



WLCG Worldwide LHC Computing Grid



EGEE-II INFSO-RI-031688



Information Society
and Media

CCRC Middleware

Baseline Status

CCRC 08



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Going through the list

FTS

- Required Version 2.0
 - SL3, VDT-1.2
 - Patch #1589 (transfer of volatile files to permanent space)
 - Available to production since January 25th

- Issues
 - Some small correction needed
 - Bug: #33148 (srmGetSpaceTokens problem)
 - Patch expected to arrive during the week



Going through the list

dCache

- T1s take dCache from DESY
 - 1.8.0 not ready for integration with gLite
 - 1.7.0 gLite version, currently in PPS
- Issues
 - PPS has already some patches in certification
 - Will be merged with:
 - #1543 certified
 - Schema corrections, server update
 - Several small non mission critical fixes
 - #1662 certification
 - YAIM configuration fix



Going through the list

DPM

- 1.6.7-2
 - SL3 available
 - SL4 1.6.7-1 (skipped -2)
 - SL4 / 64 no production release
- DPM 1.6.7-1 and 1.6.7-2 are functionally identical
- Issues
 - DM team currently prepares 1.6.10
 - Patch: #1605
 - Fixes: 6 bugs
 - Configuration and httpd



Going through the list

LFC

- 1.6.8-1
 - SL3 In Production
 - SL4 / 32 In Production
 - SL4 / 64 In Production
- 1.6.10
 - is being prepared by the DM team
- Issues
 - ??????



Going through the list

LCG-CE

- SL3 Production
- SL4 Production
 - SGE: recently certified
 - CONDOR: now in certification
- Issues
 - No new issues
 - This is the legacy CE
 - (the devil we know)



Going through the list

WN gLite-3.1

- SL4/32 Production
- Issues
 - No new issues
 - Except: DM clients, addressed later



Going through the list

WMS / LB

- SL3/32
 - WMS-2.4.6-0 Production (14.01)
 - LB 2.3.4 Production (14.01)
 - This corresponds to the '3.1 codebase'
 - Just certified; YAIM patch #1612 for wms-2.4.6-0
 - Effecting the gridFTP server default config.
 - Can go to PPS/Prod
- Issues
 - No outstanding patches



Going through the list

WMS / LB

- SL4/32
 - In test
 - Waiting for set of fixes to address all known issues
 - Expected on Tuesday to arrive

- Issues
 - Not relevant for CCRC-08 in February



Going through the list

RB

- SL3 3.0.19-1
 - In Production
- Issues
 - No changes expected
 - Legacy RB



Going through the list

GFAL & lcg_util

- SL4/32

- gfal-1.10.7-1 Production (Patch #1641) (24.01)

- 1.10.7-2 on baseline twiki??

- lcg-util-1.6.6-1 Production (Patch #1641)

- Note that lcg_util 1.6.7 (also available to prod) is required to fix bug #32923: lcg-cp -n option not recognised.

- Issues

- Lcg-utils Patch #1658 PPS

- Lcg-rep “Classical SE” problem
 - Non critical for CCRC



Going through the list

VO-BOX

- Base version 3.1.2 on SL4 Production
 - ALICE ??
 - ATLAS ??
 - CMS ??
 - LHCb ??
- Issues
 - No outstanding issues



VOMS

Bug #32473

- **AXIS-1.2.1**
 - problem related to duplicate XML entries
 - affects ATLAS at BNL
 - manual fix at CERN applied 29.01
- **Issues**
 - The manual fix has not been successful
 - A long term fix whereby the required synchronisation functionality is integrated into the voms-admin clients has been proposed
 - Short term outlook unclear



VOMS updates

VOMS-Admin and VOMS-CORE

- Patch:
 - #1657 (core) 1629 (admin) 1591 (server node)
 - All in Certification
- Addresses all known problems
 - But the BNL AXIS problem
- Issues
 - New bugs have been found in Certification
 - Troubles with attributes generated with the proxy-init



AMGA

AMGA 1.3.0 (Postgres)

- Production
- Issues
 - SA3 integrating ORACLE version
 - Timeline > 4 weeks



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SL4 64bit WN



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Status

SL4 64bit WN

- Build done
- On certification testbed since 2 months
 - Seems to work
- Issues
 - One configuration change pending
 - Id library path
 - Works only with 64bit user code



Status

SL4 32/64bit WN

- Build done
 - Packing problems
 - Minor, affects only lcg_util
 - 32 or 64 binary may be selected / Both should work
- In Certification
- Issues
 - Meta packages
 - RPM can't identify the architecture of its dependent packages
 - Solution: YUM Groupinstall
 - In certification
 - Ld_library path YAIM fix in preparation
- Release to PPS (can't be fast tracked)



Status

SL4 32/64bit WN

- More issues
 - Information system:
 - Can't express which clients are installed
 - Currently 32 bit
 - After update: 32bit/64bit, 32bit
 - Clarification with operations
 - Once agreed on a convention the fix will be trivial



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Client Availability



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Current Practice

Clients and Services are treated the same

- Except:
 - Application Area
 - Clients in certification
 - Can be shipped with VO software
 - No control of versions
 - Mix of incompatible material possible



Problems

Propagation of new clients

- Clients need several months to reach all sites
 - Scheduled by sites
 - Examples:
 - Still > 100 sites on non gLite-3_1_x (40%)
 - Released June 2007
 - 52 sites installed Update 07 or better
 - December 6th
- User can't select on fine grained versions
 - Like: lcg_util-XXX version
 - Common use case
- No possibility for a pre-view
- Downgrading is very difficult
 - Slow and careful updates



Suggestion

Make new, current and old clients available

- Everywhere

- Instantaneously

- How?

- Use LHCb's software distribution mechanism

- Tar balls in shared file system space of ops VO

- Pushed by SAM test

- Advertise: actual version of WN libs available

- Logical selection by:

- Absolute version

- Symbolic version (New, Prod, Old)

- WN installed version??

- If nothing or a matching version is requested in the jdl

- Site provided version is used



Benefits

Control and choice

- Control

- Identified versions can be used
- Critical fixes can be distributed quickly
- Fast rollback in case of problems

• Choice

- Vos can test easily latest versions
- Vos can switch easily in production between versions
- Sites are more flexible in their update plans



What is needed

- Distribution and local setup
 - Available (implemented and tested)
 - Problems: ops VO support
 - No shared area
 - No read privileges for other VOs
- Publishing
 - Publishing after config is available
 - Convention for string schema needed
- Version Selection
 - “A1” script has to be on the WN (since update 07)
 - Jobs have to go through the WMS
 - The job wrapper moved requirements to the WN
 - Could be handled differently
 - CE job wrapper is a candidate



Concerns

- Site loses control over WN middleware
 - Different middleware run in different regions
 - Debugging will be harder
- OPS charter doesn't cover the activity
- Answers:
- This is no more the case than now
 - VOs can and do ship middleware clients
 - The system makes versions explicit
 - This makes debugging more easy
- The default version is always the local version
 - No change in behavior unless the user demands it
- OPS mandate might cover this (discussion)
 - “Recertification and performance evaluation tool”



- ??????

Discussion