**Department of Human Resources**

**OPSEU Job Description**

**Job Title:** Network & Systems Integration Specialist

**Job Number:** C-070

**NOC:** 2281

**Band:** 11

**Department:** Information Technology

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

**Last Reviewed:** September 28, 2011

**Job Purpose**

Reporting to the Manager, Digital Services Delivery and Administration, the Network & Systems Integration Specialist is a member of a team responsible for server to desktop delivery of converged voice and data applications to the university community. This position requires a senior level technical subject matter expert, operating with minimal supervision and a wide latitude for independent judgment.

The Network & Systems Integration Specialist’s primary focus is the integration of web based applications into the university’s infrastructure. This requires solid knowledge of the “LAMP stack” used to deliver these web applications and of the protocols and services used to connect them. Researching and implementing industry best practices, evolving software platforms, managing performance and availability, and ensuring the security of deployed applications are all in scope for this position.

**Key Activities**

1. Perform network, server, operating system, and application 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. Maintain servers used to deliver web based services both on campus and externally. Proactively monitor
5. Integrate web based services into supporting network infrastructure, authentication systems, and access control systems. Work with other workgroups within of IT to integrate web applications into back end systems, and to incorporate those applications into the web services framework.
6. Create and maintain utility programs for internal use as required for system integration.
7. Plan, maintain and evolve security architecture for web services at both the application and network layers. Analyze risk, and design and implement solutions to mitigate against identified threats. Develop protocols for managing and enforcing authentication, authorization, and access policies.
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 procedures following industry best practices to minimize risk. Ensure plans are communicated with all members of the extended IT team and with the rest of the university community.
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. Share specialized knowledge of systems operations and technology with all members of the IT team. Mentor others as required.
12. Participate in a weekly 24x7 on-call rotation for after-hours/weekend IT operational support. While on call (normally 1 week out of 5), operate independently and assume primary operational responsibility for the university data centre, network, and services. This includes responding to critical outages, determining the appropriate response, and restoring services with limited assistance from others, and occasionally escalating to management 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.

**Education**

Honours University Degree (3 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 business and economic 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.
* Specific Technical Competencies:Demonstrated technical skills and hands-on experience in implementation, maintenance, and problem resolution with the following core areas:
1. Red Hat and/or SUSE Enterprise Linux. A Red Hat or SUSE certification is desirable.
2. MySQL and/or Microsoft SQL database administration. Experience with UniData is an asset.
3. Web application development using the LAMP stack. Experience with Microsoft IIS is an asset.
4. Securing web applications and web servers in a Linux environment. Similar experience with Microsoft servers is an asset.
5. Automating system tasks in a Linux environment using Perl, Expect, and shell scripting.
6. Performance analysis, tuning and capacity planning of web based applications and services.
7. Revision control and change control procedures in systems administration.
8. Maintaining highly available web services.
9. Implementing backup and disaster recovery procedures.
10. Authentication systems such as eDirectory, Active Directory, LDAP, and RADIUS.
11. Identity management systems, such as Novell Identity Manager.
12. Secure proxy systems such as Novell Access Manager.