

Turning ON MR3020 Into Cheap Mobile VoIP Server

Solusi Komunikasi Murah Untuk Semua Orang

Asriadi

Overview

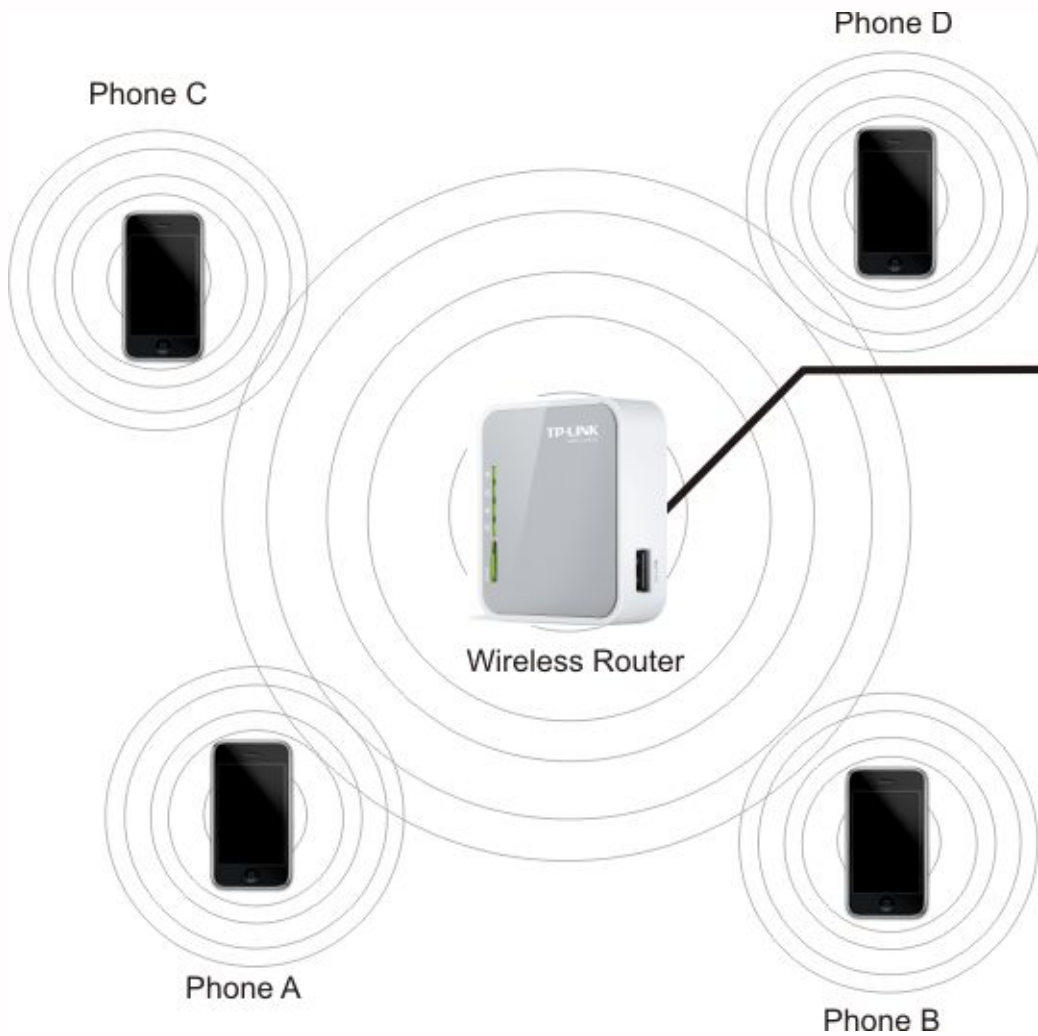
- Infrastruktur Komunikasi Masih Mahal
- Masih banyaknya daerah yang belum dijangkau akibat dari persoalan ini
- VoIP (Voice Over IP atau IP Telephony)
- OpenWRT dan Teknologi Wireless

Project OpenWRT

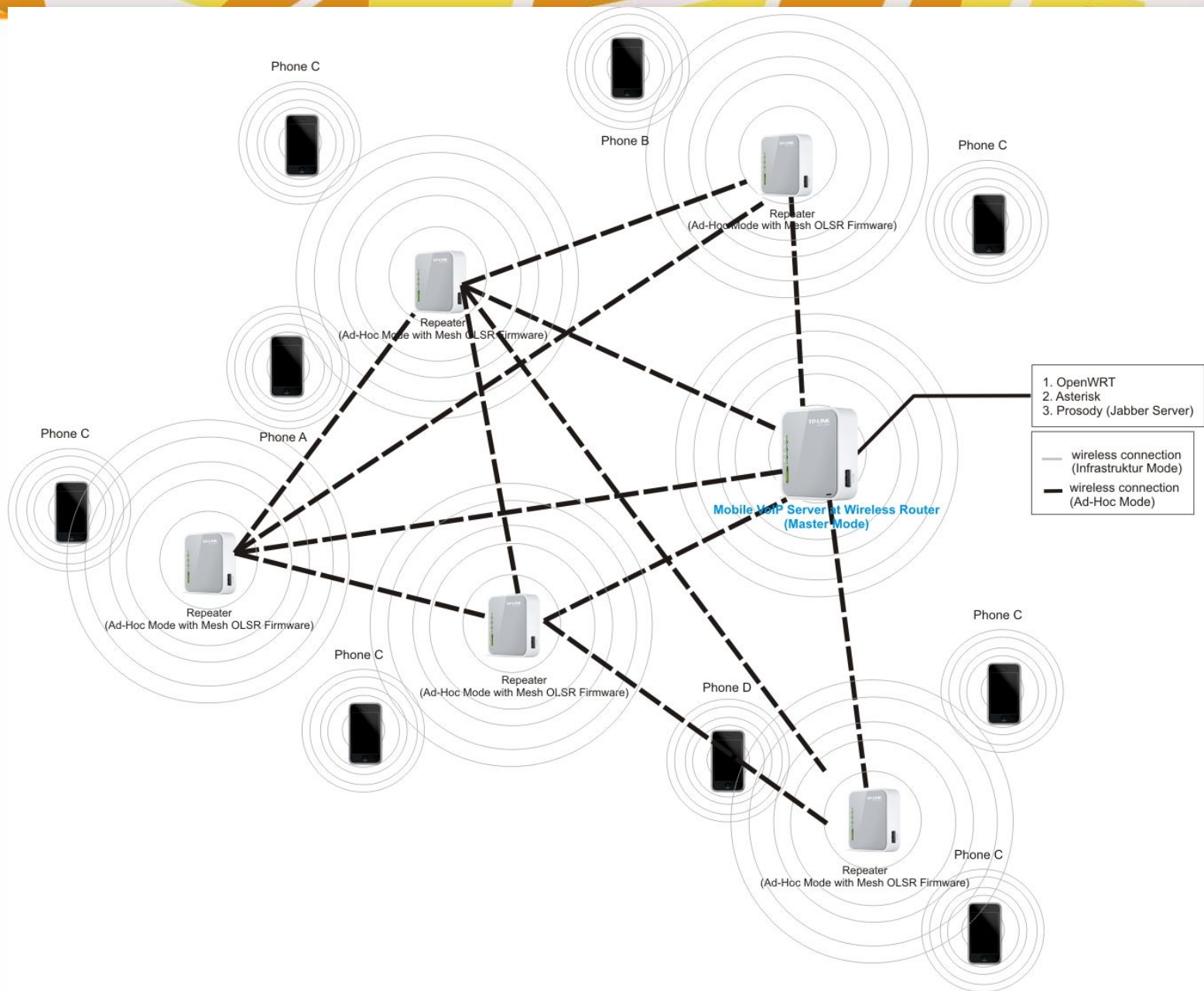
- Piratebox
- Pwniexpress
- Minipwner
- Wifi pineapple
- Jukebox
- GPS tracker
- Home automation
- Smart home
- Smart police
- Mikro kontroler
- VoIP
- Ada Ide lain (kembangkan kreatifitas anda)

OpenWRT

- Apa sih itu OpenWRT
- Kelebihan OpenWRT
- Project-Project yang berhubungan dengan OpenWRT
- Pembuatan Mobile VoIP Server Dengan Harga Yang murah



- 1. OpenWRT
 - 2. Asterisk
 - 3. Prosody (Jabber Server)
- wireless connection (Infrastruktur Mode)



Instalasi OpenWRT

- Pemilihan Router
(<http://wiki.openwrt.org/toh/start>)
- Flashing Firmware openWRT kedalam Router (ex : MR3020)
- Modifikasi router setelah penginstalan openWRT (exroot dan pengubahan repository menjadi offline)

TL-MR3020 - Mozilla Firefox

File Edit View History Bookmarks Tools Help

TL-MR3020

1.0.95.229

Google

TP-LINK®

3G Wireless N Router
Model No. TL-MR3020

Status

Quick Setup

WPS

Network

Wireless

DHCP

Forwarding

Security

Parental Control

Access Control

Advanced Routing

Bandwidth Control

IP & MAC Binding

Dynamic DNS

System Tools

Status

Firmware Version: 3.12.11 Build 120320 Rel.42138n
Hardware Version: MR3020 v1 00000000

LAN

MAC Address: A0-F3-C1-A6-5F-E5
IP Address: 192.168.1.99
Subnet Mask: 255.255.255.0

Wireless

Wireless Radio: Enable
Name (SSID): TP-LINK_POCKET_3020_A65FE5
Channel: Auto (Current channel 1)
Mode: 11bgn mixed
Channel Width: Automatic
MAC Address: A0-F3-C1-A6-5F-E5
WDS Status: Disable

Status Help

The **Status** page displays the Router's current status and configuration.

LAN - The following parameters apply to the LAN port of the Router. You can configure them in the **Network** -> **LAN** page.

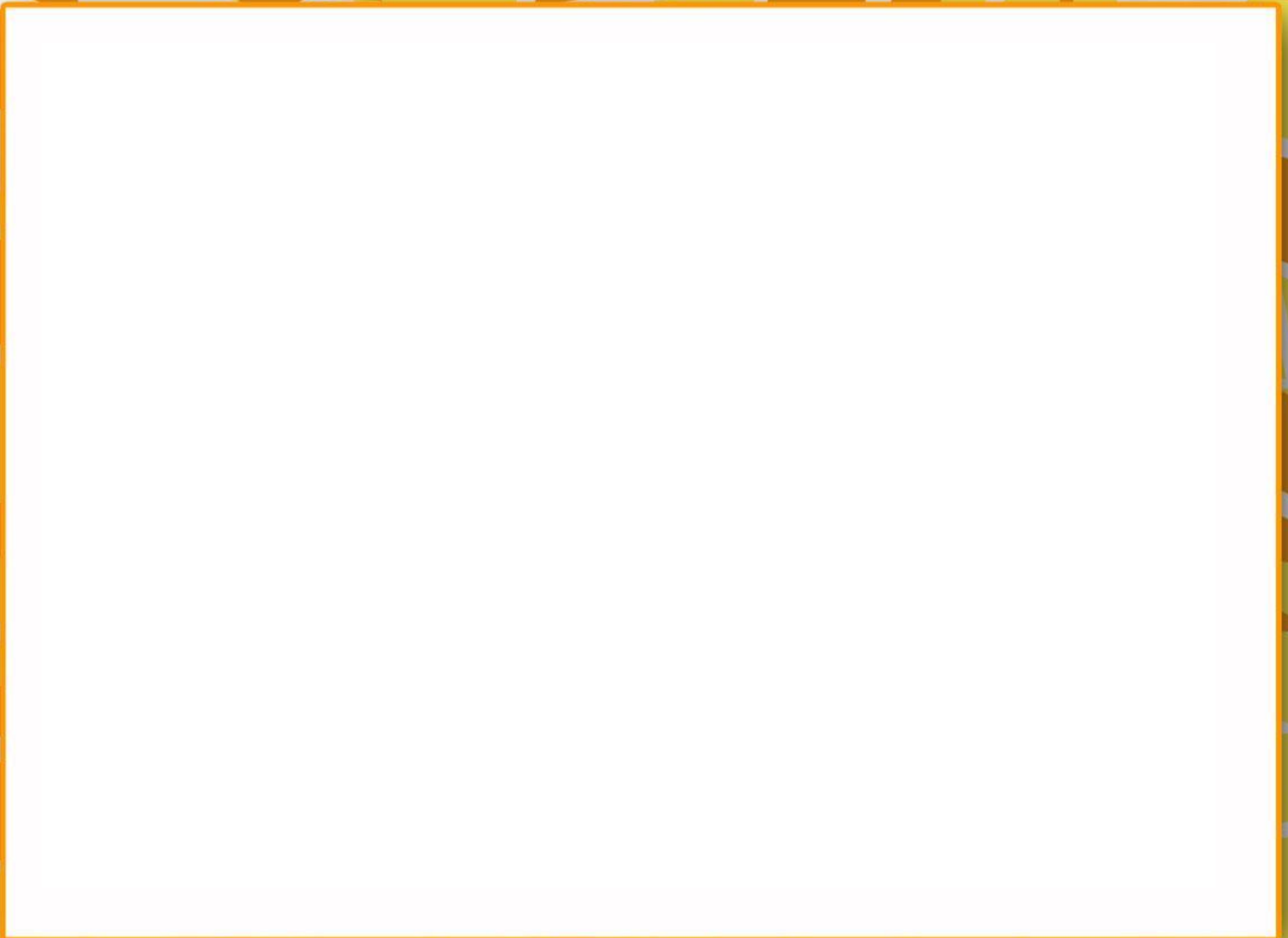
- **MAC Address** - The physical address of the Router, as seen from the LAN.
- **IP Address** - The LAN IP address of the Router.
- **Subnet Mask** - The subnet mask associated with LAN IP address.

Wireless - These are the current settings or information for Wireless. You can configure them in the **Wireless** -> **Wireless Settings** page.

- **Wireless Radio** - Indicates whether the wireless radio feature of the Router is enabled or disabled.
- **Name(SSID)** - The SSID of the Router.
- **Channel** - The current wireless channel in use.
- **Mode** - The current wireless mode which the Router works on.
- **Channel Width** - The bandwidth of the wireless channel.
- **MAC Address** - The physical address of the Router, as seen from the WLAN.
- **WDS Status** - The status of WDS' connection. Init: WDS connection is down; Scan: Try to find the AP; Auth: Try to authenticate; ASSOC: Try to associate; Run: Associated successfully.

WAN - The following parameters apply to the WAN ports of the Router. You can configure them in the **Network** -> **WAN** page.

- **MAC Address** - The physical address of the WAN port, as seen from the Internet.



Setup Mobile VoIP Server

- Penginstalan Asterisk sebagai Sentra Telepon
- Penginstalan Prosody sebagai sentra pengiriman teks (jabber server)
- Konfigurasi Asterisk dan prosody agar bisa difungsikan

Setup Smartphone (Android)

- Penginstalan Softphone
- Konfigurasi Softphone
- Menjalankan service asterisk dan Prosody
- Let's Rock :D

Pengembangan Project Mobile VoIP Server

- Komunikasi lintas frekuensi 2,4 ghz ke frekuensi GSM
- Optimasi Performance dari sistem
- Optimasi Aspek security dari sistem
- Optimasi jangkauan
- Pengembangan Model Komunikasi Untuk daerah Tertinggal dan Terluar indonesia :D

Project OpenWRT Lainnya

- Piratebox---- www.daviddarts.com (Project Secure File Transfer)
- Minipwner --- www.minipwner.com (*Project Pentesting Box*)
- Pwniexpress
- Wifi Pineapple -- <http://hak5.org>
- Masih banyak lagi (Be creative with many application at repository :D)

Terima Kasih kepada :

- Tuhan YME dan kedua Orang Tuaku
- Generator08 Jurusan Pendidikan Teknik Elektro UNM
- OpenWRT Indonesia
- Ubuntu Makassar
- Dan Anda Yang telah meluangkan waktu Membaca presentasi yang singkat ini :D