

## **Business Continuity Report - Network & Phone Access issues October / November 2012**

From the end of October 2012 an intermittent issue was occurring whereby a small number of users' phones were only able to accept / take part in calls for up to 59 seconds. As the 60 second duration was reached the IP phone would appear to break the call, and partially reboot. This mainly effected users in the 33 Stannary Street building. The IT Department were investigating under ticket number IT103698 dated 30/10/2012 (See Figure 1 below). As this progressed throughout the Stannary Street office, the IT service desk published a company wide alert, Figure 2. The telephone support company were contacted to try to resolve the issue, but they were unable to locate the source of the problem. The network support contractors (Lynx) were planned to attend the HCPC site on the 7<sup>th</sup> November, to attempt to locate the fault and resolve the issue.

On the 5<sup>th</sup> November around 4.30pm GMT the issue escalated as multiple PC's across the campus lost network connectivity, and core applications such as NetRegulate, Lotus Notes and the FTP CMS became unusable. The telephone system became unworkable across the campus, including the Registrations department. See Figure 2 from the IT service desk. Figure 3, sections 1 to 3. Service was temporarily resumed from 5.30pm onwards following a series of infrastructure restarts, but on the morning of the following day complete disruption was occurring across the whole campus again. Lynx (our Network support contractors) were alerted, and arranged to attend on site on the 6<sup>th</sup> November to investigate.

The cause of the incident was tracked to a single meeting room phone in the Stannary Street first floor, where the phone PC output, and the network input (See insert in Figure 4 photo) were both connected by network cables into the network wall ports.

This is likely to have created a feedback loop, where network traffic attempted to travel through both connections to the same device, flooding the network with traffic and preventing PC's and phones being able to authenticate. This is known as a "Broadcast Storm". This was not detected by the network scanning carried out by contractors that attempted to locate the source of the fault.

The IT Department have changed the configuration of the network switches to bar such incidents from occurring again. The contractors had previously set up the configuration to cope with such "Broadcast Storm" incidents, but this functionality was not turned on. The incident was closed to employees in Figure 3 section 4 at 12.19 hrs on 6<sup>th</sup> November.

Figure 1 Service Desk ticket reporting incident.  
Thank you for contacting the Service Desk.

Your request has been received and allocated to a technician. You will be notified via email of the progress, or you may login at any time to check the status of your request.

Incident Information	
<b>Incident #:</b>	103698
<b>Links</b>	<a href="#">Click here to see your ticket</a>
<b>Date Opened:</b>	30/10/2012 15:34 (dd/MM/yyyy HH:mm)
<b>Ticket Raised By:</b>	Roy Dunn
<b>Department:</b>	Operations
<b>Assigned To:</b>	Mike Maree
<b>Item Type:</b>	Unknown
<b>Item:</b>	100001
<b>Problem Area:</b>	General
<b>Due Date:</b>	08/11/2012 17:34
<b>Description:</b>	<p>As evidenced by Richard Watling Note Display shows bars sequencing through immediately before loss of call.</p> <p>Roy</p> <p>Roy P Dunn Head of Business Process Improvement Operations Directorate Health &amp;Care Professions Council Park House 184 Kennington Park Road London SE11 4BU UK</p> <p>Phone: +44 (0)845 300 6184 Direct: +44 (0)20 7840 9739 Fax: +44 (0)20 7820 9684</p> <p>e-mail: <a href="mailto:roy.dunn@hcpc-uk.org">roy.dunn@hcpc-uk.org</a> web: <a href="http://www.hcpc-uk.org">www.hcpc-uk.org</a></p> <p>Follow us on Facebook, LinkedIn and Twitter To sign up to the HCPC e-newsletter, please email <a href="mailto:newsletter@hcpc-uk.org">newsletter@hcpc-uk.org</a></p> <p>Please consider the environment before printing this email</p>

Figure 2 Company wide alert of telephone issue in Stannary Street  
**IT Incident Alert - Phone System issue - OPEN**

itsupport to All

Sent by: **Greg Legendziewicz** 30/10/2012 16:22

Information update from the IT department	
<b>What is happening?</b>	Telephony system issue affecting users in 33 Stannary Street
<b>What is the impact to me?</b>	Users in 33 Stannary Street are currently experiencing call disconnections and their incoming calls frequently lack audible ring.
<b>What action is being taken?</b>	IT is liaising with third party support vendor in order to resolve the issue and re-establish reliable telephony service
<b>Update</b>	

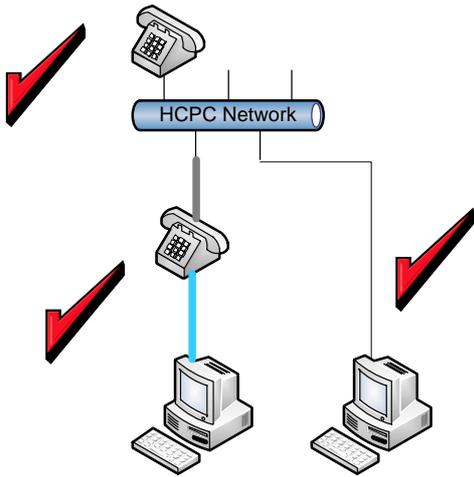
Figure 3 Company wide alert of escalated incident rows 1-3, and subsequent closure row 4

**IT Incident Alert - Loss of network connectivity - Closed**

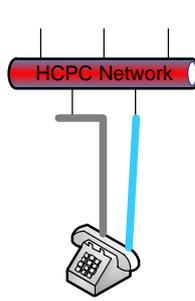
itsupport to All 06/11/2012 12:19

Information update from the IT department	
<b>What is happening?</b>	HPCP employees experienced a loss of network connectivity on PCs and phone system from 16:00 until 17:30.
<b>What is the impact to me?</b>	Employees were unable to use the computer network and phone system.
<b>What action is being taken?</b>	Network connectivity has been restored and IT is liaising with third party support vendor to perform root cause analysis. The network engineers will be present on site tomorrow to investigate the issue further.
<b>Update</b>	<p><b>We believe the problem was caused by a phone incorrectly connected to the network. We have now implemented protection measures to prevent this from happening in the future.</b></p> <p><b>We will continue monitoring the environment and if you experience any problems, please submit an IT service ticket.</b></p>

Figure 4 Correct possible network connections marked with a tick, incorrect marked WRONG WAY.



PC can be daisy chained via a phone, into the network, or connected direct to the network



**WRONG WAY**

INCORRECT. The PC connection "socket" must not be linked directly into the network. This creates a loop, which degrades service on the network.

Red oval indicates location of PC connection and PC logo, not to be connected to the network

