Incident Report

Telehouse-east.core.enta.net

Report Date: 3rd October 2014

Introduction:

The report below outlines the issues experienced on the evening of 30/09/2014 and the early hours of 01/10/2014.

Breakdown of the events:

At approximately 20:00 on the 30/09/14 Telehouse East core router suffered a high CPU event that impacted all services that were directly connected and that routed through the device, including both DSL and Ethernet services. Initial investigation into the cause of the high CPU appeared to indicate that the trigger was external to our network. As this was a high CPU usage event and no physical interfaces failed, the issues seen were at routing level only.

Given the high usage, routing sessions were unstable as keep-alive packets were not being transmitted or received by the affected router. As the keep-alive packets were not being sent, the remote routers were tearing down the routing sessions as would be expected. Given that physical integrity was still in place, they would then attempt to re-establish the session to the affected router. This in itself will have further increased the CPU load, leading to a further tear down of routing sessions. This then manifested itself as a period of routing instability and flapping.

In order to restore the service, our systems team took a number of actions including shutting down our LINX peering, the consequence of which was to remove a number of BGP sessions which removed a proportion of the load and restored stability to service. Over the course of the evening, they re-introduced the services in a controlled manner and monitored after each re-introduction to ensure no further issues were seen. All services we back in place by 21:30hrs. A further period of monitoring was then undertaken and it was concluded that services and load had returned to normal. A later incident then occurred at 04.20hrs which appeared to be a repeat of the earlier issue and the same corrective action was taken to restore services.

An engineer was then tasked to go to site to permanently move the LINX connection to alternative hardware and this work was completed at around 14:30. As a result of the engineering work that was completed and as continued monitoring of the service then showed no further anomalies, no further incidents are expected.