Incident Report - March 17, 2016
Incident #2016-138
Solaris Cluster Reboot

Summary

On the morning of Thursday, March 17, 2016, a number of services hosted by the ITS legacy services environment became unavailable. The servers providing the hosting had suffered an operating system fault, causing a restart. The services were unavailable for approximately 20 minutes.

Impact

A number of services were unavailable for approximately 20 minutes.

- Main Queen's website (www.queensu.ca and all sub-websites including VHost and PHP Webapp)
- Post
- UD Maint
- EServices (Development, Preview and Production)
- QCat Library Search
- Event Calendar
- Listserv

Root Cause

The legacy services cluster uses a single network interface for cluster communication. During a maintenance process on the underlying network, one of the cluster nodes lost network connection. As a result, the operating system faulted, causing a reboot. This fault cascaded through the other servers in the cluster, causing them to reboot.

Resolution

Once the cluster of servers rebooted, the contained environments restarted and services returned. No lasting negative effects were found.

Communications (Internal)

All service owners were directly contacted. They were told of the situation and asked to test their services and report any problems. Some EServices applications needed attention.
A general notification was posted after the fact so that campus was aware of the outage.

Lessons Learned
Cluster servers are sensitive to network interruptions.

Action Items
- Systems is working with Networks to find a network configuration that will avoid this problem in the future.
- Options include:
  - Separate server management network from the cluster interconnections
  - Removing the legacy environment from the cluster
  - Shut down connected cluster nodes during expected network maintenance
  - Disabling the network switch option that caused the cascade