

Service Operations at the T0/T1 for the ALICE Experiment

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Service	Rank	Severity	Comments
CASTOR2+xrootd@T0	10	3	If restored within 2h no loss of jobs
Site VOBOXES	7	2	IAliEnv2.18 establishes a failover mechanism. In addition most of the sites are providing at least 2 voboxes
Transfer T0→T1 infras.	7	2	Affects Pass2 reconstruction
MSS@T1	5	1	Files are replicated to any of the available T1 sites
Site WM system	5	1	LCG-CE/CREAM-CE duality at all sites
Proof@CAF	5	1	Specially relevant during daytime

- (DB Service still not included, waiting for ALICE input)
- ALICE retains the highest criticality for CASTOR@T0 only
- Ranking in VOBOXES and Site WM system decreases thanks to the failover mechanisms defined by the experiment
 - Best effort support desirable
- Services ran by IT/PES/PS (MyProxy, BDII, FTS, CE, WMS): Support declared on best effort basis: NO ADDITIONAL SUPPORT REQUIRED

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Support/Operations infrastructure for the T0

- End of 2009, ALICE DAQ group (responsible for the RAW data transfers to CC) established with FIO the following breakdown procedure:
 - ALICE control room operator together with on-call expert confirms the nature of the breakdown
 - Specific ALICE test suite identifies all possible sources of errors
 - If the error is associated with the data transfer to the CC (CASTOR), the ALICE operator will call the CC, identifying himself as “ALICE control room operator”

- The ALICE operator describes briefly the problem and sends an email to the following lists:
 - alice-operator-alarm@cern.ch (CC operator email included), alice-shift-alarms@cern.ch, alice-datesupport@cern.ch
 - SUBJECT: CASTOR@T0 ALICE => Computer Center problem report from the ALICE CR operator
 - BODY: Details of the CASTOR service failing, description of the problem, phone number of the ALICE CR operator and trace of the test transfer in attachment
 - CC operator (experts taking charge of issue) can call back the ALICE CR operator for identification purposes, updates or further information as required

- ALICE CR operator console is on the technical network: allows e-mails but no web access
- On-call experts can evaluate the problem without accessing directly the computers in the ALICE CR (firewall protected)

CASTOR, SRM and Tape Support

Functional Area	Severity 1	Severity 2
Tier-0 Raw data recording	Ticket	Team
Tier-0 Event reconstruction or distribution of data to Tier-1 Centres during accelerator operation	Ticket	Team
Tier-1-2-3	Ticket	Ticket

Report type	Ticket: GGUS or Remedy	Team: GGUS
1 st Level	Service Desk	Service Desk + Broadcast Mail
2 nd Level	CASTOR Admin	CASTOR Admin
Support hours	Working hours Support	Working hours Support, Best Effort outside working hours

Normalized User Severity	Severity 1	Severity 2	Severity 3
Remedy	Low – Medium	High	Urgent
GGUS	Less Urgent	Urgent	Very Urgent

CASTOR and SRM depend on: Databases, Hardware Support (Sysadmin, Server Tape Robotics), Network Support, Linux Support (for example for file system corruption), AFS and Lemon/LAS

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- ALICE has defined the above operation protocol for Severity 3 category
- Lower severities (1-2) will be followed during working hours basis through GGUS, Remedy, ops. meeting

- DCS (Detector Control System) running an ORACLE cluster with:
 - 6 nodes, SAN infrastructure, 3 RAID arrays for live data and one array for backup
- IT service (piquet service coverage):
 - setup of the DB cluster
 - monitoring, maintenance, patching, backups, disaster recovery
 - Consultancy
- IT DB supports the Oracle DB (on-line DB of ALICE) for production database backup purposes
 - ALICE is responsible of the hardware procurement
 - ALICE provides an on-call service (1/2FTE)
- Further contacts are now required between ALICE and the IT/DB group to tune the current operation procedures