

Senior Network/Security Engineer

Revised date: September 2020

NATURE OF WORK

The Senior Network/Security Engineer is responsible for the overall management of a medium-size enterprise network; this includes the planning, design, 24x7 management, configuration, and coordination of the corporate LAN/WAN. This position also manages network security and policies.

The Senior Network Engineer must be able to work effectively and efficiently in a fast-paced office environment in meeting deadlines. The Senior Network Engineer must be able to handle multiple priorities combined with frequent interruptions. Organizational skills are essential, and a sense of urgency, the ability to make good decisions, and the prioritization of tasks are necessary.

JOB FUNCTIONS

ESSENTIAL JOB FUNCTIONS

The following duties are normal for this position. These are not to be construed as exclusive or all-inclusive. Other duties may be required and assigned.

- Assess and evaluate current network computing infrastructure.
- Configure, support, and maintain/manage core network switches/routers as well as all internet access circuits/components.
- Design, configure, implement, install, maintain, upgrade, and monitor the status for the following components of the network and infrastructure:
 - Network switches, routers, routing protocols, subnetting, etc.
 - Network Firewalls
 - Network DHCP systems
 - Enterprise-level Active Directory internal DNS configuration
 - Enterprise-level external DNS configuration
 - Wide Area Network connections
 - Enterprise-level internet access circuits via external Tier1 and Tier2 providers
 - Public and private corporate wireless networks via WLC/WCS
 - Remote Access Virtual Private Network systems
 - Voice data systems
 - Network systems diagrams and documentation
 - Surveillance camera systems
 - Security certificates for SSL encryption
 - VMWare virtual network infrastructure
- Manage network and data projects, including site remodels for networks and phones, secure bids for equipment, and manage timelines and implementation/installation.
- Detect, identify, and perform problem isolation and resolution throughout the network architecture.
- Utilize monitoring, mapping, and alerting software to perform network management by proactively collecting data and conducting real-time analysis on the performance of the network.
- Evaluate software and hardware lifecycles, set project timelines for implementation.
- Conduct research, evaluate, and recommend cost-effective network solutions and new technologies to support the technology strategies of the core business
- Execute contingency plans for network software and hardware failures including isolated and major outages
- Provide personnel training, create & enhance process documents. Keep abreast of emerging technology trends.
- Implement and support network security procedures.
- Identify and correct faults and provide a resolution of complex problem tickets as well as document troubleshooting steps for future reference
- Provide project management, project scoping, troubleshooting, problem resolution, documentation and customer management skills.
- Maintain and Document the cities owned fiber assets.

- Investigate and remediate security incidents working with other members of the ITS Team
- Secure any new applications or servers in the testing phase and provide vulnerability assessment and recommendations before the move of the application/server to production.

Other knowledge, skills, and abilities include:

- Working knowledge of common protocols and services, including: TCP/IP, CDP, VPLS, OSPF, BGP, SMTP, HTTP, ICMP, SSH, DHCP, DNS, LDAP, SNMP, Data Encryption, VoIP.
- Alert on, respond to, troubleshoot, and coordinate the repair of any network system outage
- Alert on and respond to all unauthorized internal or external network activity
- Coordinate with external vendors for planned/unplanned maintenance on any network systems.
- Ability to communicate at all levels of an organization from end-user to senior management about both business and IT needs
- Ability to troubleshoot and analyze problems and take appropriate action.
- Ability to handle multiple problems and projects.
- Ability to operate computer and related equipment and instruct people in their use.
- Ability to lift 50 pounds.
- Ability to maintain confidentiality.
- Ability to establish and maintain effective working relationships with other employees and the public.
- Ability to understand and carry out complex oral and/or written instructions.
- Ability to work effectively with minimal supervision and conform to deadlines.
- Ability to sustain prolonged visual concentration.
- Ability to communicate effectively both orally and in writing.
- Ability to work occasional nights and/or weekends.
- Possess and maintain a valid Wisconsin driver's license.
- Occasional weekend work and on-call rotation will be required.

Education and Experience:

The candidate for this position will have a 2-4-year degree in Computer Science or a related field and have had at least 5 years working as a Network Engineer or related position in the Information Technology field. Preferred certifications are one or more of the following: CCNA, CCNP, CISSP, CISM, CEH, GIAC, or related certifications, or combination of diverse education and experience in the field of Networking and Security.

This job description should not be interpreted as all-inclusive. It is intended to identify the major responsibilities and requirements of this job. The incumbent may be requested to perform job-related responsibilities and tasks other than those stated in the description.