



TEXAS WOMAN'S
UNIVERSITY™

DATE ISSUED: 08/15
FLSA: Exempt
PTO: VCS

JOB DESCRIPTION

TITLE

Senior Network Engineer

JOB SUMMARY

The Senior Network Engineer's role is to ensure the stability and integrity of in-house voice, data, video, and wireless network services. This is achieved by planning, designing, and developing local area networks (LANs) and wide area networks (WANs) across the organization. In addition, the Network Engineer will participate with the installation, monitoring, maintenance, support, and optimization of all network hardware, software, and communication links. This individual will also analyze and resolve network hardware and software problems in a timely and accurate fashion, and provide end user training where required and provide guidance to junior team members.

ORGANIZATIONAL RELATIONSHIPS

Reports to: Director or Manager of Division

Supervises: As assigned

ESSENTIAL DUTIES - May include, but not limited to the following:

- Collaborates with executive management and department leaders to assess near- and long-term network capacity needs.
- Creates and maintains documentation as it relates to network configuration, network mapping, processes, and service records.
- Develops, implements and maintains policies, procedures, and associated training plans for network administration, usage, and disaster recovery.
- Designs and deploys company LANs, WANs, and wireless networks, including servers, routers, hubs, switches, UPSs, and other hardware.
- Conducts research on network products, services, protocols, and standards to remain abreast of developments in the networking industry.
- Oversees new and existing equipment, hardware, and software upgrades.

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- Interacts and negotiates with vendors, outsourcers, and contractors to secure network products and services.
- Configures networks to ensure their smooth and reliable operation for fulfilling business objectives and processes.
- Monitors network performance and troubleshoot problem areas as needed.
- Oversees installation, configuration, maintenance, and troubleshooting of end user workstation hardware, software, and peripheral devices.
- Ensures network connectivity of all servers, workstations, telephony equipment, fax machines, and other network appliances.
- Manages servers, including database, e-mail, print, and backup servers and their associated operating systems and software.
- Practices network asset management, including maintenance of network component inventory and related documentation and technical specifications information.
- Monitors and tests network performance and provide network performance statistics and reports.
- Participates in managing all network security solutions.
- Performs server and security audits, and system backups and recovery.
- May be required to work a flexible schedule, including nights, weekends and holidays.
- Manages and/or provides guidance to junior members of the team.
- Conducts research on emerging technologies in support of infrastructure development efforts, and recommend technologies that will increase cost effectiveness and infrastructure flexibility.
- Deploys wireless and mobile security countermeasures, including personal firewalls, anti-virus software and, encryption.
- Designs and deploys enterprise-class wireless networks, including access points, servers, routers, hubs, switches, and other hardware.
- Conducts periodic security audits, including simulated sniffing, eavesdropping, penetration testing, and device settings.

ADDITIONAL DUTIES

- Performs other duties as requested.

EDUCATION

Bachelor's degree required. Additional job related experience/and/or education may substitute for the required education on a year-for-year basis. CCNP certifications preferred.

EXPERIENCE

Three years job related work in computing and/or communications, education environment highly preferred.

REQUIREMENT

Regular and reliable attendance at the University during regular scheduled days and work hours is an essential function of this position.

KNOWLEDGE, SKILLS, AND ABILITIES - The following are essential:

Knowledge:

- Proven experience and success with LAN, WAN, WLAN, and WWAN design and implementation.
- Proven experience with network capacity planning, network security principles, and general network management best practices.
- Strong, hands-on technical knowledge of network and PC operating systems.
- Excellent knowledge of telephony systems.
- Working technical knowledge of current network hardware, protocols, and Internet standards, including.
- Excellent hardware troubleshooting experience.
- Extensive application support experience with.
- Competence with testing tools and procedures for voice and data circuits.
- Good understanding of the organization's goals and objectives.
- Knowledge of applicable data privacy practices and laws.
- Experience in WLAN packet analysis, signal optimization, Power over Ethernet, and general wireless connectivity.
- Solid understanding of wireless vulnerabilities, WLAN-specific security threats, and software weaknesses, as well as mitigation strategies.
- Demonstrated understanding of radio frequencies, TCP/IP, IEEE 802.11 protocols, and electromagnetic interference.

Skills Required:

- Methods for cost estimation and risk analysis
- Prototyping procedures
- Requirements gathering
- Installing Installs terminals, controllers, and test equipment
- Documentation systems and knowledge database
- Network Architecture / Design
- Network Management / Administration
- Maintain inventory for communications equipment and systems
- Configuration modification, backup, restore
- Creation of forms and reports
- Conflict Resolution
- Financial Analysis
- Leadership
- Strong interpersonal, written, and oral communication skills.
- Able to conduct research into networking issues and products as required.
- Ability to present ideas in user-friendly language.

- Highly self-motivated and directed, with keen attention to detail.
- Proven analytical and problem-solving abilities.
- Able to effectively prioritize tasks in a high-pressure environment.
- Strong customer service orientation.
- Experience working in a team-oriented, collaborative environment.

Highly Preferred:

- Managing without Authority
- Mentoring
- Project management software tools
- Risk analysis

Ability to:

- Operate on independent judgment based on an understanding of organizational policies and activities.
- Establish and maintain effective work relationships with students, faculty, staff, and the public. Communicate effectively orally, by phone, in person, and in writing.
- Represent the department and University in a friendly, courteous, and professional manner.
- Use a personal computer and other office equipment, including university related software and email.

PHYSICAL DEMANDS

The physical demands described in the Essential Duties and below are representative of those that must be met by an employee to successfully perform the essential duties of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential duties.

The employee may be required to travel.

WORK ENVIRONMENT

All employees are responsible for maintaining an environment that is free from discrimination, intimidation, harassment, including sexual harassment. Work is normally performed in a typical interior work environment.

SAFETY

TWU promotes a safe working environment. Employees are responsible for completing assigned tasks safely and efficiently, and supervisors are responsible for creating and maintaining a safe work environment. Employees must report any unsafe work conditions or practices, as well as any near-miss incidents, to their supervisor and Risk Management.

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Supervisors and employees should ensure that injury/accident reports are submitted to the Office of Human Resources and Risk Management within 24 hours of the incident.

The job description does not constitute an employment agreement between the employer and employee and is subject to change by the employer as the needs of the employer and requirements of the job change.

Employee Signature: _____ **Date:** _____

Employee Printed Name: _____

Texas Woman's University strives to provide an educational environment that affirms the rights and dignity of each individual, fosters diversity, and encourages a respect for the differences among persons. Discrimination or harassment of any kind is considered inappropriate.

Texas Woman's University is committed to equal opportunity in employment and education and does not discriminate on the basis of race, color, religion, gender, sex, sexual orientation, ethnic origin, age, veteran's status, or against qualified disabled persons.

All positions at Texas Woman's University are deemed security sensitive requiring background checks.