



Release Notes for OX Dovecot Pro

Minor Release v2.3.7.2

Table of Contents

1. Shipped Products and Versions.....	2
2. Release Highlights	2
3. Upgrade Instructions	3
4. Known Issues	3
5. Detailed Changes.....	4
5.1. Dovecot Pro Core	4
5.2. Object Storage (obox) Plug-in.....	6
5.3. Full Text Search (fts) Plug-in.....	6
5.4. Pigeonhole (sieve) Plug-in.....	7
5.5. OX Engage (imap-injection) Plug-in	7
6. Tests.....	7
7. Repository Information	7

1. Shipped Products and Versions

OX Dovecot Pro v2.3.7.2

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

Supported OS Distributions:

- [Amazon Linux 2](#)
- [CentOS/RHEL 6.10, 7.6](#)
- [Debian jessie \(8\), stretch \(9\)](#)
- [Ubuntu 16.04 LTS, 18.04 LTS](#)

2. Release Highlights

Dovecot Documentation

As part of this release, Dovecot announces the availability of the new unified Dovecot documentation.

This documentation is maintained by the Dovecot Engineering Team, is open source, and is intended to be the canonical collection place for configuration and technical information. The documentation can be found on the web at <https://doc.dovecot.org/>

The documentation uses the Sphinx documentation generator tool, so it allows the documentation to be displayed and packaged in a variety of formats. Since it is open source, the hope is that customers and the community will be able to provide feedback in efforts to continually improve the quality.

Please note that this documentation is, and will always be, a work in progress. Note: this documentation is intended to be the primary source for configuration and operational topics; it is not intended to be a comprehensive guide on architecture, administration, and/or operational practices.

Event Exporters

In Dovecot 2.3, various internal events have been added to track specific Dovecot actions. These events have been limited to aggregation via the metrics feature.

With this release, these events can now be exported to external transport systems. This allows user-defined aggregation, analysis, and tracking of Dovecot's internal events, which will provide a much richer data source on Dovecot behavior and performance.

Details on how to configure exporters can be found at: https://doc.dovecot.org/configuration_manual/event_export/.

The list of available events can be found at: https://doc.dovecot.org/admin_manual/list_of_events/. This list will expand in future versions of Dovecot as additional internal actions are converted to events.

FTS Enforced

In large installations, an unexpected FTS failure should fail the search rather than read through all the mails (especially if using object storage). This can prevent excessive storage I/O in situations where FTS is either configured incorrectly, or there is a temporary issue where FTS searches are not being efficiently processed via FTS indexes.

A new “body” parameter has been introduced to `fts_enforced` plugin setting, that may better control behavior in these circumstances.

Similar to the “no” setting, “body” doesn't enforce FTS indexing for header searches. If FTS indexes exist for the user, they are used. If not, `dovecot.index.cache` may be used, or if the header isn't there either then it will cause opening all the mails to add it.

Similar to the “yes” setting, on FTS lookup failure “body” won't fallback to reading all mails. This failure happens regardless of whether the FTS lookup was for a header or body.

Summary of Highlights

- Event Exporters
- `fts_enforced` “body” setting added
- IMAP SNIPPET extension has been changed to match the standards track PREVIEW extension
- Metacache improvements for synchronizing with filesystem in background
- OX Engage triggers and event when a campaign email is first interacted with by the user
- Improve performance of Cassandra prepared statements
- Several fixes to improve autoexpunge performance
- Turkish language support for Dovecot Pro FTS

3. Upgrade Instructions

- `fts_enforced` plugin setting [core; see DOV-3037]
 - Added “body” option (default remains “no”)
- `fts-solr` plugin setting [core; see DOV-3126]
 - Removed obsolete `break-imap-search` parameter
- Metacache plugin settings [obox; see DOV-3176]
 - Added `metacache_roots` and `metacache_rescan_interval` settings

4. Known Issues

- `doveadm obox user delete` command doesn't forcibly refresh the list of folders or the list of mails inside folders. This means that in some situations it might not delete all data for the user. Usually this means that if there are still-to-be-found “recovered-lost-folders”, they won't get deleted. [DOV-3318]
 - Workaround: Running `doveadm force-resync -u '*'` before `doveadm obox user delete` should make sure everything gets deleted.
- 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. Dovecot Pro Core

- **IMPROVEMENT DOV-2491:** Metrics for authentication.
- **IMPROVEMENT DOV-2814:** Plugin API for LMTP service.
- **IMPROVEMENT DOV-3037:** Add `body` option to `fts_enforced`. This triggers building FTS index only on body search, and an error using FTS index fails the search rather than reads through all the mails.
- **IMPROVEMENT DOV-3114:** Add `NO-FS-VALIDATION` option for `mail_location`. This allows using folder names that wouldn't be valid or safe names in a filesystem. Not recommended for production use.
- **IMPROVEMENT DOV-3130:** Support mailbox formats as event categories, e.g. `cat:maildir`, `cat:mdbox`, or `cat:obox`.
- **IMPROVEMENT DOV-3131:** fs-auth: Use `ssl_client_*` settings for outgoing SSL connections.
- **IMPROVEMENT DOV-3136:** Renamed SNIPPET extension to PREVIEW and the preview size from 100 to 200 characters. For backwards compatibility it's still possible to FETCH SNIPPET for now. Already cached previews aren't automatically grown. SNIPPET syntax remains for backwards compatibility purposes, and aliases to the new PREVIEW behavior.
- **IMPROVEMENT DOV-3156:** Add support for accessing and manipulating IMAP metadata from Lua scripts.
- **IMPROVEMENT DOV-3227:** During Dovecot startup inotify limits are adjusted automatically by modifying `/proc/sys/fs/inotify/max_user_watches` and `/proc/sys/fs/inotify/max_user_instances` values on systemd enabled system to match process limits set in dovecot configs if current values are lower than calculated.
 - Value of limit is calculated using simple formula:
 - $current_limit + (service/imap/process_limit|default_process_limit)*2$
 - It is possible to disable this functionality by overriding environment variable `INOTIFY_INSTANCES` with local systemd config snippet.
 - `/etc/systemd/system/dovecot.service.d/override.conf:`

```
[Service]
Environment='INOTIFY_INSTANCES=disabled'
```
- **IMPROVEMENT DOV-3255:** Add event exporters.
- **CHANGE DOV-3126:** fts-solr: Remove obsolete `break-imap-search` parameter.
- **ISSUE DOV-2532:** Dovecot's TCP connections sometimes add extra 40ms latency due to not enabling `TCP_NODELAY`. HTTP and SMTP/LMTP connections weren't affected, but everything else was. This delay wasn't always visible - only in some situations with some message/packet sizes.

- **ISSUE DOV-2872:** If expunged mail reappears, imapc client can crash.
- **ISSUE DOV-2947:** With `shutdown_clients=no`, after config reload the existing connections could no longer be listed or kicked with `doveadm`.
- **ISSUE DOV-3019:** Auth policy can cause segmentation fault crash during auth process shutdown if all auth requests have not been finished.
- **ISSUE DOV-3021:** "doveadm service" and "doveadm process" commands may have failed while configuration was being reloaded.
- **ISSUE DOV-3022:** "doveadm proxy kick" with `-f` parameter caused a crash in some situations.
- **ISSUE DOV-3116:** Fix various minor bugs leading into incorrect behavior in mailbox list index handling. These rarely caused noticeable problems.
- **ISSUE DOV-3117:** LDAP auth: Iteration accesses freed memory, possibly crashing auth-worker.
- **ISSUE DOV-3118:** Strings in `dovecot.index.cache` ended unnecessarily with NUL character. Removing it frees up disk space and memory a little bit. Old Dovecot versions can read the strings even without NULs, so this change won't break backwards compatibility. Already existing strings aren't converted.
- **ISSUE DOV-3119:** `local_name { ... }` filter in `dovecot.conf` does not correctly support multiple names and wildcards were matched incorrectly.
- **ISSUE DOV-3125:** imapc: Mailbox becoming empty may have caused crashes: Panic: file `imapc-sync.c`: line 328 (`imapc_initial_sync_check`): assertion failed: (`mail_index_is_expunged(view, lseq) || seq_range_exists(&ctx->mbox->delayed_expunged_uids, luid)`).
- **ISSUE DOV-3144:** `mail_attachment_detection_options=add-flags-on-save` caused email body to be unnecessarily opened when FETCHing mail headers that were already cached.
- **ISSUE DOV-3230:** HTTP client crashed with segfault when host name lookup timed out.
- **ISSUE DOV-3246:** Copying/moving mails using Maildir format loses IMAP keywords in the destination if the mail also has no system flags.
- **ISSUE DOV-3250:** Cassandra: dict process may hang in some (rare) situations, resulting in: `net_connect_unix(/var/run/dovecot/dict-async) failed: Resource temporarily unavailable`.
- **ISSUE DOV-3251:** dsync assert-crashes if it can't connect to remote TCP server: Panic: file `ioloop.c`: line 826 (`io_loop_destroy`): assertion failed: (`ioloop == current_ioloop`).

- **ISSUE DOV-3285:** When building parametrized SQL/Cassandra statements for dict lookups, username was not parametrized. This can cause problems with SQL/Cassandra statement caching on systems with large userbase.
- **ISSUE DOV-3311:** dovecot.index.cache may have grown excessively large in some situations. This happened especially when using autoexpunging with lazy_expunge folders. Also, with mbox format in general the cache file wasn't recreated as often as it should have.
- **ISSUE DOV-3321:** Autoexpunged mails weren't immediately deleted from the disk. Instead, the deletion from disk happened the next time the folder was opened. This could have caused unnecessary delays if the opening was done by an interactive IMAP session.
- **ISSUE DOV-3385:** Prevent a use-after-free of lib-http shared host structures leading to a crash.
- **ISSUE DOV-3388:** Submission/LMTP: Fixed crash when domain argument is invalid in a second EHLO/LHLO command.
- **ISSUE DOV-3404:** Fixed memory leak in config process when `ssl_dh` setting wasn't set and there was no `ssl-parameters.dat` file. This caused config process to die occasionally with "out of memory".

5.2. Object Storage (obox) Plug-in

- **IMPROVEMENT DOV-2994:** Changes to mailbox/server attributes (IMAP metadata) and folder-specific ACL files may have become lost when user migrated from backend to another and index merging occurred.
- **IMPROVEMENT DOV-3176:** Metacache is now automatically synchronized with filesystem on background. Previously crashes and possibly other situations may have caused metacache to think its size was either larger or smaller than it actually was on the filesystem.
 - If `mail_home` setting is set, it's automatically used for finding the metacache directories.
 - Alternatively, `plugin { metacache_roots }` setting can be used to specify a list of metacache root directories. The list is ":" separated.
 - `metacache_rescan_interval` setting controls how often the rescan is run.
 - "doveadm metacache rescan" command can be used to manually perform a rescan. It may be useful to run this in a nightly cronjob, so the rescan is done when the system is less busy. The automatic rescan interval resets after a successful doveadm metacache rescan.
 - "doveadm metacache rescan" can also run a partial rescan under the given directory. For example, a single user's metacache directory. This doesn't reset the automatic rescan interval.

5.3. Full Text Search (fts) Plug-in

- **IMPROVEMENT DOV-3216:** Enable support for Turkish language and add stopwords for it.

- **ISSUE DOV-3257:** Dovecot FTS plugin logged debug messages when debug logging was not enabled.
- **ISSUE DOV-3330:** Full text search may have crashed if during the search mails were expunged.

5.4. Pigeonhole (sieve) Plug-in

- **IMPROVEMENT DOV-3129:** Made the subject for the automatic response message produced by the Sieve vacation action configurable. Both the default subject (if the script defines none) and the subject template (e.g. used to add a subject prefix) can be configured.
- **IMPROVEMENT DOV-3218:** imap_sieve_filter plugin: FILTER command no longer returns untagged reply for every message. Instead, replies are sent only for messages that were changed in some way by the filtering.
- **ISSUE DOV-3253:** dsync-replication does not synchronize Sieve scripts.

5.5. OX Engage (imap-injection) Plug-in

- **IMPROVEMENT DOV-2940:** Promo mail injection tracking: Dovecot events are generated whenever a promotional mail is injected/reinjected/expunged/read for the first time.
- **ISSUE DOV-3289:** imap-injection-plugin used to panic when used with LMTP/LDA and with some imap operations: imap-injection-plugin: Panic: Module context promo_tx_storage_module missing.

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:

http://software.open-xchange.com/products/dovecot/doc/OX-Dovecot-Pro-repository-installation-manual_v2.4.pdf