Linux Certification Committee Meeting – August 2007
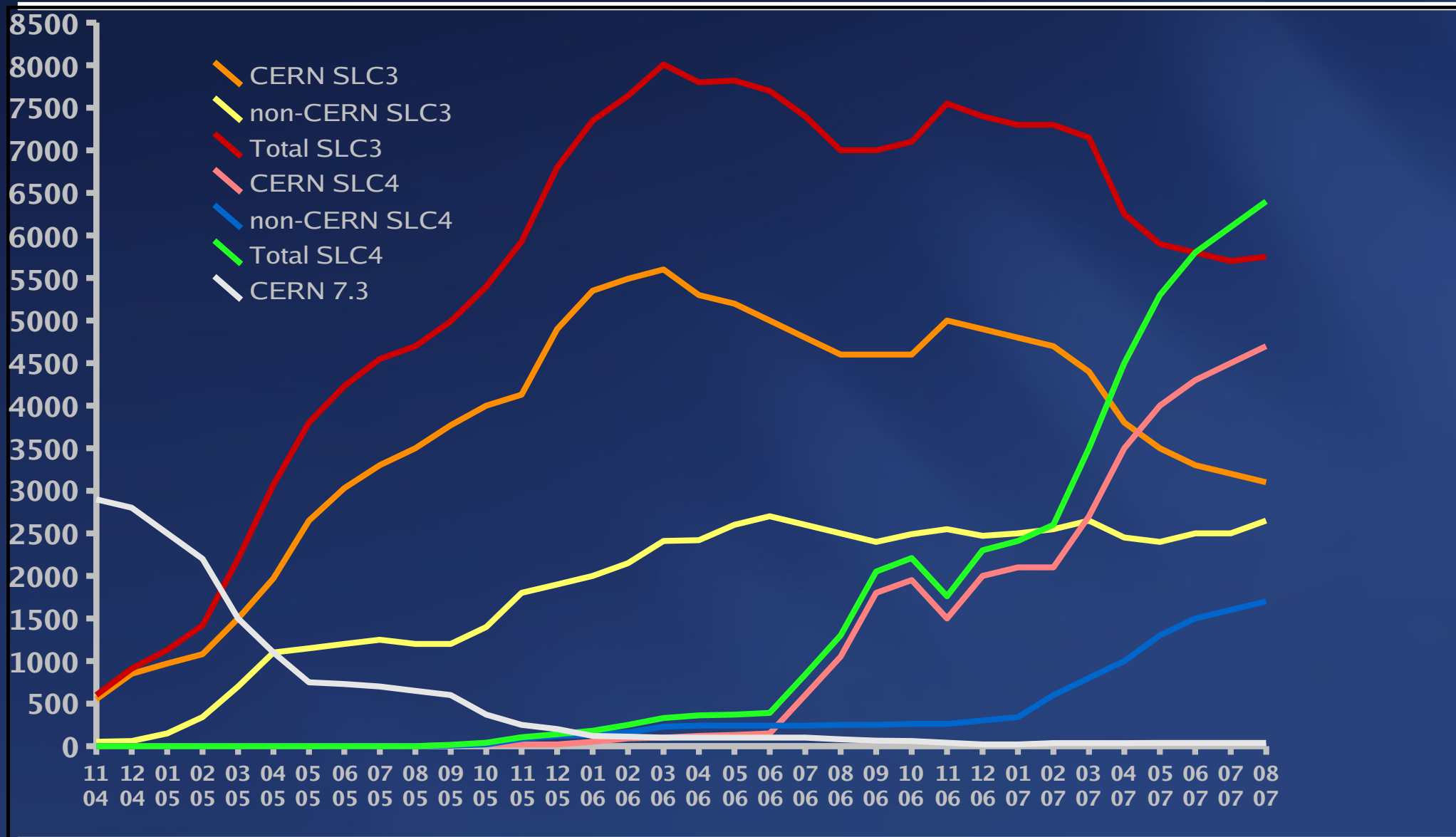
Scientific Linux CERN 3 & 4 (SLC3 & 4) Evolution of active system numbers.

CERN Linux
http://cern.ch/linux   linux.support@cern.ch

28.08.2007 Jarosław Polok <jaroslaw.polok@cern.ch>

Scientific Linux CERN 5 (SLC5)

- Still long time before it could be in a production state...
  (At best about 6 months from now as past certifications have shown ...)

- Experiment software / GRID middleware cannot be ported to SLC5
  in 2007 ... maybe also not in first-half of 2008 ?

- Convenient time window for migration seems to be at earliest end of
  2008 for some groups/experiments ?

- Except for some services/desktops which could migrate earlier.

- Seems that there is no pressure to go for it now ...

Scientific Linux CERN 5 (SLC5)

Problem:

- Current distribution: Scientific Linux CERN 4 is behind the point where new hardware support is added... We always had troubles providing support for latest hardware. **NOW** we are also in trouble for not-so-recent (end 2006) models ...

Solution(s) ?

- Abandon "desktop support", concentrate on PLUS/BATCH services ? (users tend to run their preferred Ubuntu or other distribution anyway ...)

- Provide add-on kernel / X11 with up-to-date hardware support on SLC4 ? (**trying** not to break too much the runtime/compile compatibility...): Lots of work and CERN-only solution: no more unified platform across HEP community ...

- Provide SLC5 'as is' i.e. without certification to those who have more modern hardware ? (no guarantee that experiment code can be developed / used ..)

Scientific Linux CERN 5 (SLC5)

- Provide SLC5 with a (experiment-certified) compatibility layer (old gcc, python libraries from AFS ... etc..): Could possibly be used everywhere but at least GRID middleware needs port to the platform ?

- Fully certify SLC5 in first half of 2008 ?
  Provide full experiment and GRID toolchain available with native compiler.
  Is the date **realistic** ?

- What is **YOUR** preference ?

(Certified) Linux on Laptops at CERN... the end ?

- Some (unreliable as rarely updated) numbers from Lan DB:
    ~3900 linux laptops registered at CERN.
    ~830 registered as running CERN linux version plus ~550 some Red Hat variant.

- In last 12 months:
    150 HP NC6400 models sold. 110 of these running NICE, so numbers suggest that maybe 10-20
    are running SLC: too little to justify hardware certification...

- SLC4: Hardware support problems seen since 2006 already but now getting critical: we cannot get
    ANY compatible model anymore at mid 2007 ...

- SLC5: Would solve (part of) the problem for **NOW**, but the same situation will most likely happen in
    2008 (just when it gets certified ?)

- Red Hat does not target laptop users: no updated support for quickly moving hardware and certainly
    not for 'old' releases.

- As consequence of the above: We should seriously think about **dropping linux support on laptops**,
    therefore some questions:

    - Is the requirement "same OS everywhere" still needed ?

    - Or giving that we can have SLC4/5 running in a virtual machine (Xen or other)
      providing CERN system on laptops only as virtual guest would be sufficient ?