



## Root Cause Analysis

### Event Description:

#### 22-Jan-2009 SMTP Connectivity Problems

**Duration of service degradation/outage perceived by users:** 22 hours  
**Outage first perceived/reported:** 1/22/2009 @ 10:45 am  
**Service fully restored:** 1/23/2009 @ 8:45 am

### Summary:

#### Synopsis:

On January 22, 2009 there was an activity posted to implement the new SMTP (outgoing) mail server for the UAF campus. The change was to be a DNS change, the new server was already being used by some OIT staff to test its capabilities and compatibility. During and after the activity two issues arose.

- 1) Users unable to connect to the new server due to router ACLs.
- 2) Users unable to connect to the new server due to client misconfiguration.

#### Cause:

The cause of the first issue was a router ACL (Access Control List) that was in place for dorm networks. The idea behind this is to limit outgoing mail to only the authorized UAF outgoing mail relay, in this case 'smtp.uaf.edu'. During this change, the IP of the system had to change to comply with current network topology. When it did, the new IP was not allowed by this router ACL. Network Engineering corrected this issue within the original posted activity window. Most of the user issues were the result of this.

The second issue was the result of a misconfiguration on the client's workstation. I was able to diagnose and fix this over the phone. Within OIT we have two email systems, Statewide and UAF. At Statewide, clients are configured to use port 587 to send mail through 'email.alaska.edu'. At UAF they're set to use port 25 through 'smtp.uaf.edu'. I discovered at least one user's client was configured to use 'smtp.uaf.edu' over port 587. Likely just a simple mistake in mixing up which configuration to use.

#### Action Items:

- 1) Better documentation of router ACLs.
- 2) Reminder email to Desktop support on the correct email client configuration. (Done)

#### Future Prevention:

- 1) Perform/implement action items #1-2