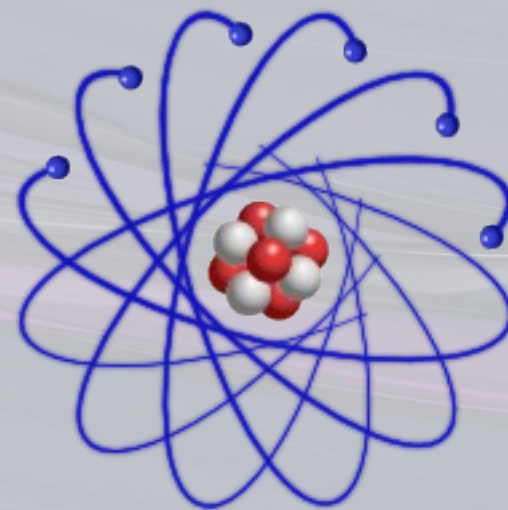


Status Update on Scientific Linux

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HEPiX Fall 2014



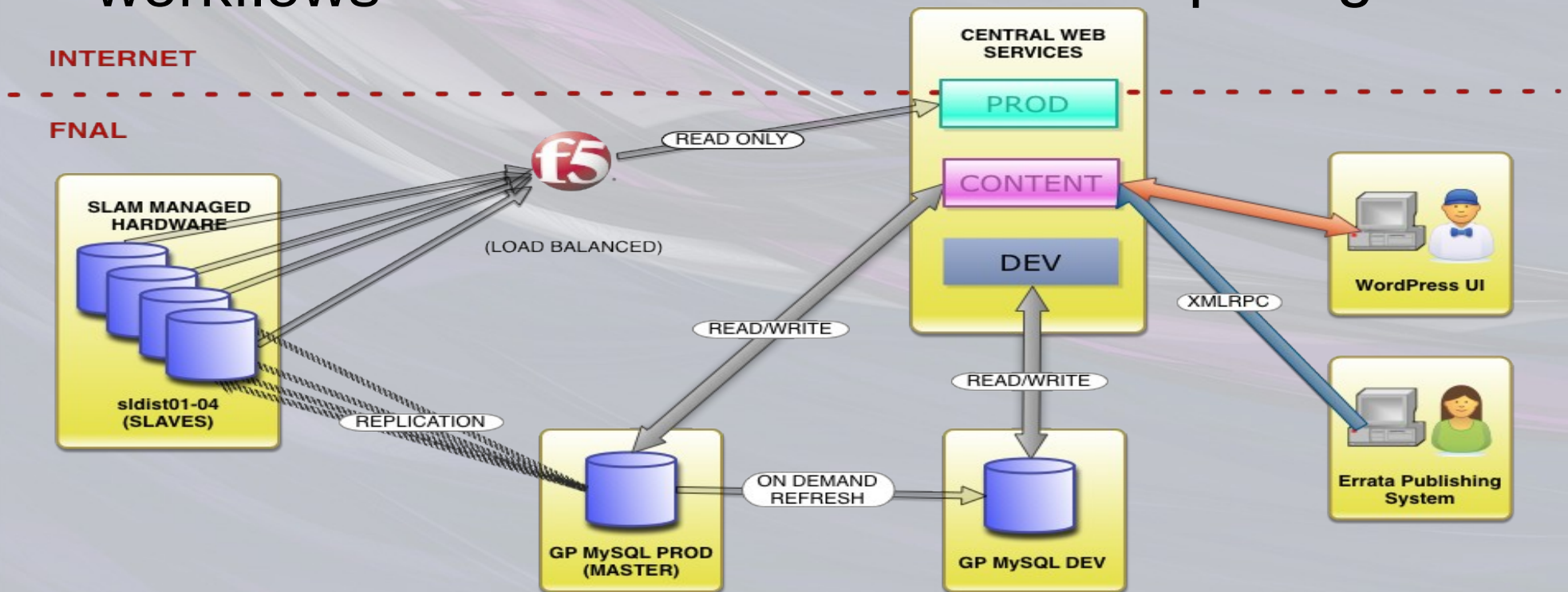
Presentation Overview

- Changes since last HEPiX
- Current Projects for Scientific Linux
- Future Plans
- Important topics of conversation

Since Last HEPiX

New Scientific Linux Website

- All new content
- Prod 100% read-only
- APIs for automated workflows
- Highly redundant
- Most components managed by FNAL Core Computing



SL 5

- SL 5.11 is coming along nicely
 - BETA 1 announced Sept 26, 2014
- SL 5.11 is expected to be the last release of SL5
 - This follows upstream's behavior
 - Security Errata will continue until End of Life
 - March 2017

SL 6

- RHEL 6.6 went into private beta Aug 12, 2014
 - Nothing unexpected in the Release Notes
- Developer Toolset 3
 - Currently in private beta
 - We expect to build this upon release
- Software Collection Library 1.2
 - Currently in private beta
 - We expect to build this upon release

SL 7:

Recommitting to Our Mission

- **Our Mission:**

- Driven by Fermilab's scientific mission and focusing on the changing needs of experimental facilities, Scientific Linux should provide a world class environment for scientific computing needs.

- **Our Goals:**

- Provide a stable, scalable, and extensible operating system for scientific computing
- Support scientific research by providing methods and procedures for enabling the integration of scientific applications with the operating environment
- Use the free exchange of ideas, designs, and implementations to prepare a computing platform for the next generation of scientific computing

- Scientific Linux is not in competition with other members of the rebuild community

- Scientific Linux does not view releases as a race, competition, or any other such category

- SL 7 was *deliberately* not put into BETA during the CentOS 7 testing period.

SL 7: Tooling

- Tooling challenges
 - git.centos.org – the new home of RHEL sources
 - We had to build a workflow around this as no source for RHEL7 was published at ftp.redhat.com
 - The git.centos.org system appeared with no notice, no documentation, and no tools for extracting content
 - SL maintainers have contributed tools to the [centos-git-common](https://github.com/centos-git-common) repo to help deal with this.
 - The SL team has also been active in working with the [centpkg](https://github.com/centpkg) application.
 - Code base reworked for more compatibility with [fedpkg](https://github.com/fedora-packaging)
 - Patches submitted to 'rpkg' upstream code base

SL 7: Tooling

- Tooling challenges
 - Difficult to consume updates to git.c.o packages.
 - Today we pull down the entire list of package repos and brute force updates via an exhaustive search.
 - A local mirror of git.c.o is not currently possible.
 - The 'look aside' location containing source blobs is not exposed over ftp or rsync.
 - Cloning the 'look aside' location over http requires a list of files to clone. Creating such a list requires checking each package repo after they are updated.
 - Individual git repos can be cloned, but only one at a time.

SL 7: Released Today

- SL7 has very comprehensive release notes
 - They were written entirely in asciidoc to hopefully make them easy to read, embed, and update.
- Automatic Updates
 - SL7 uses yum-cron rather than yum-autoupdate for applying updates nightly.
 - Upstream yum-cron has a compatible feature set and is available on all rebuilds.
 - By default, all SL package repos are enabled.
 - Previously, the non-security updates were disabled by default

SL7: Extras

- Upstream provides a new 'Extras' repo containing tools with a shorter lifecycle and a limited ABI/API compatibility promise.
 - So far it primarily contains 'docker' and its components.
 - The latest 'docker' package cannot be built due to problems with its BuildRequires
 - BZ:1145242
 - Accessible via the 'yum-conf-extras' package
 - Installed by default as 'sl-extras'
 - This repo is enabled by default

Current Projects

SL 7 'sites/spins'

- As with previous versions of Scientific Linux, we plan to make it easy to embed site specific customization into Scientific Linux
 - The documentation on how to perform this customization for SL 7 has yet to be written.

Future Plans*

*subject to change without notice

RH-Common?

- Upstream provides a 'Common' repo containing some packages shared among its various addons – RH OpenStack, RHEV, RH Storage Server and so on.
 - Pros:
 - Contains puppet source for 5, 6, 7 with some measure of security patching and stable behavior
 - Cons:
 - We could not find any life cycle guarantees for these rpms.
 - How long are they maintained
 - Are there ABI/API promises
- Currently includes items such as:
 - Puppet
 - rhevm-guest-agent

RH-Satellite 6?

- Complete re-write since Satellite 5
- Full lifecycle/repo/configuration management
- Public upstream at www.katello.org

Internally, we are in the process of evaluating Satellite6's potential and use cases before committing the resources required to maintain it as an 'addon' to the Scientific Linux distribution

Questions?