



SYSTEMS ENGINEER

Department	Information Technology
FLSA Status	Exempt
Reports To	Senior Systems Engineer
Supervises	N/A

DISTINGUISHING CHARACTERISTICS:

The person holding this position is a member of a team and performs a variety of technology support functions to facilitate uninterrupted operation of the emergency communications center. To be successful, requires initiative, the ability to work without continuous supervision, demonstrated experience serving as a member of a team. Must have excellent judgment, skilled at receiving conflicting input, expertise with implementing, assessing, configuring, and correcting complex technology and developing plans and prioritizing actions to ensure the implementation, operation, maintenance, restoration and support of all technology required to facilitate NORCOM's operation. May be assigned oversight for technology projects.

POSITION CLASSIFICATION:

The primary function for an employee in this class is to oversee the operations of NORCOM and NORCOM agency telecommunications, VOIP and network systems and provide support and guidance to other IT staff. This class may be required to provide on call support during non-business hours including nights and weekends as needed.

ESSENTIAL FUNCTIONS:

Essential Functions are not intended to be an exhaustive list of all responsibilities, duties and skills. They are intended to be accurate summaries of what the job classification involves and what is required to perform it. Employees are responsible for all other duties as assigned.

- Responsible for the research, design, operation, installation and maintenance of the telecommunications/voice over IP network infrastructure;
- Oversees and participates in the analysis of system performance and resource utilization and recommends modifications; identifies and diagnoses circuit failures, notifies server provider of outages, manages provider response and coordinates service restoration;
- Programs modifications, changes, and additions to telephone related servers and systems in response to user requests;
- Maintains telephone and internal communications system, including diagnosing problems and overseeing repairs;
- Conducts research work to analyze technical data pertaining to extensive telecommunications systems; develops network solutions to data transmission requirements;
- Performs and manages design, operation, installation and maintenance of the telecommunications/voice over IP network infrastructure;
- Oversees and monitors call accounting including tracking rates, reconciling carrier charges, negotiating carrier rates and reconciling charges to the appropriate department;
- Updates and maintains all documentation related to telecommunications, such as cable records, standard operating procedures (SOP's), Visio drawings, Telco MPOPs, and Telco block layouts;
- Diagnoses network problems with phone units through the network switches;
- Identifies and diagnoses circuit failures, notifies server provider of outages, manages provider response and coordinates service restoration;
- Coordinates with outside vendors on repair and system modification, upgrades and expansion;
- Conducts research work to analyze technical data pertaining to extensive telecommunications systems; and develops network solutions to data transmission requirements;
- Leads team activities in regards to the installation, monitoring, maintenance, and decommissioning of physical and virtualized server and storage infrastructure hardware in a technical capacity.
- Works with team to ensure that server and storage hardware management as well as network and power cabling standards meet overall industry best practices.
- Leads team activities in regards to the installation, monitoring and updating of the various Operating system families: Microsoft Windows Sever, Linux, and VMware ESX in a technical capacity.
- Develops standards and provides team leadership in regards to the following critical infrastructure services in a technical capacity: Network File, DHCP, Network Printing, DNS, Active Directory, LDAP, AD Group Policy, IP KVM, VMware vCenter, and Nagios.

- Provides high level leadership and direction on Enterprise Storage solutions in a technical capacity.
- Leads team activities in regards to the support of Enterprise Backup and Recovery solutions, as well as perform advanced configuration and troubleshooting in a technical capacity.
- Performs all work duties and activities in accordance with NORCOM policies and procedures;
- Works in a safe manner and reports unsafe activity and conditions. Follows NORCOM safety policies and practices and adheres to responsibilities concerning safety prevention, reporting and monitoring as outlined in NORCOM SOPs.

INTERPERSONAL CONTACTS

- Contacts are made both inside and outside the NORCOM organization.
- Internal organization contacts frequently include the Technology Manager and Operations Manager, Communications Center Supervisors and Dispatchers. Administrative Staff and Managers have less frequent contact.
- External organization contacts include NORCOM participants, other emergency communications centers, and members of government agencies, NORCOM's technology suppliers, and prospective suppliers.
- Interactions tend to focus on technical information exchange and the receiving and giving of fault information system performance and operation, suggestions, solutions, advice and information.
- ±50% of interactions are via the telephone, radio or e-mail. ±50% of interactions are face-to-face conversations.

REQUIRED KNOWLEDGE, SKILLS AND ABILITIES

Knowledge of:

- Analog, digital and VOIP telephone equipment and related systems, testing, repair, and maintenance procedures; Ethernet networking, cabling, routing and switching as it relates to VOIP services;
- Knowledge and understanding of IP addressing, DHCP and VOIP Quality of Service (QOS);
- Telephone and communication system operations, procedures, and maintenance, including related call tracking and accounting operations and procedures;
- 911 database programming and maintenance;
- Telephone directory database programming and maintenance
- Technical and operating methods, tools, equipment, and materials used in telephone equipment testing; repair, installation, and maintenance work;
- Procedures used for installing and maintaining telephone equipment and systems;
- Methods of server and storage systems analysis, design, configuration, installation, administration, and troubleshooting;
- Application and Backend Database system practices;
- Server and Storage hardware components, facilities requirements and related functions;
- Mass Storage technology standards;
- Enterprise level backup/recovery standards;
- Disaster recovery best practices and procedures;
- APCO, CJIS, NENA and NPSTC initiatives.
- NORCOM IT processes, regulations, codes, ordinances, terminology and management procedures;
- Federal OSHA and State and County regulations and NORCOM policies regarding safe work practices.

Ability to:

- Follow oral and written instructions;
- Evaluate and resolve customer problems and issues;
- Understand the design, installation and maintenance of communications or telecommunications systems and equipment;
- Identify necessity for repair of analog, digital and VOIP telephone equipment and systems;
- Oversee testing of electronic components and cabling with the use of specialized testing equipment;
- Identify root cause of telephone equipment malfunctions;
- Troubleshoot telephone and data cable network and equipment;
- Work cooperatively with other NORCOM and NORCOM agency employees;
- Perceive the full range of the color spectrum;
- Communicate well both orally and in writing;
- Review procedures and problems to develop solutions and new systems;
- Prepare written reports and maintain system performance and accounting records;
- Comprehend technical and user manuals;
- Assist with training system users and developing operating procedures;
- Program changes in telephone and voice mail systems;
- Generate and monitor work orders;
- Oversee billing, rate negotiations, directory listings, and maintenance issues with vendors;
- Operate specialized telephone and communications system testing equipment and computer hardware and software;
- Operate hand tools;
- Operate a motor vehicle;
- Communicate effectively with the public and other employees.

EDUCATION AND EXPERIENCE

Minimum Qualifications:

- A Bachelor's Degree in Telecommunications, Information Technology or a related field; and
- Four (4) years of recent experience in the design, installation, and maintenance of telecommunications, networks, IP addressing, voice over IP systems and related equipment experience or;
- Four (4) years of recent experience developing, supporting, managing and implementing enterprise-wide computer systems to include Linux, Windows, Active Directory, MS SQL; or
- Any equivalent combination of education and current experience sufficient to successfully perform the essential duties of the position.

Desirable Qualifications

- Certification in VOIP systems, multi-port PBX, Storage, Virtualization and/or Active voice mail systems.

TRAINING, LICENSES AND CERTIFICATION

- Requires valid Washington State Driver's License, good driving record and insurance coverage specified by NORCOM.

WORK ENVIRONMENT

Work is performed in an emergency communications center. Work is typically done in office space, in electronic equipment rooms with multiple fans and noisy equipment operating, at remote radio sites, with confined spaces and with limited heating, cooling and humidification control systems – some accessible via unpaved and unimproved roads, at fire and police stations and at other locations which are convenient for NORCOM's members. The nature of emergency communications center operations requires that employees are available in all weather conditions, and at all times.

WORK SCHEDULE

NORCOM is a continuous operation. Technology team is responsible for ensuring uninterrupted operation and will be required to work whatever schedule is necessary to minimize service degradation and provide maximum functionality. Actual schedule for each member of team will be assigned and adjusted based on activities and NORCOM's operating requirements. People holding this position will be required to arrive at NORCOM in one hour or less after being notified and when providing support outside of assigned working hours. People who are assigned on-call responsibilities must be able to be reliably notified by telephone, pager or short message service and able to speak by telephone to the communications center and achieve remote connectivity to NORCOM's technology ten minutes or less after being notified.

On-call duties and duration will rotate among technology staff. Rotation schedule will be established by NORCOM management, based on NORCOM's needs and operating practices.

PHYSICAL DEMANDS

- Sufficient clarity of speech and hearing or other communication capabilities, with or without reasonable accommodation, which permits the employee to communicate effectively on the telephone and in person, and to provide training to staff on software application and hardware operation;
- Sufficient vision or other powers of observation, with or without reasonable accommodation, which permits the employee to diagnose problems with computer hardware or software, and to develop effective solutions;
- Sufficient manual dexterity with or without reasonable accommodation, which permits the employee to operate computer equipment and other office equipment with sufficient strength to lift and carry objects up to 50 lbs. for varying distances;
- Sufficient personal mobility and physical reflexes, with or without reasonable accommodation, which permits the employee to work in an office setting.
- Sufficient body strength, flexibility, and balance to perform installation and maintenance functions, which require climbing and working on ladders and stairs.

NORCOM is an Equal Opportunity Employer and encourages applications from all persons without regard to race, creed, color, national origin, religion, gender, age, marital status, disability, sexual orientation, veteran status, or genetic information. NORCOM provides reasonable accommodation to its employees and the public with disabilities, including disabled veterans. For more information, please contact NORCOM Human Resources.

NOTE: A criminal background check through law enforcement agencies, including a fingerprint search, will be conducted on all successful candidates prior to being appointed to the position.