Antares Status

Alastair Dewhurst on behalf of RAL
Status

- We migrated all VOs from Castor to Antares in the week beginning 28th February.
  - 57 million files taking up 70PB of space.
  - Downtime took a day longer than scheduled.

- Antares entered production on Friday 4th March 2022.
  - It has double the amount of hardware compared to the tape challenge in October.

- Things are in general going well and we are coping well with load.
  - Quite a few ACL / Permission issues were encountered.
  - CMS experienced issues with recalls during their tape challenge this week, however we believe this has been resolved and we are waiting for CMS to resubmit the recalls.

- We have setup a Webdav endpoint for LHCb. CERN is not currently the recommending this and therefore we will restrict it to LHCb until we are more confident in it.

- All the VO have been running test transfers and we believe everything has been demonstrated to work.
# Functional VO Testing

<table>
<thead>
<tr>
<th>Test</th>
<th>ATLAS</th>
<th>CMS</th>
<th>LHCb</th>
<th>ALICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>End-to-end client archive/retrieval (internal/external)</td>
<td>Done</td>
<td>Done</td>
<td>Done</td>
<td>Done</td>
</tr>
<tr>
<td>FTS XrootD transfer between CERN and Antares</td>
<td>Done</td>
<td>Done</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>WebDAV and FTS WebDAV/TPC</td>
<td>N/A</td>
<td>N/A</td>
<td>Done</td>
<td>N/A</td>
</tr>
<tr>
<td>FTS multi-hop transfer between Antares and offsite via Echo</td>
<td>Done</td>
<td>Done</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Next steps

- We are looking forward to seeing how well Antares performs next week.
- We will only have had ~6 working days since entering production.
  - There will almost inevitably be some issues.
  - Monitoring is not yet fully optimized.
- We would greatly appreciate it if VOs can inform us as soon as possible if they observe a problem.
  - If the VOs are able to pause / restart writes / recalls if requested that would be helpful.
Questions?
Antares Setup

XRootD Client

Data

TPC proxies

EOS cluster

CTA Frontend/CTA CLI

CTA Catalogue

CTA Tape Servers

CTA object store

TS1160 Tape Drives

LTO9 Tape Drives

XRootD Client

x4

x13

x20

x18

x16

x4
## LHC VO Run3 requirements

<table>
<thead>
<tr>
<th></th>
<th>Reads (DT) GB/s</th>
<th>Writes (DT) GB/s</th>
<th>Reads (A-DT) GB/s</th>
<th>Writes (A-DT) GB/s</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALICE</td>
<td>-</td>
<td>0.08</td>
<td>0.05</td>
<td>0.08</td>
</tr>
<tr>
<td>ATLAS</td>
<td>0.4</td>
<td>1.4</td>
<td>1.2</td>
<td>0.7</td>
</tr>
<tr>
<td>CMS</td>
<td>0.1</td>
<td>0.9</td>
<td>1.5</td>
<td>0.1</td>
</tr>
<tr>
<td>LHCb</td>
<td>-</td>
<td>2.92</td>
<td>1.12</td>
<td>-</td>
</tr>
</tbody>
</table>