

# Incident Report: West Cambridge Power Issue 09/11/2014

---

## Background

On Sunday the 9 November at approximately 17:42, a power event was experienced at the West Cambridge site for a period of 45 seconds or so. Rather than this being a total loss of power, it is being classified as a power dip.

The UPS-protected services at the West Cambridge Data Centre and Roger Needham Building detected the event and kept the facilities online via their battery backups.

The power system within the Soulsby facility detected the power dip and switched the server room to the UPS power feed. During this switching process it is estimated that 50% of the RCBO power breakers at the Soulsby site tripped, causing outages to a number of key UIS, Library and Astronomy systems.

The site was visited at 20:30 following notification from security at 20:00 that power had been lost earlier in the evening.

## Timeline of Events

TIME	INFORMATION
<b>Sunday 9 November</b>	
17:42:38	Power event experienced at the West Cambridge site
17:42:38	Power distribution systems detect mains power issue and supplies power from UPS batteries.
17:42:38	Approximately 50% of RCBO at the Soulsby facility trip causing a number of systems to go offline.
17:43:05	Normal power state restored to the West Cambridge site
17:46	Various monitoring systems detected the issues and generated email alerts.
20:00	Call from Security reporting Helpdesk down and may be related to earlier power outage.
20:30	Site visited and breakers reset
20:45 – 00:00	Systems restarted that had gone offline.
	Failed network ports on switch sb5sw1 investigated and affected hosts (Cognos 10) rehomed.
	MIS UNIX & Windows infrastructure brought back online.
21:22	Email communication sent to UIS staff mail list informing them of power outage and requesting owners to check systems.
22:00	SMS message sent to Database team lead making him aware of outage.
<b>Monday 10 November</b>	
07:30 -	Investigation and resolution of individual system issues as and when reported system owners.
10:45	Additional communications sent to UIS. Library and Astronomy making them aware of the RCBOs tripping.

## Impact

A number of UIS, Astronomy and Library systems were affected by the power issue at the Soulsby facility, these included:

EDM	All services unavailable until Monday AM (loss of Database and application servers)
Biztalk	
Sharepoint	Single server failure, others available
BMS	All server required intervention
ICE VLE	
Drupal	
Cognos 8 Live	Data refresh failed, reporting data from a day old
Cognos 8 Dev	Unavailable to 9pm due to loss of database
Cognos 10	Data refresh failed, reporting data from a day old
Apex	Unavailable to 9pm (9/11/14) due to loss of databases and application server
Digitary	Unavailable to 9pm (9/11/14) due to loss of databases and application server
CamCORS	Unavailable to 9pm (9/11/14) due to loss of databases and application server
CARD	Unavailable to 9pm (9/11/14) due to loss of databases and application server
Pensions	Unavailable to 9pm (9/11/14) due to loss of database
CHRIS	Unavailable to 9pm (9/11/14) due to loss of databases and application server
Sb5sw1	Two failed network ports (impacted Cognos 10 servers)
UFS	Loss of secondary application server and standby server. Datamart not updated.
MFD	A small number of multi-function print devices in RNB needed to be restarted
CamTools	Unavailable for 50 minutes whilst systems brought back online
Moodle	Accessibility issues with file uploads.
CamSIS	Unavailable until Monday AM (application connections broken)

CamSIS was unavailable between 17.42 Sunday until approximately 07.00 Monday when the application links to the database were refreshed. During this time period CamSIS batch processes also failed to run including imports from external systems e.g. UCAS.

These processes were placed on hold after bringing the application back up so that they could be manually restarted in a controlled fashion (taking in to account pre-requisite processes and load on the production system).

First line support received a number of calls from administrative users reporting access issues relating to applicants being unable to connect to CamSIS during this time.

## Investigation

During this switching process it is estimated that 50% of the RCBO power breakers at the Soulsby facility tripped causing outages to a number of key UIS, Library and Astronomy systems.

The below messages were reported by the UPS.

*11/09/2014,17:42:38, UPS on battery*  
*11/09/2014,17:42:38, Buzzer is on (new alarm)*  
*11/09/2014,17:42:39, General Alarm on*  
*11/09/2014,17:42:39, Bypass bad*  
*11/09/2014,17:42:39, Input bad*  
*11/09/2014,17:42:40, Synchronization error*  
*11/09/2014,17:42:40, Rectifier off*  
*11/09/2014,17:42:40, Battery discharging*

*11/09/2014,17:43:05, UPS on mains*  
*11/09/2014,17:43:07, Output normal*  
*11/09/2014,17:43:10, Buzzer off*  
*11/09/2014,17:43:11, General Alarm off*  
*11/09/2014,17:43:11, Bypass OK*  
*11/09/2014,17:43:12, Rectifier on*  
*11/09/2014,17:43:12, Battery charging*  
*11/10/2014,07:00:16, SelfTest failed*  
*11/10/2014,07:00:33, SelfTest could not be started.*

## Recommended Action

1. Additional investigation by the Estates Management team needs to be undertaken with regards to the breakers tripping and the errors reported on the UPS.
2. A list of institutional contacts for the Soulsby facility should be generated.
3. Alerts either via Security or automated should make team members aware of a loss of power.
4. Revisit RNB PDU's that were moved to mains supply following previous building outage.

Information Services

[feedback@uis.cam.ac.uk](mailto:feedback@uis.cam.ac.uk)