

How to test Fedora updates with your custom CI

who am i

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- Build/DevOps/CI Engineer
- Fedora contributor for >10 years
- Former member of FESCo
- Current member of Fedora Council
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outline

- Fedora Rawhide Gating overview
- What Fedora CI SIG is doing
- How to add your test to the gate
- How to add your CI system to the gate

Rawhide Gating

- Fedora Rawhide is a shared development space
 - Issues with one package shouldn't block development of other components

- Catching errors at Alpha/Beta/Final checkpoints is too late
 - Short and targeted feedback loops simplify testing and development

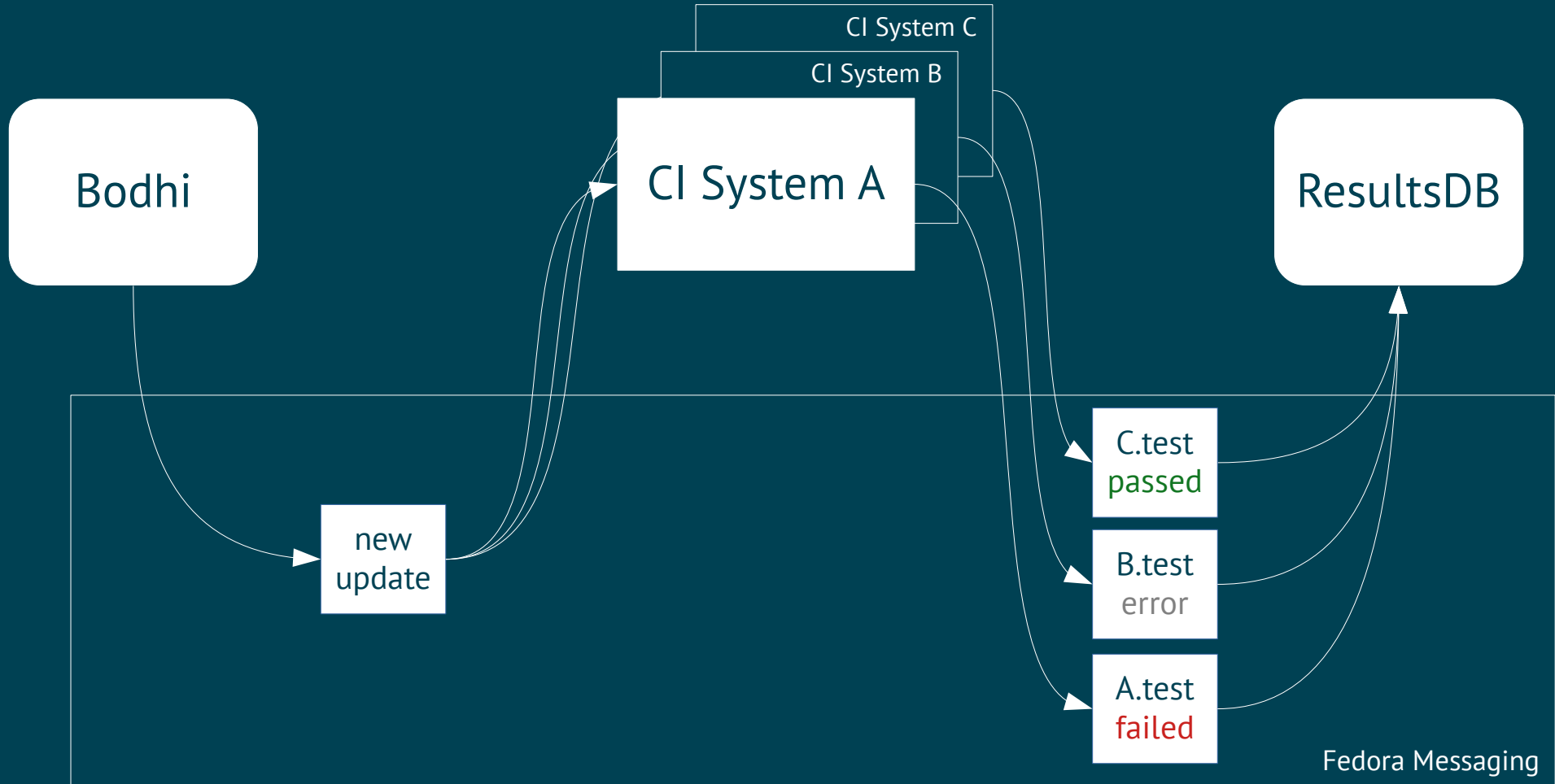
- The Gate:
 - Before it is delivered to Fedora Rawhide, package goes through the additional step.
 - Package lands in Rawhide, only if it passes all required gating checks



how exactly

- Fedora Change
 - <https://fedoraproject.org/wiki/Changes/GatingRawhidePackages>
 - Implemented last year
- Docs: <https://docs.fedoraproject.org/en-US/rawhide-gating/>
 - Single package gate
 - Or multi-package gate with several packages going through the gate together

But who runs the tests?





Fedora CI system

see it in bodhi

The screenshot shows a web browser window with the URL `bodhi.fedoraproject.org/updates/FEDORA-2020-69b29c3ea2`. The page header includes the Fedora logo and the text "fedora UPDATES SYSTEM". Navigation links for "Releases", "Updates", and "Overrides" are present, along with a search bar and a dropdown menu. The main content area displays the update "minetest-5.3.0-2.fc33" with a "stable" status badge. Below this, there are tabs for "Details", "Builds 1", and "Automated Tests 1". The "Automated Tests" tab is active, showing a section titled "Automated Test Results". A green checkmark icon indicates that "no tests are required" for this update. A table below shows a single test result: a green checkmark, the test name "fedora-ci.koji-build.tier0.functional", and the time "10 days ago". At the bottom, it notes "FEDORA-2020-69b29c3ea2" and "No results reported for this build."

← → ↻ 🔒 bodhi.fedoraproject.org/updates/FEDORA-2020-69b29c3ea2 ☆ f 🌐 ⋮


 fedora UPDATES SYSTEM Releases **Updates** Overrides Search... All ▾  ▾


minetest-5.3.0-2.fc33 stable

FEDORA-2020-69b29c3ea2 created by [bookwar](#) a week ago for Fedora 33

Details Builds **1** Automated Tests **1**

Automated Test Results

 no tests are required
minetest-5.3.0-2.fc33

	fedora-ci.koji-build.tier0.functional	10 days ago
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FEDORA-2020-69b29c3ea2
No results reported for this build.

fedora-ci resources

- Old: jenkins-continuous-infra.apps.ci.centos.org
 - Uses Openshift cluster provided by CentOS infrastructure
 - RUNS `fedora-ci.koji-build.tier0.functional` test
 - No integration with Fedora Account System
- New: osci-jenkins-1.ci.fedoraproject.org
 - Deployed on top of AWS Kubernetes cluster
- New: osci-jenkins-2.ci.fedoraproject.org
 - Deployed on top of new Openshift 4 CentOS cluster

fedora-ci tests

- Dist-git test – fedora-ci.koji-build.tier0.functional
 - Runs whatever is described in the tests/ folder of the dist-git repository of a package in x86 virtual machine
 - <https://docs.fedoraproject.org/en-US/ci/how-to-add-dist-git-test/>
- Rpminspect – fedora-ci.koji-build.rpminspect.static-analysis
 - Runs rpminspect tool and compares new package with its previous version
 - <https://github.com/rpminspect/rpminspect>
- [WIP] Rpmdeplint - fedora-ci.koji-build.rpmdeplint.functional
 - Checks if runtime dependencies are satisfied
- [WIP] Installability – fedora-ci.koji-build.installability.functional
 - Checks if package can be installed, removed, updated and downgraded

learn more

- [Fedora CI SIG](#)
- [#fedora-ci](#) channel on IRC
- ci@lists.fedoraproject.org

How to run *your* tests

add test to fedora ci

- If test is specific to a certain package
 - Talk to the package maintainer
 - Contribute [test to the dist-git](#) repository of the package
 - Use pull-request to preview the test run
- If test is generic and you want to run it for all packages
 - Talk to Fedora CI
 - If test can be run in a container (Openshift/k8s-compatible), create such a container and the runner script
 - Contribute new Jenkins pipeline to <https://github.com/fedora-ci> following the docs https://github.com/fedora-ci/docs/blob/master/docs/how_to_create_pipeline.md
 - Or ask for help

add your ci system

- Read events Fedora Messaging events (RabbitMQ)
 - Run test on your own environment
 - Publish logs somewhere, so that logs can be read by Fedora Community
 - Send standartized message to Fedora Messaging with the result
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- Details: <https://docs.fedoraproject.org/en-US/ci/onboarding-of-a-ci-system/>

important note

None of the tests will block package from landing in Rawhide unless package maintainer explicitly agreed to it

<https://docs.fedoraproject.org/en-US/ci/gating/>

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