

# Mailboxes

# Mailboxes

Admin path: **Email Server > Mailboxes** (`view_mailboxes.cfm`, `add_mailbox.cfm`, `inc/add_mailbox_action.cfm`, `inc/edit_mailbox_action.cfm`, `inc/edit_mailbox_encryption_action.cfm`, `inc/edit_mailbox_access_control_action.cfm`, `inc/delete_mailbox_action.cfm`, `inc/get_mailbox_json.cfm`, `inc/ldap_add_user_mailbox.cfm`, `inc/ldap_add_user_mailbox_remoteauth.cfm`, `inc/ldap_add_user_groups_mailbox.cfm`, `inc/ldap_delete_user_mailbox.cfm`, `inc/nextcloud_provision_user.cfm`, `inc/signature_regen_map.cfm`, `inc/send_mailbox_welcome_email.cfm`, `inc/send_mailbox_welcome_email_remoteauth.cfm`, `inc/admin_resend_mobile_setup_action.cfm`, `inc/rotate_nc_password_action.cfm`).

This page manages **individual mailboxes** inside the mail-server topology — one row per address in the `mailboxes` table, joined to a `recipients` row that carries the per-recipient policy stack (SVF policy, encryption flags, S/MIME certs, PGP keyrings, 2FA enforcement, auth type). A mailbox is the local-delivery counterpart to a Relay Recipient — same `recipients` row shape, different `recipient_type` column value (`'mailbox'` vs `'relay'`) and a sibling row in `mailboxes` that gives Dovecot a userdb entry.

This is the **per-mailbox** half of the mail-server topology. Pairs with [Domains](#) (the domains those mailboxes live under and inherit defaults from), [Settings](#) (global Dovecot config and quota warning thresholds), and the per-address feature pages: [Aliases](#), [Shared Mailboxes](#), [Mailbox Rules](#), and per-mailbox app passwords.

## Mailbox vs Alias vs Shared Mailbox vs Relay Recipient

Four address concepts share the namespace under a mailbox domain; keep them straight:

Concept	Stored in	Has Dovecot mailbox?	Local sign-in?
---------	-----------	----------------------	----------------

<b>Mailbox</b> (this page)	<code>mailboxes ( mailbox_type='user' ) + recipients ( recipient_type='mailbox' )</code>	Yes — Dovecot LMTP delivery to <code>/mnt/vmail/&lt;domain&gt;/&lt;user&gt;/</code>	Yes — IMAP/POP3/Submission, web portal, Nextcloud
<b>Alias</b>	<code>mailbox_aliases</code>	No — forwards to one or more mailboxes (or silently discards)	No
<b>Shared Mailbox</b>	<code>mailboxes ( mailbox_type='shared' ) + shared_mailbox_permissions</code>	Yes — but accessed via Dovecot ACL from owner mailboxes	No direct login — owners reach it from their own session
<b>Relay Recipient</b>	<code>recipients ( recipient_type='relay' )</code>	No — forwarded to a downstream MX	Yes for web portal / Submission (via app passwords)

See [Aliases](#) and [Shared Mailboxes](#) for the alias and shared variants, and [Email Relay > Relay Recipients](#) for the relay-topology equivalent.

# What a Mailbox row carries

```
mailboxes table (Dovecot userdb-driving row)
├─ id, domain_id      -> joins to domains where type='mailbox'
├─ username           full email (e.g. jsmith@company.com)
├─ name               display name
├─ quota              per-mailbox quota in BYTES (DB stores bytes;
│                     UI shows GB)
├─ active              1/0 – Dovecot rejects auth when 0
├─ nextcloud_enabled  per-mailbox Nextcloud flag
├─ mailbox_type       'user' | 'shared'
├─ first_name, last_name, title, phone, mobile, department
│                     (Pro Personal Information for signature
│                     substitution)

recipients table (paired row, recipient_type='mailbox')
├─ recipient           same as mailboxes.username
├─ policy_id           -> spam_policies (SVF policy)
├─ auth_type           'local' | 'remote'
├─ remoteauth_domain  NULL if local; mapping key if remote
├─ enforce_mfa         0 | 1 (admin policy)
├─ pdf_enabled / smime_enabled / pgp_enabled / digital_sign
├─ (cert + keyring slots populated lazily by cert_generation_queue)
```

Side tables linked at create-time or lazily:

Table	Role
<code>user_settings</code>	<code>report_enabled</code> (quarantine notifications), <code>train_bayes</code> , <code>download_msg</code> , <code>timezone</code> , <code>ldap_username</code>
<code>maddr</code>	Amavis address index — required for the user portal session machinery
<code>sender_login_maps</code>	Postfix <code>smtpd_sender_login_maps</code> entry — permits the mailbox owner to send AS their own address from Submission
<code>app_passwords</code>	Per-mailbox application passwords (Argon2-hashed) for IMAP/SMTP/CalDAV/CardDAV/Nextcloud. The Add flow creates an initial <code>Hermes System</code> app password used by the Nextcloud Mail auto-profile.
<code>recipient_certificates</code> , <code>recipient_keystores</code>	S/MIME cert + PGP keyring slots (lazy — populated by the queue)
<code>cert_generation_queue</code>	Async S/MIME + PGP generation jobs
<code>mailbox_aliases</code>	If any aliases exist pointing at the mailbox
<code>shared_mailbox_permissions</code>	If the mailbox is granted access to any shared mailbox

## Add Mailbox — `add_mailbox.cfm`

Single-mailbox page (not a bulk form). The admin selects a target domain, fills in the address local-part + display name + quota + auth mode + per-recipient stack (policy, notifications, encryption flags), and submits. `add_mailbox_action.cfm` then runs the full creation pipeline:

```
form submit → add_mailbox_action.cfm
|
| validate domain + email + auth mode
| duplicate-check against recipients, mailboxes,
| mailbox_aliases, virtual_recipients
|
| --- write DB ---
| INSERT recipients (recipient_type='mailbox', policy,
| auth_type, remoteauth_domain,
| enforce_mfa, encryption flags)
| INSERT maddr (Amavis address index)
| INSERT user_settings(notifications, train_bayes,
| download_msg, timezone)
```

```

| INSERT mailboxes      (domain_id, username, name,
|                       quota, active=1, nextcloud_enabled)
|
| INSERT sender_login_maps (permits send-as)
|
| --- LDAP ---
| auth_type=local      : ldap_add_user_mailbox.cfm
|                       (random userPassword, will be reset)
| auth_type=remote    : ldap_add_user_mailbox_remoteauth.cfm
|                       (no userPassword; seeAlso pointer to
|                       upstream DN, associatedDomain set to
|                       remoteauth_domain)
| ldap_add_user_groups_mailbox.cfm
|   -> cn=mailboxes,ou=groups,dc=hermes,dc=local
|   -> cn=one_factor OR cn=two_factor (per enforce_mfa)
| if NC enabled:
|   -> cn=nextcloud,ou=groups,dc=hermes,dc=local
|
| --- Nextcloud (if NC enabled) ---
| nextcloud_provision_user.cfm
|   -> occ user:add with RANDOM internal password
|       (not the user's real password – they reach NC
|       via OIDC; the internal password is defense-in-depth)
|   -> occ user:setting to pre-fill email + display name
|   -> create initial Hermes System app password
|       (used by the Mail app account profile)
|   -> create Nextcloud Mail account profile
|       (IMAP+SMTP credentials pre-wired)
|
| --- lazy cert / keyring queue ---
| if smime_enabled : INSERT cert_generation_queue (smime)
| if pgp_enabled   : INSERT cert_generation_queue (pgp)
|
| --- send welcome ---
| local   : send_mailbox_welcome_email.cfm
|           (password-reset link, 30-min expiry)
| remote  : send_mailbox_welcome_email_remoteauth.cfm
|           (sign-in with organization password)
|
| --- signature map ---
| if Pro: signature_regen_map.cfm

```

```

| -> rebuild body_milter signature_by_sender map
| -> rebuild sender_data.json
|
v
cflocation -> view_mailboxes.cfm with session.m = 1

```

Dovecot mailbox directories on `/mnt/vmail/<domain>/<user>/` are NOT pre-created. Dovecot auto-creates the directory tree on first LMTP delivery or first IMAP login. The mailbox row alone is enough.

## Password handling

Local-auth mailboxes:

- The admin enters a password on the Add form (12-char minimum, no special chars, checked against the HIBP "Have I Been Pwned" k-anon range API).
- The same password is stored in three places, each hashed by its consuming subsystem: OpenLDAP `userPassword` (Argon2id via `slappasswd -o module-load=argon2.la -h {ARGON2}`), `app_passwords` initial `Hermes System` row (Argon2id), and the Nextcloud internal user password (only on the NC side, set by `occ user:add` — but immediately replaced with a random value by `nextcloud_provision_user.cfm`, see Phase 1 of #197).
- Argon2id hashing uses the canonical `docker run --rm authelia/authelia:<version> authelia crypto hash generate argon2 --password <value>` pattern. No host-side `argon2` binary required.

RemoteAuth mailboxes (`auth_type='remote'`):

- No password is captured. The local LDAP entry has no `userPassword`; bind goes through the OpenLDAP remoteauth overlay to the upstream AD/LDAP per the `remoteauth_domain` mapping (see [LDAP RemoteAuth](#)).
- `app_passwords` still issues Hermes-side credentials for IMAP/SMTP/DAV — these remain Hermes-owned regardless of upstream password rotation.

## The Mailboxes table

Single DataTable with 21 columns and an optional Domain filter dropdown above (populated only when  $\geq 1$  domain has mailboxes). Per-row columns:

Column	Source	Notes
--------	--------	-------

Actions	—	Dropdown: Edit Options, Edit Encryption, Reset 2FA Devices, Manage App Passwords (→ <code>view_mailbox_app_passwords.cfm</code> ), Send Mobile Setup Profile, Rotate NC Internal Password (only if NC enabled), Delete
S/MIME	link to <code>view_recipient_certificates.cfm?type=1&amp;id=...</code>	Per-mailbox cert manager
PGP	link to <code>view_recipient_keyrings.cfm?type=1&amp;id=...</code>	Per-mailbox keyring manager
Email	<code>mailboxes.username</code>	Full address
Display Name	<code>mailboxes.name</code>	
Domain	join on <code>domains.domain</code>	
Quota	<code>mailboxes.quota / 1024 / 1024 / 1024</code>	Rendered in GB
Auth	<code>recipients.auth_type</code>	<code>LOCAL</code> badge or <code>REMOTE</code> badge (tooltip shows <code>remoteauth_domain</code> )
2FA	LDAP <code>cn=two_factor</code> + <code>enforce_mfa</code>	Two independent pills — see <a href="#">Two-pill 2FA column</a>
Policy	<code>spam_policies.policy_name</code>	
Notifications, Train Bayes, Download Msgs	<code>user_settings.*</code>	<code>YES</code> (success) / <code>NO</code> (secondary)
PDF / S/MIME / PGP Encrypt, Sign All	<code>recipients.*</code>	<code>YES</code> / <code>NO</code>
S/MIME Cert, PGP Keyring	join against <code>recipient_certificates</code> , <code>recipient_keystores</code>	<code>YES</code> (green) if a cert/keyring exists; spinner badge if a job is <code>pending</code> / <code>processing</code> in <code>cert_generation_queue</code>
Nextcloud	<code>mailboxes.nextcloud_enabled</code>	<code>YES</code> / <code>NO</code>
Status	<code>mailboxes.active</code>	<code>Active</code> (success) / <code>Inactive</code> (danger) — Dovecot rejects auth when <code>active=0</code>

The query filters `WHERE m.mailbox_type = 'user'` so shared mailboxes do not appear here — they have their own page at [Shared Mailboxes](#).

## Two-pill 2FA column

Same two-orthogonal-states model as [Email Relay > Relay Recipients § Two-pill 2FA column](#). Admin enforcement (`recipients.enforce_mfa`) and user enrollment (`cn=two_factor` LDAP membership) are

decoupled, so the cell can show **Enrolled**, **Required**, both, or em-dash.

The page pulls all `cn=two_factor` group members in a single `ldapsearch` (via `docker exec hermes_ldap ldapsearch -Y EXTERNAL`) once per render, then each row checks for its DN substring in the result — avoids an N+1 LDAP roundtrip storm.

## Edit Options modal — AJAX pre-fill

Opens via `loadEditModal(mailboxId)`, hits `inc/get_mailbox_json.cfm` over AJAX, hydrates every field with the mailbox's current values. Unlike the Relay Recipients bulk-edit foot-gun, this modal is **always single-mailbox** — there is no bulk Edit Options on this page.

Fields:

Section	Notes
Email Address	Read-only
Display Name	<code>mailboxes.name</code>
Personal Information ( <i>collapsible, Pro only</i> )	<code>first_name</code> , <code>last_name</code> , <code>title</code> , <code>phone</code> , <code>mobile</code> , <code>department</code> . Used by signature placeholder substitution ( <code>{{user.first_name}}</code> , <code>{{user.title}}</code> , etc.) and by department-based signature resolution. Department field uses a typeahead datalist built from the domain's existing departments via <code>inc/get_dept_options.cfm</code> . Community inputs are HTML-disabled and the action handler skips the UPDATE on Community so values survive a Pro→Community downgrade.
Mailbox Quota (GB)	Per-mailbox override of the domain default
Status	<code>Active</code> / <code>Inactive</code>
SVF Policy	Populated from <code>spam_policies</code> where <code>custom='1'</code> OR <code>default_policy='1'</code>
Quarantine Notifications	<code>user_settings.report_enabled</code>
Train Bayes Filter	<code>user_settings.train_bayes</code> — with prominent warning that improperly-trained Bayes affects ALL recipients
Download Messages from User Portal	<code>user_settings.download_msg</code> — with malware-risk warning
Nextcloud Webmail	<code>mailboxes.nextcloud_enabled</code> . <b>Enabling for an existing user requires a new password</b> (NC needs the password to provision the Mail app profile) — error 51 if the admin enables NC without setting a password. <b>Disabling</b> shows a <code>Keep Nextcloud account data</code> checkbox that gates whether the NC user account and data are preserved or permanently deleted.

Section	Notes
Two-Factor Authentication	<code>recipients.enforce_mfa</code> . When enabled, the user's web portal access becomes restricted to Account Settings, My App Passwords, Set Up Your Devices, and Webmail & Apps until they enroll. Email/calendar/contacts keep working throughout — only the web portal is gated. The 0→1 transition triggers an LDAP group move from <code>cn=one_factor</code> to <code>cn=two_factor</code> so Authelia challenges them on next sign-in.
Timezone	<code>user_settings.timezone</code> (Java <code>ZoneId</code> list). Used for the vacation auto-reply schedule and dashboard timestamps.
Authentication Type	Read-only — <code>local</code> or <code>remote</code>
Change Password ( <i>local auth only</i> )	Optional. Minimum 12 chars, no special chars, HIBP-checked. Blank keeps the current password.

## Edit Encryption modal

Per-mailbox encryption flags (`pdf_enabled`, `smime_enabled`, `digital_sign`, `pgp_enabled`) plus the cert/keyring generation parameters (CA, validity, key size, algorithm, PGP key length). Submit queues `async cert + keyring generation` into `cert_generation_queue` if a flag flips on and no existing cert/keyring is present — same lazy-queue pattern as [Relay Recipients](#).

## Reset 2FA Devices modal

Single-purpose modal that clears Authelia TOTP and WebAuthn device registrations via `docker exec hermes_authelia authelia storage user totp delete` and `... webauthn delete --all`. Two modes:

Mode	What it does
<b>Default</b>	Deletes TOTP + WebAuthn devices. User stays under 2FA enforcement and re-registers on next sign-in. "User lost their phone" recovery.
<b>Nuclear</b> ( <i>checkbox</i> )	Also moves the user from <code>cn=two_factor</code> back to <code>cn=one_factor</code> . Admin override; if <code>enforce_mfa</code> is still 1 the next Edit Options save will reverse the LDAP move.

“ **Does not affect Duo Push.** Duo enrollments live on Duo's cloud servers. Use the Duo Admin Console.

# Send Mobile Setup Profile

Per-mailbox action that emails the user a signed iOS / iPadOS mobileconfig profile pre-wired with IMAP + Submission + CalDAV + CardDAV + the appropriate account name and email. The link in the email expires in 30 minutes and works only once.

Handler is `inc/admin_resend_mobile_setup_action.cfm`. The mobileconfig generator itself is shared with the user-portal Setup Your Devices wizard.

# Rotate NC Internal Password

Visible only when `mailboxes.nextcloud_enabled = 1`. Generates a new random local password for the Nextcloud user via `docker exec hermes_nextcloud occ user:resetpassword` and the displayed value is **never shown** — it is purely defense-in-depth.

Background: the Nextcloud internal password was historically set to the user's real password, which silently allowed CalDAV/CardDAV to accept the org password and defeat the app-password isolation boundary (closed in #197 Phase 1). The internal password is now random and unused by anything user-facing — users reach NC via OIDC, and DAV/IMAP go through app passwords. This admin action lets the admin re-randomize on demand without touching the user's actual credentials.

# Delete

Cascading delete that mirrors the create pipeline in reverse, with the same cleanup discipline as Relay Recipients (the goal is zero-orphan rows). Per mailbox:

For the selected mailbox ID:

1. Read `mailboxes` row + `user_settings` (for `ldap_username`)
2. Remove LDAP from `cn=mailboxes` (before `delete_internal_recipients`  
`runs ldap_delete_user_relay`)
3. (If NC enabled) Remove from `cn=nextcloud` LDAP group
4. `delete_internal_recipients.cfm`
  - `docker exec hermes_authelia authelia storage user totp delete`
  - `docker exec hermes_authelia authelia storage user webauthn delete --all`
  - LDAP user entry delete
  - `cert_generation_queue cancel + recipient_certificates clear`
  - `recipient_keystores + Ciphermail keystore clear`

- ```
- wblast, mailaddr, password_reset_requests cancel
```
5. DELETE mailboxes WHERE id = <id>
  6. DELETE sender\_login\_maps WHERE login\_user = <email>
  7. DELETE user\_settings (if not already cleared by step 4)
  8. Re-sync any shared mailbox vfile ACLs the user was a member of (so the deleted user vanishes from sharer lists)
  9. DELETE app\_passwords WHERE username = <email>
  10. (If NC enabled AND admin did NOT check "Keep Nextcloud data")  
docker exec hermes\_nextcloud occ user:delete <user>
  11. signature\_regen\_map.cfm (rebuild body milter map without this user)

The Nextcloud user/data preservation is opt-in via the `Keep Nextcloud account data` checkbox surfaced when toggling NC off in Edit Options — deletion from this page asks the same question.

“ **Dovecot mailbox data on disk is NOT deleted.** `/mnt/vmail/<domain>/<user>/` survives the delete. If you intend to permanently retire the mailbox, remove the directory from the host after the delete completes. This matches the per-domain behavior on [Domains](#).

# Local-auth vs RemoteAuth — the credential split

Identical model to relay recipients. See [Email Relay > Relay Recipients § Local-auth vs RemoteAuth](#) and [Authentication Settings](#) for the full four-credential architecture.

For mailboxes specifically: app passwords are always Hermes-issued regardless of `auth_type`. RemoteAuth mailbox users' upstream directory password is exposed only to the web gate (via the LDAP overlay's pass-through bind) — never to Dovecot or the Nextcloud Mail profile.

“ **Known forward-looking gap (#102).** RemoteAuth mapping deletion validation in `view_remoteauth.cfm` and `edit_remoteauth_mapping.cfm` currently only checks `system_users` and `recipients`. When RemoteAuth-for-mailboxes activity grows, the validation must add a third query against `mailboxes` so an in-use mapping cannot be stranded. See [LDAP RemoteAuth § Deletion validation](#).

# Failure semantics

| What breaks                                                                     | What happens                                                                                                                                                                  |
|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Quota not a positive number                                                     | <code>session.m = 15</code> , redirect, no DB write                                                                                                                           |
| Missing required form fields                                                    | <code>session.m = 20</code> , redirect, no DB write                                                                                                                           |
| Mailbox not found (Edit/Delete)                                                 | <code>session.m = 21</code> , redirect, no DB write                                                                                                                           |
| Password under 12 characters                                                    | <code>session.m = 22</code> , redirect, no DB write                                                                                                                           |
| Password found in HIBP breach                                                   | <code>session.m = 99</code> , redirect, no DB write                                                                                                                           |
| HIBP API unavailable                                                            | <code>session.m = 100</code> , warning banner, mailbox still rejected (fail-closed)                                                                                           |
| Enabling NC for existing user without setting a password                        | <code>session.m = 51</code> , redirect, no DB write                                                                                                                           |
| Mobile setup profile email failed but profile staged                            | <code>session.m = 83</code> , warning banner, link still works                                                                                                                |
| Duplicate email (against recipients / mailboxes / aliases / virtual_recipients) | redirect to <code>add_mailbox.cfm</code> with appropriate alert                                                                                                               |
| LDAP add fails after DB inserts succeed                                         | DB row exists; subsequent IMAP/SMTP login fails until the LDAP entry is created (admin can re-save Edit Options or delete and re-add)                                         |
| Nextcloud <code>occ user:add</code> fails                                       | Mailbox creation succeeds; NC toggle effectively becomes a no-op until re-toggled                                                                                             |
| <code>cert_generation_queue</code> row stuck in <code>processing</code>         | Surfaces in the Add Recipient / Add Mailbox alert banner via <a href="#">Pending S/MIME or PGP generation</a> ; retry via the same Retry Failed Jobs button on the Relay page |

# Files and containers touched

| Path                                                                        | Owner                          | Role                                                                   |
|-----------------------------------------------------------------------------|--------------------------------|------------------------------------------------------------------------|
| <code>config/hermes/var/www/html/admin/2/view_mailboxes.cfm</code>          | <code>hermes_commandbox</code> | Main page + Edit Options / Edit Encryption / Reset 2FA / Delete modals |
| <code>config/hermes/var/www/html/admin/2/add_mailbox.cfm</code>             | <code>hermes_commandbox</code> | Add page (single mailbox, full per-recipient stack)                    |
| <code>config/hermes/var/www/html/admin/2/inc/add_mailbox_action.cfm</code>  | <code>hermes_commandbox</code> | Add handler — orchestrates DB + LDAP + NC + cert queue + welcome email |
| <code>config/hermes/var/www/html/admin/2/inc/edit_mailbox_action.cfm</code> | <code>hermes_commandbox</code> | Edit Options handler                                                   |

| Path                                                                                                                                                                                                                                                                                                                                                                                                                 | Owner             | Role                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <code>config/hermes/var/www/html/admin/2/inc/edit_mailbox_encryption_action.cfm</code>                                                                                                                                                                                                                                                                                                                               | hermes_commandbox | Edit Encryption handler + cert/keyring queue insertion                                                                            |
| <code>config/hermes/var/www/html/admin/2/inc/edit_mailbox_access_control_action.cfm</code>                                                                                                                                                                                                                                                                                                                           | hermes_commandbox | Reset 2FA Devices handler (TOTP + WebAuthn clear + optional nuclear move)                                                         |
| <code>config/hermes/var/www/html/admin/2/inc/delete_mailbox_action.cfm</code>                                                                                                                                                                                                                                                                                                                                        | hermes_commandbox | Delete cascade                                                                                                                    |
| <code>config/hermes/var/www/html/admin/2/inc/get_mailbox_json.cfm</code>                                                                                                                                                                                                                                                                                                                                             | hermes_commandbox | AJAX hydrator for Edit Options                                                                                                    |
| <code>config/hermes/var/www/html/admin/2/inc/get_dept_options.cfm</code>                                                                                                                                                                                                                                                                                                                                             | hermes_commandbox | Per-domain department datalist (typeahead)                                                                                        |
| <code>config/hermes/var/www/html/admin/2/inc/ldap_add_user_mailbox.cfm</code> / <code>ldap_add_user_mailbox_remoteauth.cfm</code>                                                                                                                                                                                                                                                                                    | hermes_commandbox | Local / remote LDAP entry creation                                                                                                |
| <code>config/hermes/var/www/html/admin/2/inc/ldap_add_user_groups_mailbox.cfm</code>                                                                                                                                                                                                                                                                                                                                 | hermes_commandbox | Group assignment: <code>cn=mailboxes</code> , <code>cn=one_factor</code> / <code>cn=two_factor</code> , <code>cn=nextcloud</code> |
| <code>config/hermes/var/www/html/admin/2/inc/ldap_delete_user_mailbox.cfm</code>                                                                                                                                                                                                                                                                                                                                     | hermes_commandbox | LDAP entry removal on delete                                                                                                      |
| <code>config/hermes/var/www/html/admin/2/inc/nextcloud_provision_user.cfm</code>                                                                                                                                                                                                                                                                                                                                     | hermes_commandbox | NC user creation, random internal password, Mail app profile, initial app password                                                |
| <code>config/hermes/var/www/html/admin/2/inc/rotate_nc_password_action.cfm</code>                                                                                                                                                                                                                                                                                                                                    | hermes_commandbox | On-demand NC internal password rotation                                                                                           |
| <code>config/hermes/var/www/html/admin/2/inc/admin_resend_mobile_setup_action.cfm</code>                                                                                                                                                                                                                                                                                                                             | hermes_commandbox | Mobile setup profile generation + email                                                                                           |
| <code>config/hermes/var/www/html/admin/2/inc/send_mailbox_welcome_email.cfm</code> / <code>send_mailbox_welcome_email_remoteauth.cfm</code>                                                                                                                                                                                                                                                                          | hermes_commandbox | Welcome email (local: reset link; remote: org-password instructions)                                                              |
| <code>config/hermes/var/www/html/admin/2/inc/signature_regen_map.cfm</code>                                                                                                                                                                                                                                                                                                                                          | hermes_commandbox | Body milter <code>signature_by_sender</code> map + <code>sender_data.json</code> rebuild                                          |
| <code>mailboxes</code> , <code>recipients</code> , <code>user_settings</code> , <code>maddr</code> , <code>sender_login_maps</code> , <code>app_passwords</code> , <code>recipient_certificates</code> , <code>recipient_keystores</code> , <code>cert_generation_queue</code> , <code>mailbox_aliases</code> , <code>shared_mailbox_permissions</code> , <code>wblist</code> , <code>password_reset_requests</code> | hermes_db_server  | The mailbox row group                                                                                                             |
| <code>cn=&lt;user&gt;,ou=users,dc=hermes,dc=local</code>                                                                                                                                                                                                                                                                                                                                                             | hermes_ldap       | Per-mailbox LDAP entry (with <code>userPassword</code> Argon2id hash for local-auth or <code>seeAlso</code> for remote)           |

| Path                                                                                                                                      | Owner                                        | Role                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>cn=mailboxes</code> , <code>cn=one_factor</code> / <code>cn=two_factor</code> , <code>cn=nextcloud</code> in <code>ou=groups</code> | <code>hermes_ldap</code>                     | Group memberships set at create-time                                                                                                                       |
| <code>/mnt/vmail/&lt;domain&gt;/&lt;user&gt;/</code>                                                                                      | <code>hermes_dovecot</code> (mounted)        | Mailbox directory tree — auto-created on first LMTP delivery / IMAP login; NOT removed on delete                                                           |
| Authelia <code>totp_configurations</code> + <code>webauthn_devices</code>                                                                 | <code>hermes_authelia</code> storage backend | Cleared on delete + Reset 2FA Devices                                                                                                                      |
| <code>hermes_nextcloud</code> container                                                                                                   | —                                            | <code>occ user:add</code> / <code>user:delete</code> / <code>user:resetpassword</code> / <code>group:add</code> (the latter from <a href="#">Domains</a> ) |

Every shell-out uses `docker exec ...` per the standard Hermes pattern.

## Related

- [Domains](#) — mailbox-domain registration. A mailbox is meaningless without a domain row of `type='mailbox'`. Domain defaults (default quota, Nextcloud enabled, 2FA required) pre-fill the Add Mailbox form for new mailboxes; toggling the per-domain default does NOT cascade to existing mailboxes.
- [Settings](#) — global Dovecot config: TLS profile, compression, encryption at rest, quota warning thresholds. The warning thresholds measure against the per-mailbox quota set here.
- [Aliases](#) — alias addresses that resolve to mailboxes (with optional silent-discard mode). Add aliases AFTER the target mailbox exists.
- [Shared Mailboxes](#) — shared-namespace mailboxes with per-user ACLs. Distinct from regular mailboxes — they live in the same `mailboxes` table but with `mailbox_type='shared'`.
- [Mailbox Rules](#) — server-side Sieve rules per mailbox. Sieve is always-on at the protocol level via [Settings](#).
- [SAN Management](#) — SAN prefixes that gate client auto-discovery for every mailbox domain.
- [Authentication Settings](#) — Authelia config, OIDC, the four-credential architecture (web vs IMAP/SMTP vs DAV vs Nextcloud) that mailbox app passwords slot into.
- [LDAP RemoteAuth](#) — required prerequisite for `auth_type='remote'` mailboxes. The Add form surfaces only mappings with `enabled=1`.
- [Password Resets](#) — admin-driven password reset for local-auth mailboxes (the user-facing flow uses the link in the welcome email).

- [System Users](#) — distinct from mailboxes; covers console admins / readers, which use the `system_users` table rather than `mailboxes`.
  - [Email Relay > Relay Recipients](#) — the relay-topology equivalent. Mailbox users are delivered locally; relay recipients are forwarded downstream. Don't confuse the two.
  - [Organizational Signatures](#) (*Pro*) — consumer of the Personal Information fields on the Edit Options modal (plus the domain's Organization Information fields).
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