

Incident Report for Border Router Internet Interruption

January 17, 2014

Issue

Friday, January 10, 2014 at 2:30 pm, OIT received notification from our monitoring systems and from customer reports that connectivity to/from the Internet was interrupted from multiple buildings on the CU Boulder campus. The problem was resolved at approximately 6:57 pm after an emergency software upgrade was completed to the CU Boulder campus border routers.

Background

The CU Boulder campus network architecture uses two border routers in an active-active pairing environment that provides high-availability, off-campus network connectivity. The two units contain route processing engines that are synchronized via the campus fiber-optic cabling infrastructure. This allows one unit to operate as the primary router and the other unit as secondary router. The routers are located in separate buildings to provide geographic separation.

Cause

After a period of investigation, the problem was isolated to a failure with the routing process on the border router located at the Computing Center. This router stop processing routing functions and failed this process over to the other border router located at the Teaching and Learning Center (TLC) building. During this fail over process some connectivity to and from the Internet was adversely impacted.

Solution

An emergency software upgrade to the Computing Center border router was performed per the manufacturer recommendation. The same upgrade was also applied to the TLC border router to ensure both units were operating with the same version of software. The upgrades were completed by 6:57pm and connectivity to/from the Internet was confirmed to be working properly.

What can be done to prevent this from happening again?

The above software code upgrade should resolve this problem moving forward.

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