

Scientific Linux @ CERN

HEPIX, CASPUR - Roma, April 2006

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CERN Linux

<http://cern.ch/linux> linux.support@cern.ch

HEPIX, CASPUR – Roma, April 7, 2006

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Scientific Linux @ CERN

- ✓ Scientific Linux CERN (SLC) in numbers.
- ✓ SLC 4 status and plans.
- ✓ SLC 3 support time line.
- ✓ SLC 5, the next ?
- ✓ RHEL/SL/SLC compatibility.

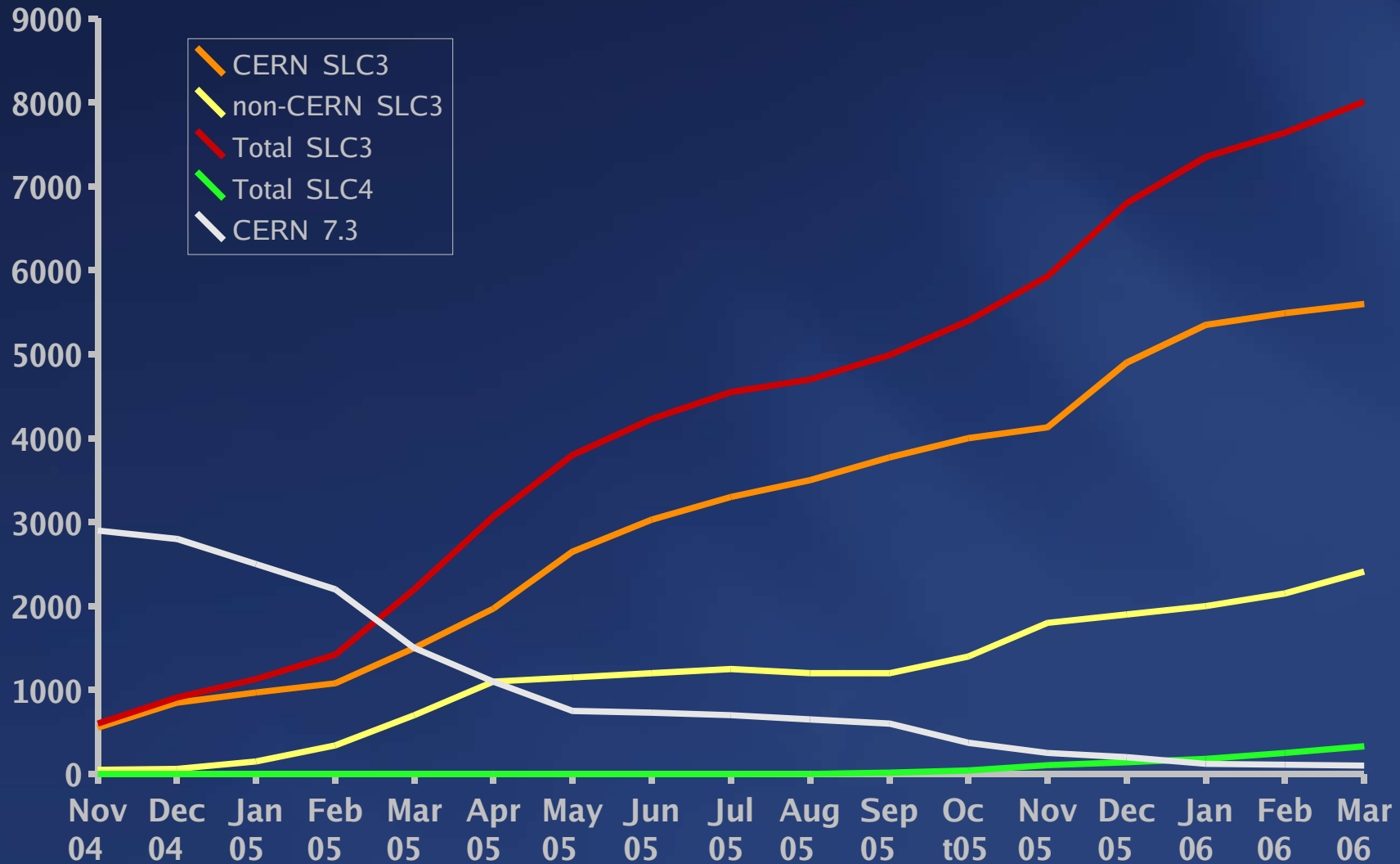


Scientific Linux @ CERN

- ✓ April 2006:
 - ✓ ~ 2100 individual SLC3 installations.
 - ✓ ~ 3550 centrally managed SLC3.
 - ✓ ~ 140 individual SLC4 installations.
 - ✓ ~ 100 centrally managed SLC4.
 - ✓ plus: ~ 2400 SLC3 installations outside CERN (!)
 - ✓ CERN Linux 7.3 is 'DEAD' since Jan 2006.



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Scientific Linux CERN 4

- ✓ SLC 4.3 released and certified.
 - ✓ Split certification process used:
 - ✓ Linux Support: OS
 - ✓ LCG Architects Forum: compiler & Physics applications.
- ✓ SLC4 WILL BE the release for LHC startup.
 - ✓ Stable release needed by October 2006.
 - ✓ SLC5 will be too late...



Scientific Linux CERN 4 News

- ✓ **Changed update system.**
 - ✓ **Now we use YUM as default updater:**
 - ✓ same on all supported architectures, simpler and well maintained.
- ✓ **Moving (slowly) towards fully Kerberos 5 aware environment.**
 - ✓ **mixture of Kerberos 4 / Kerberos 5 / AFS credentials**



Scientific Linux CERN 4

- ✓ **Migration to SLC4:**
 - ✓ We started to encourage “desktop” users and “hidden” services.
 - ✓ Central clusters migration foreseen for autumn 2006 (September/October).
 - ✓ Coordinated via LCG / GDB.
 - ✓ Suggesting phase-in of 64bit platform.
 - ✓ ia32e / x86_64 (NO ia64).



Scientific Linux (CERN) 3 support

- ✓ Support of SL3 releases - until October 2007 (<http://www.scientificlinux.org>).
- ✓ We will need to stop SLC3 by then...
- ✓ Except SLC3 support for:
 - ✓ Itanium II (ia64): until end of 2006
 - ✓ At CERN entirely under IT control – will go SLC4 / RHEL4 / disappear ...
 - ✓ Opteron (x86_64): until end of 2006
 - ✓ Mostly unused at CERN (~ 20 systems only).



Scientific Linux 5

- ✓ Red Hat Enterprise Linux 5
 - ✓ Interesting technology: Xen (virtualization).
 - ✓ Release no earlier than 1st quarter 2007.
 - ✓ SL(C)5 – no earlier than 2nd / 3rd quarter 2007.
- ✓ At what date may we need it at CERN ?
 - ✓ ... to be discussed and planned only after migration to SLC4 is well on its way...
 - ✓ Migration to SLC5 : not in 2007 (?)



RHEL/SL/SLC Compatibility

- ✓ It is THE explicit goal for SL / SLC / SLF.
- ✓ SL: some add-ons to RHEL.
- ✓ SLC: some add-ons to SL plus few modifications.
 - ✓ kernel / openssh / openafs (CERN environment specific).
 - ✓ NO IMPACT on user-level applications expected !
- ✓ Summary: Works pretty well !
 - ✓ Only ONE case of (temporary) incompatibility in the past (libstdc++).
- ✓ Brought up at last year HEPIX: no reaction.



RHEL/SL/SLC Compatibility

- ✓ How to tell differences:
 - ✓ SL packages have 'SL' in version: ~ 50 packages.
 - ✓ SLC specific packages have 'SLC3' / 'SLC4' / 'CERN' in version: ~ 100 packages.
 - ✓ Most of the above are add-ons.
 - ✓ Out of ~ 1500 packages in SL4 !
- ✓ Discussion on better compatibility definition started.



Questions ?

