# Release Notes for Dovecot Pro Minor release 2.2.36

## 1. Shipped Products and Versions

Dovecot Pro 2.2.36
Including Object Storage Plug-in, Full Text Search and Pigeonhole Sieve Plug-in

### 1.1. Dovecot Pro Core

- **NEW FEATURE DOV-2065:** Added "doveadm mailbox cache decision" command for changing cache decisions in mailbox cache (dovecot.index.cache file) and "doveadm mailbox cache remove" command for removing fields from cache. See doveadm-mailbox(1) man page for details.

- **NEW FEATURE DOV-2066:** Added "doveadm rebuild attachments" command for rebuilding $HasAttachment or $HasNoAttachment flags for matching mails. See doveadm-rebuild(1) man page for details.

- **IMPROVEMENT DOV-2123:** Added more details to error messages logged during IMAP/POP3 login. These may help with debugging performance problems during logins.

- **IMPROVEMENT DOV-2200:** Cassandra: Use fallback_consistency on more types of errors
  - o This could allow for example read_consistency=local-quorum with read_fallback_consistency=quorum, so most of the time the reads are from local datacenter, but in case it has problems you can switch to other datacenters.

- **CHANGE DOV-1964:** stats: Open /proc/self/io earlier to avoid a potential security hole
  - o **IMPORTANT NOTE:** When obox and stats plugin are used, service metacache-worker { user } setting should be commented out (or set to root). This prevents metacache-worker from logging errors: open(/proc/self/io) failed: Permission denied
  - o **CHANGE:** stats: Open /proc/self/io at process startup while still running as root. The previous version temporarily enabled PR_SET_DUMPABLE while opening it, which could have temporarily enabled other processes to ptrace it, causing potential security problems.

- **CHANGE DOV-2001:** login: If ssl_require_crl=no, skip CRL checks for incoming imap/pop3 client certificates.

- **BUG DOV-1571:** Searching mails in a virtual folder could have caused mails to be indexed wrongly. This resulted in: Error: fts: docindex - add_hdr_or_body mailbox GUID ... with out-of-order UIDs, have ... after ...
  - Note that this bugfix won't fix the existing broken FTS indexes. It only prevents new broken indexes from being created.

- **BUG DOV-1960:** login-proxy: Revoked certificates aren't accepted with ssl_require_crl=no

- **BUG DOV-1998/57184:** Body snippet generation for HTML mail doesn't ignore &entities inside blockquotes, even though everything else is ignored inside blockquotes. This produces strange looking snippets.

- **BUG DOV-2056:** If namespace root directory didn't exist, trying to access it in some configurations may have failed with: Error: Couldn't create mailbox list lock .../mailboxes.lock: file_create_locked(.../mailboxes.lock) failed: safe_mkstemp(.../mailboxes.lock) failed: No such file or directory

- **BUG DOV-2057:** dsync: Locking fails for new users, because home directory isn't created automatically: Error: Couldn't lock .../.dovecot-sync.lock: safe_mkstemp(.../.dovecot-sync.lock) failed: No such file or directory

- **BUG DOV-2078:** fs-posix: Directory iteration doesn't list symlinks with nonexist-ent destination on NFS with nordirplus mount option.
  - This caused "doveadm fs delete -R" to fail when trying to delete .dovecot.sieve symlink.

- **BUG DOV-2109/57824:** imapc: Duplicate UIDs on a remote IMAP server aren't detected with imapc_features=fetch-msn-workarounds or no-msn-updates. This results in: Panic: file imapc-mailbox.c: line 533 (imapc_untagged_fetch): asser-tion failed: (lseq == mbox->sync_next_lseq)

- **BUG DOV-2111:** imapc: If a broken remote IMAP server sends untagged FETCH reply where key-value pair is missing the value, the process segfaults.

- **BUG DOV-2114:** If imapc issues expunge which causes remote server to dis-connect, and folder is empty after reconnect, imapc 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))

- **BUG DOV-2122:** POP3 server disconnections may cause: Panic: file pop3c-client.c: line 308 (pop3c_client_wait_one): assertion failed: (client->fd != >state == POP3C_CLIENT_STATE_CONNECTING)

- **BUG DOV-2136:** imapc_features=no-msn-updates results in "FETCH UID mis-match" errors if new mails arrive after mails have already been expunged in the same imapc session

- **BUG DOV-2161:** Full text search indexing didn't index mail content around NUL characters. This could have been a few kilobytes of text.

- **BUG DOV-2179:** Obsolete dovecot.index.cache offsets are sometimes used. Trying to fetch a field that was just added to cache file may not have always found it.

- **BUG DOV-2243:** dict-sql: Reading NULL values from the database caused a crash.

- **BUG DOV-2247:** Cassandra: read_consistency=quorum couldn't be used. However, it existed with empty name, i.e. "read_consistency=" enabled the quorum.

- **BUG DOV-2112:** imapc: If SELECT INBOX fails with NO, CREATE INBOX is sent

## 1.2.    Object Storage Plug-in

- **IMPROVEMENT DOV-1484:** Support fs-dictmap (Cassandra) more efficiently with other object storages besides just sproxyd.
    - storage-objectid-prefix=<prefix> : Store all objects as <prefix>/<objectid>. The objects can be efficiently copied within the dict. This setting should be used in obox_fs for storing mails under <prefix>. For example storage-objectid-prefix=%u/mails/
    - storage-passthrough-paths=full|read-only : Assume that object ID is the same as the path. Objects can't be copied within the dict. This setting should be used for obox_index_fs and fts_dovecot_fs, because they don't need to support copying objects.
        - With "full" the object ID is written to dict as an empty value (be-cause it's not used).
        - The "read-only" can be used for backwards compatibility so that the path is still written to the dict as the object ID, even though it's not used (except potentially by an older Dovecot version).
    - storage-objectid-migrate : This is expected to be used with storage-objectid-prefix when adding fs-dictmap for an existing installation. The newly created object IDs have "<storage-objectid-prefix>/<object-id>" path while the migrated object IDs have "<user>/mailboxes/<mailbox-guid>/<oid>" path. The newly created object IDs can be detected from the 0x80 bit in the object ID's extra-data. Migrated object IDs can't be copied directly within dict - they'll be first copied to a new object ID using the par-ent fs. Note that this setting must not be removed afterwards, otherwise access to the old object IDs will fail.
        - storage-objectid-migrate-*.sh scripts are provided to perform the migration. NOTE: Make sure the user can't be accessed during migration, not even new mail deliveries. Also be sure to run "doveadm metacache flush" for the user before calling the scripts. Otherwise a background flush might change the mailbox.
- Example configuration with migration enabled:

```
obox_fs = fscache:1G:/var/lib/fscache:dictmap:proxy:dict-
async:cassandra ; s3:http://storage.example.com/ ; refcounting-
table:storage-objectid-prefix=%u/mails/:storage-objectid-
migrate:bucket-size=10000:bucket-cache=%h/buckets.cache:delete-
timestamp=+10s:bucket-deleted-days=10

obox_index_fs = dictmap:proxy:dict-async:cassandra ;
s3:http://storage.example.com/ ; diff-table:storage-passthrough-
paths=full
```

```
plugin {
  fts_dovecot_fs = fts-cache:fscache:1G:/var/lib/ftscache:
s3:http://storage.example.com/ ; dict-prefix=%u/fts/:storage-
passthrough-paths=full
}
```

- **CHANGE DOV-2231:** service metacache-worker's default user was changed from $default_internal_user (dovecot) to root. This process's configuration should be similar to lmtp/doveadm, which also use root as the default.

- **BUG DOV-998/52627:** fs-dictmap: If lockdir setting wasn't used and multiple copies of the same mail were being deleted in the same transaction, this caused multiple DELETEs with the same object ID to be sent to the object storage.

- **BUG DOV-1957:** Running "doveadm fscache rescan" as root may result in fscache.log being owned by root

- **BUG DOV-1962:** fs-swift, fs-scality: Bulk delete/link requests fail because they have too many files
  - o Our documentation generally recommended using bulk_delete=1 and bulk_link=1. These still work and enable the default limits (1000), but they are deprecated. The new settings to specify limits can be specified by using bulk_delete_limit=1000 and bulk_link_limit=1000.

- **BUG DOV-2168:** obox: Moving user to another backend may wrongly cause self-bundle to be created instead of base-bundle
  - o This could have resulted in unnecessary base bundle writes after user was moved to another host

## 1.3.    Full Text Search

- **BUG DOV-1579:** fts-cache: Desynced cache.log file can cause: Panic: file fts-file-cache.c: line 1041 (fts_cache_readdir): assertion failed: (olditrip->flags.size_in_name == itriplet->flags.size_in_name)

- **BUG DOV-1580:** If fts.S* file somehow ends up with UNK/UNK lines, it may cause: Panic: file fts-file-cache.c: line 297 (fts_cache_file_path): assertion failed: (ctriplet->metadata.stats.stats[which].filesize != FTS_STATS_UNKNOWN)

- **BUG DOV-2104:** FTS indexing may crash with: Panic: file fts-index-merge.c: line 271 (fts_index_merge_do_merge): assertion failed: (newidx > idx1 && newidx > idx2)

- **BUG DOV-2246:** sign fts_dovecot with compression or encryption caused "fts_dovecot: Index keeps changing under us too rapidly" errors.

## 1.4.    Pigeonhole Sieve Plug-in

- **IMPROVEMENT DOV-1295:** Pigeonhole: Implemented an IMAP plugin that adds support for manually/explicitly applying Sieve filters on messages stored in a mailbox. This is a vendor-defined Dovecot extension to the IMAP protocol.

- **BUG DOV-2069:** Pigeonhole: Empty messages can cause assert panics when the message is forwarded using redirect or vnd.dovecot.report: Panic: file cmd-report.c: line 621 (act_report_send): assertion failed: (ret != 0)

- **BUG DOV-2077:** The LDA Sieve plugin attempts to execute the sieve_discard script when an error occurs. This can lead to the message being lost.

- **BUG DOV-2125:** Pigeonhole: The subject header for a vacation response is statically truncated to 256 bytes, which is too limited for multi-byte UTF-8 characters.

- **BUG DOV-2131/58112:** Pigeonhole: The Sieve editheader extension causes an assertion panic when it is used to manipulate a message header with a very large field: Panic: file istream.c: line 197 (i_stream_read): assertion failed: ((size_t)ret+old_size == _stream->pos - _stream->skip)

- **BUG DOV-2141:** Pigeonhole: When quota is used together with a sieve_discard script, the message delivery does not bounce when the quota is exceeded.

# 2. Tests

The Dovecot QA team has successfully verified all bug 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.