Root Cause Analysis

Event: Banner Slowdown, January 21, 2010

Summary: On Thursday January 21, 2010, the OIT Support Center received reports of network slowness from Banner and other users. The vendor identified the firewall as the problem. The equipment was not sufficient to handle the traffic volume. An emergency outage was scheduled for the same night and the users were re-routed through another firewall which eliminated the problem.

Detail: On Thursday January 21, 2010, the OIT Support Center received reports of network slowness from Banner and other users. OIT Network Operations and Network Engineering investigated and found there was high latency and packet loss on the firewall on lower campus. Affect users were UAF staff/faculty and student dorms. The firewall vendor was contacted to assist troubleshooting and found that the problem was due to the firewall not being able to handle the amount of traffic it was receiving, specifically the network interface buffers were filling up waiting for the CPU to process the packets received and were dropping them before they could be processed by the CPU. The vendor explained further that the existing hardware and software could not be modified to fix the problem.

An emergency outage was scheduled for midnight to re-route the UAF staff/faculty translated networks to the Cisco PIX firewall, where they had been before they were moved to problem firewall. The outage occurred as scheduled with no anomalies. After the changes were made, there were no further reports of network issues from the affected users.

Future Prevention: The networks that were affected by this issue remain behind the Cisco PIX firewall. There are no plans to modify the current configuration.