



NETWORK INFRASTRUCTURE ENGINEER

Department: Information Technology &
Telecom
Unit: 5210
Level: 7, Non-Exempt

Supervisor's Title: Data Center & Disaster
Recovery Systems Manager
Supervises: No Staff

The Network Infrastructure Engineer is responsible for managing and maintaining Massport's enterprise network and storage infrastructure to ensure high availability, performance, and security across all systems. This role encompasses both strategic, project-based initiatives and day-to-day operational support, including network monitoring, hardware configuration, system administration, and compliance oversight. It requires advanced technical expertise in network virtualization technologies such as VXLAN, Geneve, and NSX-T, as well as fiber channel switch administration and storage integration. The position also demands physical endurance, including lifting equipment and traversing large facilities. The engineer plays a critical role in safeguarding system integrity, implementing security protocols, and supporting cross-functional IT projects to meet organizational goals.

ESSENTIAL JOB RESPONSIBILITIES

Manages all aspects including the daily operations of Massport's Network Infrastructure.

- Monitor, maintain, and support multiple large-scale network infrastructures with varying security postures.
- Collaborate with the Senior Infrastructure Architect and Senior Infrastructure Engineer to ensure optimal network performance and security.
- Perform after-hours work and respond promptly to network or systems emergencies with minimal supervision.
- Apply expert-level troubleshooting skills in a high-availability, 24/7 enterprise environment.
- Monitor and maintain LAN/WLAN infrastructure for performance, reliability, and scalability.
- Respond to and resolve infrastructure incidents and service requests in a timely manner.
- Conduct site surveys, Wi-Fi signal testing, and cabling assessments across large physical areas.
- Participate in network refresh and upgrade projects, including racking, stacking, and cabling of network hardware.
- Collaborate with other IT teams to deliver integrated network and security solutions.
- Maintain accurate network documentation using platforms such as NetBox.
- Installs, configures, maintains and manages all aspects of the organization's

Brocade fiber channel infrastructure ensuring optimal performance, reliability and security.

- Assists with the management of VMWare Infrastructure, including virtual machines and NSX-T virtualized networks.
- Assists with storage administration such as provisioning and expanding LUN capacity
- Rewires and connects servers, storage, switches and devices to the network as needed.
- Manages security, access rights, administrative controls and configures monitoring of assigned information systems.
- Ensures system integrity of assigned information systems.
- Monitors daily error and security logs of assigned IT Systems and responds appropriately.
- Reports and makes recommendations of assigned systems to Management.

Ensure that all system security guidelines and steps have been taken.

- Ensures that information system servers are logically and physically secure from unauthorized use and inappropriate access.
- Ensure that all manufacturers' suggested security-related patches are correctly installed and tested from the primary operating systems (OS) as well as for any applications using those OS facilities.
- Ensures that system account access methods (passwords, biometrics, smart cards, etc.) are accountable, secure and accurate.
- Ensures that, upon request, all user activities (log-in attempts, process running, etc.) are fully auditable.
- Ensures that all system logs, audit reports, work plans, etc. that have sensitive account or system design information are physically and logically secure.
- Responsible for the management of maintenance and support service contracts for system servers and associated software.

Ensures the integrity and reliability of each system's hardware and software components.

- Ensures that all hardware-operating conditions are acceptable (as determined by the manufacturers) including power requirements and environmental conditions.
- Ensure that all systems are appropriately designed, configured and maintained so that all applications run efficiently and effectively.
- Ensures that each system is appropriately identified on the Massport network and that all required communication protocols to and from the systems are correctly configured and are efficient.
- Ensures that each system has the appropriate resources needed to effectively run applications and efficiently store all required data.
- Monitors systems for performance and reports on exceptional activities.

- Ensures that the system's up time is at least 99.99%.

Ensures that all changes to the system, including system reconfiguration, patching, upgrading, modifications and enhancements are managed appropriately.

- For each system change, develops work plans identifying the work to be accomplished, the reason for the work, the expected impact of the work on the users, a test plan for determining success or failure, a recovery/backout plan and a time-line based schedule of the work detailing who will be responsible for each aspect of the impending work.
- Maintains a clear and concise running log of all system activities for each system detailing change dates, versions, comments, etc.
- Creates and maintains detailed documentation, procedure and troubleshooting guides of assigned information systems as well as day-to-day tasks.

SECONDARY JOB RESPONSIBILITIES

- Completes projects and task as assigned.
- Acts as a point of contact for any Massport authorized employees or consultants working on the computer network or on any aspect of a system.
- Makes suitable recommendations regarding hardware/software solutions enterprise wide.
- Monitors and tracks compliance of third-party licensing usage.
- Serves in an advisory capacity on projects for developing or updating applications.
- Provides system usage statistics and metrics as needed.
- Performs other tasks as necessary.

JOB REQUIREMENTS AND QUALIFICATIONS

Education

Bachelor's degree in computer science or a related field or equivalent professional experience required.

Experience

10 years of hands-on experience in the design, installation, and maintenance of enterprise networks and system operations. A strong understanding of VXLAN/Geneve protocol and NSX-T, fiber channel switch administration with an understanding of how it interfaces with storage systems is strongly preferred.

UNIQUE EXPERTISE/CERTIFICATION/REGISTRATIONS

- Strong interpersonal and communication skills and the ability to collaborate effectively with cross functional IT teams.
- Routing Protocols: OSPF, BGP, Multicast
- Networking Concepts: LAN/WAN, VLANs, STP, LACP, SPB (IEEE 802.1aq),

- and wireless standards (802.11a/b/g/n/ac/ax)
- Network Design: VLAN design and migration
- Security: Policy-enabled networking, Access Control Lists, Endpoint Integrity, Firewalls
- Authentication & Access Control: NAC, IDS/IPS, EAP/PEAP, RADIUS, Certificate Authorities
- Protocols & Services: SNMPv3, SSH, SSL, Active Directory, DHCP, DNS, IAS
- High Availability & Redundancy: VOIP, VRRP, Disaster Recovery
- Hardware & Standards: Multi-vendor network hardware, troubleshooting up to 100 GB standards
- NSX-T: Proven experience integrating NSX-T with physical networks using protocols such as BGP and VXLAN/GENEVE. Support implementation and operation of NSX-T networks
- Fiber Channel: Experience in managing and optimizing Fiber Channel SANs in enterprise environments.
- Knowledge of computer operating systems such as Windows, Linux, and Ubuntu are required.
- Experience with SCADA systems, IP Address Management (IPAM), Wavelength Division Multiplexing (WDM), MACsec encryption, Ekahau (for wireless planning and analysis), NetBox (for network documentation), Unimus (for network compliance and configuration management) desirable
- Ability to pass a Massport background check and obtain a Massport Security Badge

WORKING CONDITIONS

Environmental Parameters

Ability to work in an office and to travel to all Massport facilities. Ability to work in an airport environment with conditions that may include fumes, odors, gases, chemicals, and dust as well as decibels in the range of 65 - 100; and in all weather conditions (hot, cold, humid, dry, and wet).

Physical Demands

Strength: Ability to exert up to 30 pounds of force to lift, carry, push, pull or otherwise move an object.

Type: Ability to match and sort items based on color; to distinguish between different colors. Ability to walk or stand for long periods of time. Expressing or exchanging ideas by means of spoken words and perceiving nature of sounds.

Clarity of vision at 20 inches or less.

WORK SCHEDULE

Ability to work a 37.5-hour workweek. Ability to carry and respond to a pager 7 days per week, 24 hours per day.