CentOS Stream CI Update

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See also https://blog.centos.org/2020/12/centos-stream-is-continuous-delivery/
Contribution by package

merge to dist-git
build in Stream Koji
test in the gate
publish to repository
Pipeline

- MR checks
- sources
- build
- gate
- ?CI gating
- candidate
- ?additional verification
- pending
- compose
- repository, images
- ?CentOS QA
- buildroot
Merge Request (MR) checks

- Every CentOS Stream 9 update is a Merge Request on GitLab
- Anyone can create Merge Request to the CentOS Stream
- Only RHEL Developers can accept it

- **WIP** Zuul CI for CentOS Stream
  - Example merge request in the demo repository
    [https://gitlab.com/redhat/centos-stream/ci-cd/zuul/rpms/python-mimeparse/-/merge_requests/1](https://gitlab.com/redhat/centos-stream/ci-cd/zuul/rpms/python-mimeparse/-/merge_requests/1)

- **WIP** Test via additional CI systems
Going through tags together

CentOS Stream public
- c9s-gate
  - ?pass & ?pass
  - c9s-candidate
  - c9s-pending

Red Hat Enterprise Linux internal
- rhel-9-gate
  - ?pass
  - rhel-9-candidate
  - rhel-9-pending
What works:

- RHEL 9 tests are enabled
- CentOS Stream 9 packages **are already gated** on RHEL 9 test results

What is planned:

- generic CentOS Stream tests, as in Fedora
  https://docs.fedoraproject.org/en-US/ci/generic_tests/
  - installability
  - rpminspect
  - rpmdeplint
- Additional CI systems, as in Fedora
Event-driven CI

- Build system
- Message Bus
- new update
- CI system
- installability failed
- rpmdeplint passed
- ResultsDB
- ......
Test triggers and test results

- Build system sends a **New update is coming** message
- CI systems subscribe to Message Bus and listen to such messages
- Each CI system decides on its own how to handle the new update event
  - One CI system may react to updates of one particular package
  - Another may test all updates with a generic test
- When CI system processes the event, CI system sends the **test completed** message back to the Message Bus
- All **test completed** messages are aggregated in the ResultsDB(WIP)

All Fedora and CentOS Stream messages are public.

https://apps.fedoraproject.org/datagrepper/raw?rows_per_page=1&delta=127800

How do you test the CentOS Stream?

- Grab a message about package being tagged into c9s-gate tag in Koji:
  - [https://apps.fedoraproject.org/datagrepper/id?id=2021-ec865ea3-9252-4659-8629-75985a8b1b42&is_raw=true&size=extra-large](https://apps.fedoraproject.org/datagrepper/id?id=2021-ec865ea3-9252-4659-8629-75985a8b1b42&is_raw=true&size=extra-large)
- Trigger test for that package wherever you want, for ex. your custom hardware lab
- Send message with the result back to the message bus
- Talk to a package maintainer to make your test blocking for that package

You can test Fedora the same way too!

[How to test Fedora updates with your custom CI](#)
What’s next

- Article on blog.centos.org
- CentOS Stream CI SIG?
Thank you!

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