Release Notes for OX Dovecot Pro Minor Release v2.3.20

Contents

1. Shipped Products and Versions

OX Dovecot Pro v2.3.20
Built on Dovecot Community Edition Core v2.3.20
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.

Chronos Push Notification Plugin

The Chronos notification backend supports sending notifications on MessageNew events if the message contains a calendar invite. It is designed for use with the OX App Suite iCalendar Transport-Independent Interoperability Protocol (iTIP) but can be used by any endpoint that implements the same API.

See https://doc.dovecot.org/configuration_manual/push_notification/#chronos-driver-chronos.

FTS Stopwords

If stopwords are included in fts_filters configuration, performing a multiple term search that included a stopword would cause searches to return no results in many situations. The recommended solution is to remove stopwords filter from configuration and reindex mails. For cases where this isn't possible, there is now a partial fix for this. See `fts_stopwords_workaround` setting. The stopwords filter will likely be removed in Dovecot Pro 3.0.

3. Upgrade Information

New settings:
- `dsync_features=no-header-hashes`
  - https://doc.dovecot.org/settings/core/#core_setting-dsync_features
- `fts_stopwords_workaround`
  - https://doc.dovecot.org/settings/plugin/fts-plugin/#plugin_setting-fts-fts_stopwords_workaround

Removed settings:

- `master_user_separator`
  - ° Use `auth_master_user_separator` instead.
  - ° See: https://doc.dovecot.org/settings/core/#core_setting-master_user_separator

Added plugin:

- `chronos-push-notification-plugin`
  - ° See: https://doc.dovecot.org/configuration_manual/push_notification/#chronos-driver-chronos

Removed plugin:

- `push-notification-plugin-amqp`

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-5344**: Add `dsync_features=no-header-hashes`. When this setting is enabled and one dsync side doesn't support mail GUIDs (i.e. imapc), there is no fallback to using header hashes. Instead, dsync assumes that all mails with identical IMAP UIDs contains the same mail contents. This can significantly improve dsync performance with some IMAP servers that don't support caching Date/Message-ID headers.

- **ISSUE DOV-5345**: Invalid Prometheus label names were created with specific histogram `group_by` configurations. Prometheus rejected these labels.

- **ISSUE DOV-5374**: `%{oauth2:name}` variables can cause useless introspection requests. v2.3.2 regression.

- **ISSUE DOV-5430**: Adding a missing attachment flag while reading a mail could cause assert-crash if it already had a corrupted cached IMAP BODYSTRUCTURE.
  - ° *Fixes*: Panic: file message-part-data.c: line 579 (message_part_is_attachment): assertion failed: (data != NULL)

- **ISSUE DOV-5567**: Wrong imapc password with dsync caused panic. v2.3.18 regression.
  - ° *Fixes*: Panic: file lib-event.c: line 506 (event_pop_global): assertion failed: (event == current_global_event)

- **ISSUE DOV-5572**: Logging into director using master user with `auth_master_user_separator` character redirected user to a wrong backend unless `master_user_separator` setting was also set to the same value. Merged these into `auth_master_user_separator`.

- **ISSUE DOV-5587**: Fix crash when committing data to redis without dict proxy.

- **ISSUE DOV-5598**: With `LAYOUT=index`, duplicate mailbox GUIDs were not cleaned out. Also, the mailbox list recovery was not optimal.

- **ISSUE DOV-5609**: Requesting STATUS for a mailbox with imapc and `INDEXPVT` configured did not return correct (private) unseen counts.

- **ISSUE DOV-5620**: `mail_attribute_dict` with dict-sql failed when it tried to query empty dict keys. See https://doc.dovecot.org/configuration_manual/dict/#dict-sql.

- **ISSUE DOV-5626**: dsync couldn't always fix folder GUID conflicts automatically with Maildir format. This resulted in replication repeatedly failing with "Remote lost mailbox GUID".

- **ISSUE DOV-5644**: dsync caused INBOX to be created too early with `namespace prefix=INBOX/`, resulting in a mailbox GUID conflict. This may have been resolved automatically, but not always.

- **ISSUE DOV-5645**: dsync failed to migrate INBOX when using `namespace prefix=INBOX/`, resulting in "Remote lost mailbox GUID" errors.

- **ISSUE DOV-5686**: Sending POP3 command with ':' character caused an assert-crash. v2.3.18 regression.
  - *Fixes*: Panic: event_reason_code_prefix(): name has ':'.

- **ISSUE DOV-5723**: Dovecot Lua HTTP client could not resolve DNS names in mail processes, because it expected "dns-client" socket to exist in the current directory.

5.2.　Object Storage (obox) Plugin

- **CHANGE DOV-5593**: Prevent using fscache with ZFS, since it doesn't work correctly.

- **IMPROVEMENT DOV-5636**: Add buckets.cache file to the user root bundle to prevent losing Cassandra tombstone information when users change backends.

- **ISSUE DOV-5595**: Corrupted index bundle files containing unexpected filenames inside virtual/ or virtual-attachments/ index directory can cause a crash. Fixed by ignoring such files.
  - *Fixes*: Panic: file bundle-unpack.c: line 220 (bundle_unpack_get_type): assertion failed: (suffix != NULL)

- **ISSUE DOV-5656**: When unpacking secondary index, directories always add full directories. This prevents assert crashes that could occur when trying to pack a user root bundle that faced corruption.
    - ° *Fixes*: Panic: file bundle-pack.c: line 741 (bundle_pack_next): assertion failed: (ctx->log_lock.path != NULL)

- **ISSUE DOV-5733**: 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.

5.3.   Full Text Search (fts-dovecot) Plugin

- **IMPROVEMENT DOV-5671**: Searching for stop words caused search to not return anything in certain situations. The recommended solution is to remove stopwords filter from configuration and reindex mails. For cases where this isn't possible, there is now a partial fix for this. See `fts_stopwords_workaround` setting.

- **ISSUE DOV-5315**: When using fts-cache, `fts_enforced=no|body`, and searching headers in a virtual folder without fully up-to-date indexes, an error is logged. v2.3.18 regression.
    - ° *Fixes*: Error: fts-dovecot: Unable to init file-cache: -2: FTS file-cache init failed: Failed to iterate FTS indexes: fs-fts-cache filesystem used for non-metacache fs (namespace prefix 'Virtual/')

- **ISSUE DOV-5469**: IMAP searches that had many OR conditions using FTS indexes were handled inefficiently, causing excessive CPU usage. This was especially a problem with iOS clients that sometimes send very large SEARCH requests for searching Message-ID headers. v2.3.19 regression.

- **ISSUE DOV-5477**: Temporary storage failures could have caused Dovecot to wrongly delete FTS files, thinking they were corrupted. It logged "Cleaning up corrupt triplet" warning when this happened.

- **ISSUE DOV-5567**: fs-fts-cache: When expunging created a new FTS triplet with increased "generation number", but failed to delete the old FTS triplet, this led to broken behavior. It may have also resulted in a crash.
    - ° *Fixes*: Panic: file lib-event.c: line 506 (event_pop_global): assertion failed: (event == current_global_event)

5.4.   Pigeonhole (sieve) Plugin

No Changes

5.5.   Other Plugins

5.5.1. Virtual Attachments (virtual_attachments) Plugin

- ° **ISSUE DOV-5730**: IMAP FETCHes could have crashed in some situations in the virtual-attachments folders.
    - ▪ *Fixes*: Panic: file message-part-data.c: line 28 (message_part_data_is_plain_7bit): assertion failed: (data != NULL).

5.5.2. Push Notification AMQP (push_notification_plugin_amqp) Plugin

- ° **CHANGE DOV-5638**: Removed push-notification-plugin-amqp.

5.5.3. Chronos Push Notification (chronos_push_notification_plugin) Plugin

- ° **IMPROVEMENT DOV-5639**: Add chronos-push-notification-plugin to send push notifications when receiving emails that include calendar invites.

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/.