CITY OF BELLINGHAM

JOB DESCRIPTION

JOB TITLE: **Network & Telecommunications Analyst** **UNION:231**
SG:7
DEPARTMENT: **Information Technology Services** **CS:N**
FLSA:N
EEO4CODE:TE

JOB SUMMARY:

Oversees and serves as primary resource for administrative, operational, and technical aspects of the City's telecommunications systems. Serves as primary or backup resource for a variety of network systems in a complex multi-site environment. Prioritizes the availability, operation, maintenance, and security of the City's computer networks. The City's networks are a mission critical part of the City's operation and provide services to over 30 staffed work-sites and to numerous critical non-staffed locations.

Provides leadership, coordination, technical/administrative analysis services, solutions recommendations, and training support to users at all levels of the organization. Supervises contractors and vendors performing installation, repair, and maintenance of telephone systems, network infrastructure, servers, network cabling and related equipment. Plans and carries out moves, additions, and changes for network/telecommunications devices and services in the City. Prepares and administers telecommunications or network systems budgets. Provides leadership to technical staff, to departments, and to third parties to ensure adherence to technology and security standards. Trains backup technical personnel to perform administrative functions, and serves in a support capacity to others as needed. May provide support for other City software applications, network services, or serve as a service desk resource.

SUPERVISORY RELATIONSHIP:

Reports to Network Operations Manager or assigned Supervisor. Works under general supervision and the guidance of City and Departmental policies and procedures. May take work direction from Information Technology Services Director. Supervises vendors, contractors, consultants, project teams, etc. in the installation, repair, and maintenance of city systems. Provides oversight and assistance to systems and technical staff in other departments. May supervise lower level staff as assigned.

ESSENTIAL FUNCTIONS OF THE JOB:

1. Provides leadership, project management/coordination, technical/administrative analysis, advice, technical support, training, and written and oral communications related to network, security, and telecommunications services; resolves problems through internal resources or through consultation with vendor technical support staff.

2. Oversees and serves as primary resource responsible for administrative, operational, and technical aspects of telecommunications systems, which include telephone systems, call accounting, call distribution, voice mail, e911, and related systems and services.

3. At the direction of the Network Operations Manager, serves as primary or backup resource responsible for selected network related systems and services, which may include LAN/WAN infrastructure, virtual infrastructure management, enterprise storage management, backup infrastructure, offsite storage, wireless access, virtual private networks (VPN), firewalls, intrusion detection and prevention systems, mobility devices, server acquisition and setup, data center configuration and services. Provides backup support for Microsoft Active Directory, Azure Active Directory, Office 365 (Exchange Online e-mail, SharePoint, Skype) products.

4. Maintains accurate and comprehensive network/telecommunications system documentation. Monitors a variety of system logs to ensure health, performance and security. Researches and maintains knowledge of current telecommunications, log management, system virtualization, network security, network infrastructure technologies and best practices.

5. Serves as a member of IT security team, responsible for establishing and maintaining security initiatives in area of responsibility; responds to incidents and provides guidance to all levels of the organization. Conducts security reviews of City systems and ensures compliance with security standards. Participates in security incident responses. Conducts computer or network forensics to investigate and analyze why a breach or compromise occurred.

6. Leads upgrades and transitions, or partners in telecommunications changes with Network Operations Manager or other technical staff. Conducts product research, recommends technical solutions for the City related to telecommunications. Contributes to needs assessments, project prioritization and work planning for ITSD department.

7. Designs, configures, upgrades, or installs network/telecommunications systems based on customer requirements, or supervises contractors and vendors performing installation, repair, and maintenance of telephone equipment, cabling facilities, and related equipment. Evaluates network performance, availability and utilization to develop network baseline.

8. Prepares and administers network/telecommunications systems budgets, performs bill review, reconciliation, and periodic audits for policy compliance; maintains detailed records. Works closely with department administrative staff to maintain accurate billing, budget, and related records.

9. Researches, recommends and implements improved network/telecommunications services to ensure successful implementation, necessary integration, maximum efficiency, and cost-effective service delivery. Ensures that network/telecommunications systems are accessible, usable, and reliable.

10. Participates in rotating schedule of on-call responsibilities with other Network Operations staff for citywide after-hours emergency support. Responds to system failures or maintenance and repair emergencies that may occur at any time.

11. Communicates with City staff at all levels of the organization related to network/telephone services and technology issues to improve employee awareness and effective utilization of systems.

12. Plans and carries out moves, additions, and changes for network/telecommunications devices and services in the City.

13. Serves as technical/applications resource, assisting on other projects or assignments related to applications, network, service desk, technical, or administrative needs by the department.

ADDITIONAL WORK PERFORMED:

1. Serves as backup to applications and/or technical staff to ensure the continuity of all services and support across systems and applications.

2. Performs other related work of a similar nature or level.

PERFORMANCE REQUIREMENTS (Knowledge, Skills, and Abilities):

TECHNICAL

Knowledge of:
- Current and comprehensive knowledge of telecommunications systems, Voice Over IP (VoIP) protocols, computer/telephony integration, related hardware & software in a complex multi-site enterprise setting, billing methods, contract issues, copper/fiber cabling systems, and customer support strategies
- Current and comprehensive knowledge of Ethernet switching and routing technologies, Virtual Private Network (VPN), data encryption, wireless networking, Local Area Network (LAN) and Wide Area Network (WAN) systems in a complex multi-site enterprise setting, enterprise storage management, virtual infrastructure management, voice and data networks, cellular data networks, network protocols, and related technologies and best practices.
- Extensive knowledge of operating systems such as Microsoft Windows, VMware and Cisco IOS Syslog and SIEM principles and procedures
- Extensive knowledge of a multitude of monitoring and investigative tools

Skill in:
- Extensive skills with network connectivity for all workplace devices.
- Extensive skills with data/telephony network design, configuration, protocols, routers, network management and systems administration.
- Strong skills in administering ShoreTel/Mitel IP telephony system in a complex business environment, including core telephony server, voice mail system and call center.
- Strong skills in analyzing, designing, troubleshooting, maintaining and documenting the following: LAN/WAN infrastructure, virtual environment management, enterprise storage management.
- Strong skills in utilizing City standard application software which includes, but not limited to, Windows operating systems, Microsoft Office Suite.
- Strong skills in using and directing use of technology support systems such as Help Desk software, Call accounting and reporting, Network/Telephone system monitoring tools, network hardware and software.
- Strong skills in Security incident response and management. Understanding of CIS critical controls.
- Excellent organization, time management, problem solving, technical troubleshooting, and planning skills.

Ability to:
- Extensive abilities with operating and monitoring complex and technical network and communications equipment.
- Capture and analyze log traffic from multiple sources and systems.
- Develop/implement/administer internal billing systems and budgets, maintain accurate technical and administrative records, assist or guide others with bill review and reconciliation.

- Read and interpret instruction manuals and troubleshoot and solve hardware and software problems.
- Provide backup support for Azure Active Directory, Office 365 (Exchange Online e-mail, SharePoint, Skype) products.
- Create, maintain, and review detailed systems information and documents.

COMMUNICATIONS

Skill in:

- Thorough written communication skills for composing documentation and corresponding with City employees and vendors, preparing/reviewing complex telecommunications contracts, interpreting complex telecommunications documents/procedures
- Thorough communication and interpersonal skills for interactions with co-workers, supervisors, managers, other City employees, and the general public.
- Strong skills in writing Requests for Proposals, requirements specifications, creating and maintaining complex documents for telephone and wiring construction projects.
- Excellent communication and interpersonal skills for interactions with co-workers, supervisors, managers, other City employees, and the general public.

OTHER

Knowledge of:

- Extensive knowledge of City and department policies and procedures including work processes and labor contract provisions for the workgroup.

Skill in:

- Extensive organization, time management, problem solving, technical troubleshooting, and planning skills. Ability to work on several projects concurrently.
- Thorough skills and ability to establish and maintain effective working relationships with other employees, City officials, representatives of other government agencies and community groups and the general public.
- Strong skills in project coordination, hardware/software/equipment acquisition, telecommunications contract administration, maintenance of technical and administrative telecommunications documentation and records, budget preparation and oversight.

Ability to:

- Maintain absolute confidentiality of sensitive files, data and materials accessed, discussed, or observed while working with City staff.
- Maintain security and confidentiality of systems and records while adhering to security policies and procedures.
- Use good judgment in difficult, high pressure situations, such as contract negotiations, public input meetings, and equipment failure emergencies.
- Work with and interpret needs for a variety of user departments.
- Work independently with minimal supervision.
- Edit/review work of others for potential content issues/concerns.
- Ability and willingness to demonstrate the Public Service Competencies of Service Orientation, Results Orientation, and Teamwork and Cooperation.
- Maintain consistent and punctual attendance.
- Maintain security and confidentiality of systems and records while adhering to security policies and procedures.

- Physical ability to perform the essential functions of the job including:
  - lift and carry approximately 40 pounds;
  - visual acuity to be able to diagnose and resolve technical problems with computer displays;
  - hearing ability to evaluate sound quality and distinguish tones;
  - manual dexterity to manipulate a keyboard, hand tools and other computer equipment.

WORKING ENVIRONMENT:

The work performed is in an office setting at a computer workstation with long periods of sitting or standing. May also be working for long periods of time in a climate-controlled data center environment. Work environment incudes a normal range of noise and other distractions with low everyday risks working around standard office equipment. Work requires frequent visits to customer worksites. Work requires the providing of on-call support which includes determining severity of the problem and deciding the appropriate course of action. The work involves occasionally inspecting cables/equipment in floors and ceilings to identify and solve problems, which can require ascending/descending ladders, entering tunnels, using lifts, standing on roofs to access equipment and cabling. Works with a variety of hand tools and computer diagnostic equipment to identify, repair and solve problems. Some travel to professional meetings is expected.

EXPERIENCE AND TRAINING REQUIREMENTS:

- Bachelor's degree in telecommunications, computer science, information systems management, or related field
- Technical:
  - Five years of progressively responsible experience in network administration in a complex multi-site enterprise environment, preferably including virtual infrastructure management and enterprise storage management.
  - Four years of progressively responsible experience in telecommunications coordination and management, overall administration of complex communications systems, voice and data integration projects, etc.
  - Successful completion of telecommunications-related certifications, network management certifications, or verifiable on-the-job training preferred.
- An equivalent combination of education and experience sufficient to provide the applicant with the knowledge, skills and ability to successfully perform the essential functions of the job will be considered.

NECESSARY SPECIAL REQUIREMENT:

- Preferred certifications:
  - Security+ and Network+ Certifications
  - ShoreTel/Mitel administration
- Employment contingent upon passing a criminal convictions check, local background check and fingerprinting. Subject to re-check every five years.
- Valid Washington State driver's license and good driving record. Must provide a three-year driving abstract prior to hire.
- Willingness and ability to work extra hours or change hours as needed and to respond to evening and weekend callouts for emergencies or when special circumstances require.
- Agreement to and signature of a Privileged Access Confidentiality Agreement is required.

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