don’t like it. When I work on open source, I want everyone to use it. Software is not zero sum, and If a proprietary version exists, it doesn’t take anything away from the world. Proprietary guys bring their own advantages, like the ability to focus on the user experience and develop usable software.

Ravi: I entirely agree. Money is the great motivator 😊 . And many software shops are able to make money only through proprietary/closed software. Making money is not bad 😊 – so long as you contribute something worth the money to society.

GPL friend wrote: Disclosure: You and your (ASL/Apache License) friend have the right to choose the license that you find most agreeable for your work. I am definitely biased, in favor of GPL. So, with that out of the way, let me comment on the above. You can discount for my bias, as appropriate.

Ravi responded: 😊

GPL friend wrote: Making money is not bad and neither is proprietary software. I just happen to be not in favor of a commercial enterprise being allowed to use an open source implementation to start with, make proprietary changes and not being required to disclose them. BSD/ASL (Apache License) licenses allow that, so the practice is not unlawful. People who contribute under BSD/ASL licenses know this could happen, and consciously choose that license, so nothing underhanded is going on with not publishing mods. It's just not for me. If I were to contribute to a FOSS project, I don't want to allow somebody downstream to be able to restrict the rights and privileges I have chosen to grant to my original work, and any derivatives. The GPLv3 ensures that, and therefore suits my needs best.

Ravi responded: I think I fully understand your view and your choice. Perhaps it really is a "FOSS philosophy" kind of choice. And from that point of view I can't find fault with your thinking.

GPL friend wrote: Note that the GPLv3 does not prohibit anyone from making money off any GPL'ed work or otherwise commercializing the production. It only prohibits compromising those 4 rights I had mentioned in the earlier email.

Ravi responded: To ensure no misunderstanding I have updated the Apache discussion post that you referred to with the following line: [Update: Note that GPL is not against commercialization (making money); it is only against proprietary/closed software.]

GPL friend wrote: Some of the ideas of GPLv3 that appeal to me are:

I hate the idea that when I pay money and buy a gadget, I don't get to do *whatever* I want with it, including run a modified firmware. I didn't rent it, mind you, I bought it. It is mine, materially. I can step on it and break it up, but I can only run manufacturer authorized firmware? Especially, when the manufacturer used FOSS software to make their firmware in the first place! GPLv3 prevents such tivoization (named after a Tivo, the DVR company which did that!)

Ravi responded: I can get some idea of your "customer rights" pain. However I am quite permissive towards companies that provide me useful products [like Apple].

GPL friend wrote: GPLv3 has strong protections against patent threats; more importantly, it has mechanisms to prevent a licensee A from being able to sue a downstream peer B for patent violations. If A benefited from the work of everybody that came before and built further on it, A should not be able to prevent B and others from being able to do the same.

GPLv3 also has protections against restrictive DRM.

Ravi responded: I could not squeeze out the time (nor the inclination to be honest) to read the details of GPLv3. But in the quick-reading that I did I too got the impression that GPLv3 is a far more robust & protective of "freedom" license. You clearly are far more knowledgeable than me on this. So I will take your word on it; the learning for me from this para. is that GPLv3 is stronger/better on patent threat protection & protection from restrictive DRM. Thanks for this crisp input.

GPL friend wrote: Just my 2c. ASL and BSD are good licenses, if that is what you want.

Ravi responded: As of now, ASL (Apache License) being a more permissive license, seems to

suit my permissive needs well.

GPL friend wrote: Check out this interview (audio/pdf) with Jeremy Allison, the guy behind Samba, one of the earliest FOSS projects to switch to GPLv3, discussing the switch:

<http://www.softwarefreedom.org/podcast/2011/may/10/why-samba-switched-to-GPLv3/>

Ravi responded: Read the pdf/slides. Found it to be too involved for me, at this point of time, at least. I mean, raviyer.org has no software to show as of now. And being a part-time effort I really don't know what it will produce.

If things click and raviyer.org's software gets used by significant number of people that's when I think it will be appropriate for me to delve into greater license details.

To conclude, my plan is to right now go with permissive ASL (Apache License) but with the awareness that GPLv3 is more robust in protecting "freedom". If significant software is produced by raviyer.org and it is popular then, if required, review licensing options.

Thanks for the input. Plan to put this exchange as a post as others may be in a similar boat.

Additional exchange after the above:

GPL friend responded that changing licenses mid-stream can be very difficult as the software is no longer one single person's software. All contributors and contributors to contributors (or something like that) become part owners of the software. And all these persons have to agree to change the license.

Ravi's response: I did not realize that! Thank you so much for letting me know. I need to do some thinking on this one. But if, at the initial stages, there is only one contributor (me) and perhaps one or two others who are fully willing to possibly change the license in future, then we will be on safe ground. So before raviyer.org opens up to any contributor I should perhaps review more carefully the GPL vs. ASL (or others) license issue and take a final call. I have breathing room till raviyer.org comes to that stage.

And Oh! A troubling thought just struck me. If raviyer.org goes with ASL (Apache License) then if committed GPL guys who are not comfortable with ASL like you, brother, want to contribute software to the cause, their GPL philosophical view on FOSS will not allow them to do so!

And raviyer.org will not be able to use GPL software contributions!

I think I need to really think this through. Thanks so much for raising all these issues. This is some learning for me. And I thought going the FOSS way is simple!

=====End of Post=====

Github prefers the MIT license for its Open Source software; Published: 23 Nov 2011

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/11/23/github-prefers-the-mit-license-for-its-open-source-software/>

Last Updated on November 29th 2011

A friend passed on this great recent post on how Open Source helps Github, <https://github.com/>, a social coding (collaborative coding) site:

<http://tom.preston-werner.com/2011/11/22/open-source-everything.html>

Towards the end of the post there is a section on why Github prefers MIT license for its Open Source code.

I think MIT may be a little 'old hat' and it may be safer to go ASL (Apache License)/Android route, especially as raviyer.org stuff could eventually be on Android too.

=====End of Post=====

In Support of Apache Software License; Published: 22 Nov 2011

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/11/22/in-support-of-apache-software-license/>

Last Updated on Nov. 25th 2011

Edited mail exchange with a friend is given below.

Friend wrote: Yea, custom licenses are a pain to deal with because the lawyers should check for conformance again. Lawyers say they don't like this, because it's useless work and adds delays.

Ravi responded: Noted & understand how acceptable a well recognised license like GPL/ASL/CC is, not only to lawyers but to users & developers.

Friend responded back: Oh, yes, not using custom licenses helps developers too and not just lawyers. I know I can use bsd or apache in an iPad app, bsd or apache or gpl in a web app, etc.

Friend wrote: I think apache is an excellent license. Like bsd, it allows people to create closed versions of your work, but it's a more modern license than bsd and spells out things that bsd doesn't, for example regarding patents. Lawyers love this, needless to say.

Ravi: That's useful input. One of the points brought out in my reading of GPLv3 quick guide was how the legal landscape for software is changing fast, and so these licenses need to keep pace with it.

Friend wrote: As for gpl, I don't like it. When I work on open source, I want everyone to use it. Software is not zero sum, and If a proprietary version exists, it doesn't take anything away from the world. Proprietary guys bring their own advantages, like the ability to focus on the user experience and develop usable software.

Ravi: I entirely agree. Money is the great motivator :). And many software shops are able to

make money only through proprietary/closed software. Making money is not bad 😊 – so long as you contribute something worth the money to society. [Update: Note that GPL is not against commercialization (making money); it is only against proprietary/closed software.]

Friend wrote: Then there are stupid stuff like license incompatibilities where for example work from the Linux kernel like a driver or a filesystem can't be used in FreeBSD.

Ravi: Oh! I did not realize license incompatibilities can hit that bad. I wonder whether in such a scenario re-engineering [or directly imitating in this case :)] the driver would be OK. May resolve the copyright/copyleft issue but I wonder whether there is a patent issue too.

Friend wrote: Apache licensed software doesn't face this problem.

Windows uses (or at least used) the tcp ip stack from FreeBSD. I don't know about you, but if I were the original developer of the stack, I wouldn't be upset at all. In fact it would be a great achievement to power the majority of computers on the Internet.

Ravi: I certainly wouldn't be upset at all and would be very happy that so many guys are benefiting.

=====End of Post=====

In support of GPL; Published: 22 Nov 2011

Post link (URL) on blog: <https://ravisier.wordpress.com/2011/11/22/in-support-of-gpl/>

Last Updated on November 29th 2011

Edited mail of a friend, which stirred me to look at GPLv3 and then ASL (Apache License), is given below. The mail was sent on Sept. 22nd. 2011 but I was able to study it only yesterday. The Creative Commons licenses were not designed to handle intrinsic derivatives like source -> object code and so (IMHO) lack some key features specific to the software context. If you do not wish to require that anyone who distributes (commercially or freely) any derived works from those developed by ravisier.org, should also publish (freely) their mods to the source code, then you could choose CCo "attribution (by)". Note that there is another CCo, "attribution share alike (by-sa)", that tries to preserve all rights granted by the original copyright holder/publisher. Personally, speaking for myself, I do not / will not contribute to any project that does not preserve and continue all rights I originally grant. I do not mind commercial exploitation of the original or derivative works, but I do not want a commercial enterprise withholding their source code mods to my original work.

I have benefited immensely from FOSS products (including the Linux machine I am typing this on) and very strongly believe that the open source movement is worthy of nurturing and support.

I also believe in the sanctity of (<http://www.gnu.org/licenses/quick-guide-gplv3.html>):

Nobody should be restricted by the software they use. There are four freedoms that every user should have:

- the freedom to use the software for any purpose,
- the freedom to change the software to suit your needs,
- the freedom to share the software with your friends and neighbors, and
- the freedom to share the changes you make.

You must have seen the recent onslaught of patent attacks against Android and Linux. I think the GPLv3 is the only open source license that goes far enough to prevent such selfish exploitation. I think for a user accepting the GPLv3 essentially boils down to asserting that s/he will not violate the above 4 freedoms. The rest of the verbiage is legalese. However, the verbiage is very necessary and it is not evil. It may be boring and tedious to read, but trying to assert your copyright when attacked/exploited is unfortunately neither short nor sweet.

Much of the above (other than general comments about CCo and the GPL) is my personal opinion. It may or may not be in line with your needs. Just wanted to make sure you are aware

of some of the pitfalls of the approach you propose to take.

My response:

I am getting back to raviyer.org work after a long gap :). I had marked your mail response on the license issue as unread and have studied it now. I thank you very much for your very valuable thoughts.

To be honest I was not aware of the patent threats on Linux. I did a quick read of the GPLv3 link that you sent and it has been a real eye-opener to me. The excerpt below was a striking point: "What this means for users and developers is that they'll be able to work with GPLv3-covered software without worrying that a desperate contributor will try to sue them for patent infringement later. With these changes, GPLv3 affords its users more defenses against patent aggression than any other free software license."

Another point is that if I use something like GPLv3 then I will be using a well recognised and very mature free software license which potential users/contributors will understand and respect. My own "Sweet & Simple License" will, in contrast, be looked at with some concern, to say the least :).

So I think it makes sense for raviyer.org to use some standard license at least in the beginning. Later as I get more comfortable with these licensing issues I can take a fresh look again.

And another point I got from your mail was that the Creative Commons licenses are not fully geared for the software context, whereas the GPL licenses are.

=====End of Post=====

Rethink on License for raviyer.org;

Published: 21 Nov 2011

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/11/22/rethink-on-license-for-raviyer-org/>

Last Updated On December 30th 2011

Getting back to raviyer.org work after a long break.

While a lot of friends were advising me not to consider using my own license for raviyer.org I was a little stubborn about it initially. A friend posted me a GPLv3 link (<http://www.gnu.org/licenses/quick-guide-gplv3.html>). One excerpt from it made me see the light :).

"What this means for users and developers is that they'll be able to work with GPLv3-covered software without worrying that a desperate contributor will try to sue them for patent infringement later. With these changes, GPLv3 affords its users more defenses against patent aggression than any other free software license."

In future if there are software contributors to raviyer.org, I don't want to risk one "desperate contributor" creating trouble because of lack of appropriate licensing protection for raviyer.org software work.

While browsing on this I came across a fantastic set of articles – details given below. I was wondering whether I should use GPLv3 for raviyer.org. After reading the articles I feel Apache

Software License (ASL) is the better one for it as I don't want to force potential users/distributors to be Open Source. And I have Android for company :). See:

<http://source.android.com/source/licenses.html>

Here's a fantastic article on software patents & copyrights in the Indian context from a Desi:

<http://trak.in/tags/business/2010/03/22/patents-copyrights-intellectual-property-rights-1/>

[Please note that the following small extracts/excerpts from the above link are the copyright of the author of that blog post (above link).]

A very interesting learning for me from the article (provided the info. in it is correct) is, "Anything you write, say, record, paint, etc. is automatically copyrighted as soon as you create it. It is not necessary to register it with any authority. Notice how this is different from patents."

So a blog is automatically copyrighted! Makes sense.

Understanding Copyrights:

<http://trak.in/tags/business/2010/03/30/understanding-copyrights-overview/>

An excerpt:

How do I copyright my work?

There is nothing you have to necessarily do to copyright your work. As soon as you create the work, it is automatically copyrighted by you. It is not necessary to include a copyright notice.

[But having a copyright notice or other proof of copyright like a dated blog post may help prove the copyright in court.]

— end excerpt —

Understanding open source software licenses:

<http://trak.in/tags/business/2010/03/31/open-source-software-licenses-overview/>

An excerpt:

Not everyone agrees with the GPL. Supposed I wrote some software and want to make it freely available to anyone. I would also not mind it if a commercial company used my software in their products. I don't expect them to open source their software (which would be necessary if I had GPLed my software), but I would like them to give me credit in their documentation. This is precisely what the Apache license does.

— end excerpt —

Copyright issues for bloggers, website owners and other content creators:

<http://trak.in/tags/business/2010/04/01/copyright-issues-bloggers-web-publishers-content-creators/>

— Start-excerpt —

The CC-BY license is like the Apache license, and the CC-BY-SA license is like the GPL.

— end excerpt —

Understanding Patents: <http://trak.in/tags/business/2010/03/29/understanding-patents/>

=====End of Post=====

Proof of Concept App. v0.1 Spec. & Plan; Published: 22 Sep 2011

Post link (URL) on blog:

<http://ravisier.wordpress.com/2011/09/22/proof-of-concept-app-v0-1-spec-plan/>

I think we should make a "Proof of Concept" App. with the following spec.

Database Table definition:

```
CREATE TABLE IF NOT EXISTS telugu2english (  
  
id int NOT NULL AUTO_INCREMENT PRIMARY KEY ,  
  
telugu varchar(512) CHARACTER SET utf8 NOT NULL,  
  
english varchar(512),  
  
english_audio_path varchar(255)  
  
);
```

In this Proof of Concept app. version v0.1 we need only one page doing the following:

- a) Showing Telugu (in Telugu script) and English (in Latin (English) script) – 2 column table.
- b) English entry in two column table should be a hyperlink which when clicked plays the audio.
- c) The page should show a minimum of 10 entries (pagination not required)

We need only 10 records in this table for demonstrating the Proof of Concept app. Data can be added using phpmyadmin interface. Telugu and English text can be read from upakari.com docs and manually typed in.

The audio mp3 files for English sentences can be recorded on my PC.

The in-progress t2e app. is already having this functionality. See

<http://raviiyer.zzl.org/ci/index.php/t2e>

We need to have the data setup and the audio files. We may have to check out how clicking on mp3 file link plays the audio. If that's not good enough some extra work will have to be done.

=====End of Post=====

Free PHP/mySQL hosting; Published: 22 Sep 2011

Post link (URL) on blog: <https://ravisier.wordpress.com/2011/09/22/free-phpmysql-hosting/>

I felt it is time for me to explore hosting the in-progress app. on a PHP/mySQL web hosting service. Tried to check out a free hosting service <http://www.000webhost.com> two or three days ago. I registered and was asked for a domain – specified raviyer.in. The page said that they will verify the domain and get back to me in 24 hours. No response over two days or so. Maybe the .in domain put them off?

Just tried www.zymic.com/free-web-hosting/. Was able to go through!!! It took quite some time.

If I recall correctly: registration at zymic.com, registration at its forum & creation of raviyer.zzl.org website. Had to read whole of <http://www.zymic.com/free-web-hosting/tos/> before I could say Yes to register website step 3! The legalese was real tough but I forced myself to doggedly read it, sometimes speed-read it even if all did not register.

But all the pain was worth it as now I have a php/mysql website at raviyer.zzl.org & 6 GB disk space & ability to create 5 mysql databases, all for FREE!!!

Then created a new mysql database at raviyer.zzl.org, had to create a new database user (not 'root') imported 2 tables (post, telugu2english) into it, checked that telugu characters get shown

properly in SQLBuddy Query results, used FileZilla to ftp whole of wamp\www\ci directory including t2e app into raviyer.zzl.org (300+ files – took some time and gave some overwrite messages surprisingly to which I said overwrite – but got over in maybe half an hour or so). <http://raviyer.zzl.org/ci> gives a database error. Probably ci uses its own database which also needs to be created and the data imported into it. Further the 'root' user cannot be created. So need to browse for how ci works with zymic host.

Update: Needed to change user, pwd and database name in ci/application/config/database.php file.

But that also did not solve the database error message.

Got a solution from <http://www.zymic.com/forum/index.php?showtopic=21830>

Specifically, had to change:

```
$db['default']['pconnect'] = TRUE;
```

TO

```
$db['default']['pconnect'] = FALSE;
```

in the same database.php page.

Now <http://raviyer.zzl.org/ci> shows the "Welcome to CodeIgniter page".

And <http://raviyer.zzl.org/ci/index.php/t2e> shows the in-progress app. as described in the post:

<https://ravisier.wordpress.com/2011/09/21/telugu-english-html-table-with-link/>. Fantastic!!!

The in-progress app. now needs to be made a 'stable' proof-of-concept app.

=====End of Post=====

Telugu-English HTML Table with Link; Published: 21 Sep 2011

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/09/21/telugu-english-html-table-with-link/>

Modified t2e_view.php to show an HTML table with telugu and english columns. The english column data appears as a link with the href being set to the value of english_audio_path column.

The page display is as shown below [To reduce eye strain I have a grey window background – need to change it when I want to take screenshots – will do that next time around hopefully :-)].

Telugu	English
నేను	I
మీరు	You
నేను నడుస్తున్నాను	I am walking
నేను ఉత్తరం వ్రాశాను	I have written a letter
నాకు సలహా ఇస్తూ వున్నారు	I am being advised

HTML table output

And here is the updated t2e_view.php source code:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">

<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />
<title>t2e</title>
</head>

<body>

<?php $this->load->helper('form'); ?>
<?php
echo "<br><table border='1'>
<tr>
<th>Telugu </th>
<th>English </th>
</tr>";
?>
<?php echo form_open('t2e'); ?>
<?php if (isset($t2e)): foreach ($t2e as $p): ?>
<?php
echo "<tr>";
?>
<?php echo "<td>" . $p['telugu'] . "</td>"; ?>

<?php echo "<td>" . "<a href=\"\" . $p['english_audio_path'] . "\">" .
$p['english'] . "</a></td>"; ?>
<?php
echo "</tr>";
?>

<?php endforeach; else: ?>

<h2>No data found</h2>

<?php endif; ?>
<?php
echo "</table>";
?>
<?php echo form_close(); ?>
</body>
</html>
```

=====End of Post=====

Paul Graham on Design; Published: 21 Sep 2011

Post link (URL) on blog: <https://ravisier.wordpress.com/2011/09/21/paul-graham-on-design/>

A friend wrote,

– Paul Graham has written eloquently about this: <http://www.paulgraham.com/hp.html>

<http://www.paulgraham.com/hundred.html>

<http://www.paulgraham.com/desres.html>

You really should read these, despite the length — they are worth every word.

—

I read the articles and found them to be very interesting.

=====End of Post=====

Solved the Telugu character display problem; Published: 20 Sep 2011

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/09/20/solved-the-telugu-character-display-problem/>

Browsed quite a bit on UTF8 and PHP. There is a lot of stuff on it. Apparently PHP support is not very good for UTF8 i.e. looks like you need to do some additional programming for it. Was quite a pain as a lot of suggestions did not work.

Finally this link <http://akrabat.com/php/utf8-php-and-mysql/> gave me the solution for a PHP only page using mysql. All I needed was a:

```
mysqli_set_charset($con, "utf8");
```

where \$con is the link identifier returned by mysqli_connect().

Now the Telugu characters show up properly in the PHP page.

PHP page sourcecode:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
```

```
<html xmlns="http://www.w3.org/1999/xhtml">
```

```
<?php
```

```
header('Content-type: text/html; charset=UTF-8') ;
```

```
?>
```

```
<head>
```

```
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />
```



```

<title>Untitled Document</title>
</head>

<body>

<?php
$con=mysqli_connect("localhost","root","");
if(!$con)
{
echo "Errorinall<br>";
}
mysqli_select_db($con,"ci");
mysqli_set_charset($con, "utf8");
$result = mysqli_query($con,"SELECT * FROM telugu2english");

echo "<br><table border='1'>
<tr>
<th>Telugu sentence in Telugu script</th>
<th>English sentence in English script</th>
<th> English sentence audio </th>
</tr>";

while($row = mysqli_fetch_array($result))
{
echo "<tr>";
$a = $row['telugu'];
//  $a = "అ";
?>
<?php
// echo "<td>" . $row['id'] . "</td>";
//  echo "<td>" . $row['telugu'] . "</td>";
echo "<td>" . $a . "</td>";
echo "<td>" . $row['english'] . "</td>";
echo "<td>" . $row['english_audio_path'] . "</td>";
echo "</tr>";
}
echo "</table>";
mysqli_close($con);
?>
</body>
</html>

```

Need to now look at the CodeIgniter framework based code and see how to fix that.

<http://philsturgeon.co.uk/blog/2009/08/UTF-8-support-for-CodeIgniter> has some useful info.

Update on 21st Sept. 2011:

Had a weird experience! Initially the code as given in

<https://ravisier.wordpress.com/2011/09/20/display-telugu2english/> was displaying junk

characters. I played around with it by changing it to what was being used in the above mentioned PHP only page (or equivalent in CI framework). If I recall correctly I did the following:

- In t2e_view.php added HTML tags including the meta tag where charset got specified as UTF-8
- Included this php code in t2e_view.php: header('Content-Type: text/html; charset=utf-8');
- Included this ci code in t2e_model.php: \$db['default']['char_set'] = "utf8";

Then the CI program showed Telugu characters properly! Problem solved!

But I wanted to know which directive did the trick. So I deleted all the above three changes.

Rebooted the system so that any transient database settings are forgotten. And then tried again expecting to see junk characters. But I saw Telugu characters!

Did the last bullet code go and change the database default char_set permanently (not for just the program run/php page execution)? Well, phpmyadmin shows collation as latin1_swedish_ci for the two tables that ci database have (including telugu2english table). Of course, column telugu of telugu2english table is shown as having collation utf8_general_ci. So no changes from what it was before.

Right now things work. But my knowledge of underlying utf-8 stuff in both mySQL and CI/PHP database access functions/classes is poor. Will need to understand it properly somewhere down the line.

=====End of Post=====

CI program to display telugu2english; Published: 20 Sep 2011

Post link (URL) on blog: <https://ravisier.wordpress.com/2011/09/20/display-telugu2english/>

I have decided to try posting CI programs that I have started on as I feel this may help others.

I started on a program to do part of [Working Prototype v1.0](#)

The program trips up on displaying Telugu characters of column telugu (unicode collation) and shows junk. It shows other columns with English text properly. English text in telugu column is also shown correctly. Problem is only with telugu characters.

I was able to add the telugu character words to telugu column of telugu2english table using phpmyadmin as follows:

a) Use <http://telugu.changathi.com/> to type in English (e.g. meeru) to get Telugu (e.g. మీరు) characters.

b) Copy paste Telugu character sentence/word from changati window into telugu column in phpmyadmin insert page.

That's it. On clicking Go, phpmyadmin adds the data correctly. Browsing the table in phpmyadmin shows telugu characters correctly.

Plan to study html source of phpmyadmin page which shows telugu characters correctly to get some clues about fixing my CI program problem.

Here are the CI programs source code (could not figure out a way to preserve tabs in the listing):

The controller: t2e.php

<?php

```

class t2e extends CI_Controller {

function index() {

$this->load->model('t2e_model');

$data = array();

$data['t2e'] = $this->t2e_model->getdata();
$this->load->view('t2e_view', $data);
}

}
?>

```

The model: t2e_model.php

```

<?php

class t2e_model extends CI_Model {

function getdata() {
$query = $this->db->get('telugu2english');
$data = array();

foreach ($query->result() as $row) {
$data[] = array(
'telugu' => $row->telugu,
'english' => $row->english,
'english_audio_path' => $row->english_audio_path
);
}

return $data;
}

}
?>

```

The view: t2e_view.php

```
<?php $this->load->helper('form'); ?>

<?php echo form_open('t2e'); ?>
<?php if (isset($t2e)): foreach ($t2e as $p): ?>

<?php echo $p['telugu']; ?> <br>

<?php echo $p['english']; ?> <br>

<?php echo $p['english_audio_path']; ?> <br>

<?php endforeach; else: ?>

<h2>No data found</h2>

<?php endif; ?>
<?php echo form_close(); ?>
```

=====End of Post=====

Need Priyaanka Font; Published: 20 Sep 2011

Post link (URL) on blog:

<https://ravisiyer.wordpress.com/2011/09/20/need-priyaanka-font/>

Dr V.Kutumba Rao sir has a wonderful website www.upakari.com dealing with learning English from Telugu. I contacted him and he graciously confirmed that material can be freely downloaded from his websites and used in raviier.org website.

His website telugu sentences were however in image files. So I could view them but could not copy-paste.

I requested him to send documents from where I can copy-paste. He kindly & readily sent the following documents (which you can also download from the links below that I set up in this site):

[final.pdf](#)

[book111.pdf](#)

[English1.pdf](#)

He also sent English1.pmd for which I cannot put a link as WordPress does not allow .pmd files to be uploaded to its site. But if you need it you can mail me and I will send it to you.

Copy-paste from the pdf documents into Word gives a font problem. E.g. The Telugu sentences in book111.pdf seem to be in Priyaanka font and Priyaanka Bold font (Document Properties in Adobe Reader lists these fonts). When I copy them to Word the characters don't show up properly in any of the Telugu fonts that I already have on my PC.

So I need the Priyaanka font if I want to copy-paste Telugu sentences from these documents into Word and view them properly. Don't know about additional challenges in inserting these Telugu sentences in mySQL Unicode column. Maybe I will have to convert Priyaanka font Telugu text to Unicode Telugu text. But let me take it one step at a time.

Searched for Priyaanka font on the net. Came across some Priyanka Bold Web Font (Priybwf.ttf) and tried it. But it seems to be different from the Priyaanka font used in the documents mentioned above, as the Telugu sentences do not get shown correctly in Word with Priyanka Bold Web Font.

Tried opening the English1.pmd file by downloading and using Page Maker trial version. Page Maker also trips up on the font. It gave me an error that Priyaanka font is missing and does not render the Telugu text correctly. So the Priyaanka font seems to be absolutely necessary for me to be able to go any further.

I have asked Dr V.Kutumba Rao sir about this problem.

Dear Reader, if you have a solution to this problem please post it as comments (or mail it to me).

=====End of Post=====

Standard License or own words License?; Published: 20 Sep 2011

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/09/20/standard-license-or-own-words-license/>

I had an interesting mail exchange with a friend on this. Excerpts from the exchange are given below - I have snipped out parts which I felt are inappropriate to mention in a blog post:

Friend wrote:

I understand your position on the legalities issue. However, I would like to warn you that attempting to create a license on your own is probably the last thing you would want - these days, suing people is 'routine'. If you want a no-rights-reserved safeguard, you should, IMHO, use an appropriate legal instrument like CC0. Even the FAQ of CC0 says that it cannot waive your rights in every possible jurisdiction, but the provisions of this licence is general purpose enough to make your work be as free as it can possibly be.

My point is this - In order to do Seva to the Lord, the pre-requisite is to have a healthy body - Swami himself says so too. Similarly, to even allow yourself to do this seva with full concentration, I think you should still consider these professionally, diligently and carefully crafted licenses - that have been created just to protect and help further the charitable works of people like yourself.

My 2 cents worth.

Friend added:

If you think that creating your license for CC0 is a pain, simply require them to attribute your work - it is painless to 'Choose' the 'by' licence

(http://creativecommons.org/choose/results-one?license_code=by&jurisdiction=&version=3.0&lang=en). And, you simply will not care, in

realtime, if your work is attributed or not.

What do you say?

I (Ravi) wrote:

Thank you so much for your valuable views.

I read your mail twice to ensure that I do not miss out on anything you are trying to convey to me.

You wrote, "Similarly, to even allow yourself to do this seva with full concentration, I think you should still consider these professionally, diligently and carefully crafted licenses - that have been created just to protect and help further the charitable works of people like yourself."

Very valid point. However I think I have a valid point myself. I think that these legal agreements of Creative Commons are still somewhat complex and guys like me are not so sure whether I can use somebody's stuff or not. We may feel that we think we can use it but are not hundred per cent sure.

I want to make it very easy for people to use, modify, distribute ... raviyer.org's products. I think the <http://creativecommons.org/licenses/by/3.0/> license is far more complex than my 'Sweet and Simple' license.

- snip -

So, what's my bottom line. One reading of the 'Sweet and Simple' license and almost anybody will understand that they can freely use, modify, redistribute, make money from it etc. That is a vital strong point about this license over other 'standard' licenses.

- snip -

What I have learned from my experience and reading of the world is that all these 'suits' really come into play once money gets involved. If no money is paid for a product or service then any such 'suits' would typically be dismissed as frivolous.

The world is already too complex for guys to lead a happy life, and is getting more complex by the minute.

— snip —

I think it is a matter of principle for me now that the license of raviiyer.org's products should also be simple.

I also have been following quite a few court hi-profile cases (general cases and not software copyright cases) in the media. I found that the learned judges go a lot by common sense. So a clear well worded license for free software may be appreciated very well by a judge. IMHO, we don't need legalese for the free things in life, Thank God.

— snip —

Friend wrote:

Fair enough. While I am aware that you would have considered the legal issues, I wanted to sound you about more recent developments that you may have chosen not to be bothered with.

— snip —

My major concern was this - you should not get into trouble while doing what you wanted to do, for free. I mean the chances are low. However, better safe. Right? And this is the other thing: Most sites/software that provide a disclaimer usually also mention the licence under which those provisions are to be interpreted - and this is true in every software that I have seen. There are the simple English words, but there is also the link to the license that is the umbrella for the English words. For example, I really like the -by-attribution license at the bottom of this site: <http://www.marco.org/> (this guy writes quite well, btw).

– snip –

Ravi wrote:

– snip –

You asked: better safe. Right? My answer is well, not at the cost of making it opaque for users/developers to use or modify raviiyer.org software, mediaware.... If you look at marco.org, it seems that you & I can freely reblog & modify his content provided we give proper attribution. Looks simple, isn't it? Well, the reality is that to be really sure you need to first read the license link and understand it as that is what will hold in a court of law. His "in short" statements may be cleverly repudiated by a smart lawyer using actual license text.

So, if you want to be safe & sure about using his content, you need to get a software IP lawyer to read the license and marco.org's modifications and "in short" text and then give you a certified legal opinion whether you can go ahead and use or modify or reblog his content, and explain exactly how to satisfy the attribution terms of the license. [And that software IP lawyer could be wrong! You have to go by his reputation and your feel about how good his legal brains are!]

– snip –

I think the bottom line is that some risk is always going to be there irrespective of whether I use CC license or Sweet & Simple license. It is the risk of doing service. And I am willing to take that risk. Otherwise I cannot do any service in an individual capacity – snip –

– snip –

For this software/website seva activity that I am getting into I think there are similar risks – CC license or Sweet & Simple license or whatever license. I am willing to face the risks and, to be frank, I don't think the CC license will really help me reduce the risks

significantly as compared to the Sweet & Simple license. There may just be a feeling that since the CC license is from reputed legal guys that I am better protected. I think my best protection is the service done to the community via the software. If the site gains a good reputation among the community that will be the best protection. And for that the 'sweet & simple' license may be better as it will not scare anybody from downloading or using the software.

Friend wrote:

- snip -

You were spot-on when you said ' His "in short" statements may be cleverly repudiated by a smart lawyer using actual license text.' My short response is this: In the light of that statement, God forbid, something does go wrong, with standard, you are better off with time-tested licenses, than your personally worded statement.

Ravi wrote:

I think our perspectives on the matter are different. I think we have to agree to disagree on both -snip- and being better off with CC license if something goes wrong.

I plan to go ahead with something like the Sweet & Simple license. I know I am doing something quite unusual but I feel it is the sensible thing to do. And I guess I am used to going off the beaten track [and sometimes getting beaten up because of that :-)]. Time will tell whether this will be a mistake or not :-).

In any case I found this exchange on licensing to be very helpful. In fact, I am planning to put up an additional blog post with matter derived from this exchange - snip -.

=====End of Post=====

Sweet and Simple License v0.1;

Published: 18 Sep 2011

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/09/18/sweet-and-simple-license/>

Last Updated On December 30th 2011

Now I think I need to explore the free & open source licensing aspects of software and media-ware produced by raviier.org volunteer group.

Did some browsing.

I was very impressed with the little bit that I saw about <http://creativecommons.org>. Here is a fantastic video which explains their "shared culture" view:

<http://creativecommons.org/videos/a-shared-culture>.

The Creative Commons vision: "Our vision is nothing less than realizing the full potential of the Internet – universal access to research and education, full participation in culture – to drive a new era of development, growth, and productivity." I like it mannn...!!!

Here is the link: <http://creativecommons.org/about>

Here are some organizations (big names) which use a Creative Commons license: <http://creativecommons.org/who-uses-cc>

Their license design and rationale:

<http://creativecommons.org/licenses/>

They also have a "No Rights Reserved" CC0 [CCZero] license. Initially I thought this would be ideal for us (raviier.org volunteer group).

Here is some info about CC0: <http://creativecommons.org/about/cc0>.

Here is the FAQ: http://wiki.creativecommons.org/CC0_FAQ. And the tool to create a CC0 license: <http://creativecommons.org/choose/zero/>

After some thought I felt that even CC0 is too complex for us.

Overall I feel that a Creative Commons license is required, perhaps, for guys who want their names to be associated with their work and decide the terms on which their work can be shared. CC0 may allow the work to be freely copied, freely modified etc. but with the guys who did the original work still being recognised as the creators of/contributors to it.

In the raviiyer.org effort I am clear that our names need not be attributed to our work by people who use it, copy it, modify it, redistribute it, make money from it ... In Bharat/India we have a great, great tradition over millenia of sharing a lot of sacred scripture as well as teachings of Mahatmas & Mahapurushas (Saints & Great persons) freely amongst anybody who wants it (though some parts of sacred scripture were not freely shared in the past).

raviiyer.org will, in all probability, start having a list of volunteers possibly with details of their contribution. But we need not be concerned about whether those who will use, modify, redistribute etc. products of raviiyer.org will list these volunteer names or not.

I heard some holy man say, "Daan mein Shresta Daan hai - Gupt Daan" (In types of charity, the exalted form of charity is hidden (anonymous) charity). Let me take inspiration from that. So raviiyer.org effort being taken and redistributed by somebody else even for a profit without any credit being given to the raviiyer.org volunteer group just does not matter to me. If society is served then God is served and that is the goal of raviiyer.org - no matter who takes the 'credit' for it.

Of course, the 'Karma' credit is a different thing altogether but then that is under the eye of All-knowing God :-)! We don't need to worry about any legal systems for that!

Here are some other links I had a quick look at:

http://en.wikipedia.org/wiki/Comparison_of_free_software_licenses

http://en.wikipedia.org/wiki/Academic_Free_License

<http://khason.net/blog/open-source-licenses-comparison-table/>

<http://www.gnu.org/licenses/license-list.html>

Too complicated!!!

I feel I should go with some simple "No Rights Reserved" and "No Warranty" equivalent statements. It could be something like this below:

--

[TEST/DRAFT License text and NOT ACTUAL license.]

All material, namely, software, media-ware, documentation, text etc. available at raviiyer.org website can be freely downloaded and used by anybody.

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18th September 2011,

Puttaparthi, Andhra Pradesh,

India

[TEST/DRAFT License text and NOT ACTUAL license.]

--

Sweet and simple! Anybody can understand it - don't need some legal expert.

I don't know whether this license is too simple for it to work. But I would like to go with this and see what happens.

I mean, if we run into copyright or other problems then I can worry about it and perhaps look at a Creative Commons type of license. Till that time I can go with the "Sweet and Simple" license :-)!

Dear Reader, I would be very glad to know your views on this.

=====End of Post=====

Working Prototype v1.0 Req. Defn.; Published: 17 Sep 2011

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/09/18/working-prototype-v1-0-req-defn/>

Database Table definition:

```
CREATE TABLE IF NOT EXISTS telugu2english (
```

```
id int NOT NULL AUTO_INCREMENT PRIMARY KEY ,
```

```
telugu varchar(512) NOT NULL,
```

```
english varchar(512),
```

```
english_audio_path varchar(255)
```

);

Update on 19th Sept.: Change telugu column collation to utf8_general_ci. The default latin1_swedish_ci collation cannot handle Telugu characters. Also cannot have telugu column as UNIQUE key as the length is too much (for utf8_general_ci collation).

We need 100 records in this table for showing the app. around and getting feedback and feel of interest in the app. from potential users.

Data can be added using phpmyadmin interface - don't need app. to do that for first working prototype version.

In this working prototype version v1.0, App. needs to be one page only doing the following:

a) Showing Telugu (in Telugu script) and English (in Latin (English) script) - 2 column table.

b) English entry in two column table should be a hyperlink which when clicked plays the audio.

c) If audio file is not found then, if possible, we should use TTS - worst case, do nothing.

d) The page should show 10 entries and have pagination (10 pages for 100 rows).

=====End of Post=====

Quick Learning of CI basic CRUD prog.; Published: 17 Sep 2011

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/09/17/quick-learning-ci-crud/>

Downloaded and installed WAMP (<http://www.wampserver.com/en/>) in a directory called wamp (under some directory). Started wamp by running wamp\wampmanager.exe. Noted that <http://localhost> showed:

Server Configuration

Apache Version :

2.2.17

PHP Version :

5.3.5

....

....

Followed <http://fwebde.com/php/introduction-to-codeigniter/>. Created directory ci under wamp\www. Copied CodeIgniter 2.0.3 (<http://codeigniter.com/downloads/>) files in wamp\www\ci folder.

Encountered some problems with app. of above tutorial. Seems like some of the problems at least are due to the tutorial being written for an older version of CI. Fixed problems as given below (Note that fixed versions of related source files source code for both fwebde.com tutorial pages referred in this post are given at the bottom of this post):

message.php:

a) use CI_Controller instead of Controller

b) Not a problem but a note that function foobar() should be defined with class Message (within its closing brace).

With these changes, if I recall correctly, it worked properly.

Then followed <http://fwebde.com/php/simple-crud-with-codeigniter/>.

For creation of database <http://localhost> showed a phpmyadmin link which opened up to mySQL administration page. It was easy to create database ci and then execute SQL to create table posts using it.

For database.php changes figured out that default mySQL admin id is 'root' with " (blank/null) password

Then I encountered quite a few problems as listed below:

crud.php problems:

a) It required <?php at the beginning (and ?> at the end - though that may be optional).

b) CI_Controller instead of Controller

c) \$this->security->xss_clean instead of \$this->input->xss_clean (2 places)

d) \$this->load->model('posts_model');
\$this->posts_model->addPost(\$title, \$content);

was required. The tutorial omits the load->model() due to which it gives an error.

posts_model.php problems:

a) It required <?php at the beginning (and ?> at the end - though that may be optional).

b) CI_Model instead of Model

With these changes, if I recall correctly, ci/index.php/crud/ worked correctly. I could add rows to posts table.

For the read part I needed only one tutorial fix in crud.php:

a) `$this->load->model('posts_model');` has to be moved to beginning of `index()` function (before if statement)

Now <http://localhost/ci/index.php/crud> shows the existing records first and then has the input fields and Submit button.

For update needed following fixes:

a) In crud.php in function update `$this->security->xss_clean` instead of `$this->input->xss_clean` (2 places)

b) In crud.php in function update before invoking `$this->posts_model->updatePost($id, $title, $content);`

we need `$this->load->model('posts_model');`

For delete needed following fixes:

b) In crud.php in function delete before invoking `$this->posts_model->deletePost($id);`

we need `$this->load->model('posts_model');`

That's it. I have got a running start on CI including bare bones CRUD - no pagination, no validation, no smart choose row & update/delete etc. & zero presentation niceties - but still a functional CRUD app. I need to analyze the code more carefully and also perhaps refer CI documentation where needed but overall I am pretty confident now about

using basic CRUD functionality with CI.

I think my experience with MVC pattern starting from early versions of Microsoft Foundation Classes (MFC) allowed me to more easily understand CI MVC classes. ASP.Net, HTTP protocol, socket prog. etc background as well as some scripting language exposure allowed me get some quick idea of other parts of CI and php that came into play in the CRUD app & first hello world app.

It just took me maybe three to four hours for this running start into CI CRUD apps. Possibly an hour or so more for documenting all this stuff decently. But I must say that I have not studied each line of code in detail.

I am giving these details so that others who are considering learning CI basic CRUD functionality can get some feel about the "learning curve" time frame.

I had created a zip of all the controller, model and view files created, with my fixes, for the two FWebDe tutorials I used to learn CI CRUD stuff. But came to learn that WordPress does not allow upload of zip files!!

So I have just appended all the text of the relevant source files below.

Controllers

File: message.php

<?php

// message.php


```
class Message extends CI_Controller

{

function index() {

$msg1 = 'hello, world';

$msg2 = 'a second message';

$data = array(

'msg1' => $msg1,

'msg2' => $msg2

);

$this->load->view('display', $data);

}

function foobar() {

$msg1 = 'foo';

$msg2 = 'bar';

$data = array(

'msg1' => $msg1,
```

```
'msg2' => $msg2
```

```
);
```

```
$this->load->view('display', $data);
```

```
}
```

```
}
```

```
--
```

File: crud.php

```
-----
```

```
<?php
```

```
class Crud extends CI_Controller {
```

```
function index() {
```

```
$this->load->model('posts_model');
```

```
// Check if form is submitted
```

```
if ($this->input->post('submit')) {
```

```
$title = $this->security->xss_clean($this->input->post('title'));
```

```
$content = $this->security->xss_clean($this->input->post('content'));
```

```
// Add the post

//$this->load->model('posts_model');
$this->posts_model->addPost($title, $content);

$this->posts_model->addPost($title, $content);

}

$data = array();

$data['posts'] = $this->posts_model->getPosts();

$this->load->view('crud_view', $data);

//$this->load->view('crud_view');

}

function update() {

$id = $this->uri->segment(3);

if ($this->input->post('submit')) {

$title = $this->security->xss_clean($this->input->post('title'));

$content = $this->security->xss_clean($this->input->post('content'));

$this->load->model('posts_model');
```

```
$this->posts_model->updatePost($id, $title, $content);
```

```
$data['posts'] = $this->posts_model->getPosts();
```

```
$this->load->view('crud_view', $data);
```

```
} else {
```

```
$data = array('id' => $id);
```

```
$this->load->view('updateform', $data);
```

```
}
```

```
}
```

```
function delete() {
```

```
$id = $this->uri->segment(3);
```

```
$this->load->model('posts_model');
```

```
$this->posts_model->deletePost($id);
```

```
$data['posts'] = $this->posts_model->getPosts();
```

```
$this->load->view('crud_view', $data);
```

```
}
```

```
}
```

?>

--

Models

File: posts_model.php

<?php

```
class Posts_model extends CI_Model {
```

```
function addPost($title, $content) {
```

```
$data = array(
```

```
    'title' => $title,
```

```
    'content' => $content
```

```
);
```

```
$this->db->insert('posts', $data);
```

```
}
```

```
function getPosts() {
```

```
$query = $this->db->get('posts');

$posts = array();

foreach ($query->result() as $row) {

    $posts[] = array(

        'id' => $row->id,

        'title' => $row->title,

        'content' => $row->content

    );

}

return $posts;

}

function updatePost($id, $title, $content) {

    $data = array(

        'title' => $title,

        'content' => $content

    );
```

```
$this->db->where('id', $id);
```

```
$this->db->update('posts', $data);
```

```
}
```

```
function deletePost($id) {
```

```
$this->db->where('id', $id);
```

```
$this->db->delete('posts');
```

```
}
```

```
}
```

```
?>
```

```
--
```

Views

```
-----
```

File: display.php

```
-----
```

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
"http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
```

```
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en">
```



```
<head>
```

```
<title>CodeIgniter Test</title>
```

```
</head>
```

```
<body>
```

```
<h1>CodeIgniter Test</h1>
```

```
<p><strong>Message 1:</strong> <?php echo $msg1; ?></p>
```

```
<p><strong>Message 2:</strong> <?php echo $msg2; ?></p>
```

```
</body>
```

```
</html>
```

```
--
```

```
File:crud_view.php
```

```
-----
```

```
<?php $this->load->helper('form'); ?>
```

```
<?php echo form_open('crud'); ?>
```

```
<?php if (isset($posts)): foreach ($posts as $p): ?>
```

```
<h2><?php echo $p['title']; ?></h2>
```

```
<?php echo $p['content']; ?>
```

```
<?php endforeach; else: ?>
```

```
<h2>No posts found</h2>
```

```
<?php endif; ?>
```

```
<p>
```

```
<?php echo form_input('title'); ?>
```

```
</p>
```

```
<p>
```

```
<?php echo form_textarea('content'); ?>
```

```
</p>
```

```
<p>
```

```
<?php echo form_submit('submit', 'Submit'); ?>
```

```
</p>
```

```
<?php echo form_close(); ?>
```

```
--
```

File: updateform.php

```
<?php $this->load->helper('form'); ?>
```

```
<h1>CodeIgniter CRUD Tutorial Example</h1>
```

```
<?php echo form_open('crud/update/' . $id); ?>
```

```
<p>
```

```
<?php echo form_input('title'); ?>
```

```
</p>
```

```
<p>
```

```
<?php echo form_textarea('content'); ?>
```

```
</p>
```

```
<p>
```

```
<?php echo form_submit('submit', 'Submit'); ?>
```

```
</p>
```

```
<?php echo form_close(); ?>
```

```
--
```

```
=====End of Post=====
```

Starting off with CodeIgniter; Published: 16 Sep 2011

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/09/16/starting-off-with-codeigniter/>

Just finished meeting with MCA fresher. We agreed on using CodeIgniter.

He will quickly learn it to the extent required for developing first prototype version using CI user guide and, perhaps, more importantly for the first prototype goal, these two tutorial links:

<http://fwebde.com/php/introduction-to-codeigniter/>

<http://fwebde.com/php/simple-crud-with-codeigniter/>

He already has WAMP (Apache, MySQL, PHP on Windows) set up on his PC:

<http://www.wampserver.com/en/>

Code Igniter 2.0.3 is what we will use (downloaded from <http://codeigniter.com/downloads/>). User guide is part of the download.

Let us see how it goes.

=====End of Post=====

Smarty & Codeigniter PHP frameworks; Published: 16 Sep 2011

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/09/16/smarty-codeigniter-php-frame>

[eworks/](#)

Yuvaraj suggested smarty(simpler) & code igniter(medium mostly used nowadays).

Looked up smarty. http://www.smarty.net/about_smarty gives some background.

A section in above page states:

What is Smarty?

Smarty is a template engine for PHP, facilitating the separation of presentation (HTML/CSS) from application logic. This implies that PHP code is application logic, and is separated from the presentation.

—

Another section states:

What Smarty is Not

Smarty is not an application development framework. Smarty is not an MVC. Smarty is not an alternative to Zend Framework, CodeIgniter, CakePHP, or any of the other application development frameworks for PHP.

Smarty is a template engine, and works as the (V)iew component of your application. Smarty can easily be coupled to any of the engines listed above as the view component. No different than any other software, Smarty has a learning curve. Smarty does not guarantee good application design or proper separation of presentation, this still needs to be addressed by a competent developer and web designer.

—

Clear cut picture, I think. As we are just starting off we need not be

so concerned about separation of presentation from application logic for our initial prototypes. What we need now is an application framework that allows us to rapidly develop CRUD application prototypes.

Later we may need Smarty as the View component of a more advanced prototype/application version in combination with a PHP application framework.

Code Igniter

<http://codeigniter.com/> gives an impressive quick picture.

Was not sure about CRUD capability in CI (Code Igniter). Did some browsing:

<http://fwebde.com/php/simple-crud-with-codeigniter/> has a tutorial on CRUD with CI. Did not read the tutorial but noted what the author says towards the end of the article: "To do simple CRUD functions with CodeIgniter, it is really a very simple task. If you have any questions, or if somehow, something doesn't work for you, be sure to leave a comment and I will do my best to help you out." The article is dated April 2010 and so not very old.

Another tutorial but a video one:

<http://net.tutsplus.com/articles/news/codeigniter-from-scratch-day-5-crud/>. Did not view the video yet but nice to know that in Day 5 from scratch you can do a CRUD app using CI.

I think given an experienced PHP developer's view that "code igniter (medium mostly used nowadays)" and my quick impressions of CI being quite positive, I think I should change my decision of PHP framework from CakePHP to CodeIgniter.

Today the MCA fresher is to meet me. I will discuss it with him. If he buys the CodeIgniter idea then we will start off with it. Initial days maybe just learning and experimenting. That should give us a taste of

CI. If we like it we will stick with it, at least, in the medium term.

=====End of Post=====

Which PHP framework to use? - Some browsing results; Published: 14 Sep 2011

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/09/15/which-php-framework-to-use-some-browsing-results/>

A friend mentioned Zend but has asked others who are into PHP for more definite info.

Another is to get back with info from his friends.

Meanwhile I thought I would do some digging up myself by browsing for comparisons. The hits I got seemed to be a little dated: 2008/2009 etc. But I guess they may still be partially valid.

One post in a forum said:

My recommendation would be CakePHP. Its code generation tool "Bake" will save you weeks when building the CRUD for your CMS. Given a database table, you can be up and running with full CRUD functionality, with pagination on your list views, validation on your models and loads more, within minutes. You can extend and customise the code that bake generates too, so your CMS can be just the way you want it. To cap it off, if you need some of the features in some of the classes in the Zend framework, its stack nature allows you to pick and choose those classes and use them within CakePHP through its "vendor" feature.

Source:

<http://stackoverflow.com/questions/77371/zend-framework-or-cakephp>

Some other entries, I think most entries, in the same forum recommend Zend framework for more solid work.

I think for us, Rapid Application (Prototype) Development is important at this stage. Especially considering that our developer(s) may not have much experience in PHP I think the above support statement for CakePHP is strong argument to first go with CakePHP.

If we find issues with it for future prototype versions we can switch to Zend or something else.

Here is another post:

<http://stackoverflow.com/questions/1197917/cakephp-vs-codeigniter-vs-zend-framework>

Here is one on CakePHP vs Qcodo vs Zend:

<http://stackoverflow.com/questions/591865/qcodo-vs-cakephp-vs-zend>

Here is a Qcodo vs. CakePHP presentation:

https://docs.google.com/present/view?id=dph9vvc_89fjgp24cq

A decent comparison of Zend vs. CakePHP: <http://2tbsp.com/node/87>

In conclusion, I think we should go with CakePHP.

=====End of Post=====

Which Rapid PHP framework to use?; Published: 13 Sep 2011

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/09/13/which-rapid-php-framework-to-use/>

I have zero exposure to PHP frameworks. So any help from experienced guys in this area will be greatly appreciated.

Did a quick search for Free PHP frameworks. Even if it is not Open Source it does not matter so much as we will have the output PHP source code. Important point is how established it is (proven track record, stability, community etc.). Came up with two names:

a) <http://cakephp.org/>

b) <http://www.qcodo.com/>

I think I need expert advise here. So rather than me googling for more PHP frameworks, I will try to locate some PHP framework expert who is willing to advise us.

=====End of Post=====

Kick-starting the Spoken English App. software; Published: 13 Sep 2011

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/09/13/kick-starting-the-spoken-english-app-software/>

The first question that popped up was the software development model to be followed.

Considering that this is my first volunteer-based software development effort and that we currently have only NS, who is an MCA fresher, I felt that the following factors are important:

1. We should follow a rapid prototype development model, at least, initially. The chances of having something to show improve with this model.
2. The database design should be simple. My experience with a similar

project done as academic project & mini-project work was that too much generalization and normalization results in complex joins which may impress a database academician but students who have to build on previous work struggle to understand the complex joins. So simple db with no complex joins.

3. Rapid Application Development (RAD) frameworks and tools should be explored for quicker development. So we need to know about PHP frameworks and similar stuff.
4. See if existing Open Source PHP/MySQL code can be used as a base to save time.
5. Future versions of the software can be redesigned. Data (language content) gathered using simpler earlier versions will be the vital resource which can be migrated to the redesigned application.

—

First we need a content builder page and a database for it.

The content builder page & db. needs to have the following fields:

- a) Telugu sentence in Telugu script
- b) English sentence in English script
- c) English sentence in Telugu script
- d) English sentence audio (Ideally in Indian English accent)

I think we can have a single table with an auto-gen primary key field and above 4 fields.

Then we need a display page which will show the content in a screen

table in paginated form (assuming more rows than can fit in one screen view)

That's it for the first prototype, I think.

Later we can add more features like user logon for content-builder page, adding category for content etc. Such changes will result in db table redesign and data migration. As we are going with a rapid prototype driven model that should be fine, I think.

BTW NS mentioned some transliteration sites. Here are two of the interesting ones:

<http://www.quillpad.in/>

<http://telugu.changathi.com>

=====End of Post=====

Meeting with MCA fresher on Spoken English App.; Published: 09 Sep 2011

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/09/09/meeting-with-mca-fresher-on-spoken-english-app/>

Yesterday I had a meeting with the MCA fresher on the Spoken English App. Let me refer to him as NS.

After discussion the following seems to be right next steps:

1. Do a web application initially. Android phone app. can be done after the web app. is done.

2. Do a minimal feature app. first. We will have something to show.
3. App. will have Telugu sentences text & audio with corresponding English sentences text & audio.
4. Content will be added by content-builder (Wikipedia kind of model). Machine translation, Text to Speech may not be appropriate for a learning app. due to reliability/inaccuracy issues.
5. Who will add content is another challenge. Can cross that bridge later. Let us first get initial version of app. done
6. No tension and no time pressure. Even the minimal feature app. gets done when it is done. It may even not get done at all :-)!
7. PHP/mysql seems to be a good platform choice. CMS like Joomla, Drupal may not be appropriate for our app.
8. A feature specification document will have to be prepared. I have to work on that.
9. NS has college mates who are working on PHP/mysql including some PHP frameworks. I don't know anything about PHP frameworks as of now.
10. raviyer.org website can be used as a discussion/comment forum involving interested people including my friends and NS' friends
11. NS has worked on a PHP/mysql mini-project and an Android client communicating with web app project during his MCA. Of course they are small projects. I feel it is a real plus that NS already has some amount of college level relevant tech. exposure.
12. NS feels that live PHP/mysql project will help him keep in touch with tech. skills till he gets a job. I agree.

13. I told NS that as soon as he gets a job he should hand over the baton of this project work (to raviyer.org site I guess) and focus on his job. The baton may get picked up by somebody else in future or may even not get picked up at all. That should not matter for NS. I mean, for NS a job which earns him money is the vital thing. This free work is just filling in the time till he gets a job.

Once I get the features document done I will put it up on this site and invite comments from well-wishers & contributors.

=====End of Post=====

Started Spoken English Audio Experiment; Published: 09 Sep 2011

Post link (URL) on blog:

<https://raviyer.wordpress.com/2011/09/09/started-spoken-english-audio-experiment/>

Today I have started an experiment with a young carpenter here who is also studying B.A. by correspondence. I will refer to him as AR.

I copied the audio files of freeenglishnow.com 160 odd mp3 files of total 280 odd MB onto his Nokia X2 (almost sure that it was X2) cellphone http://www.gsmarena.com/nokia_x2-3304.php.

I played out part of couple of these mp3 files. He was OK with it. He felt that he will be interested in listening to such audio and repeating after it (the audio file gives time for the student to repeat what he/she hears). He did say that the accent was a little difficult for him (British accent) but I felt that the diction is quite slow and so he should be able to manage if he has keen interest.

Unfortunately the X2 does not display text files - so text corresponding to the mp3 file being played cannot be seen on the X2.

Well, it can be seen if he browses the net on it which he seemed to be quite keen to do as he said it costs only Rs. 100 for a month! Don't know if he had got it right.

Anyway when I tried to multitask on the X2 phone - play audio as well as do something else - I could not figure out how to do it, neither could AR.

The sensible option is to print the text. The first lesson (16 odd lessons in all) text pdf file seems to be around 20 pages long. I plan to print it out after I fix my inkjet printer - I think it just needs a replacement ink cartridge. Then he can xerox it for Rs. 20/- which seems to be a reasonably small amount which he is willing to fork out.

Please note that I am using AR as an experimental base - if things click with him including him willing to fork out xerox charges for text notes then we can try the same model on larger number of rural youngsters in Puttaparthi.

To ensure some regularity and discipline in self-study, I asked AR to listen to the audio for at least half-an-hour a day. He also has to maintain a dairy of all his study time on this effort. Once a week he will meet me for an hour or so when I will go through his dairy, check on his progress, get feedback from him and advise him on future study.

One feature of the freeenglishnow audio/text files is that there a lot of references to (and maybe passages from) the Bible. AR does not mind neither do I mind. But there may be issues on adopting freenglishnow media & text for larger groups. I mean the effort could get mistaken as a Christian evangelical activity!

Also gave him the upakari mp3 file. So he is going to try out both.

=====End of Post=====

**Mail Exchanges on Spoken English
App. till Sept. 9, 2011;**

Published: 09 Sep 2011

Post link (URL) on blog:

<https://ravisier.wordpress.com/2011/09/09/mail-exchanges-on-spoken-english-app-till-sept-9-2011/>

Extracts from mail exchanges on this topic with friends and acquaintances of mine and some other(s) from Aug. 2011 end are given below (My input is prefixed with RI):

RI: Have you tried out the Nokia English education service http://www.nokia.co.in/support/product_support/ovi-life-tools/how-to/help-and-support/education-service? Yes it is not free. Also I have not used it. But I wonder if you could try it out on a single youth unless internet connectivity issues are so serious that you just can't even experiment with it. If it works for him then we know that mobile service is a good option. We can then explore creation of free education service web sites which are accessible on mobile - Just an idea - Resources for development of such a site may be the major issue. But if we know this works then we can gingerly explore volunteer possibilities for such an effort.

BTW have you seen the BBC Learn English site <http://www.bbc.co.uk/worldservice/learningenglish/>? If I recall correctly a lot of material including audio and text are freely downloadable. I had downloaded some audio and text in the past from this site.

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My past interest in this area has been in building a free online (web) portal for learning conversational English from conversational Telugu (or vice-versa). The portal software had text and audio for both languages for various categories of sentences. Content-building was the key. So you had two categories of users mainly - content builders who add text & audio for sentences in English & Telugu, and users who use the content added by the content-builders. An initial version of the software was developed using ASP.Net and Microsoft Access database. The design of the software was such that it could be used for any language to any language learning (e.g. Learning conversational French from conversational Malayalam).

Unfortunately it may not be easy for me to get permission for this software to be released for external usage. But maybe similar software can be developed again if some software developer volunteers are available - I may be able to spare some time as a software consultant.

In my opinion such a free online portal has the following benefits:

a) Anybody with internet access can use it for learning spoken English from their vernacular language if content becomes available for it. If we use a Wikipedia contributory model something may be possible for content creation.

b) Phone users who can access the Internet can browse to this site.

c) But what about poor, rural areas with limited or no internet connectivity??? Well, if the entire software and content is Open Source and free we just need to put everything on one PC (web site & content) so that users can use the website in standalone mode (INTERNET NOT NEEDED).

d) We may even be able to develop a Free Phone application where users with phones capable of downloading, say Nokia apps, can download a free Learn Spoken English from Marathi application. There are similar language applications in the iPhone/iPod Touch devices. I have loaded some of them on my ipod Touch.

e) ... has a group which is into rural wireless experiments (and experience). If these ideas really click we may even be able to involve them and bring in low cost wireless devices which may help users connect to standalone PC (no INTERNET connectivity needed).

A general point I would like to make is that lack of internet connectivity does not mean that all computer solutions are out. We can look at INTRANET solutions where we have a standalone PC with all software loaded on it (no need for INTERNET). I wonder whether the mobile phones could connect to this standalone PC in a wireless mode and access audio/text from it? This is where the ... wireless group may have answers right off the bat.

Okay - I have given my thoughts & suggestions. I don't have any

resources at all at my command. I can just play an ideas man / software consultant role. So let me be frank that our exchange may just get limited to ideas exchange.

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No response was received from above mail content recipient. But same content forwarded to friends got some responses.

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Friend's input: All the iStuff is too expensive to be practical in this context. However, iOS and Android based devices do have one advantage: the easy and wide availability of apps, including English teaching ones (such as these free ones from the British Council: http://www.androidzoom.com/android_developer/british-council_fbcd.html).

What do you think about contacting the HRD ministry about the \$35 tablet computer that Kapil Sibal announced with much fanfare last summer? The unit in the demo videos ran Android. I see they have a site, <http://sakshattablet.org/>. Is this vaporware, or would there be any point in trying to contact the HRD ministry about getting hold of some dev kits?

Translation apps. Here's one that does English to Hindi and one of the comments says it doesn't need an Internet connection (<http://www.appbrain.com/app/english-to-hindi-translator/com.shorelineanimation.engtohinditranslator>). Here's a similar one that does Hindi-to-English (<http://www.appbrain.com/app/hindi-to-english-translator/com.delaplata.phrasebook.noadmob.hi.en>). The Google translate service requires an Internet connection.

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RI: 1) iOS & Android apps - Fascinating tech. possibility (including free British council apps - though it was only 4 simple apps and nowhere close, as of now, to what its Learn English website has.).

But rural India goes by the cheap and/or the tried-and-trusted. I mean there is strong earthy wisdom among the rural community. I think Android is just not anywhere in the picture in rural India as of now. Could be different in future as this market is an unbelievably fast-changing market.

We may need to bet on a platform. Right now I think Nokia is the safest bet considering its penetration and brand-acceptance in rural India (what OS for Nokia is the next issue - Is Symbian out?). I mean I know of a young and rather poor carpenter who bought a Nokia phone instead of a cheap Chinese one as he felt it is more reliable. He needs its camera and its display of photos, and he enjoys its music.

So if we have a Free Nokia "Spoken English" App. then rural youth (and perhaps more importantly rural parents) may be willing to fork a little extra to buy a Nokia phone instead of a cheaper Chinese/other model. I don't know about Android device makers - Samsung, LG etc. brand value in rural India phone market. May not be great.

2) Sakshaat tablet: Have not heard much about it recently. sakshaat is more of a free university education effort. I had gone through it <http://www.sakshat.ac.in/> and its related NME-ICT mission at an overview level to see possibilities for University level ICT course material contribution/"small funded project" possibility. I think the tablet, as of now, may be a little too much in the air - good vision but very tough implementation challenges kind-of-thing. It may be best to look at such possibilities only after it becomes a proven success which is certainly not the case as of now.

Translation Apps - I had explored Google Internet translation for English to Telugu and found it to be quite inaccurate many times. I mean it is not really a reliable thing. The moment you doubt its reliability you really can't allow it to play a teacher role. I think machine language translation, at least for Indian languages, has a long, long way to go before it is reliable enough to play a language teacher role. And if Google translation itself has problems we can imagine the problems that free apps will have.

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RI: So can the mobile phone be the delivery mechanism for a free

"spoken English" course? Yes, we have Nokia English learning service. But that is a priced service. Can a Free & Open Source "spoken English" Nokia phone app. be developed? If so, what kind of software development resources would need to come into play? Do you know of links giving tech. info on such app. development (I am sure Nokia would have an official site but other sites as well)? How about well known forums on the same? Are there "Open Source" Nokia phone apps around?

I think it makes sense to think of Nokia first in the Andhra/Indian context. ipod Touch/iphone would not be right! Even with Nokia, whether rural youth can afford models which allow apps to be downloaded (or copied via USB) is another question.

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Friend's input: I wish to fill in one gap that you may not have noticed (atleast explicitly): while mobile penetration is very high, it is mostly the low-end phones: those based on Nokia's S30/S40 software. Most popular & hip Nokia phones are based on S60 SW (S refers to Symbian, the number is their way of identifying HW & SW platforms). One of the characteristics of the low end phones is that they are meant for text and talk ONLY - there are very few models that have even an excuse for internet connection.

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RI: Low-end Nokia phones have only voice & text. Understand. I feel we have no choice but to decide on a cut-off level. We may offer services on:

a) Music player phones & devices : Site could have downloads of categorized audio in English & Telugu. So somebody could download over net and then load into player which could be a phone.

b) Internet phone/Internet device: Site app. comes into play and therefore better facilities.

c) Almost any phone: A Nokia like Learn English service. But I am not sure about this. I tried to get some info. about Nokia Learn English

service but the net did not show up much. So I have some concerns about how effective Nokia has been on this front. May be a toy kind of thing good for kids. But we are shooting for a youth/young adult segment. Further phone call costs etc. come into the picture.

d) Android app.: While this may have very low penetration in rural India now, [we have started off a small Android?/Java web app? possibility with an MCA post-graduate (June 2011 results - no campus interview facility in his college) in Parthi who worked on some Android MCA project. I have put forward an idea of doing an Android app using his home PC in this area till he gets a job. As this will give him project experience he has shown initial interest.]

About S30/40, Qt, Windows7 etc. - My initial thoughts are that it may not be worthwhile for us to look at them now. Just too many variants, lack of detailed info. about S30/40 ... Android may be the best platform to start off the phone app. experiment (as a parallel activity). If it clicks then we can redo/port to an appropriate Nokia platform.

The main platform in the initial phase I think has to be the web. That brings into play options a) and b) above which would allow us to reach significant number of rural youth. Yes, the really poor youth may get missed out as they may have non-music phones - but I don't think we can do anything much about that, as of now.

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Friend's input:

Those are sort of what I expected to hear back: Web & Android.

For the web, I guess HTML5 would be a great way to deliver the app for all major browsers and native browser functionality (capabilities demo: <http://slides.html5rocks.com/#landing-slide>). Sticking to HTML5 may automatically get your application to many devices, quickly (I'm talking about iPads/Tablets/Netbooks etc - more so netbooks as they seem to be the future of low cost devices, especially in emerging markets like rural India). And, Android is definitely a great platform to develop stuff - develop on Java with reasonably straight forward APIs. Infact, if you are looking for TTS, Android has a built-in API: <http://android-developers.blogspot.com/2009/09/introduction-to-text-to>

[-speech-in.html](#) atleast for English to speech).

For the Internet/connected phone applications, you could utilize Google Translate API

(<http://code.google.com/apis/language/translate/overview.html>) to translate from telugu to english and then use TTS APIs (google seems to be on the verge of releasing TTS apis too (<http://weston.ruter.net/projects/google-tts/>, <http://googleblog.blogspot.com/2009/11/new-look-for-google-translate.html>, <http://ajaxian.com/archives/text-to-speech-via-html5-audio>)).

Another cool tool is Google Transliteration (you type-in Telugu words as English, and Google converts them into telugu characters - <http://www.google.com/transliterate> - you can do this right within Gmail by clicking CTRL+G and choosing your target language & they also have an API for it:

<http://code.google.com/apis/language/transliterate/overview.html>). I mean, the APIs are such that I am sure one can make a quick & easy mash-up between the services to get the desired effect you are looking for - even if to start with, only on the web/browser.

Another thing - with a valid credit card (only to verify identity), quite a few Amazon Web Services (AWS) are free for an year (enough to get the experimentation out of the way). You can 1 micro instance of a server (10 GB HDD, 1 CPU, 512 MB RAM etc., enough n/w bandwidth to get started and so on - I am currently running a test site at: -snip- using only the free tier offering from Amazon:

<http://aws.amazon.com/ec2/#pricing> is just for EC2, but there are similar free tiers for almost all basic necessities to get started with a start-up like requirements). It is as if you have a personal linux box dedicated to you on the cloud - you can run your own web server, custom software and whatever you want on it. Only one caution: don't reboot the instance too often, the free tier for disk reads when loading the system are 10,000 - I rebooted about 5 times and used up about 8000 such reads.

To reiterate, Web and Android seem to be the way to go.

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RI: web & android seem to be the way to go (at first sight - I need to analyze deeper before we commit), Google translation - not great when I checked last, Google transliteration - useful in general but for "Spoken English" learning - I don't know, Telugu TTS - Don't know how

good it is. As this is a learning app. we can't take chances on accuracy/reliability.

Friend's input: Agree - ... that accuracy is paramount in this project. Yes, translation is not totally accurate. I mentioned transliteration since I thought it may be useful in content creation - this way, you donot need specialized telugu typing software etc.

And regarding TTS, [Telugu -] is not yet supported. I has suggested it as an alternative to human content creation - but yes, that is now out of the way.

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(Input RI gave to MCA fresher)

For our "Spoken English" on Android project first we need to do some exploration of software which does something similar. So please study the following:

British Council's software for "mobile learning"

<http://learnenglish.britishcouncil.org/en/mobile-learning>

An interesting site which sells a software with a "Teach Spoken English" approach:

<http://www.improve-spoken-english.com/>

Some interesting open source software related to Language learning:

<http://jvlt.sourceforge.net/>

<http://sourceforge.net/projects/jmemorize/>

<http://goldendict.org/>

<http://flax.nzdl.org/greenstone3/flax>

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