Background

Statewide email and @alaska.edu resolution are handled by a three node cluster Blue, the three members are Beluga, Bowhead and Bryde. Two members must be able to talk for the cluster to remain available.

Statement of Problem

On Saturday, October 28 at 0938 the cluster member Bryde crashed due to a known software issue. At 0939 16 hardware SCSI errors were noted and communication was interrupted between the remaining two members, and the cluster crashed at that time. The long length of the outage (service was restored @1132 – with another brief outage for 40 seconds, @1211) was due to automated pages not received until 1140, a problem with the state paging system is suspected due to garbled pages being received.

Problem Resolution

The Bryde crash contributed to the load on the remaining two members and was a factor in the subsequent crash. An upgrade to the Blue cluster to resolve the Bryde crash was scheduled for 11/18-11/19, due to the cluster crash the upgrade was rescheduled for 11/4-11/5. That upgrade was completed successfully. The plan to address the SCSI errors is to move the servers from the existing SCSI based storage to a fibre channel SAN solution.

Problem Analysis

A software bug in the previous version of the software caused crashing of the node Bryde during high I/O load times. Saturdays are when defragmentation is done on the email domain, which causes a large amount of I/O.