

Change Email Address on Account

Meta Data

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Links:

- Phase 1, Add a secondary email:
https://docs.google.com/document/d/1DOUWRbxU8ah6AL3gUTrlYKFY42jt_czOHbu4wL4E-sc/edit#
- Feature card:
<https://projects.growthhackers.com/orgs/mozilla-corporation/projects/FAAS/cards/92053>

Problem Summary

FxA users are currently unable to change their primary email address. A primary email is defined as the email you enter to login and to which we currently send a login confirmation message (or password reset), the email we might display in our UI, the email we share with OAuth reliefs and that we use to send marketing messages to.

The result is that some users are unable to login to their accounts because they have either lost access to their vanity domain or have changed employers and no longer have access to the work email with which they signed up. (see [bounced sign-in emails](#)) These users are in excellent position to churn since they've lost access to their data so there is less friction to adopt a new browser. Additionally, these users tend to be more vocal on social media, in sumo and in App Store reviews.

In a less critical situation, a user might be changing email providers and is unable to reflect this in his Firefox Account preferences.

This feature plans to prevent users from being locked out of their accounts and Sync data by allowing them to set their secondary email as their new primary email. At which point, they will be able to delete their former primary email.

Stories

So that I can continue to access my Sync content, as an FxA user, I would like to be able to confirm my logins from the email of my choice.

So that I may have control of my Firefox Account and Sync content, as an FxA user, I would like to be able to change my primary email to the address of my choice.

Outcomes

Users can change primary email address associated with Firefox Accounts.

Hypothesis

If we allow users to change their primary email on their accounts, then we will see fewer users losing access to their Sync data.

Metrics

Adoption rate:

- How many users have set a secondary email?

Complaint rate

- How many complaints a week do we get? (might be hard to measure since this problem is reported via SUMO and Twitter for the most part)

Detailed design

Original Version (Present Day)

If there is no secondary email set, button says “Add...”.



The image shows a user interface element for adding a secondary email. It consists of a rectangular container with a dotted border. Inside, on the left, is a text input field with the placeholder text "Secondary email" in a blue font. On the right side of the container is a light gray button with the text "Add..." in a dark gray font.

The section appears like this when there is no secondary email.

Secondary email

A secondary email is an additional address for receiving security notices and confirming new Sync devices.

Add

Cancel

When the user enters a valid-looking email, the button becomes enabled. When the user presses enter or **Add** button, the green notification above appears with “Verification email sent” and the section remains open until the email is either removed or verified. The **Done** button is disabled.

Secondary email

A secondary email is an additional address for receiving security notices and confirming new Sync devices.

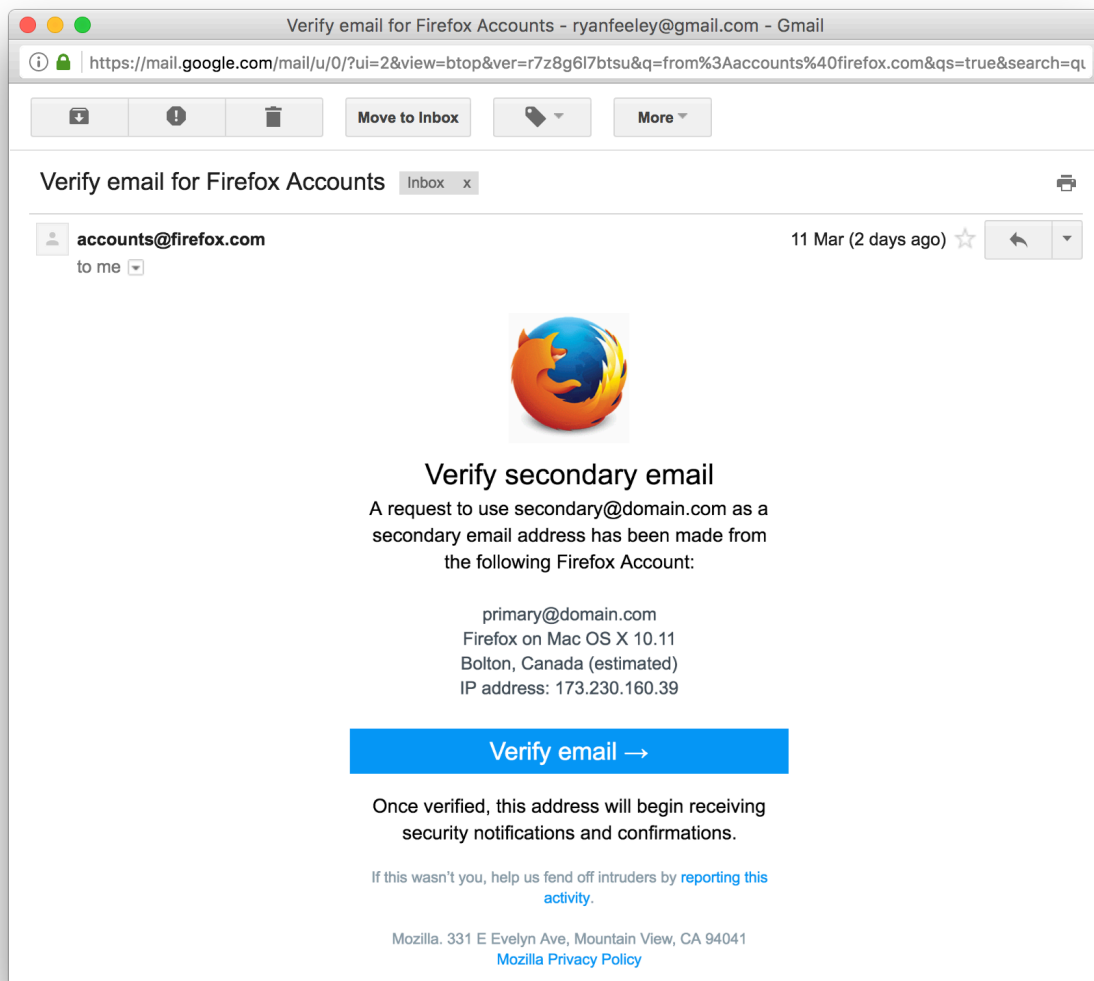
secondary@email.com
verification required

Remove

Didn't arrive and not in spam folder? [Resend](#)

Refresh

Done



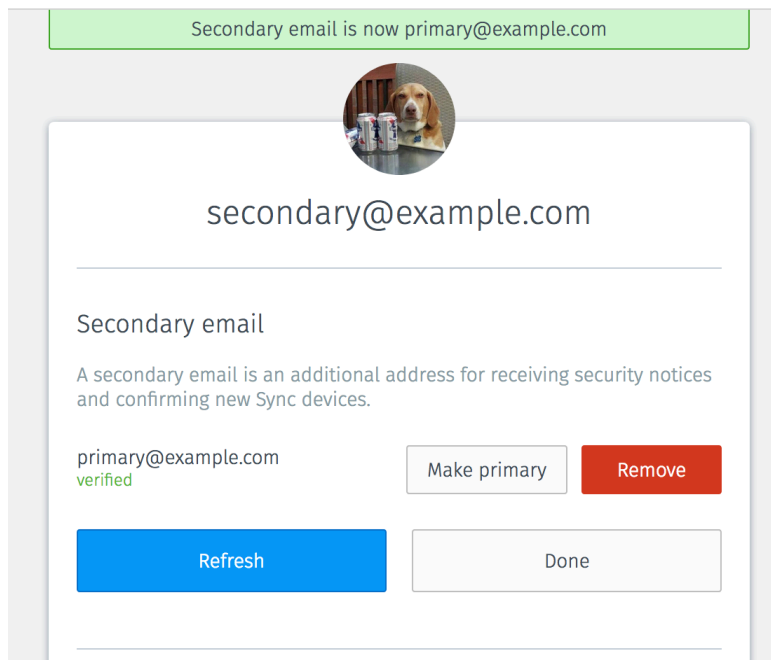
Proposed Experience

When user enters Settings through **Manage Account** in Firefox Preferences and navigate to what is currently the **Secondary email**, the user will be able to add a secondary email and set this secondary email as their primary email.

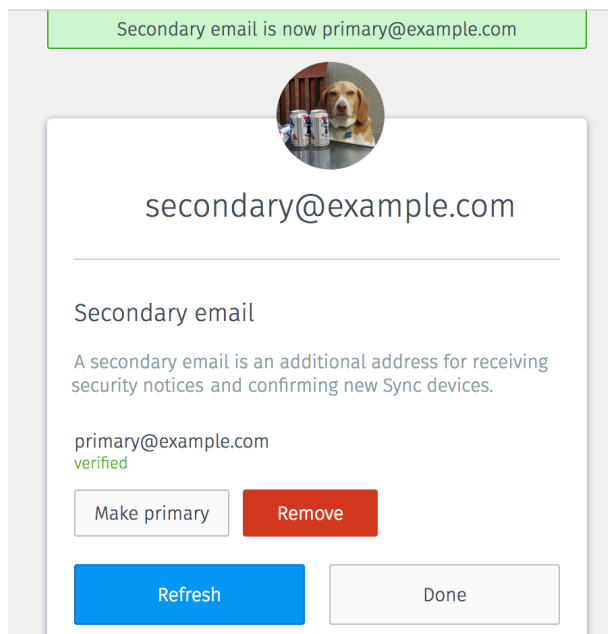
Secondary email	Add...
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A user can also delete their secondary email (which might have been their previous primary email).

When the user has a verified secondary email, a button appears that allow them to make it their primary email. In the below example, a user has added a secondary email, and then made it their primary email. They can then remove their primary email.



On mobile the buttons would wrap like this:



Engineering

The premise in this implementation is to make the `emails` table the main source of truth for all things email related on an account. When a user attempts to change their email, they are essentially making a secondary email address then setting that address as the primary email address.

Based on previous discussions there are two flows a user can do to change their email address.

- 1) Upgrade a secondary email to a primary email
- 2) ~~User selecting change email address and entering a new address for the account~~
 - a) ~~This scenario might be a candidate for another phase because it essentially skips adding a secondary email through the UI.~~

Potential updates required

Intermediate changes to help with feature rollout.

- Slowly begin to move away from using the email on the accounts table.
- Primary email is created on email and account table.
- Migrate existing user emails to emails table.
- MySQL
 - Table Procedures
 - db.emailRecord (update)
 - updated to fetch from `emails` table
 - Maybe deprecate this in favor of `db.account`?
 - db.account (update)
 - updated to build new account model from `emails` and `account` table
 - account.email will store the primary email address that exists in the `emails` table, otherwise use email from account table
 - db.createAccount (update)
 - updated to store user email address in emails table and account table
 - db.setPrimaryEmail (new)
 - Procedure that sets the status of an email on the emails table
 - Re-calculate hashes and store updated values in account table
 - db.getEmails
 - Gets all emails from emails table

- If primary email exists on emails table, don't return email in account table
 - Primary email in emails table > primary email on account table
 - Table Updates
 - Endpoint Summary
 - POST /recovery_email/change
 - {"email": "some@email.com"}
 - Errors, Unknown Email
- Auth Server
 - POST /recovery_email/change
 - {"email": "some@email.com"}
- JS Client
 - Expose /recovery_email/change
 - {"email": "some@email.com"}

Acceptance Criteria

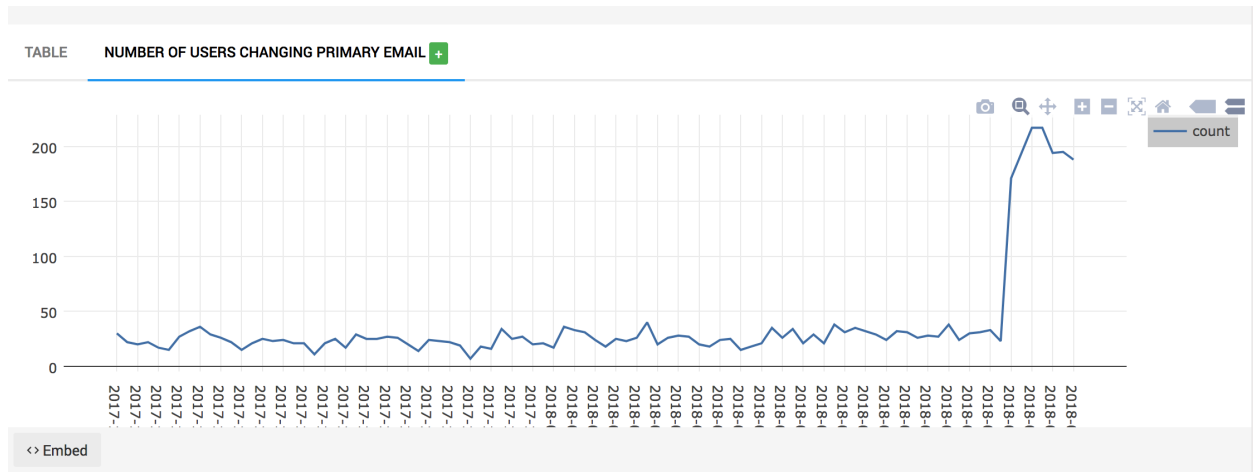
- User can change their primary email to a verified secondary email. The old primary email address becomes a verified secondary email address.
- User can login with new primary email and existing password
- User can initiate a password reset password from new primary email
- User should receive a notification to the new primary email address that this is the new primary email address
 - Also send notification to all other verified addresses?
- User cannot make an unverified address their primary address
- After changing primary email address, the profile-server returns the new primary email for all subsequent requests for the user's profile data.
- After changing primary email address, when the user logs in to sync, the new primary email is the one communicated to Firefox as part of the login data bundle.
- User should see new primary email Desktop, iOS and Android when they reopen settings section of application.
- User should see new primary email on our reliers (AMO and Pocket) when they visit settings section of that relier.

Unresolved questions and risks (optional)

- What parts of the design are still TBD
 - Allowing unverified session to become verified so that they could can change primary email. This will be worked as part of OKR 3.3

Results

<https://sql.telemetry.mozilla.org/queries/51275#137498>



Conclusion

It is too soon to see if fewer users are losing access to their accounts, however we do see a nice daily adoption.

We consider this release a success.

Next Steps

- How might we increase visibility of this feature?

Annexe