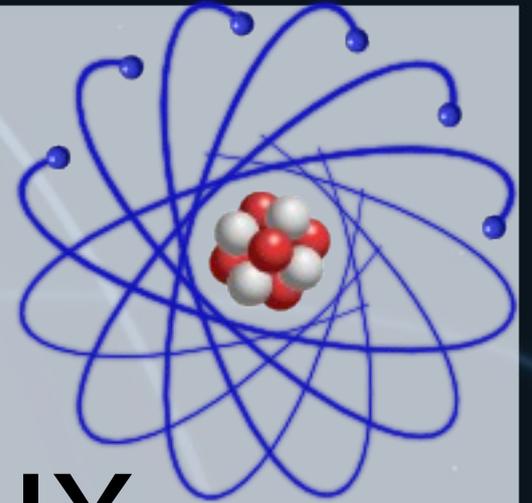
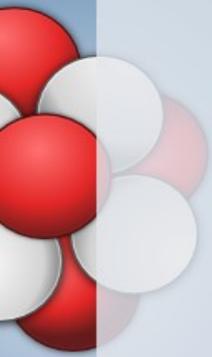


Update On Scientific Linux



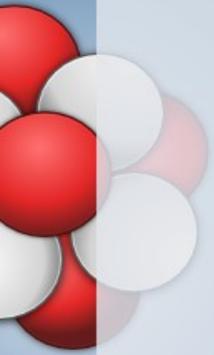
Connie Sieh <csieh@fnal.gov>
Pat Riehecky <riehecky@fnal.gov>

HEPiX Fall 2013

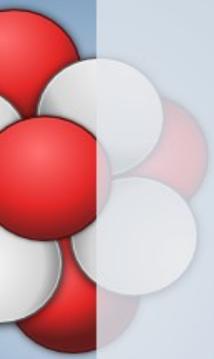


Presentation Overview

- Overview of the last six months activity
- What we are currently working on
- What we see for the future
- Important topics of conversation



The Last Six Months



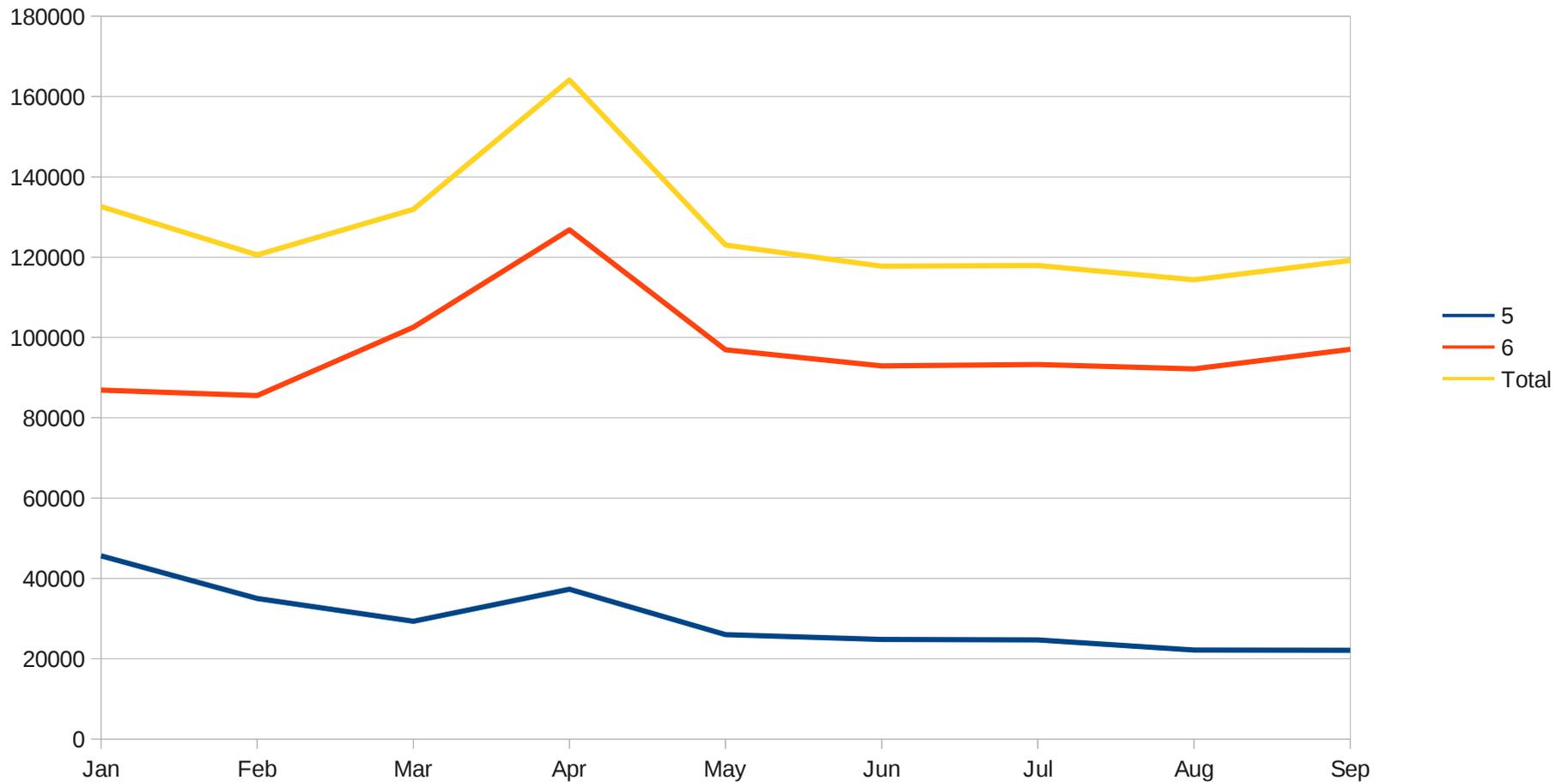
Six months activity

The following statistics were gathered from the official Scientific Linux distribution servers

- These numbers are a minimum
 - We do not gather stats from our mirror sites
 - The real numbers are higher
 - The values we have are based on yum downloads of security errata
 - We currently have 82 public mirrors.
-
- Vertical axis represents “number of unique ip addresses”
 - Horizontal axis is time

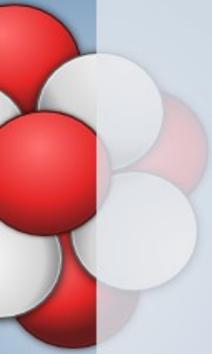
Some Usage Stats for 2013

2013 SL metrics



SL6 updateinfo.xml

- August 16th all official Scientific Linux 6 repositories now feature the updateinfo.xml
 - This metadata enables use of yum-plugin-security for all SL6 releases
 - Provides an easy way to search based on CVEs
 - Provides reasons for why an update was released
 - Provides hints for the necessity of restarting systems/services
 - There is also a nicely formatted html interface to the data
 - Custom XSLT written specifically for SL



SL6 updateinfo.xml

Update ID	Title	Released	Severity
 SL6.4:yum-conf-sl-other	enhancement: yum-conf-sl-other	2013-03-28	
 SLBA-2013:0279-1	glibc bug fix and enhancement update	2013-03-28	

[RHBA-2013:0279-1](#)

From: SCIENTIFIC-LINUX-ERRATA@LISTSERV.FNAL.GOV

Description:

This update includes a number of bug fixes

Packages:

Scientific Linux 6

- glibc-2.12-1.107.el6.i686.rpm
- glibc-2.12-1.107.el6.x86_64.rpm
- glibc-common-2.12-1.107.el6.x86_64.rpm
- glibc-devel-2.12-1.107.el6.i686.rpm
- glibc-devel-2.12-1.107.el6.x86_64.rpm
- glibc-headers-2.12-1.107.el6.x86_64.rpm
- glibc-static-2.12-1.107.el6.i686.rpm
- glibc-static-2.12-1.107.el6.x86_64.rpm
- glibc-utils-2.12-1.107.el6.x86_64.rpm
- nscd-2.12-1.107.el6.x86_64.rpm

All Related Updates:

-  SLBA-2013:0212-1 - 2013-02-05
-  SLBA-2012:1422-1 - 2012-11-06
-  SLSA-2012:1208-1 - 2012-08-27
-  SLBA-2012:1158-1 - 2012-08-14
-  SLBA-2012:0763-1 - 2012-08-08
-  SLSA-2012:1098-1 - 2012-07-19
-  SLBA-2012:0566-1 - 2012-05-22
-  SLSA-2012:0393-1 - 2012-03-21
-  SLSA-2012:0058-1 - 2012-01-25
-  SLSA-2011:1526-3 - 2011-12-08
-  SLBA-2011:1179-1 - 2011-09-14
-  SLBA-2011:0564-1 - 2011-07-22

http://ftp.scientificlinux.org/linux/scientific/6x/x86_64/os/repodata/updateinfo.xml

Scientific Linux and KISTI

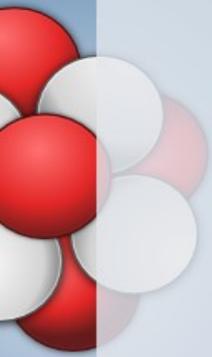
- Seo-Young Noh was at FNAL this summer.
- Part of his time at FNAL was devoted to learning how to customize Scientific Linux for his site.
- During that process he took some great notes that may serve as a starting place for some new documentation.
- We hope to have some further collaboration on other projects.

NFS, unique inodes, rsync, (and SL)

- The NFS spec does not require unique inodes for a volume.
- rsync uses the inode number to determine if files are hardlinks (when you pass -H)
- This was briefly an issue on the SL distribution servers
 - Reported by Owen Dunn of cam.ac.uk on Sep 2 2013
 - Should not be an issue currently
- Our storage vendor (BlueArc) is aware of the issue.

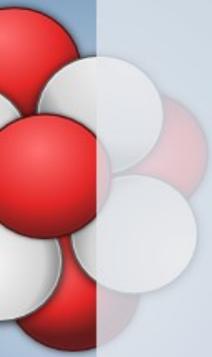
OpenAFS 1.4 End of Life

- In August 2013 OpenAFS 1.4 went end of life
 - Had a conversation with Stephan Wiesand
 - SL OpenAFS package maintainer
 - OpenAFS 1.6 Branch Release Manager
 - OpenAFS 1.4 is the version we package for SL5
 - No plans to push OpenAFS 1.6 into SL5 right now
 - OpenAFS 1.6 builds and installs on SL5
 - When there is a reason to worry about ver 1.4 being EOL, we will worry



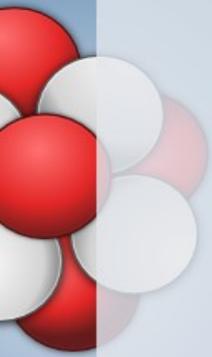
Scientific Linux 5

- Red Hat 5.10 Official release Sept 30 2013
- SL 5.10 BETA 1 Oct 17 2013
- Significant changes:
 - MySQL 5.0 no longer supported
 - Migrate to MySQL 5.5 via MySQL 5.1
 - Packages provided
 - Can't migrate back afterwards!
 - MySQL 5.0 will remain within the tree to provide client libraries
 - MySQL 5.5 is a Software Collection style package



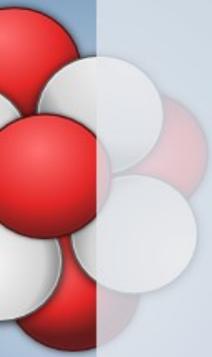
Software Collections for SL 6 (not 5)

- Install in PARALLEL with existing tools!
- See Red Hat's documentation
- New software
 - Mariadb 5.5
 - Nodejs 0.10 (Preview)
- Updated programs
 - Perl 5.16
 - PHP 5.4
 - Python 2.7
 - Python 3.3
 - Ruby 1.9.3
 - MySQL 5.5
 - Postgresql 9.2



Devtoolset 2.0

- Binutils 2.23.52.0.1
- Dwz 0.11
- Dyninst 8.0
- Elfutils 0.155
- Gcc 4.8.1
- GDB 7.6
- Memstomp 0.1.4
- Oprofile 0.9.8
- Strace 4.7
- SystemTap 2.1
- Valgrind 3.8.1
- The new eclipse is much more challenging.
 - Requires maven – from Fedora
 - Which requires, which requires, which requires.....



UEFI

- In preparation for supporting UEFI Secure Boot on SL7, Scientific Linux has joined the UEFI Forum.
 - www.uefi.org
 - There is no expectation of supporting UEFI Secure Boot on RHEL6 (and therefore SL6)

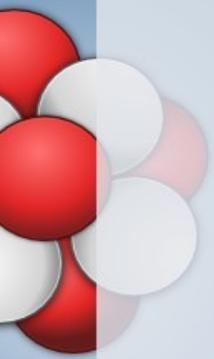


Errata, security and other

- Security updates continue to be released for all supported releases.
- Non-security updates were released for the latest (the 'X' tree) releases on a weekly basis.
- Bonnie King is fully trained to build, test, and publish errata

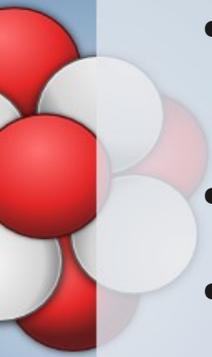


Currently working on



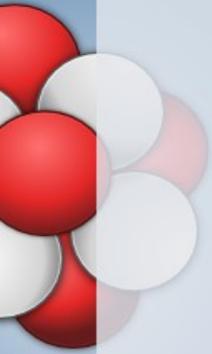
SL7 build system

- Koji 1.8.0
 - As part of the process we've submitted a number of patches upstream
 - Resolved
 - 205, 269
 - Unresolved with patches attached
 - 261, 266, 267, 262
 - My pet bug is #266, it adds chainbuild support for SRPMs
 - All the installation documentation on the Fedora Wiki was updated for Koji 1.8.0 by the SL team
 - Utilizing koji plugins for automated build management
 - Utilizing a koji theme so we don't confuse it with SL6 koji
 - Deployed, configured, and managed with puppet



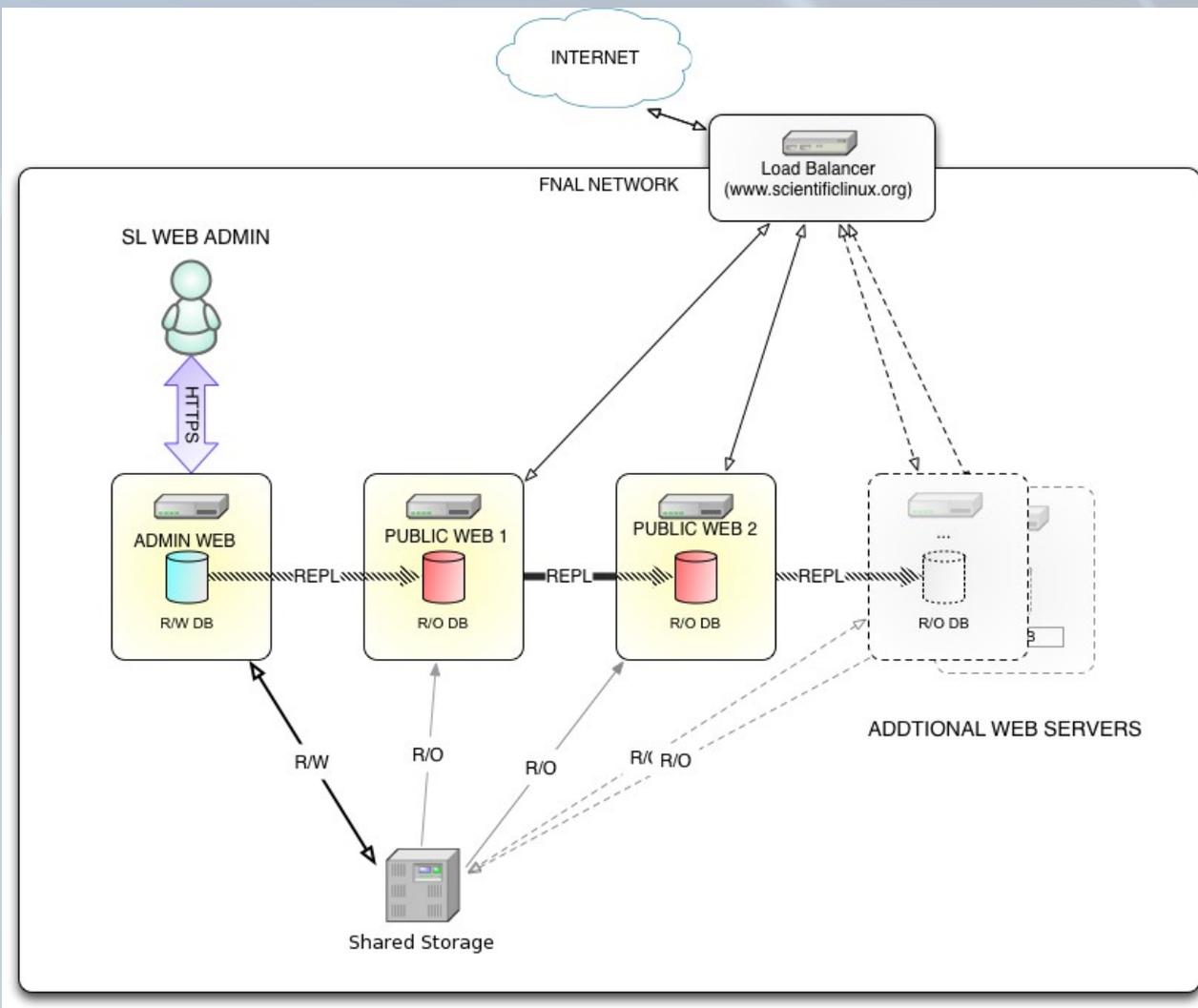
www.scientificlinux.org

- This site is beginning to show its age
 - No api hooks for automated updates
 - Lots of content for SL3, not much for SL5 or SL6
 - It is on older hardware
 - Memory limitations sometimes produce a Zope traceback
 - No staging environment to test larger changes

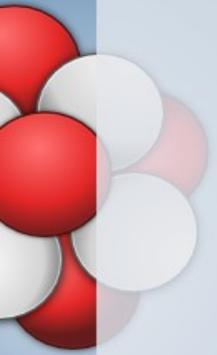


www.scientificlinux.org

possible design

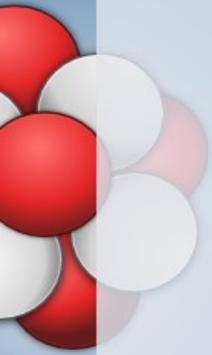


Items Coming in the Future



Scientific Linux 6

- RHEL 6.5 Beta released on Oct 8
 - We plan to build the official release when it is released
 - Expected feature (from the RHEL Beta notes)
 - Better support for PTP
 - Newer openssl
 - Native hooks for GlusterFS
 - Updates to tuned
 - 1TB RAM, if you want it



Scientific Linux 7

- According to Red Hat, the public Beta will be sometime in 2013 (unless it is early 2014)
 - Expected to look somewhat like Fedora 19
 - RHEL7 will use systemd
 - RHEL7 will use NetworkManager
 - RHEL7 will use GNOME3 (classic mode!)
 - RHEL7 may use the new anaconda

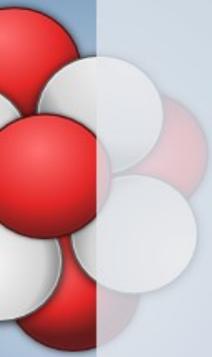
According to Red Hat Summit (RHEL Roadmap)

- <https://www.redhat.com/summit/2013/presentations/>

Speaking of Fedora 19

- Bugzillas in Fedora that may impact RHEL7 that we care about (and you might too):
 - 893593
 - Make yum-cron use systemd
 - 999155
 - Errors only reporting for yum-cron
 - 681750
 - No language selection in GDM3
 - 1001165
 - Can't set GDM banner and GDM no-user-list
 - 1001196
 - Gnome doesn't preserve settings from /etc/locale.conf

Important Conversational Topics



Conversation Points

- SL7 point releases
 - Should we continue to make them?
- Software Collections
 - The SL6 software collection rpms don't build easily on SL5, too much has changed.
 - Are there specific tools the community wants/uses that might fit this model?
 - Conversion tool available (spec2scl) for SL6 in sl-addons
 - Some manual labor is still required

Upstream Community Projects For RHEL6 You Should Know

- RDO – <http://openstack.redhat.com>
 - This is the upstream for RHOS (Open Stack), complete with a working el6 yum repo.
- Ovirt - <http://www.ovirt.org>
 - This is the upstream for RHEV (Virtualization), complete with a working el6 yum repo.
- GlusterFS - <http://www.gluster.org>
 - This is the upstream for RHSS (Storage Server), complete with a working el6 yum repo.



References

- See Also
 - www.scientificlinux.org
 - www.scientificlinux.org/download/mirrors
 - www.redhat.com/licenses
 - access.redhat.com/site/documentation