Service Incident Report for the Cooling problem at PIC on June 3rd 2012

Service degradation start: 3-Jun-2012, 16:00 UTC
Service degradation end: 4-Jun-2012, 10:00 UTC

Description

PIC suffered three electric cuts from 15:45 to 16:15 UTC on sunday June 3rd afternoon. This caused two cooling systems halt and the temperature of the second computing room (hosting only WNs) increased quickly. Because of this, all the equipment from this room had to be manually powered off.

Impact

About 2500 the workernodes had to be shutdown due to this, and could only be restarted on monday June 4th after the infrastructure was checked over. During the time span of the incident, the PIC Computing capacity was reduced by about a 60%. The service continued running, but in this degraded mode.

Time line of the incident

(all times in UTC)
- 15:42 First electrical cut. The UPS switches to battery mode for 30 seconds
- 16:00 MoD receives an alarm reporting about the temperature rising inside the computing room. The cooling system halted due to this first cut, reporting a compressor locked out alarm
- 16:06 Second electrical cut. The UPS switch to battery mode for 20 seconds.
- 16:12 Third electric cut. The UPS switch to battery mode for 40 seconds.
- 16:40 All the workernodes are powered off manually.

Analysis

The UPS and batteries had no problem to deal with this electrical problem (which also affected some fans from other fan coils without impacting on the disponibility of any service). The cooling system couldn't automatically recover after the first electrical cut which trigger an compressor lock out alarm although the cooling control is connected to the UPS system.

Followup actions

1. Open an incident with the cooling manufacturer to review the causes of the incident and

determine if there is any improvement to make
2. Implement additional controls to stop the IT equipment in case of a cooling failure