Root Cause Analysis

Event: Voicemail outage, May 18, 2010

Summary: On Tuesday May 18, 2010, Telephone Services received notification from the Support Center that voice mail not functioning. Initial troubleshooting and diagnostics did not identify a problem and ACS was contacted to provide support at 8:45 AM. ACS arrived on-site at approximately 11:30 AM and proceeded to troubleshoot. The ACS technician identified the link between the telephone switch and voicemail as the problem. Working with the Telephone Services Technicians, he was able to reestablish the link and bring voicemail back online at 12:05 PM.

Detail: On Tuesday May 18, 2010, at 7:12 AM, Telephone Services received notification from the Support Center that voice mail not functioning. The Telephone Services Technician arrived on-site approximately 7:40 AM and immediately proceeded to troubleshoot. Indicator lights were normal and all diagnostic routines passed. An initial look at the logs did not indicate an error. Attempts were made to reset the voice port cards by bringing them offline and then back online again. After the cards were brought offline they would not return to an in-service state. Next, the voicemail system was reinitialized by performing both a soft reboot as well as a hard reboot. The problem remained and ACS was called at 8:45 AM.

At approximately 11:30 AM, the ACS technician arrived on-site. Information was exchanged and a number of the initial troubleshooting steps were repeated to double check the results. The logs were examined again, but this time looking much farther back. The ACS technician noticed an error from approximately 2:00 AM which indicated that the Application Module Link (AML) was in a down status. This link enables voicemail and the telephone switch to communicate. Working with Telephone Services, the ACS technician was able to reestablish the link and bring voicemail back online. Service was restored at 12:05 PM.

Action Items and Future Prevention: UAF runs a single voicemail system without redundancy. A time and materials arrangement is in place with ACS and was utilized to resolve the problem. With a time and materials arrangement, there are no response-time criteria in effect. The responding ACS technician was on a service call when contacted and came directly after its completion.

Efforts are underway to replace the aging telephone switch with a VoIP system. The initial schedule provides for the replacement of the current voicemail system by the end of January 2011. The future voice mail system includes redundancy and automatic failover.