VOBox Considerations from GridPP.

GridPP DTeam Meeting.

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Introduction

- VOBoxes enable LHC VO software managers to use gsissh to access a node at a site and install and enable a persistent process.
- The following pages outline the constraints under which these can be operated at GridPP sites and the consequences of their installation.

VO Services

- A VO service is the persistent service that is installed by small named set of users.
- VO services running inside VOBoxes must be well defined.
  - A description of any such service is required by sites.
    - Port numbers must be divulged in advance.
    - Does the server use authentication, if not why not.
      - e.g. a read only web server might be acceptable.
  - What logging is provided.
    - Can I find who accessed the service at any time the last 6 months.
  - For a VO service that collects information.
    - What is being monitored?
    - What is being stored?
    - What is being published and to who.
  - Access to a VO service should only given to valid VO members.
  - Ports are likely to be enforced via iptables (including restrictions to userid) and /or site firewall.
  - VO services will only run as the VOs users account at all times.
- Unless VO services are defined and agreed the VOBoxes will not be provided by sites.

Access Rights.

- VO boxes are expected not to provide a back door to fabric.
  - Access to compute elements still via GK.
  - Access to storage is via SRM.
- If they do then this must be clear.
  - e.g. CMS may want to reorder jobs.
  - VOs want access to software area.

Multiple VOs

- A VO box must be able to be shared by multiple VOs.
  - Sites are not convinced that allocating 2 CPUs per VO is a good use of resources.
    - But a site will add more if they are busy.
  - In reality just requires that port numbers can be changed for any VO service. The deployed VO box already support multiple VOs.
- The alternatives:
  - 4 Experiments * 20 T2 sites = 80 nodes for LHC in the UK is not tenable.
  - Sites will drop VOs.

Service Security

- For well known VO services like apache or tomcat these must be well maintained.
- Sites may close these services if updates are not provided in a timely fashion.
- Sites will close box if service is impacting the site in detrimental way.

Providing Service To VOs

- What is expected for experiments.
  - Disk backup.
- Procedure must exist for node interventions.
  - e.g. In 24hours a VOBox will be rebooted for a kernel upgrade. – Who do I tell.

Overall Impressions

- VOBoxes are not in the spirit of grid.
  - Sites plan to drop LHC VOs if they become difficult to support requiring specialised resources rather than just sharing spare capacity.
  - No UK site will support all 4 LHC VOs if a VO box is a requirement.
    - Currently all LCG UK sites do support all VOs.
    - For example 19 of 20 sites are likely to drop Alice.
    - This will be a big shift in the vision of the GridPP grid deployment.
  - We believe there will be a loss in the scalability of the EGEE grid non LHC VOs within EGEE.
- VOBoxes must be considered a short term solution.
- Components and functionality should be provided by the middleware where possible.