INFORMATION TECHNOLOGY ENGINEER V

NATURE AND VARIETY OF WORK

This is senior level lead administrative, professional and technical engineering work creating, implementing, and maintaining the County's enterprise technical infrastructure resources. Incumbents work with a great deal of independence in supervising the work of subordinate technology engineer personnel and in designing, installing, configuring, monitoring, and maintaining network, telecommunications, or systems hardware and software; analyzing hardware and software failures; analyzing connectivity, and monitoring systems and networks to ensure availability to all users; performing necessary maintenance to support network, telecommunications, or systems availability; and developing and implementing information security policies. The incumbent at this level has technical knowledge that is effectively applied to the County's enterprise technical infrastructure in order to handle the most difficult and complex issues involving their specific area, and/or train/lead lower level subordinates through basic processes.

Work is performed under the general supervision of a higher level position. Work is evaluated in terms of technical adequacy, accuracy, and efficiency as evidenced by compliant and proper system and network functioning; and adherence to established timeframes.

EXAMPLES OF WORK (ILLUSTRATIVE ONLY)

Leads subordinate staff in all phases of work in their assigned specialty area.

Develops, maintains, supports, and optimizes key functional areas, including network infrastructure, server infrastructure, security systems, data communications, and telecommunications systems.

Designs and implements short- and long-term strategic plans to ensure infrastructure capacity meets existing and future requirements.

Writes, implements, and maintains policies, procedures, and associated training plans for infrastructure administration and project management.

Negotiates service level agreements with county departments/agencies.

Collaborates in the planning and design of an enterprise Business Continuity Plan and Disaster Recovery Plan.

Coordinates with equipment vendors during installations and for hardware performance issues to ensure continuity of services.

Manages and sets priorities for the design, maintenance, development, and evaluation of all infrastructure systems, including LANs, WANs, Internet, Intranet, security, wireless implementations, and telecommunications.

Conducts feasibility studies for various upgrade projects, improvements, and conversions.

Defines hardware and software standards in conjunction with owners and stakeholders.

Researches, plans, designs, installs, configures, integrates, monitors, supports, optimizes, and maintains networks, network upgrades, network and server hardware, communication links, and operating systems across the organization.

Tests network and server performance and provides network performance statistics and reports; develops strategies for maintaining network and server infrastructure.

Administers and maintains end user accounts, permissions, and access rights.

Oversees new and existing equipment, hardware, and software upgrades.

Manages servers, including database, e-mail, print, and backup servers and their associated operating systems and software, and all network hardware and equipment, including routers, switches, hubs, and UPSs.

Manages network security solutions including firewall, anti-virus, and intrusion detection systems.

Monitors network performance and troubleshoots problem areas as needed.

Plans and designs enterprise security architecture.

Plans and deploys infrastructure security measures for information systems to regulate access to computer data files and prevent unauthorized modification, destruction, or disclosure of information.

Recommends additional solutions to existing products to improve overall enterprise security.

Maintains up-to-date detailed knowledge of the IT security industry including awareness of new or revised security solutions, improved security processes and the development of new attacks and threat vectors.

Conducts vulnerability audits and assessments, penetration tests and security audits, and participates in investigations into problematic activity related to information security.

Manages all engineering projects for telephony initiatives.

Develops long-term strategies and capacity planning for meeting future telecommunications network needs.

Integrates telecommunications systems with enterprise network services and protocols.

Selects, deploys, and utilizes appropriate tools for reporting and routing of telephony traffic on the network.

Installs, configures, diagnoses, repairs, upgrades, and optimizes telecommunications systems, equipment, facilities, and services.

Designs and supports telecommunications infrastructure and its associated software, including call management systems, voice mail, interactive voice response, and video conferencing systems.

Writes and implements technical infrastructure policies, standards, baselines, guidelines, and procedures for the assigned specialty area.

Resolves second tier end user support issues related to technical infrastructure, such as network access, Internet access, telecommunications, cellular network, servers, viruses, security, hardware, and software.

Willingly and cooperatively performs tasks and duties which may not be specifically listed in the class specification or position description, but which are within the general occupational category and responsibility level typically associated with the employee's class of work.

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES

Extensive knowledge of requested specialty area including, but not limited to network and information security, telecommunications, networks, servers, hardware, connectivity, and software applications.

Extensive knowledge of standard computer operating systems.

Extensive knowledge of the county's security goals as established by stated policies, procedures and guidelines and ability to actively work towards upholding those goals.

Extensive knowledge of telephony systems, hardware, and software.

Extensive knowledge of current network hardware, protocols, and Internet standards.

Experience with network design and implementation.

Experience with network capacity planning, network security principles, and general network management best practices.

Hands-on technical knowledge of network and PC operating systems.

Hardware troubleshooting experience.

Experience in the installation, configuration, and optimization of equipment, hardware, and software.

Demonstrated leadership and personnel/project management skills.

Ability to prioritize and execute tasks and make sound decisions in emergency situations.

Ability to operate tools, components, peripherals, and testing accessories.

Ability to analyze hardware issues and determine possible solutions.

Ability to communicate effectively, both orally and in writing, with internal and external customers.

Ability to work independently and as a member of a team.

Ability to demonstrate excellence in customer service.

MINIMUM QUALIFICATIONS

Master's degree in computer science, information technology, mathematics, or business or public administration, or a closely related field, plus four (4) years of experience in an information technology engineering field, in which at least two (2) years must have involved lead/supervisory duties; or an equivalent combination of education, training, and experience.

CONDITION OF EMPLOYMENT

Must be willing to respond to service calls after normal business hours, when required.

Must have a valid driver’s license.