Devops Trends

- Devs say: Yes
- Ops say: No
- QA say: Did you think about…?

Coming trends in Fedora

- Delivering applications as containers alongside traditional RPMs

- Varying the lifecycle of 'Modules'

- Trying out a different test method using the Atomic host deliverable

Code-level Testing

- Test subject: The source code
- Examples:
    - Unit Tests
    - "Integration" tests
- Validates:
    - The candidate

Functional Testing

- Test subject: A piece of the distribution

- Examples:

  – Boot an image and ping google.com

  - DNS resolver

  - Network stack

  - A few base packages are installed

  – Run the installer with a few different inputs

- Validates:

  – The distribution

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User-focused Testing

- Test subject: A project on top of the distribution
- Examples:
  - Run an automated install of Openshift using scripts that perform the steps in the quickstart guide
- Validates:
  - The distribution
  - The candidate
  - The documentation

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Infrastructure Testing

- Test subject: Complex deployments
- Examples:
  - Install Openstack, but use the latest upstream qemu-kvm
  - Install the latest Gluster, but use the 'stable' version of everything else in the distro
- Validates:
  - The distribution
  - The candidate
  - The documentation
  - Projects related to the success of the candidate

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The CentOS CI System

- Provide hardware and frameworks to let projects come in at any point in the process

- Primarily focused on Functional, User-focused, and Infrastructure testing

- 3rd party projects are welcome

The CentOS CI System: What

- A bunch of Bare Metal

- A node provisioner

- A workspace

- Eager testers

The CentOS CI System: How

- High density server chassis
- Openstack
- Openshift
- Jenkins

Fedora Atomic

- (Some) Code-level tests from packages
- (Lots) Functional testing of the pieces that go into Atomic Host
- (Lots) Complex Infrastructure testing

CentOS SIGs

- Major goal of CentOS CI is to validate CentOS Linux and the projects in the Special Interest Groups

- Storage, Virt, PaaS, CentOS Atomic

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Wider Community

- Some projects (upstream or not) are relevant to the CentOS ecosystem

- Python, Foreman, libvirt, qemu, systemd

Interesting Reading

- https://wiki.centos.org/QAWiki/CI/

- https://ci.centos.org/

- https://developer.fedoraproject.org/

- https://docs.pagure.org/modularity/

- https://fedoraproject.org/wiki/FedoraAtomicCI/pipeline