CITY OF BELLINGHAM

JOB DESCRIPTION

JOB TITLE: **Network Analyst I/II/III** **UNION:231**
SG:3/5/7
DEPARTMENT: **Information Technology Services** **CS: N**
FLSA: N
EEO4/SOC:TE/15-1244

JOB SUMMARY:

Responsible for support and maintenance of the City's network and telecommunications systems under the direction of the Network Operations Manager. This includes analysis, design, troubleshooting, testing, implementation, and documentation as well as day-to-day monitoring and maintenance of assigned systems and components. Prioritizes the availability, operation, maintenance, and security of the City's computer networks.

Coordinates moves, additions and changes for network and telecommunications devices and services; supervises contractors and vendors performing installation, repair, and maintenance of network infrastructure, servers, network cabling and related equipment. Performs periodic audits for policy and security compliance, maintains accurate documentation and detailed records. Requires extensive communication and interaction with technical staff related to systems projects and requirements. Communicates with technical staff, departments, and third parties to ensure adherence to technology and security standards. Responds to a broad variety of service desk tickets related to network and telecommunications systems.

SUPERVISORY RELATIONSHIP:

Reports to Network Operations Manager or assigned Supervisor. Works under general supervision and the guidance of applicable federal, state and local statutes, regulations, policies, procedures and contractual agreements. Work is periodically reviewed to verify compliance with policies, procedures, and standards. May take work direction from Information Technology Services Director and other senior staff. May provide technical guidance and day-to-day direction to lower level staff, volunteers, interns and work study students. Supervises vendors, contractors, consultants, project teams, etc. in the installation, repair, and maintenance of city systems. Network Analyst II/III may be assigned lead responsibility on projects.

ESSENTIAL FUNCTIONS OF THE NETWORK ANALYST I/II:

1. Proactively oversees and contributes to daily operations of the City's network to ensure that network/telecommunications systems are accessible, usable, and reliable. Performs maintenance, technical/administrative analysis, technical support, training, and provides advice in support of network, security, and telecommunications services. Resolve problems through internal resources or through consultation with vendor technical support staff. Communicates with customers and users to research and identify needs to formulate cost effective, long-term solutions and procedures for implementation. Participates in a 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.

2. Serves as primary resource responsible for the City's enterprise backup infrastructure, Anti-Virus/MalWare/WebContent Filtering, Citrix remote access gateway, and other remote network access services. Includes extensive patching and upgrade responsibilities. Serves as back-up resource or primary resource, as assigned, for other network related systems and services, which may include LAN/WAN infrastructure, virtual infrastructure management, directory services, enterprise storage management, 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.

3. Serves or assists as project manager for small to medium size projects or serves as the technical lead for larger projects related to assigned systems. Responsible for project development, planning, testing, implementation, communication, and training related to assigned systems. Develops requests for information (RFI's) and requests for proposals (RFP's). Reviews bids to ensure that vendors meet minimum requirements, provides analysis of software systems, and participates in the software selection process. Prepares and administers network/telecommunications project budgets as assigned, performs periodic audits for policy compliance; maintains detailed records. Works closely with department administrative staff to maintain accurate billing, budget, and related records.

4. Serves as backup resource 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.

5. 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.

6. Serves as a member of the IT security team responsible for supporting security initiatives in area of responsibility, responding to incidents, and providing 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.

7. Plans, coordinates and carries out significant moves, additions, and changes for network/telecommunications devices and services in the City. Configures, patches, upgrades, and 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 by capturing data to analyze availability and utilization metrics to develop network baselines and troubleshoot problems.

8. Conducts research, performs analysis and recommends technical solutions for the City related to network, telecommunications and security systems and implements solutions as assigned ensuring necessary integration, maximum efficiency and cost-effective service delivery. Contributes to needs assessments, project prioritization and work planning for ITSD department.

9. 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.

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

ESSENTIAL FUNCTIONS OF THE NETWORK ANALYST III:

1. Performs all functions of the Network Analyst I/II

2. Provides technical guidance, on the job training, and may direct the work of technical staff as assigned.

3. Independently serves as project manager for larger projects and coordinates network systems projects for lower-level staff

4. Prepares and administers project budgets.

ADDITIONAL WORK PERFORMED:

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

6. Performs other related work of a similar nature or level in the classification.

PERFORMANCE REQUIREMENTS (Knowledge, Skills, and Abilities):

TECHNICAL

Knowledge of:
- Considerable 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.
- Considerable 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
- Considerable knowledge of analysis, design, and implementation of complex network and communication systems
- Extensive knowledge of operating systems such as Microsoft Windows, VMware, and Cisco IOS
- Syslog and SIEM principles and procedures
- Considerable knowledge of a multitude of monitoring and investigative tools

Skill in:
- LAN/WAN/Telecommunications analysis, design, and implementation practices and techniques
- Extensive skills with network connectivity for all workplace devices.
- Considerable skills with data/telephony network configuration, directory services, protocols, routers, network management and systems administration

- Considerable skills in administering ShoreTel/Mitel IP telephony system in a complex business environment, including core telephony server, voice mail system and call center.
- Considerable skills in analyzing, troubleshooting, maintaining, and documenting the following: LAN/WAN infrastructure, virtual environment management, enterprise storage management.
- Considerable skills in utilizing City standard application software which includes, but not limited to, Windows operating systems, Microsoft Office Suite.
- Considerable 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.
- Considerable skills in Security incident response and management. Understanding of CIS critical controls.
- Thorough organization, time management, problem solving, technical troubleshooting, and planning skills.

Ability to:
- Proactively manage a complex enterprise technology environment including LAN/WAN/Telecomm and end user software
- 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.
- Create, maintain, and review detailed systems information and documents.

OTHER

Knowledge of:
- Extensive knowledge of City and department policies and procedures including work processes and labor contract provisions for the workgroup.
- Considerable knowledge of project management techniques.

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 public.
- Working 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 public.
- Organization, time management, problem solving, technical troubleshooting, and planning skills.
- Thorough skills and ability to establish and maintain effective working relationships with other employees, City officials, representatives of other government agencies, community groups, and the public.
- 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, public input meetings, and equipment failure emergencies
- Work with and interpret needs for a variety of user departments.
- Work independently with minimal supervision.
- Work on several tasks and projects concurrently.
- Edit/review work of others for potential content issues/concerns.
- Demonstrate the Public Service Competencies of Service Orientation, Results Orientation, and Teamwork and Cooperation.
- Maintain consistent and punctual attendance.
- Ability to 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:
  - Move and transport approximately 40 pounds.
  - Detect, diagnose and resolve data on a screen, signage and labels. Detect and evaluate sound quality and distinguish tones.
  - Operate a keyboard, hand tools and other computer equipment.

WORKING ENVIRONMENT:

The work performed is primarily in an office setting at a computer workstation with long periods of sitting or standing. May also work for long periods of time in a climate-controlled data center environment. The work environment includes a normal range of noise and other distractions with low everyday risks working around standard office equipment. Frequent visits to customer worksites required. Work requires providing on-call support at all hours including evenings and weekends. 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, and moving about on a rooftop to access equipment and cabling. Works with a variety of hand tools and computer diagnostic equipment to identify, repair and solve problems. Employees are required to use appropriate safety equipment and follow standard safety practices. Some travel to professional meetings is expected.

EXPERIENCE AND TRAINING REQUIREMENTS:

Incumbents appointed to Network Analyst I are expected to perform the full range of Network Analyst I/II duties with progressive responsibility operating under the direction and guidance of more senior staff and are intended, over time, to demonstrate the competencies necessary to rise to the Network Analyst II level.

Incumbents appointed to the Network Analyst II level are expected to perform the full range of Network Analyst I/II duties independently under general supervision and guidance after an initial training period. It is expected that Network Analyst II will assume progressively responsible tasks independently.

Incumbents at the Network Analyst III level are expected to perform the full range of Network Analyst work independently under general supervision. Incumbents are responsible for planning and carrying out assignments, resolving most conflicts that arise, coordinating work with others, providing technical

leadership to subordinate staff and prioritizing work on own initiative within the context of established objectives and professional guidelines, while keeping supervisor informed of progress and potentially controversial matters.

Incumbents may receive a non-competitive promotion when they meet minimum experience, training and certification requirements for the next level and demonstrate capability to perform the functions at the appropriate level as described above, provided adequate work and funding is available.

Network Analyst I:

- Associate degree in IT networking, computer science, information systems management, telecommunications, or related field.
- One (1) year of experience in network administration in a complex, multi-site enterprise environment.
- Virtual infrastructure management and enterprise storage management experience preferred.
- Completion of CJIS training and certification within 6 months of hire.
- 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.

Network Analyst II:

- Bachelor's degree in IT networking, computer science, information systems management, telecommunications, or related field.
- Three (3) years of network administration experience effectively troubleshooting switching, firewall and server issues in a complex, multi-site enterprise environment, including virtual infrastructure management and enterprise storage management experience.
- Successful completion of one of the following network management/telecommunications-related certifications: CompTia Network+, Cicso CCNA or ComptTia A+ or equivalent certification as determined by the City. If hired in at this level based on experience, must obtain certification within 6 months of hire.
- Completion of CJIS training and certification within 6 months of hire
- 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.

Network Analyst III:

- Bachelor's degree in IT networking, computer science, information systems management, telecommunications, or related field.
- Five (5) years of progressively responsible experience in network administration in a complex multi-site enterprise environment including virtual infrastructure management and enterprise storage management.
- Experience providing technical leadership and guidance to lower level staff.
- Project management and budget experience required with a preference for public sector experience.
- Successful completion of one of the following network management certifications such as Cisco CCNP, VMWare VCP or equivalent certification, as determined by the City. If hired in at this level based on experience, must obtain certification within 6 months of hire.
- Completion of CJIS training and certification within 6 months of hire.

- 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:

- Employment contingent upon passing criminal convictions check, 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.
- Failure to obtain appropriate certifications within established time limits will result in demotion to the lower class for which qualified, until such time as the required certification is achieved, except for the CJIS certification, which is legally required to obtain and maintain current at all levels of the classification to remain employed.

PREPARED BY: M. McGlothern

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