

Report sent on November 12<sup>th</sup> to: [wlcg-scod@cern.ch](mailto:wlcg-scod@cern.ch)

**Type of Incident: partial network outage**

**Location: IN2P3-CC**

**Duration: 1 hour**

**Date: November 3<sup>rd</sup>, 9:50AM to 10:50AM CET**

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## Description

The router connecting the site to the outside world broke. All external network connections stopped working for one hour.

## Timeline

### November 3<sup>rd</sup> (Tuesday)

- 09:50 IN2P3-CC router for external connections broken. Internal alarms sent to the network operations team by SMS. An interface card interconnecting the site's engineer offices (both wifi and Ethernet) also stopped working.
- 09:55 Network experts start analysis of the problem.
- 10:50 Replacement of supervisor card and reconfiguration of the repaired router. Detection of the defective interface card.
- 11:16 Replacement of the interface card. Batch drained (no job starts any longer, all other activities continue).
- 11:30 After replacement and reconfiguration of the faulty interface card of the router all network problems are solved.
- 12:35 All services up and running, including batch. An EGI broadcast is sent to all VOs.

## Analysis

The supervisor card of the router for external connections was out of service (hardware problem). During repair actions a second defective card was found, an interface card for the engineer offices on site. The fact that the site always keeps a local stock of critical network equipment has proven to be useful in this case.

All internal network connections except the ones mentioned continued.

Internal communications between the site's engineers were impacted which led to errors in the actions foreseen in the incident procedures. Especially the declaration of a downtime had been omitted.

## Impact

All external connectivity of IN2P3-CC was cut between 9:50 and 10:50. Running jobs continued and had no problems as long as they only relied on local site services. About 3000 jobs were in error, though, and had to be requeued. ALICE was the only LHC experiment hit, with about 500 of those failing jobs.

The AMI database of ATLAS was not accessible from outside.

## **Corrective actions**

The defective equipment was replaced, then the router was reconfigured.

The incident procedures will be updated:

- Priority will be given to downtime communications by using a wireless dongle; alternative communication methods will be documented more completely.
- A paper copy of the incident procedures will be kept in the central control room.
- A regularly updated paper copy of the global network configuration will be available in the central control room.

Further measures might include displacement of some network services or adding more (hardware) redundancy, under study.