**Department of Human Resources**

**OPSEU Job Description**

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

**Job Number:** C-070

**NOC:** 2281

**Band:** 13

**Department:** Information Technology

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

**Last Reviewed:** October 29, 2019

**Job Purpose**

Reporting to the Manager, Digital Services Delivery and Administration, the Network & Systems Integration Specialist is the most senior 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 who is able to take a lead role in interfacing with stakeholders across the organization. The incumbent operates 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 web applications, authentication systems, Linux and Windows servers, and of the protocols and services used to connect them.

**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 servers and network devices including firewalls, load balancers, virtual private network equipment and associated data centre support equipment, used to deliver web based services both on campus and externally.
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. Integrate web based services into supporting network infrastructure, authentication systems, and access control systems. Coordinate with the Information Systems team to integrate web applications into back end systems, and to incorporate those applications into the web services framework.
5. Create and maintain utility programs for internal use as required for system integration.
6. Work closely with the Information Security Officer to 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.
7. Prepare and maintain design documents, specifications, work plans, and records of system configuration.
8. Coordinate change control on network systems, analyze change risk, and develop procedures following industry best practices to minimize risk. Ensure changes are implemented with minimal impact to the rest of the university community.
9. 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.
10. Provide guidance, mentorship, and support to all members of the Digital Services Delivery team, and assign work to other team members under the guidance of the Manager, Digital Services Delivery and Administration.
11. 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.
12. 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 (4 year) in Computer Science, Electrical Engineering or similar field of technological study.

**Experience Required**

1. A minimum of 5 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 fashion.
2. 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.
3. 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.
4. Strong analytical ability in translating technology capabilities to meet stated service requirements.
5. Proven track record of optimizing technological designs to meet business and economic requirements.
6. 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.
7. Highly adaptive and flexible to changing environments and priorities.
8. Well-versed in the latest technology offering, capabilities and trends.
9. Able to routinely work outside of normal business hours, and to accommodate other flexible scheduling to allow for extended shift coverage.
10. Demonstrated skills in, and commitment to, customer service and continuous improvement.
11. Demonstrated technical skills and hands-on experience in the following core areas:
12. Red Hat and/or CentOS Linux. A Red Hat certification is desirable.
13. MySQL and/or Microsoft SQL database administration. Experience with UniData is an asset.
14. Web application development using the LAMP stack and Drupal environment. Experience with Microsoft IIS is an asset.
15. Securing web applications and web servers in a mixed Linux and Windows environment.
16. Automating system management tasks in a mixed Linux and Windows environment.
17. Performance analysis, tuning and capacity planning of web based applications and services.
18. Revision control and change control procedures in systems administration.
19. Maintaining highly available web services using best practices in load balancing and redundancy.
20. Implementing backup and disaster recovery procedures.
21. Authentication and identity management systems such as Active Directory, LDAP, Azure, and Multi Factor Authentication.