Testbed Release Criteria and Plans

WP8 Loose Cannons & App Representatives

Release criteria

◆ Release 1.2: all WP managers successfully submit a job

◆ Release 1.3: all WP managers must successfully replicate a file

The June 17th Meeting

- We thought it was a testbed release announcement a la October meeting last year

- Others thought it was a discussion about the progress to release (basically todays meeting)

- Others thought it was a PTB meeting about the release

- Apparently apps were supposed to participate, but at least the LCs were unaware of this meeting

- Needs to be better communication about the scope and purpose of meetings!!!

Testbed Status and Deployment Assessment

◆ Analysis of status of each WP's products

◆ Presentation of "acceptance criteria"

◆ Comments on process

Work Package 1

◆ F. Prelz did the perfect thing: debugged his software on the actual testbed!

◆ Result: vast improvement in job submission (many bug fixes) and identification of remaining problems

◆ Status:

- Bug fixes early next week

- Assuming they work, WP1 is ready for 1 week of application testing

- Level reached: better than 96% success for JJ's generic HEP application

- Assuming JSS is also up >95% of the time, this is OK!

◆ Redish's law: $0.8 \neq 1$, however $0.96 = 1$

Work Package 3

- Have identified the bug in MDS GRIS/GIIS system

- NorduGrid identified the same bug and verified a patch for it fixed their problems

- Patches are ready

- Assuming patches work, WP3 is ready for 1 week of application testing

- We want a commitment to debug and fix it if uptime decreases below 96% when deployed to application testbed

Work Package 2

◆ As of yesterday 17.30, one file had been successfully replicated (but not stored in RC)

◆ Exercise (two LCs plus one WP2 person) exposed several difficult configuration issues not addressed in beta3

◆ Conclusion: not ready for application testing

◆ Not possible to give performance numbers since we don't know where problems are!

◆ Errors primarily due to not testing GDMP in realistic setting (real testbed with multiple VOs)

◆ Lots of user education needed

Work Package 5

◆ Primary application requirement: access to mass stores at CERN, Lyon, RAL

◆ Workarounds exist but LCs aren't aware of testbed-perspective (unprivileged normal Grid user on EDG testbed) instructions

◆ Once documentation is transmitted, LCs need to test it

◆ Conclusion: not ready for application testers

◆ Not possible to give acceptance numbers since we don't know where problems are.

Work Package 4

- Main component needing work is information providers

- Fix has been provided

- Not tested as of Thursday 13 June

- Perhaps ready for application testing? Should know today or early next week

- Comment: information provider people need to submit jobs on EDG testbed in order to understand the problem better and discover bugs

Work Package 7

◆ No application dependencies

◆ OK for application viewpoint

Short Term Path to Deployment: Our Proposal

1. Ideal situation: migrate packages to app testbed as they are ready (e.g. JSS approx end June) - probably unrealistic now. SO:

2. Put more application people on dev testbed

    1. Request from F. Prelz: realistic stress of JSS (LC testing not chaotic enough)

    2. Finish testing faster: don't wait until **everything** works before we start!

3. We educate users on which components are "ready for test": "please don't ask about GDMP on iteam list until we tell you it's ready"

4. Recommendation: once release is deemed ready, let current dev testbed "become" application testbed

    1. Don't need to wait for another round of installs

    2. Migrate worker nodes over gradually

    3. When 1.3 is ready, remaining nodes "become" dev testbed

Longer Term Issues

◆ Frequent vs. Infrequent Releases

  ▪ Apps have several "we want it now" requests (ATF priority slides)

  ▪ New functionality design untested/unverified without users (WP1)

◆ Incremental Releases are GOOD! But not like now.

  ▪ Integration is inefficient: MW don't normally make unprivileged tests of installation or use of their products on EDG standard testbeds. Lots of work for sysadmins/ITeam

  ▪ Integration is monolithic: "all or nothing".

  ▪ Even worse: too much version dependence: hard coded dependence on SPECIFIC versions of libs! Need to have honest dependencies:

    ◦ No version dependence if libs are backwards compatible

    ◦ Greater-or-equal dependence if not

Who Owns the Configuration?

◆ Much discussion recently on who is responsible for the configuration of software

◆ Middleware needs to write & maintain config objects, and **make sure they work on the official release**

◆ WP4 needs to provide **documentation** and **consultation** on how to make config objects

◆ WP6 needs to help, as well as document resulting machine configurations for "manual install" people

◆ Objects should be smarter; we have to tell them too much now, and what happens for "manual install" people???

  ▪ ./configure

  ▪ make

  ▪ make install

WP6 Test Group

- Can play a **very important role**

- The current plan (only work on Frozen Releases!) is not optimal

- Appear to be several "national" testing groups, would be beneficial to have some project-wide coordination

- See next slide for how we believe they can have a great impact

Our Idea for Deployment Plan

◆ Middleware programmers do their own "unit" tests

  ▪ As normal, non-privileged Grid user

  ▪ Install and config on standard LCFG-driven testbed as non-privileged admin

◆ deployment on dev testbed

◆ Middleware + WP6 works to deploy

  ▪ Alpha/beta release

  ▪ Sysadmins install (only site specific config, no middleware config)

  ▪ Test team tests, LCs are more than willing to help

  ▪ Middleware + WP6 works to correct sw or config bugs

◆ When *they* (test team/WP6/MW) think it is working, LCs test

Not necessarily monolithic

◆ No reason that all WPs must go thru same process at once

◆ Perhaps this argues for the three-tiered approach:

  ▪ Dev testbeds where stuff is tried

  ▪ Validation testbeds where it is verified that it doesn't break anything (Test Group) and can be installed by mortals (several external sysadmins)

  ▪ Application testbed

◆ Will need to be VERY strict about keeping the three testbeds as similar as possible:

  ▪ All LCFG installed

  ▪ No special libraries

  ▪ Unprivileged-account testing the rule rather than the exception

Impedance Mismatch

- Iteam leader has a great project overview but lacks authority to make all crucial decisions

- Project management has authority but not enough detailed knowledge to see realistically the crucial issues

- Either Iteam leader should have more authority, or communication between this person and management should be better

- WP6 needs more coordination and perhaps more manpower

- We believe that WP managers as well as project technical coordinators would understand our suggestions if they actually tried to submit jobs