



# 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 suport
    - 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