Presentation at

**https://www.scientificlinux.org
/documentation/presentations/
sl.htasc.pdf**

Scientific Linux

Connie Sieh
csieh@fnal.gov

Troy Dawson
dawson@fnal.gov

Fermi National Accelerator Laboratory

September 9, 2004

XXVII HTASC

Scientific Linux - History

- Discussions at October 2003 HEPiX about what to do after RedHat changed from a "free" to a subscription model.

- Discussions about if we should make a HEP Linux

- Started to work on Fermi Linux LTS(Long Term Support) based on rebuilding from source code.

- Fermi Linux LTS 3.0.1 released January 2004

Scientific Linux - History

- Had discussions with CERN on collaboration
    - Common base of rebuilt source code
    - Added HEP applications
    - Custom site areas
- Took Fermi Linux and removed all the Fermi specific changes
- Added code to installer to allow for site customizations
- Announced as preview on HEPiX-HEPNT mailing list as HEPL end of February 2004

Scientific Linux - What is it

- 3.0.1 released May 10, 2004
  - Rebuilt from RedHat Enterprise 3 Update 1 source code
  - Added and updated packages
  - Site customizations allowed

- 3.0.2 released June 28, 2004
  - Collaboration with CERN
  - Based on Update 2
  - Added AMD64 and Itanium2 arches
  - CERN released SLC early July 2004

- 3.0.3 now in testing

Scientific Linux

- Compatible with RedHat Enterprise Linux 3

- Added packages
  - Rebuilt RedHat Cluster Suite
  - Rebuilt RedHat Developer Suite
  - Rebuilt errata as of June 29, 2004
  - Openafs
  - Yum, apt-rpm
  - Bug fix packages (SL-....)

Scientific Linux

- Site Customizations
  - Allows for a site to customize their own release
  - Scripts are provided to make this easy to do
  - Sites can
    - Add packages
    - Upgrade or Downgrade packages
    - Make modifications to the installer
    - Change installed kernel
    - Change installer kernel
  - Will mirror 'sites' to central repository if allowed
    - 'Borrow' packages from other sites

Scientific Linux

- Collaborative environment
    - scientific-linux-devel@fnal.gov
    - http://www.scientificlinux.org/
        - PLONE content management
            - Allows for collaborative use
            - Bugzilla
            - Todo list
    - ftp://ftp.scientificlinux.org/linux/scientific/
        - 302
            - Stable tree
        - 30rolling
            - Development tree

Scientific Linux

- Benefits
  - With collaboration you get more than the sum of the parts.
  - Expertise from different people which makes for a better release.
  - Experimenters are not tied down to one site such as CERN or Fermi
  - Free and Redistributable – You can give the release to anyone.

Scientific Linux - The Future

- Need to add more packages that would be useful to HEP community
  - HEP tools ???
  - Grid tools ???
  - ???
- Errata (Updates)
  - Security errata provided as source code is available from RedHat
- Scientific Linux next major version
  - Expected after RedHat releases the source code

Scientific Linux

- Scientific Linux CERN 3.0.2 was released July 2004

- Scientific Linux (Fermi LTS 3.0.3 and CERN 3.0.3) are both expected September 2004

- DESY is researching and collaborating

- IN2P3 is researching

- TRIUMF has adopted

- UK HEP community is researching

- Many other non HEP universities