

CONTRA COSTA COUNTY OFFICE OF EDUCATION

CLASS TITLE: TECHNOLOGY SYSTEMS ENGINEER

RANGE: 21

BASIC FUNCTION:

Under the direction of an assigned supervisor, organize and direct operations and activities related to the installation, configuration, management, troubleshooting, diagnosis and repair of installed systems and infrastructure (operating systems, applications, services, and management tools) for the County Office and remote sites; help define requirements, oversee and participate in the planning, design, set-up, development and modification of systems and infrastructure.

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 support needs, coordinate assignments and establish time lines; assure systems and services are available including e-mail, printing, network sharing, and financial.

Requests, obtains and evaluates customer needs; participates in designing, enhancing and/or evaluating solutions for hardware and software installations.

Provide escalation point for support calls. Supervise and evaluate technical support staff.

Conducts research on emerging products, services, protocols, and standards in support of systems engineering and management.

Assure proper installation of server and workstation software and test applications to assure proper operation.

Leads, participates and/or supports a variety of IT projects

Oversee and participate in the installation, configuration, upgrading and operation of a variety of server and client software components and solutions.

Develops documents and training guides for systems administration; contributes to the documentation found in the organization's knowledge base; maintains policies and procedures.

Provide consultation to school districts concerning services and systems (such as hosted DNS, VPN, and Secured FTP) 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.

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Assure proper security of web and database systems; plan, install and test security and redundancy for assigned systems; help 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 services, software, and system needs; prepare and distribute related correspondence.

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

Ensures the integrity and security of enterprise data on host systems, databases and during data transfer, in accordance with business needs and industry best practices regarding privacy, security and regulatory compliance (HIPAA and FERPA).

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.

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, and diagnosis of mission critical software solutions.

County Office organization, operations, policies and objectives. System utilities and design and program applications.

Identify and define software vs. hardware problems, and develop viable solutions and alternatives.

Proper security of network services including firewalls, content filters, and encryption.

Solid general knowledge of TCP/IP communications.

World-Wide WEB technologies (Apache, IIS, Tomcat)

Database Systems administration (MS SQLServer, MySQL)

SQL queries

PowerShell and Linux shell scripting

SMTP (Sendmail, Postfix)

Micro Focus Products (Groupwise, Filr, GWAVA Retain)

Hybrid Storage Systems (Tegile IntelliFlash SAN with FC Interconnect)

Group Policy (Active Directory/LDAP)

Virtualization (VMWare Hypervisor)

Enterprise AV

Troubleshooting, patching, and resolving system and software problems on Windows/Linux servers

Project management skills a plus (GANTT)

Interpersonal skills using tact, patience and courtesy. Oral and written communication skills.

ABILITY TO:

Organize and direct operations and activities related to the installation, configuration, maintenance, troubleshooting, and diagnosis of software issues.

Direct, supervise and evaluate assigned staff.

Oversee and participate in the planning, design, set-up, development and modification of mission critical enterprise systems (such as Student Information and Attendance).

Provide consultation to County Office personnel and school districts concerning software solutions, integrations and reporting.

Assure proper installation of server software.

Oversee upgrades 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: Four years of experience as a systems engineer responsible for routine maintenance and troubleshooting of servers and services on 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.