

## IBX CUSTOMER POST INCIDENT REPORT

Summary of Report Information & Notification	
Maintenance Report Reference / Trouble Ticket	5-200099225799
Date of Incident / Report	August 18 <sup>th</sup> 2020 / August 19 <sup>th</sup> 2020
Report Prepared By	Lee Robinson
Report Type	Final
Report Recipient/s	

Summary of Incident on Services	
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Equinix IBX Location	6-7 Harbour Exchange Square, Isle of Dogs, London E14 9GE
Services Affected Date & Time	August 18 <sup>th</sup> 2020 04:23
Services Affected	Galaxy UPS system building 8/9
Services Impacted	All services supplied from the Galaxy UPS system building 8/9
Services Restored Date & Time	August 18 <sup>th</sup> 2020 21:49

Details of Incident
<b>Descriptions / Overview of Incidents</b>
<p>At 04:33 on the 18th August 2020 at our LD8 IBX, Equinix facilities technicians responded to a fire alarm. Once deemed safe to do so, the site team started investigations into the source of the alarm, it was noted that it had originated from the building 8/9 main power room. The building fire suppression system was not activated nor required to do so at any point.</p> <p>Site technicians proceeded to the main power room to investigate the issue and discovered smoke (no fire) within the room. The cause of the smoke was identified as a result of a failure on the main static transfer switch common output cabinet of the Galaxy UPS system. The fault had caused the system to shut down, resulting in a total loss of all customer power supplies supported by busbar risers ISP8 and ISP9 both of which are connected to the same UPS output.</p>

Following further investigation, it was deemed that the system had suffered an unrepairable failure and that it was not safe to reinstate any of the associated switchgear. As part of an ongoing project to migrate away from the UPS system that failed, Equinix had previously installed and commissioned a new 2(n+1) electrical infrastructure. It was decided that the fastest restoration of customer power would be to accelerate the migration of power supplies on to the new electrical infrastructure.

Site technicians were split into teams to work across the four affected floors and to migrate all customers onto the new infrastructure. This involved over 25 additional persons that were drafted in from other Equinix sites and off shift staff.

These migrations continued throughout the day with all system migrations completed by 21:49 that evening.

#### **Root Cause of Incident**

An unrepairable failure to the Galaxy UPS Static transfer switch common output cabinet and associated switchgear. This was a known single point of failure on the legacy N+1 UPS infrastructure.

#### **Incident Resolution**

All affected services migrated to newly installed and commissioned infrastructure that was already in place, tested and commissioned as part of an ongoing project. Customer Maintenance Requests had been distributed and Equinix was in the process of coordinating times to support customers transferring to the new system. Around 15% of customers had already migrated onto the new UPS system before the failure occurred.

This new UPS infrastructure gives customers dual independent power distribution from the UPS to cabinets.

#### **Corrective action**

As part of an ongoing project to migrate away from the Galaxy UPS system, Equinix had previously installed and commissioned new electrical infrastructure. The UPS topology now supporting customer equipment is a fully diverse and redundant arrangement with no single point of failure between UPS and customer equipment.

A notification of the UPS outage should have been made clearer at an earlier stage in the incident management process. We will conduct a review of communications to look at areas we can improve upon. Equinix has initiated a global project to address external communications with any future event of a critical nature. This will include looking at other viable options for communicating with our customers such as social media.

#### **Remarks**

##### Timeline of events

04:23 – Fire alarm evacuation building 8/9, TFM investigating.

04:33 – First customer trouble ticket received for loss of power.

04:45 – Fire alarm activation source identified as being building 8/9 main power room.

04:50 – Escalation processes initiated by site team.

05:05 – Operations Management team continue escalation and start organizing additional resource.

05:10 – Investigation of main power room identifies failure of Galaxy UPS System Static Switch as cause of fire alarm activation.

05:25 – After assessment of impact, technicians confirm Galaxy UPS system is not supporting customer load.

05:30 – Additional resource starts arriving on site

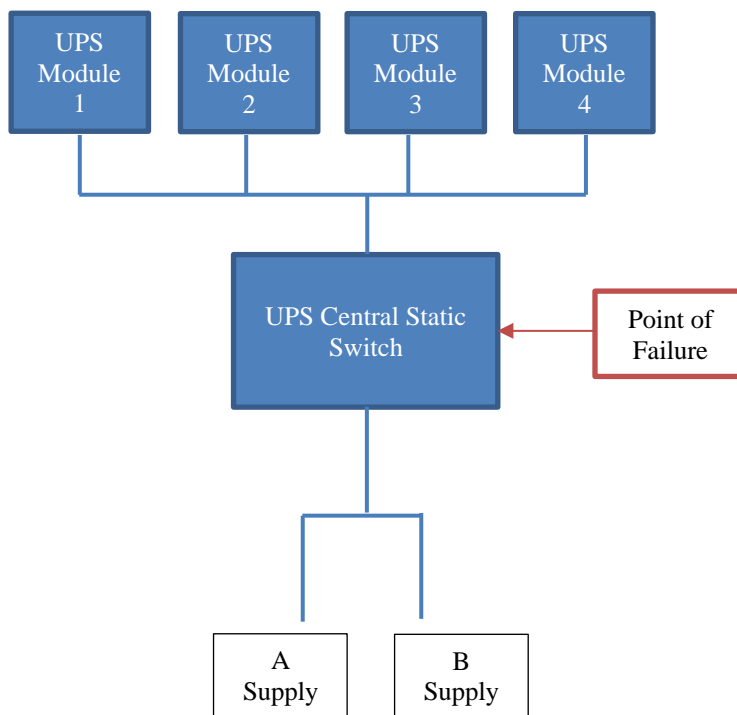
05:40 – Vendor call placed

06:00 – After further investigations it was decided that the UPS system and associated switchgear was not in a safe operational state to be reinstated and that we should start to migrate the customer supplies across to the new infrastructure.

06:30 – Site teams start completing first areas of power migration of customer supplies to new infrastructure in place.

06:30 – Further additional resource arrives  
07:29 – Vendor callout follow up placed  
07:30 – Further additional resource arrives  
08:20 – TFM commenced full isolation of Galaxy UPS  
09:25 – TFM completed isolation of Galaxy UPS  
09:58 – Fire alarm incident closed to be superseded with UPS incident  
10:43 – UPS incident opened to supersede Fire alarm incident  
14:00 – Migrations 40% complete  
17:00 – Migrations 60% complete  
19:00 – Migrations 80% complete  
21:49 – Power migration complete

## Old UPS System



New UPS System

