**Department of Human Resources**

**OPSEU Job Description**

**Job Title:** Network Systems Specialist

**Job Number:** C-049

**NOC:** 2281

**Band:** 11

**Department:** Information Technology

**Supervisor Title:** Manager, Digital Service Delivery and Administration

**Last Reviewed:** April 7, 2006

**Job Purpose**

Reporting to the Manager, Digital Service Delivery, the incumbent occupies a senior level technical position as a subject matter expert, operates with minimal supervision, wide latitude for independent judgment, and is responsible for a broad range of duties.

**Key Activities**

1. Network, server, and network operating system integration, analysis, optimization, and problem resolution within an enterprise-wide network services context where faults or errors can have very large impact to users throughout the University.
2. Maintain network devices including software configuration of servers, switches, routers, firewalls, printers, wireless access points, virtual private network equipment and associated data centre support equipment.
3. Plan, develop, maintain and operate server and network-based monitoring systems, automate network monitoring through scripts or software routines, and develop schemes for notification of faults for after-hours operational requirements.
4. Plan, design, maintain and evolve corporate e-mail systems, file and print-sharing systems and intranet services.
5. Design, maintain and evolve enterprise LDAP directory, and associated security authentication, identity management, group management and access control databases.
6. Design, maintain and evolve corporate data backup infrastructure, services and storage management processes.
7. Plan, maintain and evolve corporate security architecture, analyze threats, and design solutions to minimize risk.
8. Prepare and maintain design documents, specifications, work plans, and records of system configuration.
9. Coordinate change control on network systems, analyze change risk, and develop methods of procedure following industry best practices to minimize risk.
10. Maintain an awareness of industry best practices, liaise with vendors, access support systems and other third party providers to stay abreast of technology evolution, software revisions, bug fixes, and to obtain product information.
11. Communicate, collaborate and mentor others, coordinate plans and share knowledge of systems operations and technology with all members of the IT team.
12. Participate in an on-call rotation for after-hours/weekend IT operational support. (24x7 coverage) While on call, the incumbent will operate independently, and assumes primary operational responsibility for the Trent Data Centre and services. The incumbent will self-direct their activities, respond to critical network-down emergencies, determine the appropriate response, and execute the repair with limited assistance of others and with occasional escalation to manager for large impact events.
13. Receive, have access to, and control access to confidential, personal, and proprietary information using sound judgment to remain in compliance with all university policies and privacy legislation applicable to the situation.

**Specific Technical Competencies:**

*Note that this is a multiple incumbent position working in a team of three. The competencies have been arranged into two groups in order to best complement the existing skill sets on the team.*

 Advanced level technical skill and practical hands-on experience in implementation, maintenance, and problem resolution in the following core competencies;

***1) Linux and UNIX Specific Competencies:***

1. Red Hat and/or SUSE Enterprise Linux (A Red Hat or SUSE certification is desirable)
2. Solaris experience a definite asset
3. DNS and DHCP management
4. Email routing with Postfix
5. PHP programming for internal support applications
6. Supporting Apache and Tomcat based web applications
7. Scripting in Perl, Expect, and Bash
8. Performance tuning and capacity planning
9. System monitoring and alerting with SNMP based system management tools
10. Database administration with UniData, Postgres, and/or MySQL

***2) Internetworking Specific Competencies:***

1. In depth understanding of TCP/IP and related protocols, and of related application and security services.
2. Good knowledge of IP routing, multicast, access controls, and VLANs, preferably as implemented in a Cisco network.
3. Practical experience deploying applications in a large switched network environment with many wireless users.
4. Demonstrated experience in the use of network protocol and traffic analysis to establish network baselines and troubleshoot IP connectivity.

A keen interest and commitment to developing skills to a moderate level through on-the-job training, formal training, and self-learning in:

***3) Novell Netware*** *and associated products, such as:*

* 1. Open Enterprise Server
	2. eDirectory and LDAP
	3. Identity Manager, including integration experience with Active Directory
	4. Access Manager and Extend web portal
	5. Zenworks
	6. Groupwise
	7. Netmail

***4) Microsoft Windows Server*** *and associated products, such as:*

1. Internet Information Services
2. Active Directory
3. Terminal Services
4. MS SQL server
5. VBscript

***5) Supporting IT infrastructure****, such as:*

1. Server virtualization with VMWare and/or XEN
2. iSCSI storage networking

**Education**

Honours University Degree (4 year) in Computer Science, Electrical Engineering or similar field of technological study.

**Experience Required**

* A minimum of 3, but ideally 5 or more years of direct system and network operations experience in an enterprise network services environment with prior experience being on-call and operating in a self-directed mode.
* Ability to work independently within a dynamic team, organize time among multiple tasks and to work on complex problems where analysis requires in-depth evaluation of various factors: to determine methods and procedures on new assignments, modify established guides, apply existing criteria in new manners, devise new approaches and draw conclusions from comparative situations.
* Ability to work from assigned objectives, relative priorities and critical areas that impinge on work of other units, to plan work around a schedule, and to self-direct their activities with minimal direct supervision.
* Strong analytical ability in translating technology capabilities to meet stated service requirements.
* Proven track record of optimizing technological designs to meet the business and economical requirements.
* Excellent organizational skills and an effective communicator both verbally and in writing, with the ability to frame technology issues in business terms and vice versa, and to effectively manage and confront conflicts and issues.
* Highly adaptive and flexible to changing environments and priorities.
* Well-versed in the latest technology offering, capabilities and trends.
* Able to routinely work outside of normal business hours, and to accommodate other flexible scheduling to allow for extended shift coverage.
* Demonstrated skills in, and commitment to, customer service and continuous improvement.