



# Scientific Linux Status Update

Speaker: Gerard Bernabeu Altayo

Authors: Rennie Scott, Bonnie King, Connie Sieh, Pat Riehecky

HEPix Spring Workshop 2016

18 April 2016

# Updates since last HEPiX

- Scientific Linux 7.2
  - Centralized community resources repository (repo of repos)
  - Customization framework – Context Framework
- Updates to install tree metadata files (.treeinfo)
  - Better support for Katello/Foreman in SL6 and SL7
    - Changes only visible to those tools

# Updates since last HEPiX - SL5

- Less than 1 year remains for SL 5
  - **March 31, 2017**
- Current status is Production Phase 3
  - During the Production 3 Phase, Critical Impact Security Advisories and selected Urgent Priority Bug Fix Advisories may be released as they become available. Other errata advisories may be delivered as appropriate.

# Updates since last HEPiX - SL6

- RHEL 6.8 currently in private BETA
  - Updates to pacemaker clustering
  - OpenSCAP updates
  - Hardware support updates
  - Includes "Relax-and-Recover" backup tools
    - Relax-and-Recover is a recovery and system migration utility. Written in bash, it allows you to use tools already present on your system to continuously create recovery images which can be saved locally or on a remote server, and to use these images to easily restore the system in case of software or hardware failure.

# Updates since last HEPiX - SL 7

- Released Scientific Linux 7.2
- Community repos repo
  - Keeps some common community resources in a centralized location for use by any EL7 system – Not just SL7.
    - EPEL, ELRepo, ZFS, and more
      - Nominate additional candidates on Scientific-Linux-Devel
    - Simple URL inclusion
      - [http://ftp.scientificlinux.org/linux/scientific/7/repos/x86\\_64/](http://ftp.scientificlinux.org/linux/scientific/7/repos/x86_64/)
- Context Framework
- OpenSCAP support for Scientific Linux 7.2
  - Tech Preview

# Revisiting Customization in SL7

- SL7.2 introduces the Context Framework
- The Context Framework takes the lessons learned from 10 years of customizing Scientific Linux
  - Leveraging ideas from previous Scientific Linux customization methods
- Focus on clearly laying out what users expect to see to minimize confusion
- Anyone with RPM-building experience can make a context
- <http://ftp.scientificlinux.org/linux/scientific/7x/contexts/>

# Scientific Linux Contexts

- The context framework is designed to scale from small projects to large collaborations
  - Uses tools common to all RHEL7 compatible distributions
  - And an optional anaconda integration plugin

The screenshot displays the 'SOFTWARE' section of the Scientific Linux installation interface. It features three main options: 'CONTEXT' (highlighted with a red box), 'INSTALLATION SOURCE', and 'SOFTWARE SELECTION'. The 'CONTEXT' option is set to 'fermilab'. Below this, the 'CONTEXT FRAMEWORK' section is visible, showing the 'Context URL' as 'http://ftp.scientificlinux.org/linux/scientific/7/contexts/'. The 'Enabled Contexts' table lists 'fermilab' as the active context.

Enabled	Testing	Name	Context URL
<input checked="" type="checkbox"/>	<input type="checkbox"/>	fermilab	http://ftp.scientificlinux.org/linux/scientific/7/contexts/

Enabled	Name	Context URL
<input type="checkbox"/>		

# Scientific Linux Contexts

- Integrated with Anaconda in SL 7.2
  - kickstart support
  - GUI support
  - Boot parameter support
  - Limited textual interface support
  - 100% GPL
- Adding a context to an installed EL7 system
  - Add the "Repo of Repos for EL7"
  - `yum install yum-context-name`



# Scientific Linux Contexts

- Our Goal:

Support scientific research by providing a method to integrate scientific applications with the operating environment.

If you need some behavior, consider making a context!

For example:

- Fermilab's onsite environment is a context
- CVMFS could be added as a context (sponsor?)
- Run control tools could be deployed via a context

# Thanks to

## Ongoing Collaborators:

- Stephan Wiesand / DESY – OpenAFS
- Chris Brown / GE Medical / HELIOS – ZFS
- Urs Beyerle / ETHZ – Live Images
- Akemi Yagi – Functional testing and community contributions

## Upstream:

- Danny Climo, Red Hat
- Dan McGuan, Red Hat

# Thanks For Participating!

Any Questions?

