



Enabling Grids for E-scienceE

# SL4 Status and Plans February 7th 2007

*Markus Schulz*

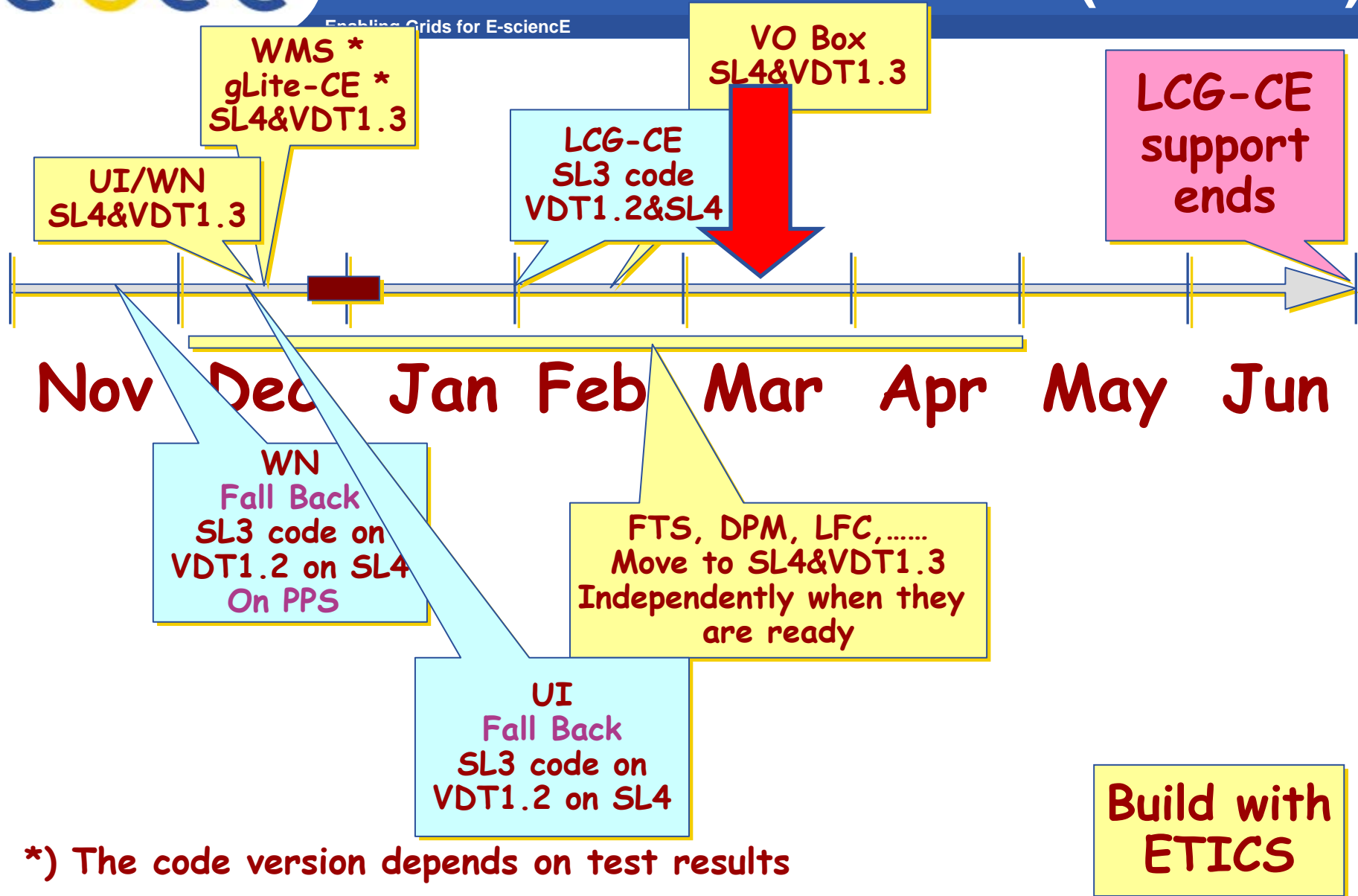
**SA3**

**CERN-IT-GD**


[www.eu-egee.org](http://www.eu-egee.org)



INFSO-RI-508833



• Many missing/wrong configurations, externals....


Status

Enabling Grids for E-science

- Build with ETICS progressing slowly
  - § [Magic Script](#) that converts gLite build config, provides only 50% of the magic
- Refocused on WNs and Uis
  - § [UI\\_32bit\\_SL4](#) (74%)
  - § [WN\\_32bit\\_SL4](#) (82%)
- What fails:
  - § [org.glite.security.voms](#)
  - § [org.glite.security.voms-clients](#)
  - § [org.glite.security.voms-api](#)
  - § [org.glite.security.voms-api-c](#)
  - § [org.glite.security.cgsi-gsoap](#)
  - § [org.glite.data.srm-api-c](#)
  - § [org.glite.data.srm-cli](#)
  - § [org.glite.data.srm-api-perl](#)
  - § [org.glite.wms.common](#)
  - § [org.glite.security.proxyrenewal](#)
  - § [org.glite.jp.ws-interface](#)


INFSO-RI-508833
SL4 Status and Plans Feb 2007
3


Status

Enabling Grids for E-science

- What fails III :
  - [org.glite.wms-ui.wrap-java](#)
  - [org.glite.wms-ui.wrap-python](#)
  - [org.glite.security.voms-api-cpp](#)
  - [zlib](#)
  - [org.glite.wms.wmproxy-api-cpp](#)
  - [org.glite.wms.client](#)
  - [org.glite.wms-ui.api-cpp](#)
  - [org.glite.ce.cream-client-api-c](#)
  - [org.glite.ce.cream-cli](#)
  - [Dcap](#)
  - [LCG-DM](#)
  - [org.glite.data.gfal](#)
  - [org.glite.data.dm-util](#)
  - [lcg-dm-common](#)
  - [lcg-vomscerts](#)

INFSO-RI-508833
SL4 Status and Plans Feb 2007
5


Status

Enabling Grids for E-science

- What fails II :
  - § [org.glite.jp.client](#)
  - § [org.glite.wms.purger](#)
  - § [edg-replica-location-client-cpp](#)
  - § [edg-replica-manager-client](#)
  - § [org.glite.ce.wsdl](#)
  - § [glite.ce.monitor-client-api-c](#)
  - § [org.glite.wms.ism](#)
  - § [edg-replica-metadata-catalog-client-cpp](#)
  - § [edg-replica-optimization-client-cpp](#)
  - § [org.glite.wms.ris](#)
  - § [org.glite.wms.brokerinfo](#)
  - § [org.glite.wms.██████████](#)
  - § [org.glite.wms.matchmaking](#)
  - § [org.glite.wms.broker](#)
  - § [org.glite.wms.ns-common](#)
  - § [org.glite.wms.ns-client](#)

INFSO-RI-508833
SL4 Status and Plans Feb 2007
4


Status

Enabling Grids for E-science

- What fails III :
  - [gssklog-cern](#)
  - [Yaim](#)
  - [globus-config](#)
  - [edg-gridftp-client](#)
  - [edg-mkgridmap](#)
  - [org.glite.data.catalog-api-c](#)
  - [org.glite.data.catalog-cli](#)
  - [xalan-c](#)
  - [org.glite.data.config-service](#)
  - [org.glite.data.transfer-cli](#)
  - [org.glite.data.transfer-api-c](#)
  - [Workload](#)

INFSO-RI-508833
SL4 Status and Plans Feb 2007
6

- **What did we do about it?**
  - Follow up with developers (EMT)
    - JRA1 started to look at the daily build reports and act on them
  - Adding external dependencies (ETICS team)
  - Converting failed builds into Savannah bugs
  - ETICS <-> Developer dialog and support
- **First WN build without ETICS errors**
  - February 16th
- **But not installable/complete**

- Cleanup of the WN and UI build
- **Since one about 1 week successful UI builds**
- **Attempt to streamline dependency management**
  - Has to be postponed, would interfere with progress
- **Installation of test WNs and Uis**
  - Installation by forcing RPMs
  - Still significant work needed to clean
- **Modification of YAIM ( Component based YAIM )**
  - In progress
  - Needs more testing
  - “Bash only” configuration for the UI/WN
    - Thanks to Elena Puncheva and Preslav Konstantinov from INRNE Bulgaria

- **First functional tests of WN and UI**
  - Forced RPMs, some manual tweaking of environment settings
  - WN under the control of CE using VDT-1.2
- **Friday 2nd March 2007**
  - First successful SAM tests

Camino File Edit View Go Bookmarks Window Help

EasySAM portal for the Certification Testbed

https://lxb0714.cern.ch/easysam/easysam.cgi?action=showhist&vo=DTeam&sensor=gCE&nodename=lxb1905.cern.ch&res=low

Region: All region | VO: DTeam | DPM | RB | FTS | RGMA | gCE | CE | SRM | MyPro | BDII | gRB | SE | LFC | VOMS | sBDII

Type: Production | Status: Certified

SiteView version: 1.0.0-6

EnvID	Submitter	Date	apel	bi	ca	cert	cp	cr	crl	csh	del	gfal	js	rep	rgma	rgmasc	rm	swdir	ver	votag	wn
5760	Andreas	Mon Mar 5 12:06:24 2007	err	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5752	Andreas	Mon Mar 5 07:06:45 2007	err	-	-	-	-	-	-	-	-	-	err	-	-	-	-	-	-	-	-
5739	Andreas	Sun Mar 4 21:06:40 2007	err	-	-	-	-	-	-	-	-	-	warn	-	-	-	-	-	-	-	-
5731	Andreas	Sun Mar 4 12:06:37 2007	err	-	-	-	-	-	-	-	-	-	warn	-	-	-	-	-	-	-	-
5724	Andreas	Sun Mar 4 07:06:11 2007	err	-	-	-	-	-	-	-	-	-	warn	-	-	-	-	-	-	-	-
5711	Andreas	Sat Mar 3 21:06:44 2007	err	ok	crit	-	ok	ok	-	ok	ok	ok	ok	ok	ok	err	ok	ok	ok	warn	info
5703	Andreas	Sat Mar 3 12:06:50 2007	err	ok	crit	-	ok	ok	-	ok	ok	ok	ok	ok	ok	err	ok	ok	ok	warn	info
5696	Andreas	Sat Mar 3 07:06:28 2007	err	ok	crit	-	ok	ok	-	ok	ok	ok	ok	ok	ok	err	ok	ok	ok	warn	info
5683	Andreas	Fri Mar 2 21:06:56 2007	err	-	-	-	-	-	-	-	-	-	err	-	-	-	-	-	-	-	-
5668	Andreas	Fri Mar 2 12:06:13 2007	err	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5664	Andreas	Fri Mar 2 10:58:31 2007	err	ok	crit	-	ok	ok	-	ok	ok	ok	ok	ok	ok	ok	ok	err	ok	warn	info
5660	Andreas	Fri Mar 2 07:06:28 2007	err	ok	crit	-	ok	ok	-	ok	ok	ok	ok	ok	ok	err	ok	err	ok	warn	info

Scotland with style  
Flights from £18.99  
Plus 15% off car hire!

Don't shell out on the beach this summer

Contact: EasySAM Working Group :- ) e-mail: [Gergely.Debreczeni@cern.ch](mailto:Gergely.Debreczeni@cern.ch)  
Portal last modified: 2006, dec, 12

- **Certification tests are currently run on the UI and WNs**
  - No serious problems have been found up to now
  - Mostly configuration issues (environment, and globus)
  - UI some packages missing
    - Jobsubmission only tested for globus job run
    - WMS still to be tested (today)
      - *Glite-wms-job-list-match failes....memory corruption*
  
  - Things look better than we have hoped



- **Next steps:**
  - Sort out remaining installation conflicts (WN and UI)
    - 2-3 days of effort
  - Sort out remaining configuration issues
    - Iterative process in parallel with testing
    - 1-2 weeks (parallel with the rest)
  - Continue testing at increased scale
    - Convert testbed (next week)
    - Overnight stress tests
  - Define convention to publish in the information system:
    - OS type and version (exist, but a colorful mixture IS published)
    - 32/64 bit OS version <----- new
    - Middleware ( SL3 build or SL4 build) <---- new
  
- **Next steps after SL4 WN and UI releases**
  - Remove the gLite build system remnants that have made it into the ETICS system
  - Reorganize the management of dependencies
  - In parallel:
    - 64bit UI/WNs,
    - SL4 builds for: data management components and WMS, priority on DM
  - Other components to SL4 and 64bit move (first DM)

- **SL3 build middleware on SL4 UIs and WNs**
- Fallback for SL4 / 32 bit
- **UI tarball**
  - Released
- **WN tarball**
  - Released
- **RPM based WN**
  - On the PPS and has been tested
  - Can be rolled at the next cycle
- **Fallback for SL4/64bit**
  - UI tarball
  - WN tarball
  - (RPM based WN in test, can go to PPS on Monday)
    - But Python etc. still not working
  - There are some deeper issues with running 32bit middleware on 64bit

- **There is no clean way to provide 32bit gLite on 64bit nodes**
  - This is because of 32bit language extensions used with interpreted languages
  - The 64bit binaries find the extensions, but cannot load them
  
- **Solutions/ Alternatives:**
  - Solution A)
    - Provide 32bit versions of the interpreters
      - (relative) easy for Python
      - Harder for Perl
        - *Has been provided by LAL, they have a recipe to package*
        - *But works only with: `#!/bin/env Python, perl etc.` In your scripts.*
        - *Then the environment has to be setup correctly that the 32bit version is selected*
        - *Common practice in the experiments code*
        - *Not common practice in the current middleware.....*
    - But: This means we start managing externals
  - Solution B:
    - Do this only for Python (use the Application Area Python version)
    - Forget Perl.....
  - Solution C:
    - Ask the SL4 team to add the 32bit binaries to the distribution
    - Still requires the correct environment