Release Notes for Dovecot Pro Patch release 2.2.33.3

1. Shipped Products and Versions

Dovecot Pro 2.2.33.3
Including Object Storage Plugin and Dovemon
Important Changes and Bugs fixed since previous Public Release

NOTE: dovecot-ee requires OpenSSL v1.0.2 on CentOS 7 now and we have added dependency to the packages

1.1.   Dovecot Pro Core

- **IMPROVEMENT DOV-1522:** Optimize director process's CPU usage by almost 50%

- **IMPROVEMENT DOV-1523:** Limit the number of concurrent kicks allowed in the director ring. The director_max_parallel_kicks setting controls this.
  - o   Add director_max_parallel_moves setting to configure how many concurrent user moves are allowed in the director ring. This only specifies the default and can still be overridden with "doveadm director flush --max-parallel" parameter.

- **IMPROVEMENT DOV-1541:** director: Improve logging/stats to analyze performance problems better
  - o   Include peak output buffer size in director connection log messages
  - o   Include used CPU secs in director connection log messages
  - o   Log whenever HOST-RESET-USERS is used
  - o   Show in process title how many requests are being delayed
  - o   Show in process title how many users are being kicked

- **BUG DOV-1543:** Director process hangs while it's connecting to another director and sending all the users in the handshake. This was visible mainly when there were millions of users.
  - o   **FIX:** director: Don't block too long when sending users during director handshake

- **BUG DOV-1546:** Copying mails doesn't copy cache for nonexistent headers, resulting in opening and re-parsing of the mail when those headers are requested later.
  - o   **FIX:** lib-storage: When copying mails, copy also empty cache fields

- **BUG DOV-1369:** When there are a lot of concurrent idling connections, imap-login processes may fail to notify director about their existence with: director: imap-login: write(proxy-notify) failed: Resource temporarily unavailable
  - **FIX:** Add login_proxy_notify_path setting to configure proxy-notify path
    - A single FIFO can be a bottleneck, so this could be set to e.g. 10 FIFOs based on the hash of the PID:

      ```
      login_proxy_notify_path = proxy-notify%10N{pid}
      service director {
      fifo_listener login/proxy-notify0 {
      mode = 0666
      }
      fifo_listener login/proxy-notify1 {
      mode = 0666
      }
      ...
      fifo_listener login/proxy-notify9 {
      mode = 0666
      }
      }
      ```

- **BUG DOV-1499:** Director ring has trouble fixing itself after: Errror: director: Output buffer full, disconnecting
  - **FIX:** director: Add director_output_buffer_size setting
  - **FIX:** director: Close director connection immediately when output buffer is full
  - **FIX:** doveadm director ring status: Add more fields related to connection status

1.2. Object Storage Plug-in

- **BUG DOV-1555:** Metacache priorities are calculated wrong for active users. This caused the users' priorities to be somewhat wrong, resulting in users being cleaned from cache unnecessarily early.
  - **FIX:** metacache: Fix calculating cleanup_weight for active clients

1.3. Dovemon

- **BUG DOV-1516:** dovemon crash on dictionary size changes because of rare timing issue when adding or removing backends from director ring
  - **FIX:** protect global variable from multi-thread access

- **BUG DOV-1553:** dovemon monitored and issued UP/DOWN commands to backends that had vhost count=0
  - **FIX:** dovemon: fix director-admin response integer parsing error

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.