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## AFS

### ALICE - 28

For P2: not needed if Ixtunnel can operate without AFS

### ATLAS -100

Tier 0 control processes rely on AFS/Kerberos; assuming kerberos authentication lives here and not under some other authentication item. Offline all home directories on lxplus on AFS. All physics results hosted on AFS. Many major websites hosted on AFS.

- AFS Web hosting - All physics results hosted on AFS-based webpages. Many other key collaboration websites hosted on AFS. Most of these websites moving to webeos in the next 6-10 months, so criticality will decay over that time.

### CMS - 70

Impacts collaboration to conduct business, secondary services, software, and analysis development

### LHCb – 0

No comments

### SMEs – 100

Required for HLT data taking (AMBER).

Tried to get rid of but required for HTCondor submissions, AMS running some production on VMs on behalf of AFS users

### TH – 100

All research on LXPLUS, LABATCH and HPC clusters depend on working file systems

### SIS – 0

No comment

## EOS

### ALICE - 0

No comment

### ATLAS -70

Required for TDAQ, Tier-0 and Rucio operations, physics analysis activities (including local group), database storage, etc. Backs some websites as well.

### CMS - 70

Impacts Tier-0 operation, data quality checking, data processing, and analysis

### LHCb – 49

Downtime > 2d will like lead to backpressure and data-loss online

### SMEs – 100

Basis of everyday work, required for HLT data taking.

Critical service for AMBER and NA61, nTOF can run up to a week with local disks.

TH – 100

All research on LXPLUS, LABATCH and HPC clusters depend on working file systems (same comment as for AFS)

SIS – 100

16 TB

FTS

ALICE - 0

No comment

ATLAS -100

Required by Rucio for all ATLAS data transfers; use outside of Grid operations more limited

CMS - 49

Impacts RAW data distribution, data processing, and analysis

LHCb – 40

No comments

SMEs – 16

Very convenient way for massive transfers. Massive transfers are not very frequent. Lack of the service could be worked around.

TH – 0

No comments

SIS – 0

No comments

CEPH, CEPHFS, S3

ALICE - 16

**S3 storage** - SW generation and distribution

ATLAS -100

**Ceph** (Criticality 100) - Network mounted storage. Cinder volumes used in Rucio for accounting and reporting; service could be replaced with other network-mounted storage accessible in Kube. Used also in PanDA, AMI, ARC control, and BOINC. Also used for shared storage for some (limited) software installations.

**S3** (Criticality 1) - No production use. Rucio and PanDA use S3 buckets for other purposes, but these do not hold critical data that would be problematic during an outage.

CMS - 28

**Ceph** - Impacts CMSWeb services and thus data processing and analysis

LHCb – 100

**Ceph** - There is a CEPH-dependency for CVMFS Strata (0,1)

SMEs – 0

No comments

TH – 1

No comments

SIS – 100

Block - 8TB; CephFS- 6TB; S3-11TB All services down, developers/curators can't work, users can't access

## CERNBox

ALICE - 0

No comments

ATLAS -4

Has become an important service for file sharing, etc., both analysis and documents. Alternatives are available, including DropBox and Google Drive (both of which are used extensively). Connects to storage infrastructure in complex ways (what is "EOS" and what is "CERNbox" is not trivial to delineate)

CMS - 4

Impacts analysis

LHCb – 0

No comments

SMEs – 100

Required for user analyses.

TH – 0

No comment

SIS – 0

No comment

## CTA

ALICE - 0

No comments

ATLAS -49

Required for T/DAQ, Tier-0 and Rucio operations. Required for local CAT physics analysis activities. CTA backup of RAW files required for SFOs to clear the original copy on SFO disk. But this can be overruled in case of CTA problems (replica on EOS sufficient).

CMS - 28

Impacts data processing and stops data taking once buffer is full

LHCb – 28

No comments

SMEs –100

Required for HLT data taking (AMBER).

Daily Backup of AMS data to CTA, nTOF can run up to a week with local disks.

TH – 0

No comment

SIS – 0

No comment

## CVMFS (Stratum-0 mainly)

ALICE - 0

No comments

ATLAS -70

Tier 0 infrastructure relies on cvmfs for software distributions. Grid infrastructure relies on cvmfs for software distributions. For the Grid, failing stratum 0 blocks deployment but should allow general activities to continue by relying on stratum 1. User analysis relies heavily on cvmfs as well.

CMS - 28

Impacts software and configuration updates and distribution

LHCb – 40

No comments

SMEs –100

Required for HLT data taking (AMBER).

TH – 1

No comment

SIS – 0

No comment