Faculty of Engineering Network Administration

IST assumed responsibility for network management within the Faculty of Engineering November 1, 2010. IST assumed responsibility for network management within the remaining areas of campus January 1, 2011.

Engineering Computing and several Engineering departments currently manage and fund much of the networking infrastructure within the Faculty of Engineering.   This document describes the network management model where IST will assume overall responsibility for managing the network in Engineering.

IST will be responsible for funding of the network infrastructure within Engineering, both for incremental expansion, and periodic renewal during campus wide network upgrade initiatives, subject to:

- Time and materials charges for new network drops, for work performed by IST or Engineering Computing
- Funding for new buildings and major renovations to continue to be funded through building project costs.

The following activities will be delegated to Engineering Computing, and other IT groups within Engineering, to support local activities, as efficiently as possible:

- Creation, deletion, and maintenance of domain names, for end user devices (through IST provided *Maintain* package)

- Setting/changing of switch port speeds, duplexes, descriptions, and vlans (through IST provided *ona* package)

- Installation, maintenance, removal of network cabling and related components (subject to adherence to http://ctag.uwaterloo.ca/ guidelines, and Policy 22 (http://www.adm.uwaterloo.ca/infosec/Policies/policy22.htm)

- Read-only access to the Sandvine logs or a delegated interface, for the purpose of debugging user problems.

Engineering Computing staff will retain console access to routers and switches prefixed eng-rt and eng-sw, for the purposes of read-only activities such as diagnostics and troubleshooting of end user device network problems.

All other network operations activities are performed by IST Network Services.

Transition Timetable

To avoid disruption in service, IST network management will be phased in over a 2 month period, as follows:

September 1, 2010	• IST assumes authority for the architecture and design of network technical infrastructure within the Faculty of Engineering, and authority for network device configuration, within the Faculty of Engineering. • Engineering IT staff continue to perform service provisioning functions, and repair/replacement of failed components, using current practices.
September 1 to November 1, 2010	• IST reviews network technical infrastructure within the Faculty of Engineering, including locations of equipment, keys required, state of UPS's, device configurations, device firmware levels, etc. • IST begins process of standardization and rationalization as needed. Any required equipment upgrades at IST expense (e.g. replacement of Extreme equipment with HP) • IST and Engineering Computing to review existing firewall(s) and ACLs in use in Engineering, in consultation with stakeholders, and develop a faculty firewall proposal, as needed. A firewall design will need to take into consideration upcoming space changes and the impact of departments expanding into multiple buildings. Some rationalization of the fibre optic cable plant may also be required.
November 1, 2010	• IST assumes overall responsibility for managing the network in Engineering, including monitoring, and repair/replacement of failed equipment. • Engineering departmental IT staff perform all service provisioning functions through ona.

Monitoring and Response

IST Network Services staff are on call 7x24, to respond to after hours equipment failures. On-call staff are paid an annual stipend, plus overtime for after hours response. Campus Network Advisory Group members, IST management, UW Police, and Plant Operations, have the on-call pager number. Overnight response is at the discretion of the Director, Network Services. The Director's cell number is 519-572-0907 and home phone is 519-746-3991. Network Services staff are onsite 7:00am to 4:30pm Monday to Friday.

All equipment and services are monitored, and e-mail alerts generated in response to failed equipment or service interruptions.   These e-mail alerts do not automatically call the on-call pager, at this time. However, fully automated pager notification for specific major equipment/service failures (e.g. core routers, DNS) is under development. The Director Network Services checks e-mail for alerts 7:00am and 9:00pm, 365 days a year, and calls the on-call staff, if they have not already responded.

If Engineering IT staff wish to report issues, or discuss services, they should engage Engineering Computing first, as the representatives for Engineering on the campus network. Engineering Computing will, in turn, engage IST, as needed.

Because IST has monitoring and processes in place, IST will generally be aware of equipment failures, and is able to respond quickly. If Engineering IT staff, or users, wish to report a service outage, and/or confirm a response is in progress, they may submit a ticket to IST's request tracker or contact the IST CHIP at x84357. They are also welcome to call the Director of Network Services at x38323, or Director of Client Services at x32194.

Major outages are posted to the uw.network newsgroup, and posted on the IST home page at http://ist.uwaterloo.ca.