

CONTRA COSTA COUNTY OFFICE OF EDUCATION

CLASS TITLE: NETWORK ENGINEER

BASIC FUNCTION:

Under the direction of an assigned supervisor, organize and direct operations and activities related to the installation, configuration, maintenance, troubleshooting, diagnosis and repair of computer hardware, software, peripherals and network systems for the County Office and remote sites; oversee and participate in the planning, design, set-up, development and modification of computer and network systems.

REPRESENTATIVE DUTIES:

ESSENTIAL DUTIES:

Organize and direct operations and activities related to the installation, configuration, maintenance, troubleshooting, diagnosis and repair of computer hardware, software, peripherals and network systems for the County Office and remote sites; prioritize installation, maintenance and repair needs, coordinate assignments and establish time lines; assure network services are available including internet access, e-mail systems, printing and network sharing.

Oversee and participate in the planning, design, set-up, development and modification of computer and network systems; supervise and participate in the design, installation, operation, maintenance and repair of Local Area Networks (LANs) and Wide Area Networks (WANs); assure proper installation of server and work station software and test applications to assure proper operation.

Oversee and participate in the installation, configuration, upgrading and operation of a variety of hardware, software and equipment including cabling, servers, hubs, routers, switches and applications to enhance and assure proper operation of assigned computer systems.

Provide consultation to school districts concerning computer systems, equipment and malfunctions on the phone, in person or through e-mail correspondence; provide technical troubleshooting, determine type of request, diagnose and provide solutions; provide information concerning related practices and procedures; prepare invoices for services provided and submit to districts for payment.

Assure proper security of the network and computers; plan, install and test security and redundancy for assigned systems; maintain firewall and content filter; assure compliance with back-up procedures for assigned systems.

Coordinate communications and information between other departments and districts to meet computer hardware, software, peripheral and network system needs; prepare and distribute related correspondence.

Operate a variety of technical equipment including testers, meters, analyzers and a variety of hand and power tools; drive a vehicle to conduct work.

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Communicate with contracted school districts to exchange information, coordinate activities and programs and resolve issues or concerns.

Prepare and maintain a variety of records and reports related to projects, work orders, equipment, systems, personnel, financial activity and assigned duties; update and maintain databases of equipment and users.

Research and evaluate new technologies for possible implementation within the County Office or school districts; provide technical advice concerning the purchasing and implementation of new technologies.

Oversee inventory functions for assigned technology areas; monitor inventory levels of computer system parts and equipment; order, receive and assure adequate inventory levels of parts and equipment to meet operational needs of the department; oversee the preparation of related purchasing documents.

Assist in the development of the annual preliminary budget for assigned technology functions; review and evaluate budgetary and financial data; control and authorize expenditures in accordance with established limitations.

Monitor and assess assigned technology functions for effectiveness and operational efficiency; provide input concerning the development and implementation of departmental programs, goals, objectives, policies and procedures.

Attend and conduct a variety of meetings as assigned.

OTHER DUTIES:

Perform related duties as assigned.

KNOWLEDGE AND ABILITIES:

KNOWLEDGE OF:

Organization and direction of operations and activities related to the installation, configuration, maintenance, troubleshooting, diagnosis and repair of computer hardware, software, peripherals and network systems.

Principles, methods and procedures of operating computers, networks and peripheral equipment.

Policies and objectives of assigned programs and activities.

County Office organization, operations, policies and objectives.

System utilities and design and program applications.

Proper security of networks including firewalls.

Materials, methods and tools used in the operation and repair of computer systems.

Principles, theories and techniques of LAN and WAN design.

World-Wide WEB technology and application of software required to navigate the Internet.

Principles and techniques of systems and network analysis.

Computer hardware systems and software applications utilized by the County Office.

Record-keeping and report preparation techniques.

Interpersonal skills using tact, patience and courtesy.
Oral and written communication skills.
Technical aspects of field of specialty.

ABILITY TO:

Organize and direct operations and activities related to the installation, configuration, maintenance, troubleshooting, diagnosis and repair of computer hardware, software, peripherals and network systems.

Oversee and participate in the planning, design, set-up, development and modification of computer and network systems.

Provide consultation to County Office personnel and school districts concerning computer systems, equipment and malfunctions.

Prioritize installation, maintenance and repair needs.

Supervise and participate in the design, installation, operation, maintenance and repair of LANs and WANs.

Assure proper installation of server and work station software.

Research and establish communication with existing networks in the Internet.

Compile and download required software from the Internet to be used with PASS courses.

Maintain a data management, storage and retrieval system.

Oversee inventory functions for assigned technology areas.

Maintain current knowledge of technological advances in the field.

Plan and organize work.

Meet schedules and time lines.

Work independently with little direction.

Communicate effectively both orally and in writing.

Establish and maintain cooperative and effective working relationships with others.

Maintain records and prepare reports.

EDUCATION AND EXPERIENCE:

Any combination equivalent to: bachelor's degree in computer science or related field and four years experience as a network engineer responsible for routine maintenance and troubleshooting of Novell and Microsoft servers and with local area and wide area networks.

LICENSES AND OTHER REQUIREMENTS:

Valid California driver's license.

WORKING CONDITIONS:

ENVIRONMENT:

Office environment.

Driving a vehicle to conduct work.

PHYSICAL DEMANDS:

Sitting, standing or walking for extended periods of time.

Dexterity of hands and fingers to operate a computer keyboard

Hearing and speaking to exchange information in person or on the telephone.

Seeing to read a variety of materials.

Bending at the waist, kneeling or crouching.

Climbing ladders.

Lifting and carrying moderately heavy objects.