



# Release Notes for OX Dovecot Pro

## Minor Release v2.3.13

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# 1. Shipped Products and Versions

OX Dovecot Pro v2.3.13

Built on Dovecot Community Edition Core v2.3.13

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

Supported OS Distributions:

- [Amazon Linux 2](#)
- [CentOS 6.9, 7.8, 8.2](#)
- [RHEL 6.9, 7.4, 8.2](#)
- [Debian stretch \(9.13\), buster \(10\)](#)
- [Ubuntu 16.04 LTS \(xenial\), 18.04 LTS \(bionic\), 20.04 LTS \(focal\)](#)

Apache Cassandra Driver: [v2.15.3](#)

## 2. Release Highlights

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

This release adds support for Ubuntu 20.04 LTS. Support for Ubuntu 16.04 LTS will be dropped in a future release.

NOTE: Support of CentOS/RHEL 6 will be dropped in OX Dovecot Pro v2.3.14.

See

[https://oxpedia.org/wiki/index.php?title=Dovecot:Version\\_Support\\_Commitment#OS\\_Distribution\\_Support](https://oxpedia.org/wiki/index.php?title=Dovecot:Version_Support_Commitment#OS_Distribution_Support) for details on OS Distribution support.

### **Summary of Highlights**

- SSL/TLS connections to Cassandra now supported. See: [https://doc.dovecot.org/configuration\\_manual/mail\\_location/obox/dictmap\\_cassandra/?highlight=ssl](https://doc.dovecot.org/configuration_manual/mail_location/obox/dictmap_cassandra/?highlight=ssl)
- “doveadm proxy kick” targeted to host instead of just user. See: [https://wiki.dovecot.org/Tools/Doveadm/Proxy#command\\_proxy\\_kick](https://wiki.dovecot.org/Tools/Doveadm/Proxy#command_proxy_kick)
- Many new events and event fields added

## 3. Upgrade Information

Added settings:

- `mail_attachment_detection_option` parameters
  - `add-flags`, `no-flags-on-fetch`
  - <https://doc.dovecot.org/settings/core/#mail-attachment-detection-options>

Added events (see [https://doc.dovecot.org/admin\\_manual/list\\_of\\_events/](https://doc.dovecot.org/admin_manual/list_of_events/))

- `fs_dictmap_dict_write_uncertain`
- `fs_dictmap_max_bucket_changed`
- `imap_client_hibernated`

- `imap_client_unhibernated`
- `imap_client_unhibernate_retried`

Added new event fields

- auth client events (See [https://doc.dovecot.org/admin\\_manual/list\\_of\\_events/#authentication-client](https://doc.dovecot.org/admin_manual/list_of_events/#authentication-client))
- auth server events (See [https://doc.dovecot.org/admin\\_manual/list\\_of\\_events/#authentication-server](https://doc.dovecot.org/admin_manual/list_of_events/#authentication-server))

Removed obsolete authentication methods: `passdb-sia`, `postfix postmap socket`, `mech-rpa`, `scheme-rpa`, `mech-skey`, `scheme-skey`, `passdb-vpopmail`, `userdb-vpopmail`, NTLM auth mechanism, and LANMAN and NTLM password schemes

## 4. Known Issues

- This release may cause excessive long-term CPU usage in `indexer-worker` processes if there are users that have an excessive volume of FTS objects (> 10,000). This is an existing issue, but with this release it attempts to prevent (or fix up) the situation by merging FTS triplets more aggressively (DOV-3996). However, if there are many FTS triplets, it will take a very long time to fix. In this situation, an admin would preferably manually delete all the triplets for the user and reindex everything (`doveadm fts rescan, kill -9 indexer-worker` for the user).
- 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-3728:** Missing `$HasAttachment` / `$HasNoAttachment` flags are now added to existing mails if `mail_attachment_detection_option=add-flags` and it can be done inexpensively. Either both `mime.parts` and `imap.bodystructure` has to be in cache already, or if mail body is opened in any case.
  - In case there are any unexpected performance regressions, this can be disabled with `mail_attachment_detection_option=no-flags-on-fetch`. This setting may be removed in the future.
- **IMPROVEMENT DOV-3800:** Added `imap_client_hibernated`, `imap_client_unhibernated`, and `imap_client_unhibernate_retried` events. See [https://doc.dovecot.org/admin\\_manual/list\\_of\\_events/](https://doc.dovecot.org/admin_manual/list_of_events/) for details.

- **IMPROVEMENT DOV-3901:** Added new fields for auth server events. These fields are now also available for all auth events. See [https://doc.dovecot.org/admin\\_manual/list\\_of\\_events/#authentication-server](https://doc.dovecot.org/admin_manual/list_of_events/#authentication-server) for details.
- **IMPROVEMENT DOV-3902:** Add new fields to auth client events. See [https://doc.dovecot.org/admin\\_manual/list\\_of\\_events/#authentication-client](https://doc.dovecot.org/admin_manual/list_of_events/#authentication-client) for details.
- **IMPROVEMENT DOV-4079:** Support TLS options for cassandra driver. This requires cpp-driver v2.15 (or later) to work reliably.
- **IMPROVEMENT DOV-4091:** doveadm proxy kick can now be targeted to host instead of user.
- **ISSUE DOV-3958:** master process was using 100% CPU in some situations when a broken service was being throttled.
- **ISSUE DOV-4009:** Fixes to JSON parsing: \ escape sequence may have wrongly resulted in error if it happened to be at read boundary. Any NUL characters and \u0000 will now result in parsing error instead of silently truncating the data.
- **ISSUE DOV-4063:** The LMTP proxy does not always properly log TLS connection problems as errors; in some cases, only a debug message is logged if enabled.
- **ISSUE DOV-4064:** Avoid duplicate categories in exported events.
- **ISSUE DOV-4068:** The `login_source_ips` setting has no effect, and therefore the proxy source IPs are not cycled through as they should be.
- **ISSUE DOV-4089:** IMAP command tags no longer accept characters that are illegal (according to the IMAP RFC).
- **ISSUE DOV-4090:** HTTP requests may have assert-crashed mainly with `fts-solr`: Panic: file `http-client-request.c`: line 1232 (`http_client_request_send_more`): assertion failed: (`req->payload_input != NULL`).
- **ISSUE DOV-4096:** IMAP session can crash with QRESYNC extension if many changes are done before asking for expunged mails since last sync.
- **ISSUE DOV-4102:** v2.3.11 regression: Searching messages that have no terminating MIME boundary assert-crashes (unless FTS is used): Panic: file `message-parser.c`: line 174 (`message_part_finish`): assertion failed: (`ctx->nested_parts_count > 0`).
- **ISSUE DOV-4103:** dict process may crash in some rare situations if dict-client disconnects while iterating keys.
- **ISSUE DOV-4110:** SASL authentication PLAIN mechanism could be used to trigger read buffer overflow. However, this does not seem to be exploitable in any way.

- **ISSUE DOV-4125:** The LMTP service can hang when commands are pipelined. This can particularly occur when one command in the middle of the pipeline fails. One example of this occurs for proxied LMTP transactions in which the final DATA or BDAT command is pipelined after a failing RCPT command.
- **ISSUE DOV-4128:** Removed passdb-sia, postfix postmap socket, mech-rpa, scheme-rpa, mech-skey, scheme-skey, passdb-vpopmail, userdb-vpopmail, NTLM auth mechanism, and LANMAN and NTLM password schemes.
- **ISSUE DOV-4129:** HTTP host idle timeout handling is broken for http-client. This can cause unexpected, aborted requests visible as "9000 Aborted" error.
- **ISSUE DOV-4130:** http-client can crash during DNS lookups.
- **ISSUE DOV-4136:** v2.3.11 regression: Trying to connect to doveadm server process via starttls assert-crashes if there are no ssl=yes listeners: Panic: file master-service-ssl.c: line 22 (master\_service\_ssl\_init): assertion failed: (service->ssl\_ctx\_initialized).
- **ISSUE DOV-4155:** Event filters handled <, >, <=, and => used with category names as if they were =. Inequality comparisons of categories now generate an error.
- **ISSUE DOV-4156:** Event filters handled <, >, <=, and => used with event names as if they were =. Inequality comparisons of event names now generate an error.
- **ISSUE DOV-4157:** Event filters handled <, >, <=, and => used with source locations as if they were =. Inequality comparisons of source locations now generate an error.
- **ISSUE DOV-4162:** Dovecot incorrectly required oauth2 server introspection reply to contain username with invalid token.
- **ISSUE DOV-4171:** lmtpl/submission server may hang if SSL client connection disconnects during the delivery. If this happened repeated, it could have ended up reaching `process_limit` and preventing any further lmtpl/submission deliveries.
- **ISSUE DOV-4173:** imap process might hang indefinitely if client disconnects after sending some long-running commands pipelined, for example FETCH+LOGOUT.
- **ISSUE DOV-4209:** When max nested MIME parts were reached, IMAP BODYSTRUCTURE was written in a way that may have caused confusion for both IMAP clients and Dovecot itself when parsing it. The truncated part is now written out using application/octet-stream MIME type.
  - Fixes error while parsing BODYSTRUCTURE: message\_part message/rfc822 flag doesn't match BODYSTRUCTURE.

- **ISSUE DOV-4232:** stats process crashes when generating openmetrics data for metrics using aggregating functions.

## 5.2. Object Storage (obox) Plug-in

- **IMPROVEMENT DOV-4119:** Added new event `fs_dictmap_dict_write_uncertain`. See more details at [https://doc.dovecot.org/admin\\_manual/list\\_of\\_events/#fs-dictmap-dict-write-uncertain](https://doc.dovecot.org/admin_manual/list_of_events/#fs-dictmap-dict-write-uncertain).
- **ISSUE DOV-4062:** Metacache rescanning on background (`metacache_rescan_interval`) was unnecessarily refreshing each user's indexes when opening them. This caused the rescan to take longer time than necessary and use more object storage or Cassandra operations.
- **ISSUE DOV-4104:** If obox fails to open/create ".usage" file to metacache, the logged error is simply "creat() failed: Permission denied" without any filename. Regression since v2.3.9.2.
- **ISSUE DOV-4135:** If a folder's `max_bucket` is too low, mails in higher buckets can be invisible. This situation is not normally supposed to happen.
  - Dovecot no longer requires the last bucket to be 100% filled to check for the next bucket. If a bucket is filled to 90% with keys and tombstones, the next bucket will be checked. Additionally, if Dovecot encounters a bucket after the expected last bucket, the `max_bucket` value will be updated.
  - This fix adds the `fs_dictmap_max_bucket_changed` event: [https://doc.dovecot.org/admin\\_manual/list\\_of\\_events/#fs-dictmap-max-bucket-changed](https://doc.dovecot.org/admin_manual/list_of_events/#fs-dictmap-max-bucket-changed)
- **ISSUE DOV-4160:** If the `max_bucket` value for a mailbox was corrupted and got lower than the actual count of buckets, these buckets would have stayed hidden. With this fix the original behavior (before 2.3.10.1) is restored. If the last bucket is full Dovecot checks if there is something in the next bucket.
- **ISSUE DOV-4170:** In some rare situations "doveadm obox user delete" crashes after it has finished its work.
- **ISSUE DOV-4180:** A partially failed folder deletion may have become stuck, always resulting in "Mailbox was deleted under us" error when trying to access the folder.
- **ISSUE DOV-4220:** Index rebuilding uses memory inefficiently, resulting much higher memory usage than it needs to. With large enough folders or low enough `vsz_limit`, the rebuilding could have failed with: Fatal: data stack: Out of memory when allocating ... bytes.

- **ISSUE DOV-4274:** Dovecot used ISO8601 week-based year instead of calendar year when performing AWS4 authorization.

### 5.3. Full Text Search (fts) Plug-in

- **IMPROVEMENT DOV-3995:** Avoid an unnecessary exists check before deleting fts files from object storage.
- **ISSUE DOV-3996:** FTS index triplets weren't merged if both fts.D files' statistics were unknown. This situation should not normally happen.
- **ISSUE DOV-4151:** fts-dovecot crashed after "Unable to init file-cache" error (which could happen, e.g., due to Cassandra problems).

### 5.4. Pigeonhole (sieve) Plug-in

- **ISSUE DOV-4097:** Large sequences of 8-bit octets passed to certain Sieve commands that create or modify message headers that allow UTF-8 text (vacation, notify, and addheader) can cause the delivery or IMAP process (when IMAPSieve is used) to enter a memory-consuming semi-infinite loop that ends when the process exceeds its memory limits. Logged in users can cause these hangs only for their own processes.

### 5.5. Intercept (intercept) Plug-in

No Changes

## 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/](https://doc.dovecot.org/installation_guide/dovecot_pro_releases/repository_guide/).