CEPH DAY · Chicago 2026

# Releasing the Kraken (Responsibly)

Patrick Donnelly - IBM



# Ad-hoc Releases

- **Diffused Ownership**: Ad hoc coordination across component leads delayed release readiness.
  - Unclear release process / guidelines
  - Required spontaneous effort to get a release out
- **Poor release quality control**
  - Backports not automatically checked for correctness
  - Synchronization issues with Redmine for tracking
- **Legacy release tooling**
  - Processes to ship releases are brittle
  - Difficulty co

# The Ceph Release Manager

- **Release Gatekeeping:** Evaluates RC readiness using Teuthology results, upgrade coverage, and community feedback.
- **Dependency & Toolchain Control:** Gates build dependency, compiler, and build-tool changes during stabilization windows.
- **Clear Blocker Bar:** Strictly defined as data loss, data corruption, or critical deployment-preventing regressions.
- **Visibility & Sync:** Weekly *Ceph Release Engineering* call + authoritative tracking in the ceph-releases tracker.



Doc: https://github.com/ceph/ceph/pull/67986

# Ceph Release Branch Policies

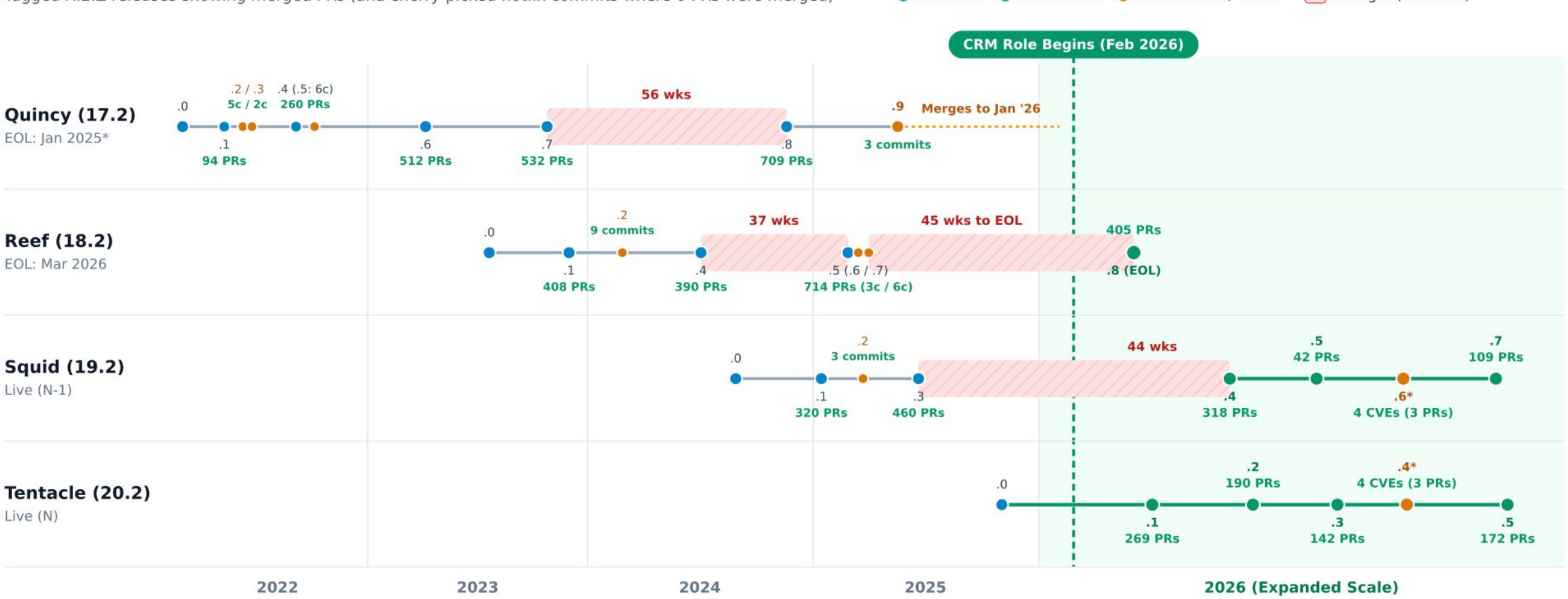
- **Interleaved Merge Windows**: Two stable release branches have 4-week merge windows.
  - Clear time for general merges of fixes to the release branch.
  - Blockers may continue to be merged past that date.
- **New Ceph release trackers**: https://tracker.ceph.com/issues/82677
- **Limited feature merges:** generally only bug fixes should be backported.
- **New Ceph Release Engineering Audit Report:** automated backport analysis
- **Merges gated by CRM:** final release quality check, stable branches for upgrade testing

| | |
|---|---|
| **Status:** | Release Planned |
| **Assignee:** | Patrick Donnelly |
| **Start date:** | 11/11/2026 |
| **Due date:** | 01/06/2027 (Due in 52 days) |
| **% Done:** | 0% |
| **Merge Window Start:** | 11/11/2026 |
| **Merge Window End:** | 12/09/2026 |



# Ceph Minor Release Cadence, Backlog Droughts, and Hotfixes (2022–2026)

Tagged X.2.Z releases showing merged PRs (and cherry-picked hotfix commits where 0 PRs were merged)




## 37–56 Weeks

**Release droughts**

318–714 PRs piled up per cycle without freezes

## 25+ → 1 Gatekeeper

**Merge authority consolidated in Feb 2026**

96% of 2026 Squid merges gated in batched waves

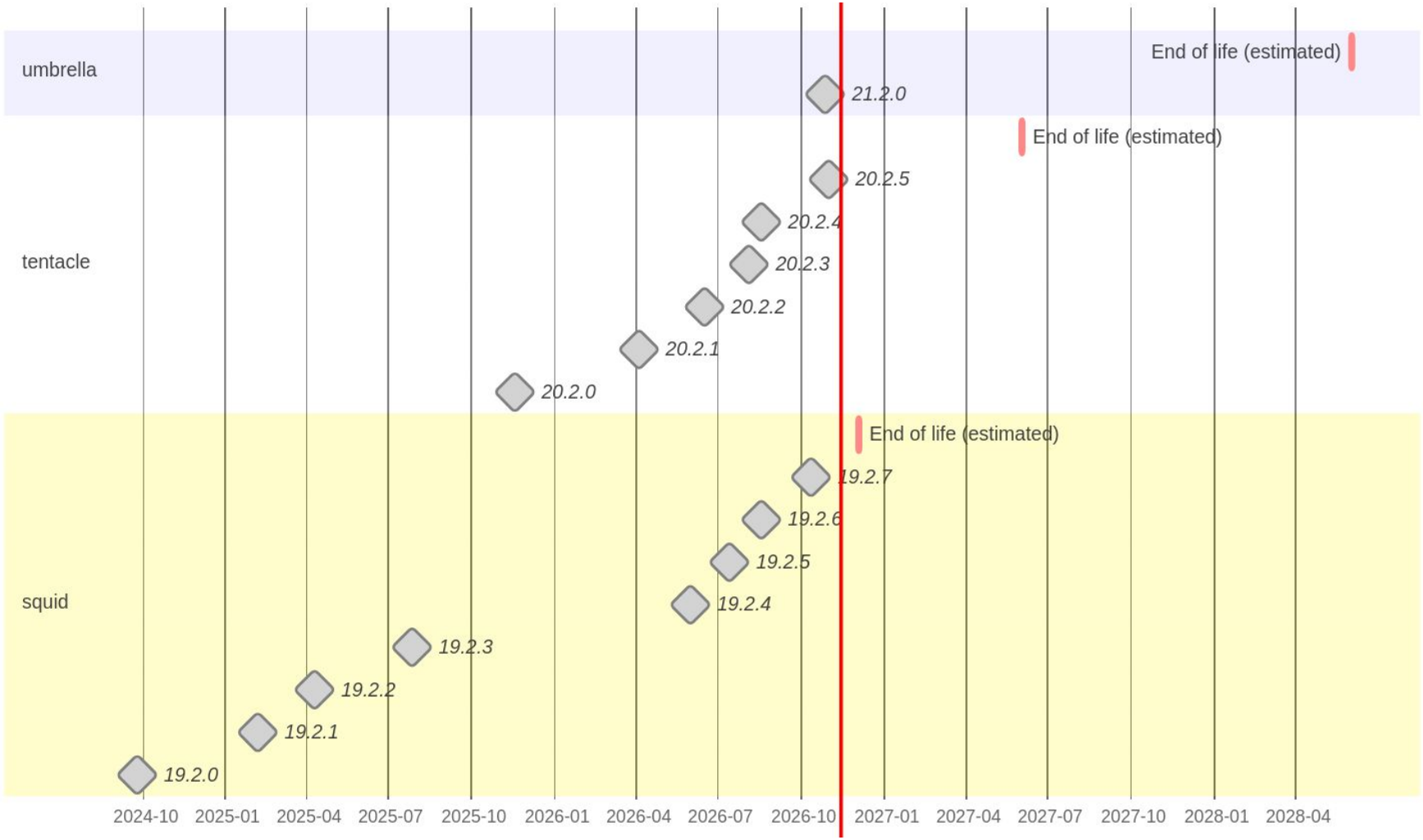
## 8 Minor Releases in 2026

**Staggered Squid (19.2.4–.7) + Tentacle (20.2.1–.5)**

*Synchronized Aug 19 4-CVE releases (.6 / .4)

PR counts from git log --first-parent --merges vX.2.(n-1)..vX.2.n; amber dots denote side-branch cherry-pick hotfixes (0 PR merges, exact commit counts shown).

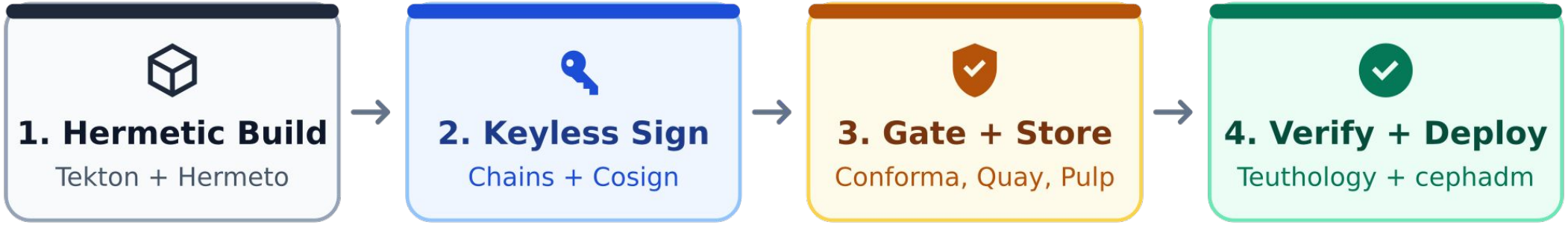
# Ceph Release Chart




Source: https://docs.ceph.com/en/latest/releases/

# Secure Releases

- **1. Hermetic & Reproducible Builds (Tekton):** Prefetches pinned dependencies via Hermeto for offline builds, verified with bit-identical diffoscope checks.
- **2. Keyless Signing & Provenance (Chains):** Generates SLSA v1 attestations and SBOMs outside the build pod via OIDC/cosign, logging to split private/public Rekor ledgers.
- **3. Policy Gates & Artifact Storage:** Enforces security and reproducibility rules via Conforma before publishing containers to Quay and RPM/DEB packages to Pulp.
- **4. Client-Side Verification:** Validates images in Teuthology QA and verifies cryptographic signatures in cephadm and ceph-mgr prior to upgrades.
- **6-Phase Rollout (Sepia OpenShift):** Progresses from Konflux bootstrap, containers, and RPM/DEB migration to bit-identity gates, enforcement, and retiring ~93 Jenkins jobs.






Ticket: https://tracker.ceph.com/issues/76614

# QA improvements / automation

- **Automated backport creation:**
  https://tracker.ceph.com/issues/76178
  - Currently 353 Squid backports with no PR.
- **QA Tracker ticket improvements**
  - SSOT for testing status
  - Automated pipeline to build/QA/review (AI)
- **Expanded upgrade testing**
  - Build on work for teuthology graph walks
  - Regular testing from **all** minor releases



main integration testing by pdonnell started 2026-11-10-16:33

« Previous | 24 of 147 | Ne

Added by Patrick Donnelly 6 days ago. Updated 4 days ago.

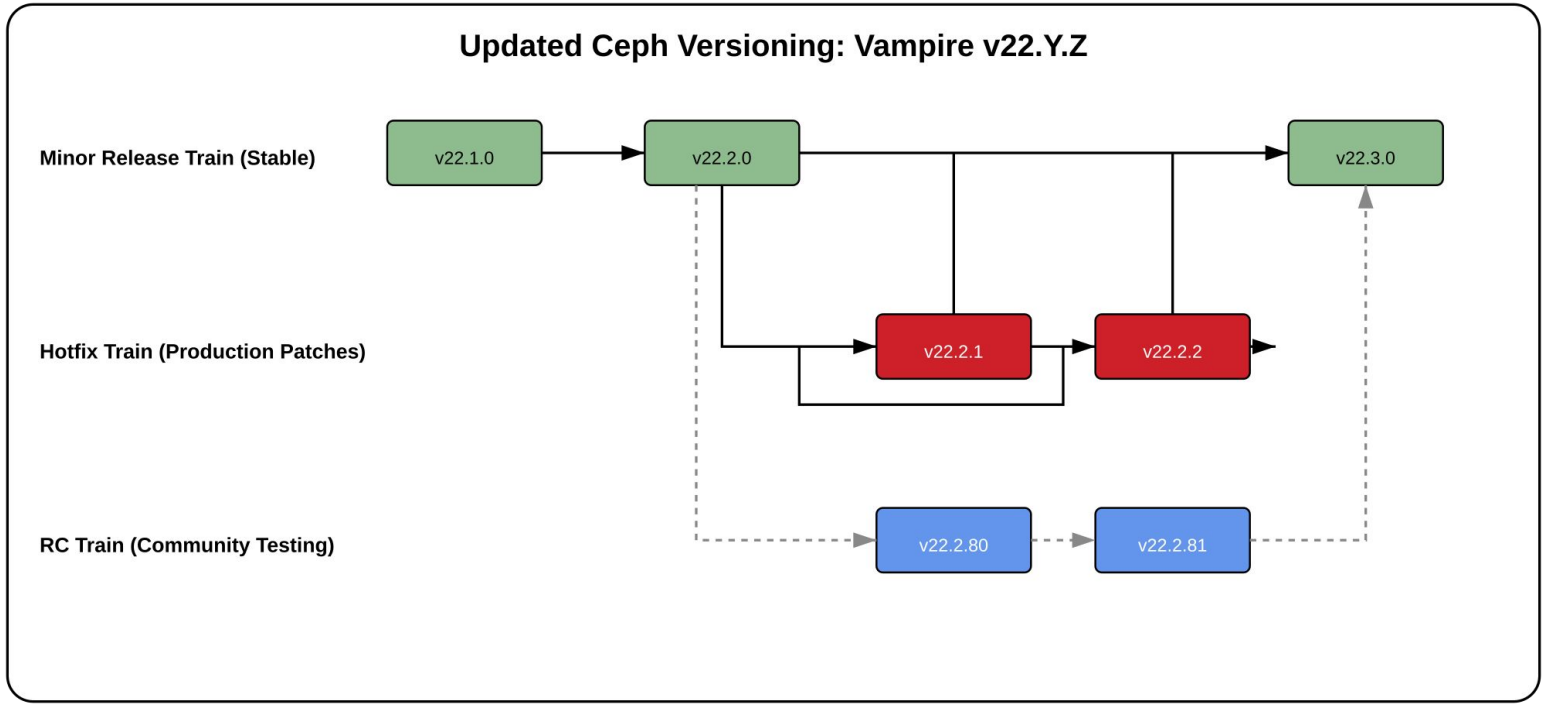
| | | | |
|---|---|---|---|
| **Status:** | QA Testing | **% Done:** | 0% |
| **Priority:** | Normal | | |
| **Assignee:** | Patrick Donnelly | | |
| **Shaman Build:** | wip-pdonnell-testing-20261112.022726-main | **QA Release:** | main |
| **Ceph Containers:** | | **Ceph PR Label:** | wip-pdonnell-testing3 |
| **QA Runs:** | wip-pdonnell-testing-20261112.022726-main | **Git Branch:** | ceph/ceph-ci/commits/testing/wip-pdonnell-testing-20261112.022726-main |
| **QA Report:** | | **Tags (freeform):** | |
| **Tags:** | tests | | |

**Description**

| PR | Author | Labels | Title |
|---|---|---|---|
| PR #73735 | batrick | tests | qa/distros: add Resolute to supported distros |

# MAYBE: new version semantics

- Current schema doc: https://docs.ceph.com/en/latest/releases/#understanding-the-release-cycle
- X.2.Z is stable
- Possible changes:
  - Y is a minor release
  - Z (non-zero) is a hotfix or RC (next Y release)
- Enables
  - better upgrade testing
  - more rapid RC releases



# Thank You & QA



Patrick Donnelly, IBM
pdonnell@ibm.com

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