



CLASS SPECIFICATION

Class Code: 15838
Date Est: 05/2006
Last Rev: 10/2018
Last Title Chg:
FLSA: non-exempt
Probation: 12 Months

SENIOR TECHNOLOGY NETWORK ENGINEER

DEFINITION

Under general supervision, designs, plans, organizes and oversees the implementation of wired and wireless network telecommunications, public safety radio, cybersecurity and electronic security systems for the County; and performs related work as required.

EXPERIENCE AND TRAINING REQUIREMENTS

A bachelor's degree from an accredited college or university in electrical engineering, computer science, networking, computer systems, cybersecurity or a closely related field AND four years of experience in computer and/or telecommunications network support, cybersecurity or public safety radio system support, including one year of full-time experience in communications infrastructure design and planning; OR an equivalent combination of education and experience.

LICENSE OR CERTIFICATE

A valid driver's license is required at the time of appointment.

Positions within this classification assigned to the Network and Phone support team within the Enterprise Infrastructure Division will require certification from County's standard wiring vendor on the design, installation and support of their wiring products within one year from time of appointment.

Positions within this certification assigned to the Washoe County Regional Communication System (WCRC) must possess a FCC General Radio Operators License (GROL) at the time of application.

DISTINGUISHING CHARACTERISTICS

This is the advanced level in the Technology Network Engineer series. Incumbents are responsible for planning, analysis and design, and serving as project manager for infrastructure projects. The senior level provides expertise for advanced diagnostics and troubleshooting of complex technical issues, and training and leadership of technical staff. It is distinguished from Technology Network Engineer II by the leadership responsibilities over positions in the same class series, and by the responsibilities for long-term planning and design, and project management duties.

SUPERVISION EXERCISED

Provides lead direction over technical staff.

EXAMPLES OF DUTIES *(The following is used as a partial description and is not restrictive as to duties required.)*

Provide lead direction, support and training for Technology Network Engineers.

Represent Technology Services at meetings with departments and participate on project teams and committees.

Provide technical leadership on technology projects, providing research, design and deployment.

Manage projects involving the maintenance and upgrades to network equipment and peripherals, including coordinating with appropriate staff, establishing timeframes, monitoring progress and providing project documentation for new systems.

Coordinate with County Capital Projects staff to plan and implement communications infrastructure related to the construction or remodeling of County facilities, or to extend communications to new network connected technologies in existing facilities.

Develop and recommend security policies, manage various aspects of internet and network security and advise management on various security related issues; implement new security applications and procedures; monitor and audit network activity to detect, prevent, and mitigate security attacks and intrusions.

Design new communications infrastructure plans, write specifications and prepare estimates of equipment and resources required for projects; provide consultation to management and departmental staff.

Translate designs to schematic diagrams for use by internal and/or contracted technicians in network installation.

Assess potential network equipment and software for performance, reliability, maintenance problems, cost, ease of use, and user satisfaction.

Coordinate with local area vendors to implement the installation of proprietary equipment, wiring and related technology management software.

Prepare reports and make presentations of product findings, which include recommendations for purchase.

Prepare exception reports regarding abnormal performance of network components already used by the County, describing diagnostic procedures, specific problems and corrective actions.

Develop recommendations for improvements to network infrastructure performance and reliability.

Investigate, troubleshoot and resolve complex network hardware and software problems at the system and component level, utilizing a variety of testing routines, tools and equipment.

Provide training to and lead staff in performing end user support, monitoring and administration of systems, implementation of communications infrastructure and technical troubleshooting of communications technology.

Coordinate with other department staff on collaborative planning and problem solving.

Manage equipment inventories and associated maintenance contracts.

Coordinate with outside regulatory agencies on documenting and auditing County compliance with regulatory standards such as CJIS, HIPAA and PCI-DSS.

JOB RELATED AND ESSENTIAL QUALIFICATIONS

Full Performance *(These may be acquired on the job and are needed to perform the work assigned.)*

Knowledge of:

Departmental and countywide policies, procedures and technology standards.

Principles of lead technical supervision and training.

Comprehensive knowledge of functions and applications of County computer hardware and software as they relate to microcomputers, networks, data communications, telecommunications, cybersecurity and physical electronic security, and radio systems technology.

Compliance standards related to data communications, including CJIS, HIPAA and PCI-DSS.

County technology infrastructure installations in all County occupied facilities.

County radio communications systems including P25 and their derivatives.

Building codes and safety regulations as related to the installation and construction of data and phone communications wiring, data centers and data closets.

Ability to:

Use and maintain County's mix of system monitoring, logging and alerting systems.

Provide lead direction to staff with technology projects, research, design and deployment.

Mentor and lead staff in a positive and constructive manner.

Inspect and certify County data and phone wiring per the warranty specifications for County's selected wiring supplier standards.

Design and implement wireless data communications.

Entry Level (*Applicants will be screened for possession of these through written, oral, performance or other evaluation methods.*)

Knowledge of:

PC, Server, network, phone and radio hardware.

Network operating systems, network communication protocols and network security methods.

Principles, theory and practices of data communication systems, and troubleshooting complex data communication system problems.

Current industry standards and product availability in hardware and software.

Project management techniques.

Radio communications coverage and modes of propagation.

AC power systems both single and three phase operations.

Electrical and electronics theory.

Ability to:

Organize work, meet schedules and timelines and assist with projects when required.

Utilize diagnostic routines, tools and equipment used in diagnosing and resolving network communications and equipment malfunctions.

Use network line testers, performance monitoring tools and/or land mobile radio test equipment to certify infrastructure meets industry standard communications specifications.

Analyze data communication and network hardware and software and develop recommendations regarding performance, reliability and cost.

Interpret and communicate current technical information to other staff, both orally, in writing and via understandable schematics.

Maintain effective working relationships with division staff, representatives of other departments and other agencies.

Analyze and solve advanced problems, both independently, as well as part of multi-functional teams.

Make effective presentations.

SPECIAL REQUIREMENTS *(Essential duties require the following physical skills and work environment.)*

Washoe County Technology Services employees may be called to work during a disaster or emergency situation.

Positions may be required to be part of a weekly rotation of on-call support hours that includes evenings, weekends and holidays.

Ability to work in a standard office environment and in outdoor settings. Ability to use data processing and assorted technological equipment. Ability to work in environment with controlled temperatures.

Ability to use dexterity, fine motor skills and general strength to lift and move objects up to 50 pounds. Ability to sit for extended periods. Ability to frequently stand, walk, bend, stoop, kneel, reach and stretch.

Some positions may require ability to work at high altitudes (above 10,000 ASL) for work at radio tower sites; some positions may require the ability to climb a 60-foot tower. Some positions within this classification may require employee to obtain a Tower Climbing Safety certification.

Positions within this classification assigned to the Cybersecurity team may require employee to obtain a Certified Ethical Hacker certification.

This class specification is used for classification, recruitment and examination purposes. It is not considered a substitute for work performance standards.