

UW HEALTH JOB DESCRIPTION

Senior Network Infrastructure Security Engineer

Job Code: 330038	FLSA Status: Exempt	Mgt. Approval: B. Gross	Date: December 2022
Department: IS - Infrastructure		HR Approval: M. Grayson	Date: December 2022

JOB SUMMARY

The Senior Network Infrastructure Security Engineer will collaborate on all aspects of planning, designing, configuring, and maintaining Network and Security Services in a multivendor environment. These services include data network at the edge, core and data center, load balancing, firewall, wireless, DHCP and DNS, client based and site to site VPNs, PKI, Azure cloud connectivity and multi-site connectivity. The Senior Network Infrastructure Security Engineer works with the Infrastructure Architecture group to turn business needs into technical solutions utilizing a wide variety of technology and knowledge of network, server, and troubleshooting skills to maintain highly available systems in a critical 24x7x365 environment.

The Senior leads implementation projects and mentors other Network Infrastructure Security Engineers. This position monitors network operations and recommends and introduces areas of improvement in the current infrastructure. The Senior Network Infrastructure Security Engineer recommends adjustments as needed, including expansion, security patches, and replacement. The Senior Network Infrastructure Security Engineer participates in large scale organizational initiatives including Regional Services and outreach programs, customer and business partner meetings, and leads team level project design and implementation.

This position is responsible for after-hours on-call, monitors incident management queues, and follows service level agreements (SLAs) to align with operational performance goals.

MAJOR RESPONSIBILITIES

Deliver Network Security Services

- Ensure successful delivery of Network Security Services to support strategic planning and initiatives, improve organizational performance, and advance progress towards UW Health goals.
- Design, maintain, and train others on network infrastructure services, including the installation, architecture, design, setup, programming, troubleshooting, and maintenance of network and security software and hardware in a mixed vendor environment equipped infrastructure.
- Work with vendors, customers, partners, providers, and peer technical staff on implementation, optimization, and security of Network and Security system. This includes, but is not limited to, troubleshooting infrastructure and services including routers, switches, access points, DNS and DHCP appliances, load balancers in both an on-premises environment and an Azure cloud environment, layer 7 firewalls, remote access solutions and site connectivity.
- Independently develop and maintain trusted advisor relationships with business, clinical, and operations leaders that include guidance for optimizing use of Network and Security tools.
- Perform security review of Network Infrastructure and Applications.
- Deliver highly available solutions in accordance with our Disaster recovery plan .

Improve Processes and Standards

- Research, analyze, recommend, and implement new software, hardware, tools, systems, and processes to increase efficiency, lower total cost of ownership, and improve performance.
- Lead the development and delivery of training relevant to area of expertise.
- Monitor the latest market trends and offerings to integrate technology into business initiatives.
- Report from Network Logs and Alerting systems to find areas of improvement in environment.

Effective Team Member

- Provide detailed runbooks and procedures on support documentation for routine maintenance for Network Security Systems.
- Monitor and report on system health to ensure the stability of infrastructure services .
- Provide guidance, training, and mentorship to team members and other IS staff.

Leadership

- Hold team-level responsibilities and may lead the team for small and medium scale projects.
- Provide presentations to customers, management, and peers as it pertains to Network Security Services technology roadmaps, architecture, engineering, and constraints.

Technical Leadership

- Develop technical standards, define operational processes, and configuration best practices for Network Security Services.
- Provide incident management and support to the critical issues escalated by Network Security Services Operations team.
- Lead the technical delivery of projects, including design, configuration, and testing of technical solutions for enterprise-wide projects.

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- Coordinate technical delivery of regional services and outreach programs including the PACS Archive service, ImageShare, eICU, Telestroke, MESH and Cardiology Read services.
- May perform additional duties related to agile project management. Duties may include but are not limited to:
 - Work directly with IS Project Managers to update project plans and communicate project status.
 - Participate in operating model activities related to product and service ownership.
 - Meet and communicate with stakeholders, document project definition, and provide direction and leadership in project estimates and sequencing.
 - Build, edit, and maintain team backlog; prioritize and document objectives for project sprints.
 - Review assigned service requests daily, follow up and provide status updates to clients; effectively maintain service delivery status and backlog.

ALL DUTIES AND REQUIREMENTS MUST BE PERFORMED CONSISTENT WITH THE UW HEALTH PERFORMANCE STANDARDS.

JOB REQUIREMENTS

Education	Minimum	Associate Degree in Healthcare, Information Technology, Business, or related field Two (2) years combination of relevant experience and education may be considered in lieu of degree
	Preferred	Bachelor's or Master's degree in Healthcare, Information Technology, Business, or related field
Work Experience	Minimum	Demonstrated success designing, configuring, and supporting network and security infrastructure Demonstrated success troubleshooting and resolving problems in a large technology environment Demonstrated success translating business needs into operational requirements Demonstrated success in delivering services in a specified domain of technologies Demonstrated success leading projects teams
	Preferred	Five (5) years' relevant experience working in critical infrastructure Five (5) years' relevant experience supporting network and security infrastructure
Licenses & Certifications	Minimum	None
	Preferred	CCNA/CCNP, CISSP, PCNSE or equivalent professional certification
Required Skills, Knowledge, and Abilities		<p><u>Information Services (IS) Core Competencies:</u></p> <p>Intermediate competency in the following areas:</p> <ul style="list-style-type: none"> • Leadership including leads with integrity, maintains strategic orientation, demonstrates business & financial acumen, champions innovation, manages execution, leads & develops people • Technical leadership of applicable products or platforms • Leading highly empowered, self-directed teams including cross-functional teams • Communication • Effective team member • Critical thinking • Applying lean management tools • Applying agile methodologies • Mentoring and teaching <p><u>Position Specific Competencies:</u></p> <p>Advanced Competency in at least four Network competencies including:</p> <ul style="list-style-type: none"> • Ability to design and implement complex fiber connectivity between various private and commercial providers • Ability to design and support QOS implementation on wired/wireless networks • Ability to design, install, and troubleshoot core network services such as DNS, DHCP, NTP, RADIUS, and TACACS • Understanding of network protocols such as TCP, UDP, SSL, STP, and multicast • Ability to design, deploy, and troubleshoot multicloud instances (Azure, AWS) • Ability to design, configure, and troubleshoot connectivity within Cisco ACI or other data center switching technologies • Understanding of routing protocols such as OSPF, EIGRP, and BGP • Knowledge of configuring and supporting Cisco layer 3 switches

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	<ul style="list-style-type: none"> • Knowledge of configuring and maintaining layer 7 firewalls such as Cisco ASA and Palo Alto • Knowledge and experience troubleshooting multiple layers of the OSI model • Knowledge of 802.11 wireless protocols such as 802.11ax/ac/n/a/g/b • Designing, supporting, and optimizing large wireless environments over multiple sites • Ability to design, support, and troubleshoot VXLAN and EVPN • Understanding of port-channels and virtual-port channels • Ability to manipulate, maintain, and create tools to assist in data storage and manipulation (Excel, MySQL, syslog, XML, JSON) • Understanding of GSLB design and how to implement it for disaster recovery • Ability to design, install, upgrade and troubleshoot NetScaler SDX appliances • Understanding of advanced NetScaler features such as rate limiting, policies, http callout, IP reputation, AppFW, Appflow and Bot management • Knowledge of 802.1X and Cisco ISE policies • Ability to design site to site connectivity working with various vendors and various connectivity methods <p><u>Other Preferred Skills, Knowledge, Abilities:</u></p> <ul style="list-style-type: none"> • Knowledge of DevOps technologies and programming languages such as Bash, PHP, Python, PowerShell and Service Now flow designer • Ability to design and support critical infrastructure in a 24x7x365 environment • Understanding of network security concepts and best practices • Ability to work with people of varying skills and personalities
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PHYSICAL REQUIREMENTS

Indicate the appropriate physical requirements of this job in the course of a shift. *Note: reasonable accommodations may be made available for individuals with disabilities to perform the essential functions of this position.*

Physical Demand Level		Occasional Up to 33% of the time	Frequent 34%-66% of the time	Constant 67%-100% of the time
	Sedentary: Ability to lift up to 10 pounds maximum and occasionally lifting and/or carrying such articles as dockets, ledgers and small tools. Although a sedentary job is defined as one, which involves sitting, a certain amount of walking and standing is often necessary in carrying out job duties. Jobs are sedentary if walking and standing are required only occasionally and other sedentary criteria are met.	Up to 10#	Negligible	Negligible
	Light: Ability to lift up to 20 pounds maximum with frequent lifting and/or carrying of objects weighing up to 10 pounds. Even though the weight lifted may only be a negligible amount, a job is in this category when it requires walking or standing to a significant degree.	Up to 20#	Up to 10# or requires significant walking or standing, or requires pushing/pulling of arm/leg controls	Negligible or constant push/pull of items of negligible weight
X	Medium: Ability to lift up to 50 pounds maximum with frequent lifting and/or carrying objects weighing up to 25 pounds.	20-50#	10-25#	Negligible-10#
	Heavy: Ability to lift up to 100 pounds maximum with frequent lifting and/or carrying objects weighing up to 50 pounds.	50-100#	25-50#	10-20#
	Very Heavy: Ability to lift over 100 pounds with frequent lifting and/or carrying objects weighing over 50 pounds.	Over 100#	Over 50#	Over 20#
Other - list any other physical requirements or bona fide occupational qualifications not indicated above:				

Note: The purpose of this document is to describe the general nature and level of work performed by personnel so classified; it is not intended to serve as an inclusive list of all responsibilities associated with this position.