Root Cause Analysis

Event: asuaf.uaf.edu lost power on 24 March 2008.

Summary:
asuaf.uaf.edu lost power 24 March 2008. Power was restored and the system started again the next morning.

Detail:
Synopsis:
The power cord for asuaf.uaf.edu was dislodged sometime 24 March 2008. Power was restored and the system started again the next morning, 25 March 2008, when it was reported that the server was not responding.

Cause:
The power cords in rack G8 (and others) are the wrong size; they are generally five to nine feet too long. A sprawl of cords in the rack impedes air flow, so all of the slack cords have been bundled and zip-tied together into a huge column behind the system power supplies to keep the rack cool. The power cord going to asuaf.uaf.edu was so tight between the bundle and the server that moving the bundle little more than a centimeter would cause the power cord to become dislodged. Unlike our other servers, asuaf.uaf.edu does not have a redundant power supply.

snoop2.alaska.edu, the server racked directly above asuaf.uaf.edu, was unracked and subsequently re-racked during the replacement failing hardware. It was likely during the unracking, or re-racking of snoop2.alaska.edu that the power cord bundle was moved enough to cause asuaf.uaf.edu to come unplugged.

Action Items:
Power was restored to the server, and it started up again. No further action is necessary to resolve the issue.

Future Prevention:
The power cords in the racks need to be replaced with cords of the proper length. They should not be bundled or zip-tied to other cords in any way that could cause activity with one cord to dislodge another.

asuaf.uaf.edu is now monitored by our server monitoring software to provide immediate notification in the event of service loss.