

Service Incident Report for the STAGER/FTS Database problem at ASGC on 31 August

Incident Start: 31 August 2010 10:00 UTC

Incident End: 03 September 2010 16:09 UTC

Description

- On 31 Aug. we raised a scheduled downtime started from 01:00 UTC for network and electric constructions. At 10:00 UTC scheduled downtime was finished, tried to recover all services but datafiles corrupted in STAGER and FTS database which could not be initialed properly.

Impact

- All data transfers from/to Taiwan were failed because due to FTS and STAGER DB incident. Production and analysis jobs were 100% failed because all files were unavailable during that period.

Time line of the incident

31-Aug 01:00 UTC - Started to shutdown DB and confirmed all connection had been closed normally.

31-Aug 02:40 UTC – Data center C2 area power cut for RS485 construction.

31-Aug 05:00 UTC - Data center C2 area power on, tried to boot DB but got corruption information in castor STAGER and FTS DB. Started to recover database.

31-Aug 15:00 UTC - Mass FTS DB errors occurred, build up a new FTS DB instance instead of restoring it.

31-Aug 16:20 UTC - Fresh FTS DB was ready, started to configure FTS.

31-Aug 18:35 UTC - FTS setup was completed but restored stager DB failed.

01-Sep 10:26 UTC - Eric Grancher (Eric.Grancher@cern.ch) involved in DB recovery.

03-Sep 02:39 UTC - STAGER DB was recovered, started to backup database.

03-Sep 06:00 UTC - DB backup finished, started to recover CASTOR service.

03-Sep 16:09 UTC - Unscheduled downtime finished.

03-Sep 21:10 UTC – Confirmed that ATLAS and CMS data transfer were back.

Follow-up

- The DB data corruption would be caused by disk cache wasn't

wrote back to disk before power maintenance.

- The standard procedure of DB shutdown for schedule power maintenance must be improved.

1. Must make sure all cached data was wrote back to back-end storage properly.
2. Making sufficient time buffer for DB shut down process.
3. DB shutdown procedure will be put into CASTOR operation document.