

# **YUKON UNIVERSITY**

## **POSITION DESCRIPTION**

### **PART I - IDENTIFYING DATA**

**Position Number:** YC1236  
**Position Title:** Network Architect  
**Incumbent:**  
**Division:** IT Services

**Headquarters:** Ayamdigut, Whitehorse  
**Supervisor's Name:** Jared Hougen  
**Supervisor's Title:** Director, IT and CIO  
**Date Description Updated:** 8<sup>th</sup> April 2024

### **PART II - SUMMARY (broad statement of why position exists)**

Reporting to the Director of IT Services and CIO, and in close co-operation with the IT Services Team, this position is responsible for designing, configuring and maintaining high availability of the network infrastructure across our 13 campuses. The position supports classrooms, administrative areas and public spaces, providing a resilient and consistent experience across multiple campuses. This position plans, designs, and maintains the network infrastructure required to support this work and ensures that the needs of the University are supported by providing expert level technical leadership in the development of network and security configuration standards.

#### **A. Duties and Responsibilities**

##### **1. Major Function - the most important activity or responsibility required (describe what is done, why it is done, and how it is done):**

- Ensuring the availability of the University's WAN/LAN/eMAN and wireless networks;
- Planning, deploying, supporting and maintaining of the Yukon University's Cisco Routers, Switches, Wireless Controller and ISE, and Palo Alto Firewalls and IPS across all 13 campuses throughout the Yukon Territory;
- Designing and implementing new network solutions and/or improving the efficiency of current networks and replacing faulty and ageing network equipment when required;
- Maintaining understanding of networking and troubleshooting fundamentals such as Traceroute, switching/routing protocols, QoS, VPN (IPSec and SSL), VoIP, Tunneling, etc;
- Troubleshooting complex and time sensitive network issues;
- Implementing and monitoring QoS policies and adjusting to meet business critical bandwidth requirements;
- Monitoring of network devices utilizing different tools in order to ensure the availability of the Yukon University Network, issuing reports and statistics as required;
- Testing and installing upgrades and patches on network devices and maintaining accurate detailed network topologies and documentation;
- Implementing and maintaining proper network security controls in order to protect the network from external and internal threats;
- Awareness and understanding of trends and emerging industry standards, and making recommendations to ensure the University maintains relevancy in networking and security;
- Participating, as a member of the IT Services team, in planning, deployment and installation of the network's cabling/physical layer;
- Monitoring system reports and statistics;
- Maintaining accurate detailed network infrastructure documentation;
- Assisting the helpdesk staff as needed with connectivity issues

**Approximate percentage of job time above functions are performed: 85%**

**2. Other Principal Activities, in order of importance (describing for each what, why, and how, and approximate percentage of job time required, rounded off to the nearest 5%):**

- a) Contributes to the achievement of Unit goals and objectives as a member of the IT Services Team to ensure that information technology positively contributes to the University's short and long-term strategic plans and direction, by:
- Contributing to the development of IT goals and objectives;
  - Supporting continuing efforts to enhance service delivery to clients;
  - Participating as a team member in the periodic revision of an information systems plan;
  - Working with clients and other team members in the resolution of complex application and systems problems and performance/service deficiencies;
  - Assisting University staff with identifying systems training needs;
  - Participating in various working groups (e.g. to evaluate new technologies for the value they may provide to the organization, etc.);
  - Participating in regular administrative meetings such as but not limited to interdepartmental meetings, bi-weekly meetings to discuss IT issues and project status;
  - Preparing briefing notes on various IT related issues;
  - Keeping abreast of relevant IT trends & techniques.

**Approximate percentage of job time above functions are performed: 5%**

**3. Examples of Additional Divisional Activities which may be performed:**

- Participates in the conduct of a variety of departmental activities or projects as assigned by the Director/CIO;
- Serving on university committees such as IT interdepartmental working groups.

**Approximate percentage of job time above functions are performed: 10%**

**4. Approximately how long will it take for a fully qualified employee from outside the work unit to reach the full working level of the position:**

One year to develop working knowledge of University programs and become fully operational in specific platform and operational procedures

**B. Problem-solving and decision-making**

**1. a) List any sections of Acts, Regulations, and Policies or Procedures the incumbent must be fully familiar with in order to perform the position's functions:**

- General knowledge of University policies, procedures and standards
- General knowledge of copyright laws as they affect computer installations
- General knowledge of vendor contractual rights, responsibilities and procedures

**b) Is the position responsible for interpreting, administering, or enforcing any of the above? If yes, explain.**

Interpreting and adhering to... yes. Interprets and ensures adherence to university policies and procedures and software copyright laws

**2. a) Describe the kinds of recommendations the incumbent is regularly required to make and to whom:**

- Makes recommendations regarding network hardware and design changes;
- Recommends long and short-term solutions to operational systems problems;
- Recommends schedules and standard operating procedures such as updates, backups, archiving, etc.;
- Recommends projects and the requirement for consultants;
- Recommends procedures for protecting data and for recovering from errors;

To the IT team and to the Director, IT Services and CIO.

**b) Who normally makes the final decisions with respect to those recommendations?**

The Director, IT Services and CIO

**3. a) Describe the kinds of final decisions regularly made for which the incumbent is held accountable.**

- Technical solutions to problems;
- The requirement to seek patches from vendors;
- Methods for responding to and prioritizing user requests, which vary in nature and complexity;
- Use of new software patches;
- Changes to existing procedures to accommodate new patches and updates, or streamline the procedures;
- Day-to-day organization of work and priorities;
- Thoroughness of software analyses and advice to management concerning same.

**b) What is the direct impact of those decisions?**

- Reliance is placed upon this position's technical expertise in systems, security and backup operations, problem resolution and enhancement. If this position does not perform well, it potentially inhibits the productivity of every university end-user, causing damage to the credibility of the University.
- Efficiency and availability of all University computer services

**C. Freedom to Act**

**1. Describe the way in which this position receives direction:**

The Director/CIO establishes the goals and objectives for the unit and the incumbent is expected to determine how goals and objectives will be met in consultation with the rest of the IT Services team members. Annual Work Plan is developed with Director/CIO.

**2. What legislation, regulations, procedures, or established practices guide, constrain, or limit the activities of this position?**

See B. 1. (a) above

**3. How is the work of the position normally checked or evaluated?**

- The Director/CIO would evaluate the position on a periodic basis through the review of reports and projects as they are ongoing, and after project completion. Feedback will be provided by users of the systems as to how well end user information needs are met.

- Ongoing discussion with Director/CIO on Annual Work Plan. Annual performance evaluations

**4. What types of decisions are normally referred to the supervisor? (Give examples)**

- See B. 2. (a) above
- the decision to proceed with an incumbent-recommended software version purchase;
- conflicts in priorities, or the request for a service not normally provided by the Unit;
- the decision of whether or not to obtain consultant services;
- purchasing requirements;
- complaints;
- all matters not covered by policy & procedure guidelines.

**D. Financial Accountability**

**1. a) Annual Budget (for unit under the direct control of the position):**

<b>Fiscal year:</b>	<b>\$0</b>
<b>Annual payroll:</b>	<b>\$</b>
<b>O/M Budget (excluding payroll):</b>	<b>\$</b>
<b>Capital Budget (excluding payroll):</b>	<b>\$</b>
<b>Revenues:</b>	<b>\$</b>
<b>Recoveries:</b>	<b>\$</b>

**b) Who prepares this budget?**

n/a

**c) What is this position's accountability for budget once allotted?**

n/a

**d) Does position have authority/ability to reallocate resources? (describe)**

n/a

**e) Signing authority levels:**

none

**2. Other expenditures or revenues influenced by this position and how.**

The solutions implemented will influence University expenditures, both on initial implementation and then on the level of expenditure required to maintain those solutions.

**E. Management Supervision of Human Resources**

<b>X</b>	1. No supervisory duties
	2. Supervisory Duties

**a) Number of positions supervised directly:**

\_\_\_\_ Permanent  
 \_\_\_\_ Aux/Casual

**b) Nature of supervision: (check any of the following supervisory tasks that are to be performed on a regular basis):**

<b>X</b>	a)	Show colleagues how to do tasks.
<b>X</b>	b)	Train other employees in work procedures.
	c)	Assign work and review for quality/quantity.
<b>X</b>	d)	Establish work priorities and schedules.
	e)	Change duties and responsibilities.



<u>Type</u>	<u>Percentage of time</u>
Sitting	90%
Standing/walking	10%

c) Describe any physical hazards present:

<u>Type</u>	<u>Percentage of time</u>
Electrical radiation from computers and monitors	80%

d) Describe special physical conditions leading to discomfort:

<u>Type</u>	<u>Percentage of time</u>
Keyboarding for extended periods of time	5%

e) Interpersonal Conditions: Check any of the following conditions, which are normal and expected in the job and give examples:

	high level of dissatisfied clients
	high level of emotional clients
	potential for physical abuse from clients
<input checked="" type="checkbox"/>	regular critical deadlines
<input checked="" type="checkbox"/>	high level of irregular critical deadlines
<input checked="" type="checkbox"/>	constant interruptions
<input checked="" type="checkbox"/>	instructions from more than one source
	students or staff under work related stress

f) Travel Required

a)	average number of trips annually	1
b)	average number of days per trip	5
c)	average distance per trip	Depends
d)	most frequent mode of transportation	Air

### I. Organization Chart

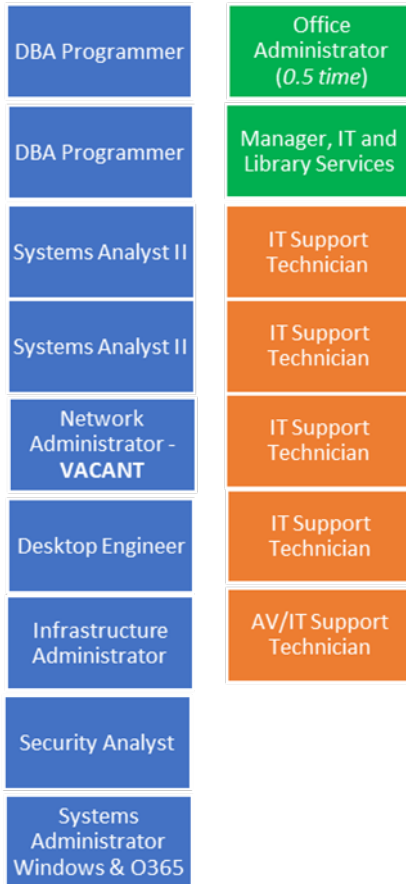
- Complete portion above dashed line whether the position supervises or not.
- Complete portion below dashed line if this position supervises others.

#### IMMEDIATE SUPERVISOR'S POSITION

Title: Director IT Services and CIO

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CIO and Director,  
IT  
Jared Hougen



**SUBJECT POSITION TITLE: Network Architect**

**SUBORDINATE POSITIONS:**

None

### **PART III – SIGNATURES**

I confirm that this describes the duties and responsibilities I require of an incumbent in this position and have reviewed the description with the incumbent (where applicable).

I have read the foregoing position description and understand that it is a general description of the duties and responsibilities assigned to the position I occupy.

.....  
Dean/Director or Designate

.....  
Incumbent

Date: .....

Date: .....

### **PART IV - QUALIFICATIONS**

**To be completed by the Dean/Director or designate**

**A. Minimum Knowledge, Skills, and Abilities Required**

- In-depth knowledge of Cisco and networking platforms;
- Strong hardware, software and operating system configuration skills;
- In-depth Understanding of security (hardware, network and application);
- In-depth Understanding of networking technologies;
- Strong analytical and problem-solving skills;
- Strong communications skills, both oral and written;
- Strong research, report writing and documentation skills;
- Strong interpersonal skills, including a strong customer service orientation;
- Ability to work as part of a team including respecting and listening to team members and accepting responsibility;
- Ability to work effectively within an organization committed to continuous learning
- Ability to provide back up and recovery of IT systems.

**B. Licenses, Certificates Required - Give title and section of any legislation, regulations, or other authority where applicable.**

University Degree and/or University Diploma in Computing Sciences or related field  
Industry recognized security certificates

**C. Other skills and/or knowledge which may be desirable, but not necessarily essential to the performance of the position's duties.**

- CCNA or other network certification
- Familiarity with Cisco ISE



**PART V – UNIVERSITY SIGNOFF**

Comments:

I approve this position description as being representative of the work I require to be performed and that the responsibility levels identified have been delegated to this position.

.....  
Director, Human Resources Services

.....  
University President

Date: .....

Date: .....