Senior Information Systems Engineer

Position Summary

Under general direction and reporting to the Information System Manager, the Information System Engineer is responsible for the design of existing and future network expansions, and technical advancement. The Information System Engineer's responsibilities include reviewing, analyzing, modifying, installing, and maintaining hardware, software applications, and programs. In addition, the Information System Engineer is responsible for the administration, connection, and configuration issues related to any of the Agency's LAN/WANs, Telephony systems, security systems, storage systems, and cloud systems. Design/review/comment on all of the Agency's construction projects including ITS and state-initiated projects. Provide technical assistance to any of the Agency's partners which include public or private entities. Provide senior-level support to the IS/ITS Engineer for all IT/ITS-related tasks.

Essential Duties

- Design and implement a network for the HQ office and all ITS remote locations, including the configuration of network equipment, router, switch, firewall, etc.
- Oversee all the LAN/WAN connectivities.
- Design and implement Network Security for the HQ office and all ITS remote locations.
- Maintain, and troubleshoot 50+ miles of fiber optical network using DWDM and CWDM technologies.
- Perform fiber management, including allocation, damage assessment, plan reviews, etc.
- 24x7 on-call for essential system, email, core network switches and routers, MDM, etc.
- Actively monitors the utilization of all networks to detect potential errors or problems. Design, install, and maintain new network expansion to accumulate the growth of the Agency's ITS infrastructure.
- Administer and support heterogeneous systems with over 100 servers in over 11 locations. (Windows, Unix, Linux, Sun Solaris)
- Responsible for maintaining LAN/WAN connection for 300 ITS field devices that include UPS systems, encoders, detectors, dynamic messaging signs, traffic cameras, and switches in over 50 locations.
- Adhered to GMX disaster recovery, backup strategy, and business continuity plan.
- Recommends, evaluates, and implements the appropriate information technology solutions in accordance with industry standards and best practices.
- Perform security reviews and assessments. Make necessary improvements to protect GMX assets including implementing and upgrading firewall, DMZ, Endpoint protection, etc..
- Perform fiber management, including allocation, damage assessment, plan reviews, etc.
- Troubleshoot and resolve problems related to the GMX Telephony system.
- Administrate and maintain the Microsoft email system, EOP, Entra ID, Microsoft Active Directory, DC, DNS and DHCP, Cisco IP phone systems, Cisco Firewall and VPN, Cisco ISE security appliance, Cisco Wireless Controller and

Access Points, Dell and Cisco L2/L3 routers and switches, internal and external Certificate Authority, Airwatch Mobile Device Management, AT&T IOT, FirstNet devices, Administrator and maintain ITSWAN connectivity with Florida Central Office and other transportation agencies

- Coordinate with the Agency's departments to investigate, and review needs, and requirements to make recommendations.
- Create and maintain documentation and operational procedures on systems and communication networks.
- Work with other transportation agencies to make the GMX systems interoperable to facilitate the sharing of information.
- Ensure the enforcement of information system security, audit, and DRP procedures working in conjunction with the Information Systems Manager and auditors
- Provide standby support with the operation of video and audio production for GMX meetings.
- Plan and implement systems automation as required for better efficiency
- Oversee all computer rooms including plazas, shelters, and other GMX-related sites power and environment controls.

Required Knowledge, Skills & Abilities

- Technical knowledge in integration, interface creation, and development.
- Working knowledge of the System design, architecture, integration techniques, Windows Operation Systems, database connectivity, Microsoft Exchange Server or other related email systems, UltraBac/Commvault Backup Software or other related backup solutions, ITS and SunGuide software, Linux OS, Oracle Storage Systems, NetApp Storage Systems, Cloud-based solutions, Countywide fiber management/design/support, LAN/WAN technologies concepts.
- Experience with VMWare Virtualization systems and SysOps.
- Network design, analysis, and planning.
- Virtual Private Network (VPN), firewalls, Routers, and Switches
- Basic software development, coding, testing, and debugging.
- Relational databases and client-server concepts.
- Microsoft Office Suite or other related business applications.
- Configuration, installation, and troubleshoot network switches, routers and firewalls.
- Enterprise antivirus solutions for servers and desktops.
- Understanding of data exchange in an Enterprise environment.
- Experience and training on network monitoring and troubleshooting tools.
- Understand and analyze highway construction plans
- Mobile devices operating systems (iOS/Andriod)
- Single Mode fiber network design
- SNMP monitoring system.
- NAS storage systems.
- Web security filtering solutions.
- Enterprise patch management system.
- Experience with SAN storage systems.
- Government compliance, systems regulations, and software quality assurance are desirable.
- Knowledge of information security including policy and procedure implementation, risk management, and security architecture.
- Knowledge of project management.

- Experience with public audit requirements and familiarity with IT Governance standards.
- Excellent effective communication skills, both written and verbal, research skills, analytical skills, and interpersonal skills.
- To understand system requirements.
- Concentrate and pay close attention to detail.
- To troubleshoot hardware and/or software problems.
- Effectively present information to management.
- Handle multiple projects simultaneously.
- Effectively cooperate with others to accomplish objectives and work toward common goals.
- Ability to work independently or as a participant in a small to large-sized team.

Required Education & Experience

- Bachelor's degree in Computer Science, Information Technology, Computer Information Systems, or a closely related field
- Minimum of 6 years of progressively responsible experience as a System Engineer, System Analyst, or Network Engineer
- Minimum of 6 years experience in Security and Risk Management, Communications and Network Security, Identity and Access Management, and Security Assessment and Testing.

An equivalent combination of training and experience that provides the required skills, knowledge, and abilities for this position may be considered.

Requirements, Licenses & Certifications

- Cisco Certified Network Professional (CCNP), Microsoft Certified Systems Engineer (MCSE), VMWare Certified Professional (VCP), Oracle Database Administrator (OCA) required.
- Possession of a valid Florida Driver's License and ability to maintain a safe driving record in order to occasionally operate GMX vehicles for business purposes

Working Conditions & Required Physical Abilities

This position is located in a quiet to moderately noisy office environment.

Individuals in this type of position must have the use of sensory skills in order to effectively communicate with other employees and the public through the use of the telephone and personal contact as normally defined by the ability to see, read, talk, sit, stand, hear, use of fingers in order to handle, feel or operate objects and write. Must have the physical capabilities to move about the office and to effectively use and operate various items of office-related equipment; such as but not limited to personal computer, calculator, copy and fax machines. May involve extended periods seated at a keyboard or workstation. May occasionally involve lifting, carrying, pushing, and/or pulling materials and objects weighing up to 50 lbs.

Reasonable accommodations may be made to enable qualified individuals to perform the essential functions of the job.

Salary Range: Full-Time Exempt - $91,000 - $130,000 Annual