

Network Incident

12.18.09

Frequently Asked Questions

What caused the issue on 12.18.09?

- A configuration and testing procedure made at our new Chicago data center created a routing loop between the Chicago and Dallas data centers.

Why weren't these infrastructure routers redundant?

- This situation had little to do with redundancy; a piece of hardware didn't fail so that another could take over. If hardware had failed, there is ample redundancy available to accommodate the failover, and there would have been little to no impact.
- Had the peering router simply failed, traffic would have re-routed as designed. In this case, a software problem created a routing loop not immediately detectable, so recovery was not automatic. The routing loop saturated resources, causing packets to loop within the network. This occupies CPU resources, preventing the delivery of data.

Why didn't customers receive Rack Watch alerts?

- When we have an issue impacting a large number of customer devices, we suppress direct ticketing. The quantity of tickets related to that event hampers our ability to work other issues for our customers. Once a large scale event has been resolved, we then clean out the alert data and update any pending tickets. .

What steps are being taken to mitigate these types of issues in the future?

- We are recreating this specific scenario in a lab to test it. This might enable us to find the exact root cause, which we haven't yet.

How will our planned maintenance process change so that infrastructure changes are handled properly?

- Once the root cause of the incident is determined, the maintenance process will be reviewed so that infrastructure changes are handled appropriately.

Should we be worried about defects within the router hardware?

- No, there were no signs to indicate hardware failures.

How could peering at one location bring down the whole network?

- The whole network did not go down. Approximately 20% of our DFW connectivity is hosted on the router that was impacted. This was enough to cause issues for customers. Specifically, the routing loop sequestered a portion of the traffic, which meant that some customers' websites could not be reached.