



Release Notes for OX Dovecot Pro

Minor Release v2.3.16

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1. Shipped Products and Versions

OX Dovecot Pro v2.3.16

Built on Dovecot Community Edition Core v2.3.16

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

Supported OS Distributions:

- [Amazon Linux 2](#)
- [CentOS 7.9, 8.4](#)
- [RHEL 7.4, 8.2](#)
- [Debian stretch \(9.13\), buster \(10\)](#)
- [Ubuntu 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.

OpenID Configuration Support (RFC 7628)

Support [RFC 7628 openid-configuration element](#) in oauth2 responses. This allows clients to support OAUTH2 for any server, not just a few hardcoded servers like they do now. See

https://doc.dovecot.org/configuration_manual/authentication/oauth2/#openid-discovery.

Note that this feature addition simply enables auto-discovery information to be provided to a client. Clients will not be able to take advantage of this information unless they support this option. As of August 2021, few (if any) clients can use this information.

Open-Xchange will be undertaking efforts to encourage and assist client authors in adopting this standard so that adoption of modern, secure, user-friendly authentication for email is accelerated. Customers are encouraged to contact the OX Dovecot Pro Product Manager if they would like more details and/or wish to assist in these efforts.

Summary of Highlights

- OpenID configuration support (RFC 7628).

3. Upgrade Information

Added events (see https://doc.dovecot.org/admin_manual/list_of_events/):

- `data_stack_grow`

Added event categories (see

https://doc.dovecot.org/admin_manual/list_of_events/#categories):

- `http-client`

Added configuration options:

- `openid_configuration_url`
(https://doc.dovecot.org/configuration_manual/authentication/oauth2/#openid-discovery)

Default configuration changes:

- `metacache_index_merging` now defaults to v2 (see <https://doc.dovecot.org/settings/plugin/advanced/obox/#metacache-index-merging>)

4. Known Issues

- In certain situations when indexer-worker fails, an event is leaked, which wastes memory and is logged at process exit time. v2.3.15 regression.
- With certain Sieve scripts, if redirect fails due to temporary failure, the lmtpl process may crash after the delivery: Panic: file mail-user.c: line 229 (mail_user_deinit): assertion failed: ((*user)->refcount == 1).
- 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

- **CHANGE DOV-4541:** Any unexpected `exit()` will now result in a core dump. This can especially help notice problems when a Lua script causes `exit(0)`.
- **IMPROVEMENT DOV-3839:** Avoid enclosing single statement MySQL transactions within BEGIN/COMMIT to reduce load/latency.
- **IMPROVEMENT DOV-4026:** auth-worker process is now restarted when the number of auth requests reaches `service auth-worker { service_count }`. The default is still unlimited.
- **IMPROVEMENT DOV-4268:** Add `http-client` event category.
- **IMPROVEMENT DOV-4480:** Optimized "data stack" memory allocations to be faster and to use less memory in some situations. Added a new `data_stack_grow` event which is sent whenever data stack's memory usage grows. This event may help to optimize the memory usage further.
- **IMPROVEMENT DOV-4491:** `dovecot-sysreport --core` supports multiple core files now and does not require specifying the binary path.

- **IMPROVEMENT DOV-4548:** Support RFC 7628 openid-configuration element in oauth2 responses. This allows clients to support OAUTH2 for any server, not just a few hardcoded servers like they do now. See `openid_configuration_url` setting in `dovecot-oauth2.conf.ext`.
- **IMPROVEMENT DOV-4550:** Using attachment detection flags logged unnecessary errors: "Failed to add attachment keywords: mail_get_parts() failed: Mail field not cached". These did not cause any user-visible problems. v2.3.13 regression.
- **IMPROVEMENT DOV-4557:** When `imap_acl` plugin is loaded and `imapc_features=acl` is used, IMAP ACL commands are proxied to the remote server. See https://doc.dovecot.org/configuration_manual/mail_location/imapc/#features.
- **IMPROVEMENT DOV-4568:** `dict-sql` now supports the "UPSERT" syntax for SQLite and PostgreSQL.
- **IMPROVEMENT DOV-4577:** If IMAP client disconnects during a COPY command, the copying is aborted, and changes are reverted. This may help to avoid many email duplicates if client disconnects during COPY and retries it after reconnecting.
- **ISSUE DOV-4429:** Using `rawlog_dir` setting would not log input that was pipelined after authentication command. Sometimes it could also have caused the connections to hang.
- **ISSUE DOV-4461:** A race condition could cause autoexpunging to get into an infinite loop if the batch operation had only one mail left to be expunged, which was already expunged.
- **ISSUE DOV-4534:** `program-client` (used by Sieve extprograms, `director_flush_socket`) may have missed status response from UNIX and network sockets, resulting in unexpected failures.
- **ISSUE DOV-4538:** Events with large parameters can result in log event exporter writing lines longer than 4 kB, which splits them into multiple log lines. Fix this by truncating event field values to 1000 bytes when they are exported with the log exporter (but do not truncate with `http-post` exporter).
- **ISSUE DOV-4543:** ACL inheritance was broken with INDEX layout (which obox uses by default): parent ACL would not be copied to a newly created folder.
- **ISSUE DOV-4571:** If IMAP QRESYNC extension was enabled, expunging the first mail that was ever saved in a folder (UID=1) resulted in a broken VANISHED response, which could have confused IMAP clients. v2.3.13 regression.
- **ISSUE DOV-4572:** Unquoted event filter values containing '?' wildcard crash `doveconf` and prevent `dovecot` from starting up.

- **ISSUE DOV-4629:** fs-metawrap: Appending metadata to zero sized files caused problems in size calculation.
 - *Fixes:* Cached message size larger than expected (2 > 1 [...]).
- **ISSUE DOV-4632:** IMAP: When using `INDEXPVT` to enable private \Seen flags (for shared or public namespaces) the STORE command did not send untagged replies for the \Seen flag changes. v2.3.10 regression.
- **ISSUE DOV-4634:** imap-hibernate may crash at deinit.
 - *Fixes:* Panic: file ioloop.c: line 928 (io_loop_destroy): assertion failed: (ioloop->cur_ctx == NULL).
- **ISSUE DOV-4637:** When using `acl_ignore_namespace` Dovecot attempted to access or create `dovecot-acl-list` file even when the namespace should have been ignored. For virtual namespaces, this could have yielded errors about "Read-only file system" or "Permission denied".
- **ISSUE DOV-4662:** If `service { process_min_avail }` couldn't create the necessary extra processes due to reaching `service { process_limit }`, this caused master process to start rapidly trying to launch such processes, only to find out every time that the limit was reached. Before v2.3.15, this happened once every 2 milliseconds, so it didn't cause many problems. However, v2.3.15 fixed 0 ms timeouts to happen immediately, so this loop started being called as rapidly as possible, using 100% CPU for the master process.
- **ISSUE DOV-4676:** Indexer process crashes if indexer-client disconnects while it's waiting for command reply. This happened, for example, if IMAP SEARCH triggered long fts indexing and the IMAP client disconnected while waiting for the reply. v2.3.15.1 regression.
- **ISSUE DOV-4708:** IMAP MOVE command leaks mailbox if it can't be opened and crashes at deinit:
 - *Fixes:* Panic: file mail-user.c: line 229 (mail_user_deinit): assertion failed: ((*user)->refcount == 1).
v2.3.15 regression.

5.2. Object Storage (obox) Plug-in

- **CHANGE DOV-4560:** Obox setting `metacache_index_merging` now defaults to v2.
- **ISSUE DOV-4463:** In case a metacache-worker failed internally and disconnects from metacache master process, the attempt to log the error could have crashed the master process (metacache). v2.3.13 regression.
- **ISSUE DOV-4465:** fs-dictmap may have worked inefficiently in some situations, possibly causing HTTP requests to stay queued unnecessarily long.

- *Fixes:* Panic: file ioloop.c: line 733 (io_loop_run): assertion failed: (!ioloop->iolooping).
- **ISSUE DOV-4506:** metacache and metacache-worker were showing additional information in the process command even when `verbose_proctitle` was not set to "yes".
- **ISSUE DOV-4561:** With `metacache_index_merging=v2` the merge may have in some rare situations crashed.
 - *Fixes:* Panic: file obox-merge-transaction-logs.c: line 348 (obox_merge_transaction_logs): assertion failed: (src_files->hdr.file_seq == dest_files->hdr.file_seq).

5.3. Full Text Search (fts) Plug-in

- **ISSUE DOV-3969:** Headers with addresses were matched with data language instead of user languages, causing non-ascii character matching to fail when searching for sender or recipient.

5.4. Pigeonhole (sieve) Plug-in

- **IMPROVEMENT DOV-4321:** Sieve log file `.dovecot.sieve.log` now includes year in the header.
- **IMPROVEMENT DOV-4341:** Change Sieve script result execution to delay definitive action execution to the end of a successful Sieve script execution session. This is part of an effort to solve problems with the Sieve duplicate test. As a side-effect, some rare temporary-error cases yield different results, in which partial failure is more likely.

5.5. Intercept (intercept) Plug-in

No Changes

5.6. Virtual Attachments (virtual_attachments) Plug-in

- **ISSUE DOV-4589:** v2.3.13 regression: virtual-attachments may assert-crash on mails with a huge number of MIME parts.
 - *Fixes:* Panic: file attachments-mail.c: line 372 (attachments_mail_get_virtual_size): assertion failed: (parts->children == NULL && parts->next == NULL).

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/.