



Release Notes for OX Dovecot Pro

Minor Release v2.3.21

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1. Shipped Products and Versions

OX Dovecot Pro v2.3.21

Built on Dovecot Community Edition Core v2.3.21

Including Object Storage (obox) and Full Text Search (fts-dovecot) Plug-ins

Supported OS Distributions:

- [Amazon Linux 2](#)
- [CentOS 7.9](#)
- [RHEL 7.4, 8.2](#)
- [Debian buster \(10\), bullseye \(11\)](#)
- [Ubuntu 18.04 LTS \(bionic\), 20.04 LTS \(focal\)](#)
 - Note: Future support for Ubuntu 22.04 LTS (jammy) is unlikely for v2.3.x due to its dependency on OpenSSL 3.0.

Apache Cassandra Driver: [v2.16.2](#)

2. Release Highlights

This is a maintenance release of OX Dovecot Pro v2.3 branch, which contains bug fixes, optimizations, and minor feature additions.

3. Upgrade Information

New settings:

- `fts_dovecot_message_count_stats`
 - See: https://doc.dovecot.org/settings/plugin/fts-dovecot-plugin/#plugin_setting-fts-dovecot-fts_dovecot_message_count_stats

4. Known Issues

- Not all Dovecot 2.2.x logging has been converted to Dovecot 2.3.x events, so newer logging/metrics configuration will not work on these older log entries.

5. Detailed Changes

5.1. OX Dovecot Pro Core

- **IMPROVEMENT DOV-5818:** Auth passdb and userdb reply can contain ``event_name=value`` which will be added to login event and mail user event respectively.
- **IMPROVEMENT DOV-5829:** Add "doveadm fts check fast" and "doveadm fts check full" commands to check FTS index consistency against current mailbox contents. Added `fts_dovecot_message_count_stats` setting to make the fast check work at per-folder level.

- See https://doc.dovecot.org/configuration_manual/fts/dovecot/#consistency-checking.
- **IMPROVEMENT DOV-5930:** If `metric { fields }` is specified, all these fields are exported as counters to Prometheus exposition.
- **IMPROVEMENT DOV-5959:** The `mail_temp_scan_interval` is now fuzzed incrementing it by 0..30% based on username's hash to reduce the chance of load spikes.
- **IMPROVEMENT DOV-5959:** The temp file scan has been moved from the open of the mailbox to the close, to reduce the latency perceived by users.
- **IMPROVEMENT DOV-5978:** Set process title during various initialization stages to clearly describe what the process is waiting on.
- **IMPROVEMENT DOV-6051:** Allow JWT tokens to be validated with missing `typ` field. The `typ` field is left out by some key issuers to conserve space, notably kubernetes. Now missing `typ` is tolerated, but if present, it still must be 'jwt'.
- **ISSUE DOV-5687:** Sending POP3 command with ':' character caused an assert-crash. v2.3.18 regression.
 - *Fixes:* Panic: `event_reason_code_prefix(): name has ':'`.
- **ISSUE DOV-5724:** Dovecot Lua HTTP client could not resolve DNS names in mail processes, because it expected "dns-client" socket to exist in the current directory.
- **ISSUE DOV-5752:** Logins with invalid passwords (e.g. unknown scheme) in `passdb` were failing with "password mismatch" instead of "internal error".
- **ISSUE DOV-5783:** Dovecot HTTP server (`doveadm`, `stats/openmetrics`) may have disconnected HTTP clients before the response is fully sent. This happened only on busy servers where kernel's socket buffers were rather full.
- **ISSUE DOV-5817:** The `welcome` plugin didn't execute in some situations that created INBOX but didn't open it, e.g. if `GETMETADATA` was used before the INBOX was opened.
- **ISSUE DOV-5832:** `imapc` could have processed `EXPUNGE`, `EXISTS` or `FETCH` replies from server for previously selected mailbox as if they

belonged to the new mailbox currently being selected. This could have caused warnings.

- *Fixes:* (e.g.) Mailbox ... state corrupted: EXPUNGE received for empty mailbox – reconnecting.
- **ISSUE DOV-5908:** Fixed potential crash on http-server if client disconnects early.
- **ISSUE DOV-5915:** Index file corruption could have caused a crash.
 - *Fixes:* Panic: file mail-transaction-log-view.c: line 165 (mail_transaction_log_view_set): assertion failed: (min_file_seq <= max_file_seq).
- **ISSUE DOV-5921:** imap crashes when a folder mapped through virtual plugin disappears from the storage.
- **ISSUE DOV-5932:** Incremental dsync failed for folder names ending with '%', unless BROKENCHAR was set. Also folder names with '%' elsewhere in them caused each incremental dsync to unnecessarily rename the folder to a temporary name and back. v2.3.19 regression.
- **ISSUE DOV-5959:** mbox: When `last_temp_file_scan` header isn't set (especially after dsync migration), the next mailbox open always triggers the temp file scan. This can cause a load spike after migrations. Fixed by using the mailbox directory's atime when the header isn't set, which usually moves the scan time into the future.
- **ISSUE DOV-5984:** If IMAP client unhibernation timed out with "(version received)", the unhibernation could still have successfully finished later on and continued working normally. This was rather confusing, because imap-hibernate already logged that the client got disconnected. Avoid this by forcing the connection to shutdown on unhibernation timeout.
- **ISSUE DOV-5986:** `service { idle_kill }` setting didn't work properly on busy servers. It was very unlikely that any process was idling long enough to become killed. Also the `idle_kill` handling code was using quite a lot of CPU on the master process when there were a lot of processes (e.g. imap). The new behavior is to track the lowest number of idling processes every `idle_kill` time interval and then kill that many idling processes.
- **ISSUE DOV-6043:** mbox was `fdatsync()`ing wrong parent directory when writing mails. Also on a failure it crashed instead of logging an error.
- **ISSUE DOV-6086:** Auth would crash if postgres connection failed during startup.
- **ISSUE DOV-6143:** xoauth2 and oauthbearer were not giving out protocol specific error message on all errors. This broke oidc discovery.
- **ISSUE DOV-6143:** JWT token audience was not validated against `client_id` as required by specification.

- **ISSUE DOV-6143:** JWT key type check was too strict.
- **ISSUE DOV-6143:** aud validation was not performed if aud was missing from token but was configured on Dovecot.
- **ISSUE DOV-6143:** Dovecot would send client_id and client_secret as POST parameters to introspection server. These need to be optionally in Basic auth instead.
- **ISSUE DOV-6173:** When ACL plugin was loaded, \HasChildren and \HasNoChildren flags were calculated incorrectly for mailboxes containing '*' and '%' in their names.
- **ISSUE DOV-6176:** "doveadm fts lookup" command crashed. v2.3.19 regression.
- **ISSUE DOV-6188:** If folder is deleted from remote mailbox tree and hierarchy separator differs, doveadm sync ends up in infinite loop and crashes with out of memory.
- **ISSUE DOV-6198:** When using user-specific global encryption keys, LMTP delivery with multiple recipients in the same session may have delivered all the mails using the first user's encryption key. The other recipients would have failed to read the mail in this case.
- **ISSUE DOV-6246:** "aud" validation code could not handle field being an array.

5.2. Object Storage (obox) Plugin

- **ISSUE DOV-5734:** doveadm sync failed if it found any emails with missing GUIDs. Fixed by generating missing GUIDs automatically. Normally all email objects have GUIDs in metadata, so this could have only happened due to storage corruption or a similar problem.
- **ISSUE DOV-5815:** Metacache rescanning didn't lock files properly, causing errors to be logged sometimes.
 - *Fixes:* metacache-worker: Info: Corrupted .../.state - deleting the directory: Unexpectedly lost state file.
- **ISSUE DOV-6218:** fs-dictmap could have leaked a timeout when updating buckets.cache, which results in a crash.
- **ISSUE DOV-6252:** Saving objects larger than about 500 MB to AWS S3 failed, because Dovecot's SHA256 code produced wrong output for large inputs.

5.3. Full Text Search (fts-dovecot) Plugin

- **ISSUE DOV-5864:** Fixed various bugs that can leave messages indefinitely in fts.X expunge log.
- **ISSUE DOV-5864:** Fixed a crash when all messages in a mailbox become dropped in fts.X.
 - *Fixes:* Panic: array.h: line 273 (array_idx_i): assertion failed: (idx < array->buffer->used / array->element_size).
- **ISSUE DOV-5864:** fts.S cache may have wrongly logged warnings such as: "Warning: fts-dovecot: stats filesize ignoring change from .. to ..".

5.4. Pigeonhole (sieve) Plugin

- **ISSUE DOV-6257:** When saving to local storage failed after a successful action in sieve (e.g. redirect, vacation), the mail was reported as successfully delivered, although it was lost locally.

5.5. Other Plugins

5.5.1. Virtual Attachments (virtual_attachments) Plugin

- **ISSUE DOV-5731:** virtual-attachments: IMAP FETCHes could have crashed in some situations in the virtual-attachments folders. v2.3.19 regression.
 - *Fixes:* Panic: file message-part-data.c: line 28 (message_part_data_is_plain_7bit): assertion failed: (data != NULL).

5.5.2. Intercept (intercept) Plugin

- **ISSUE DOV-5910:** intercept-proxy could not connect to a TLS secured endpoint without certificate configured. v2.3.20 regression.

6. Tests

The QA team has successfully verified all issue fixes that could be reproduced within a lab environment.

To avoid side effects, the shipped packages have gone through automated regression test on both, a Continuous Integration System and a dedicated server setup for system and integration testing.

All changes have been checked for potential side-effects and effect on behavior. Unless explicitly stated within this document, we do not expect any side-effects.

7. Repository Information

For details of how to install and update OX Dovecot Pro, please refer to the instructions at:

https://doc.dovecot.org/installation_guide/dovecot_pro_releases/repository_guide/.