Software Management Workshop

Steve Traylen

Software Management(WG5)

- **The aim of the working group is to look at deficiencies in deployed and upcoming software that make the operation of a stable production service challenging.**
  - Wednesday 13.30 - 18.00 Software Management 104-R-B0.
    - Deployment and removal of VOs.
    - Service discovery for VO members.
    - Fault tolerance of system.
      - What can break the grid, restart services remotely?
    - Shutting down and upgrading running services.
      - Which services can't be shut down.
    - Feeding back issues to developers.
      - How to get things changed as a result of service challenge.
  - Thursday 9.10 - 12.30 Software Management 13-3-005
    - Level of intrusion of software on WNs.
      - Can it be reduced, removed, sand boxed, what is reasonable?
    - Application Software Installation
      - Spark and Tank - Is there someone tell us about it.
        - (Perhaps this belongs in the fabric area)
    - Software deployment process.
      - Goals of the pre production test.
    - Improving Grid wide scheduling. (Perhaps in fabric section.)
      - Can the service challenges find what the problem is?
      - Glue deficiencies, can /should we just extend Glue ourselves?

Those Present

- Steve Traylen   RAL
  Chris Brew   RAL
  Gonzalo Merino   PIC
  Jeff Templon   NIKHEF
  Robin Midddleton   RAL
  Laurence Field   CERN
  ?   Torino
  Stephen Pickles   Manchester – NGS
  Alex   Romania   - NGI
  Fabio   Lyons   -
  Piere   CC-IN2P3 -
  ?   GSI.
  Rhys Newman   Oxford
- Mixture of site admins, end users and grid deployers.

Adding VOs at a Site

- We decided that VO services was being discussed in other groups – concentrated on the site level.
- Review of what has to be done.
  - Create group
  - Create pool accounts
  - Create /home directories
  - Touch gridmapdir
  - Adapt mkgridmap somehow.
  - Create storage areas with correct permissions.
  - Software area.
  - Queues for the VO.
  - Configure the end points for default BDII.
  - Modify access control lists on services.
  - VO specific environment VO_ATLAS_
    - (Currently a pain when only one SE to define for every VO)
  - Atlas software manager VO is also needed.
  - Maui config.

Could this be simplified?

- Nothing much could be removed or simplified.
- Main difficulty was editing LCFG profiles which is manual and error prone.
  - It was thought new modular install scripts would help by bunching actions for a VO together.
  - Modularity addressed site differences, e.g. NIS vs. LDAP vs. /etc/passwd.
  - Quattor schema was also designed with this in mind.
- Using VOMS and LCMAPS might make life easier on CE.
  - Only one set of pool accounts with secondary groups possible.
  - But with no VOMS aware SE the problem is not reduced.

Removing a VO

- Disabling a VO for a time was considered easy today.
- However destroying a VO and getting all of files shifted of site difficult.
  - Comes down to providing methods for removing services.
- Summary for adding/removing VOs.
  - Not a lot can be done at this time other than wrapping the process.

Service Discovery within a VO.

- Current issue were mainly confined to the user interface.
  - Sysadmin expected to provide default files for VO.
  - Sysadmin does not know even what VOs their "local" users are in.
  - The VO members can not find the services and new ones are added.
- We should request that the UI is able to look in the information system to locate RB and L&B service.
  - Although this is would be the default the user can also specify a static configuration file.
  - They or the site may trust or want to use a particular one themselves and so override selection.
  - The sysadmin only has to provide an end point of the information - of course this led to multiple information systems.

Multiple Information Views.

- This was not being discussed elsewhere so was considered.
- General consensus was that it was undesirable.
  - It was introduced to protect established sites from sites in testing.
    - Improved tolerance in MW has made this less important.
  - It is now used by VOs to black list sites quickly.
    - Using site tags was not quick enough and could be impossible to do (e.g. down GridFTP server on CE).

VO area of schema.

- Could a there be a space in Glue for VOs to publish a sites status for their benefits.
  - This was considered a possible schema extension.
- Having middleware respect it though is considerable work.
  - Maybe easier for the RB as the tags could be matched against.
  - Data handling would be useful since running jobs would have their output directed elsewhere.
- Summary,
  - We want to get rid of multiple information views but this solution may be too hard.

Shutting Down Services

- **Various Scenarios**
  - Planned   e.g. Disabling a VO
  - ASAP   e.g. Kernel upgrade.
  - Unplanned e.g. Pulling the cable out.
- **Current status is published for services.**
  - The exact times are not published, though recorded in the GOC.
- **Again adding this to schema is possible but the added intelligence in MW is serious work. We can't submit it as a bug, only a recommendation for future work.**

Feedback to Developers

- Many sources of bugs and requests,
  - C & T testbed.
  - Pre-Production Users/Admin
  - Production Users/Admins
- Most of these will come via the user/operation support system – GGUS.
- A free for all direct to developers will drown them.
- Members of operations helpdesk need to be the interface between users/admins and developers and to influence priorities of the developers.