

University of Nebraska Central Administration
Job Description

General Information

Working Job Title: Network Engineer	Job Family: Information Technology	Job Family Zone: Specialist
Position Number: 383	Department Name: CSN, Networking Services.	SAP Organization Unit Number:
Employee's Name:	Date of Last Update:	Title of Supervisor: Network Team Lead
SAP Personnel #:	Last Updated By:	Name of Supervisor:

Position Summary

This position is a member of the University of Nebraska Computing Services Network Infrastructure Team responsible for support and troubleshooting of all networking components deployed across multiple sites. Includes support of switches, routers, firewalls, VPN's, IDS, network servers, and telecom circuits for the University of Nebraska Network. Maintain availability of 7x24 network infrastructure; Proactively administer, monitor and analyze network performance using monitoring tools and alerts; Participate in departmental efforts for contingency planning and emergency preparedness.

On-call duties are required and when necessary you will be called upon to work other days and/or hours other than normal business hours. Occasional travel throughout the State is required.

Duties & Responsibilities

Indicate % of time spent and indicate with an "*" the duties & responsibilities that are essential functions of this job. Arrange this list of duties in order of importance.	% of Time	Essential Functions
<p>Technical Network & Switch Support- The UNCA network currently has over 100 pieces of network equipment supporting over 50 University sites throughout the State.</p> <p>Provide support for University of Nebraska Wide/Local area network, and Internet access. Recommend and implement network hardware and software upgrades. Provide complex, high-level technical support for computer and network systems.</p> <p>Provide State-wide technical support and leadership for University of Nebraska customers, academic and administrative technology needs. Provide planning, leadership, direction, and advanced technical expertise regarding computer and network services for local and wide area networks, and the Internet.</p>	55	*
<p>Network Management</p> <p>Maintain and use network management software. Includes WhatsUp, nGenius, ACS, DHCP, DNS, MRTG, Statseeker, HP Openview, and Syslog. Also knowledge of Windows XP, NT, and 2000 server. Includes Visio maps, disaster recovery procedures, change management, and training material.</p>	30	*
<p>Data communications circuit management – The UNCA network is made up of communications circuits between all network locations. Although these circuits are supported by telecommunications companies, this person will need to spend time troubleshooting problems and requesting repair due to the critical nature of the network.</p>	10	

Serves as primary point of contact and liaison with vendors, reviews vendor products, and coordinates and facilitates vendor presentations.	5	
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Zone Definition Factors

Nature/Complexity of Work

Design and implementation of Network hardware and software across the State of Nebraska. Requires a high level of communication and coordination. The job involves knowledge of complex routing and switching solutions. Must fully understand IP subnetting. Must have an in depth knowledge of the Open System Interconnection model and TCP/IP. Evolving technology in an ever-changing environment adds to the complexity of the job.

Problem Solving/Decision-making

Position requires in-depth knowledge of IP routing protocols, packet analyzer, and network monitoring tools. Troubleshooting and decisions must be done quickly in order to meet aggressive customer demands.

Strategic Impact

The success of the Network to deliver information is vital to the University of Nebraska. Errors in the work performed may result in University systems and outside University customers being detrimentally impacted and/or disabled. Errors have the potential to impact hundreds of thousands of on-line systems and end-users.

Know How

Good communication, problem solving, and the ability to learn new skills and methods enables work with customers to be productive and instills trust.

Technical Know How

Knowledge of BGP, EIGRP, OSPF routing protocols used in a WAN and LAN environment. The ability to use advanced Qos techniques to shape and police network traffic. Must be able to use a sniffer to decode packets and troubleshoot at all levels of the OSI model. The ability to use a wide variety of network monitoring tools ie: Whatsup, nGenius, ACS, DHCP, DNS, MRTG, Syslog, Netflow, and other SNMP products. Software used on the job include but not limited to Lotus Notes, Microsoft Office (All programs), TFTP, telnet, SSH, VPN client, Microsoft XP and Server. Must be able to configure Cisco routers, switches, PIX, VPN concentrator, and Juniper routers.

Interactions

Work well within a team structure or independently. Ability to assist customers of different skill levels.

Supervision

This position exercises no supervision over others.

This position receives limited in-direct **Supervision*** from the Network Support Team Lead.

{*This is based on level of proficiency and years of service. }

Minimum Qualifications

LEVEL OF EDUCATION, YEARS & TYPE OF EXPERIENCE:

Bachelor's degree plus a minimum of 7 years experience in Data Networking required. Ideal candidates will have the ability to configure Cisco and Juniper routers, switches, IPS appliances, firewalls, and VPN concentrators; to use advanced Qos techniques to shape and police network traffic; the ability to use a sniffer to decode packets and troubleshoot at all levels of the OSI model; the ability to use a wide variety of network monitoring tools and knowledge of routing protocols used in a WAN and LAN environment.

CCNA and/or CCNP certifications desired.

Physical Requirements

- General Physical Requirements** Indicate the appropriate response for an eight hour day:

Circle the appropriate number of hours

Indicate intermittent or constant

Intermittent

Constant

Sit	0	1	2	3	4	5	6	7	8	<u> x </u>	<u> </u>
Stand	0	1	2	3	4	5	6	7	8	<u> x </u>	<u> </u>
Walk	0	1	2	3	4	5	6	7	8	<u> x </u>	<u> </u>
Drive Motor Vehicle	0	1	2	3	4	5	6	7	8		

Explain The job could be sitting, standing, or driving motor vehicle in excess of 8 hours depending on the day.

2. THIS POSITION REQUIRES:

	Occasionally (less than 2 hrs daily)	Between 2 - 5 hrs daily	Over 5 hrs daily
Squatting	<u> Yes </u>	<u> </u>	<u> </u>
Bending	<u> Yes </u>	<u> </u>	<u> </u>
Kneeling	<u> Yes </u>	<u> </u>	<u> </u>
Reaching			
➤ Overhead	<u> Yes </u>	<u> </u>	<u> </u>
➤ Forward	<u> Yes </u>	<u> </u>	<u> </u>
➤ Low	<u> Yes </u>	<u> </u>	<u> </u>
Twisting	<u> Yes </u>	<u> </u>	<u> </u>
Crawling	<u> Yes </u>	<u> </u>	<u> </u>
Climbing	<u> Yes </u>	<u> </u>	<u> </u>
➤ Ladder	<u> Yes </u>	<u> </u>	<u> </u>
➤ Stairs	<u> Yes </u>	<u> </u>	<u> </u>
➤ Other	<u> </u>	<u> </u>	<u> </u>
Walking on rough ground			
Exposure to changes of temperature/humidity	<u> Yes </u>	<u> </u>	<u> </u>
Exposure to dust/fumes/gases/chemicals	<u> Yes </u>	<u> </u>	<u> </u>
Being near moving machinery	<u> </u>	<u> </u>	<u> </u>
Working from heights	<u> Yes </u>	<u> </u>	<u> </u>

3. THIS POSITION REQUIRES EMPLOYEE TO:

Indicate letter in appropriate Space:	LIFT=L Less than 2 hrs daily	CARRY=C Up to 2 hrs daily	PUSH=P Between 2-5 hrs daily	PULL-PL Over 5 hrs daily
11 - 24 lbs	<u> Yes LPCPL </u>	<u> </u>	<u> </u>	<u> </u>
25 - 49 lbs	<u> Yes LPCPL </u>	<u> </u>	<u> </u>	<u> </u>
50 - 74 lbs	<u> Yes LPCPL </u>	<u> </u>	<u> </u>	<u> </u>
75 - 100 lbs	<u> Yes LPCPL </u>	<u> </u>	<u> </u>	<u> </u>
* Over 100 lbs	<u> </u>	<u> </u>	<u> </u>	<u> </u>

* If the position requires the employee to handle over 50 lbs - please explain

Some routers and switches are over 50 lbs. They need to be installed in cabinets or racks.

4. POSITION REQUIRES USE OF HANDS OR SPECIAL TOOLS/EQUIPMENT FOR:

	RIGHT	LEFT	BOTH
Keyboarding	<u> </u>	<u> </u>	<u> Yes </u>
Filing	<u> </u>	<u> </u>	<u> </u>
Other Explain:	<u> Operation of a computer mouse. Working with Networking equipment, Switches, Routers, Cabling, etc. </u>		

Job Family Zone Questionnaire

In Each Section, please select one answer that best describes your job:

Knowledge Skills and Abilities:

_____ Requires the ability to understand and apply basic job skills, knowledge of several work routines and the ability to apply such routines with minimal interpretation. May possess knowledge of other, related work activities within own functional area. May require the operation of routine equipment/tools. [1]

_____ Requires the ability to understand, interpret, apply and communicate information within a specialization and the ability to apply limited analysis in the completion of general functional procedures. May possess knowledge of work activities outside functional area. May require the operation of moderately complex equipment/tools. [2]

____ Requires the ability to utilize advanced information within a specialization. Within specialization, possesses the ability to assess/ analyze situations and make adjustments to achieve desired objectives. Possesses knowledge of work activities outside functional area. May require the operation of complex equipment/tools. [3A]

____ Requires the ability to apply, integrate and communicate extensive theoretical information within a recognized professional field. Facilitates and/ or establishes the achievement of functional area objectives. Requires knowledge of all related functional areas. May require the operation of highly complex equipment/tools. [3B]

____ Integrates extensive theories and techniques within related or diverse disciplines to achieve results and/ or establish overall strategic directions. Requires wide-ranging administrative and/or specialized knowledge. May require the operation of highly complex equipment/tools. [4]

Problem Solving/Decision-making:

____ Decisions/problem resolutions are repetitive and simple and typically guided by standard operating policies and procedures/practices exist. Tasks are clear and specific to a single discipline. [1]

____ Decisions/problem resolutions require gathering/reviewing information from several sources. Simple analysis of facts determines course of action to be taken within the limits of standard operating policies and procedures/practices. Tasks are varied and may cross several disciplines. [2A]

____ Decisions/problem resolutions require interpretation, discretion and judgment based on precedent or standard operating policies and procedures. Tasks are diversified and may require some creativity in dealing with unprecedented activities. [2B]

Decisions/problem resolutions require synthesis/analysis in the use of theories and accepted principles. Programs/projects are governed by broad objectives, policies and/or theories. Requires the use of creativity in dealing with unprecedented activities. [3]

____ Decisions/problem resolutions require analysis and evaluation of major issues and courses of action impacting the overall direction of the functional area(s). Applies broad concepts and experience in making important decisions. May develop recommendations influencing long-term policies related to major organizational plans. [4]

Interactions:

____ Regular contact involves receiving and/or referring inquiries as well as giving or obtaining routine information relating to work being done. Requires the use of common business courtesy. [1]

____ Regular contact that involves giving or obtaining information as well as occasionally exchanging advice and opinions. Requires the use of common business courtesy, tact, discretion and some persuasion to maintain cooperative associations. [2]

Regular contact that involves exchanging advice and opinions. As well as occasionally conveying conceptual ideas of a critical and/or long-range nature. Requires the use of judgment, timing, and persuasion to gain cooperation in the face of differences of opinion or controversy. [3]

____ Regular contact with major Programs/Teams or individuals. Overriding job requirement involves conveying conceptual ideas regarding matters of critical and long-range nature. Significant requirement for diplomacy, timing, and persuasion to gain concurrence or cooperation on operational issues in the face of significant differences of opinion or controversy. [4]

Supervision Received:

____ Supervised by procedures or by supervisor through periodic monitoring of progress and performance. May have latitude to determine sequence of own work tasks to meet clearly established schedules. [1]

____ Supervision by procedures or by supervisor through periodic monitoring of progress and performance. Determines sequence of own work tasks to meet established objectives. [2A]

____ General direction by supervisor by checking on completed tasks. Establishes own work schedule to achieve program objectives. Makes recommendations to superior regarding efficient functioning of program. [2B]

Responsible for conducting specialized assignments or developing programs under only general direction and guidance. [3]

____ Extensive latitude to work independently in matters that have a broad effect on overall policies, programs and/or areas of specialization. [4]

Supervision Exercised:

May provide incidental guidance to others. [1]

____ Provides functional supervision that is usually limited to assigning/reviewing work or may serve as work team leader. [2A]

____ Serves as work team leader. Distributes, schedules, and monitors the progress or work tasks of the program or project. May be involved in the recommendation of personnel actions to manager. [2B]

____ Supervises the work of a project or program that may include hiring, discipline, transfers, promotions, or salary changes within a functional area. May integrate work of two or more programs or one major function/or project. [3]

____ Establishes performance standards for designated programs and/or areas of specialization. Directs staff to include hiring, discipline, transfers, promotions, and salary changes. [4]

Impact:

____ Actions and decisions in this job are limited to the scope of the job, which primarily affect the immediate work group, but occasionally may extend beyond the immediate work group. Errors reflect unfavorably on the individual and may have an adverse impact on the functional area. [1]

____ Actions and decisions in this job have an impact which affects the immediate work group and also extends beyond the immediate functional area. Errors reflect unfavorably on the individual and the functional area.[2]

Actions and decisions in this job have discernible impact to the short-term performance of the Program/Team and exerts some impact to its long-term success. Errors reflect unfavorably on the individual, the functional area, overall business operations and potentially other functional areas. [3A]

____ Actions and decisions in this job have significant impact to the short-term performance of the Program/Team and exert an impact to its long-term success. The job exerts a considerable impact on decisions and final results typically affecting either an entire functional area or a major university activity; and may have unique accountability for financial and program or project objectives. Errors effect business operations, services and other individuals which may require special interventions to correct. [3B]

____ Actions and decisions in this job exert broad and continuing impact on the future of one or more functional areas. The job exerts a major impact on decisions and final results affecting a major university activity; and/or has accountability for financial and program/project objectives and overall successes. Errors significantly interrupt business operations, services and potentially both internal and external constituents. [4]

Summary:	Zone Assignment= Specialist	
Authorization:	Name:	Date:
Human Resources		
Supervisor:		
Administrator:		