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County of El Dorado

February 2009

**SR- INFORMATION TECHNOLOGY ANALYST III –**  
**Server Administration**  
**SERVER DESIGN AND ADMINISTRATION**

**DEFINITION**

Under general supervision, direction, provides lead direction, training, and performs the more difficult, complex advanced and specialized professional, technical and analytical duties including: server management of a professional nature in the design, engineering, enhancement, administration, maintenance, design and engineering; analysis of enterprise and maintenance of County information technology servers and related systems, including server hardware and core infrastructure client/server systems requirements; applications; leads and coordinates complex system development, implementation, and maintenance of projects; analyzes complex departmental customer and enterprise infrastructure client/server systems; this class requirements; designs, engineers, and maintains the most complex department and enterprise infrastructure client/server architectures; and performs related duties as assigned.

**SUPERVISION RECEIVED AND EXERCISED**

Receives general direction from assigned supervisory or management personnel. Exercises technical and functional direction over and provides training to technical, paraprofessional, and professional staff.

**CLASS CHARACTERISTICS**

This is the advanced/lead-level classification in the Information Technology Analyst – Server Design and Administration class series. Incumbents in this class are responsible for performing the most difficult, complex, and/or sensitive duties related to server and system development and administration which include acting in an advisory role to technical and analytical staff and providing strategic input within this area of specialization. Incumbents may also coordinate, direct, and review complex projects that are large in size and scope, requiring coordination of multiple staff and the procurement/utilization of significant resources. Incumbents also provide technical and functional leadership over other staff on both projects and on day-to-day assignments as assigned. Performance of the work of other professional and support IT staff but is not considered a supervisory class requires the use independence, initiative, and discretion within established guidelines.

**DISTINGUISHING CHARACTERISTICS**

This class is an advanced specialist level in the Information Technology Analyst – Server Administration series. Positions at this level are distinguished from the Information Technology Analyst I/II – Server Administration in that it requires a greater level Supervisor in that the latter performs full supervisory responsibilities.

**EXAMPLES OF TYPICAL JOB FUNCTIONS (Illustrative Only)**

➤ Performs advanced and complex duties of a professional expertise in a specialized area of nature in the design, engineering, enhancement, administration, and maintenance of County information technologies. Incumbents are expected to independently perform a full range of complex and difficult Information Technology Analyst duties at an advanced level. Successful performance requires thorough knowledge of and demonstrated proficiency in server management technology. The incumbent should exercise initiative and sound independent judgment servers and related systems, including server hardware and core infrastructure applications.

- ~~Serves as a technical expert within established guidelines. This class may provide lead area of assignment, providing guidance and direction or limited supervision to technical, paraprofessional, and professional and support staff, but is distinguished from Supervising Information Technology Analyst in that the latter is and resolving the first full supervisory level most complex problems; participates in the Information Technology Analyst series development of strategic plans for systems development and modification as assigned.~~

#### **EXAMPLES OF DUTIES (Illustrative Only)**

- ~~Provides lead direction, training, to assigned staff; trains staff on server related duties, methods, and procedures.~~
- ~~Leads and coordinates complex systems development projects or project elements; participates in project strategic planning activities.~~
- ~~Works with colleagues and clients to coordinate project activities and identify the business process basis for system enhancements and development; oversees the development of work flow diagrams to reflect current and proposed flow of data and information; coordinates the development of initial and ongoing system design models and specifications to optimize work flows and process efficiencies; maintains documentation version control; coordinates the delivery of final documentation for review and evaluation to a small staff; organizes and assigns work, sets priorities and follows up to ensure coordination and completion of assigned work approval.~~
- ~~Provides input into performance evaluations and disciplinary matters.~~
- ~~Counsels staff; recommend appropriate discipline and other personnel actions.~~
- ~~Plans, determines Coordinates the design and development of new or enhanced system architectures; identifies system requirements, designs; researches and analyzes the feasibility of hardware and software solutions; recommends the appropriate uses of department or enterprise infrastructure client/server technology.~~
- ~~Designs, builds, tests, implements, maintains, and enhances the most complex and specialized department or enterprise infrastructure client/server systems over multiple platforms and technologies, ensuring that the design incorporates comprehensive security measures.~~
- ~~Analyzes, designs, tests and implements assigned complex projects which may require coordination and collaboration with counterparts in other IT classifications and multiple technologies.~~
- ~~Integrates complex or specialized Determines proper installation parameters for client/server software/hardware for smooth integration, transition, and efficiency.~~
- ~~Oversees the installation of third-party department or enterprise infrastructure client/server system technologies software; determines modifications necessary to meet County requirements; oversees the installation of vendor supplied updates and enhancements.~~
- ~~Leads and coordinates the configuration, implementation, and troubleshooting of server platforms and software and the coordination/collaboration with other information technology staff to integrate client/server systems for operability.~~
- ~~Acts as liaison between vendors, IT staff technical support, and system users departments to resolve enterprise infrastructure client/server system problems; designs, impairments; coordinates and implements corrective measures.~~
- ~~Designs and models enhancements and other modifications against department or enterprise infrastructure client/server system Models changes to hardware and software configurations to optimize the utilization of resources.~~
- ~~Determines needs, develops plans and implements solutions to meet the needs of the enterprise.~~
- ~~Researches to determine feasibility, advises and recommends appropriate uses of enterprise infrastructure client/server system technology.~~
- ~~Designs, develops Develops and implements comprehensive test plans to ensure that department or enterprise infrastructure client/server system technology components and changes thereto are tested and debugged prior to implementation.~~
- ~~Resolves complex technical problems; provides training and assistance to County staff.~~
- ~~Monitors and enforces security policies and procedures.~~
  - ~~Installs third party department or enterprise infrastructure client/server system software; modifies~~

- ~~software as necessary to meet specific enterprise requirements; installs vendor-supplied maintenance and enhancements.~~
- ~~• Determines and gives direction to staff for proper installation parameters for enterprise infrastructure client/server software/hardware for smooth integration, transition and efficiency.~~
- ~~➤ Monitors and collects data on department or enterprise infrastructure client/server system performance and proposes necessary modifications.~~
- ~~➤ Designs, Monitors and enforces security policies and procedures; plans, develops, and implements backup and recovery procedures.~~
- ~~➤ Determines and adjusts department or enterprise infrastructure thresholds for client/server system performance thresholds for system resources.~~
- ~~• Participates in and/or directs projects.~~
- ~~• Attendance and punctuality that is observant of scheduled hours on a regular basis.~~
- ~~➤ Writes and maintains comprehensive technical documentation for assigned projects including work flow diagrams, system design specifications, and policies and procedures for the utilization of specific hardware and/or software.~~
- ~~➤ Provides training for County staff as assigned.~~
- ~~➤ Conducts research and stays current on new trends and innovative solutions for software solutions to business processes; recommends new technologies which would improve the department's or client's operational effectiveness.~~
- ~~➤ Performs related work duties as assigned. —~~

## **QUALIFICATIONS**

### **General Knowledge of:**

- ~~➤ Principles Advanced principles and techniques of client/server architectures for working with groups and methodologies fostering effective team interaction.~~
- ~~➤ Design Advanced design, installation, deployment, administration, and maintenance of department or enterprise infrastructure client/server systems-, including operating system resource requirements.~~
- ~~➤ Various networking Advanced methods and techniques of analyzing business processes and developing solutions.~~
- ~~➤ Advanced principles and functions of core server platforms and operating systems, including Active Directory, System Center Configuration Manager, and related technologies.~~
- ~~➤ Principles and practices of project management and work flow analysis.~~
- ~~➤ Principles of providing functional direction and training.~~
- ~~➤ Principles and practices of leadership.~~
- ~~➤ Development of utility programs and shell scripts.~~
- ~~➤ Managing and monitoring server performance and the advanced use of server diagnostic systems and tools.~~
- ~~➤ SAN, NAS, and DAS technologies, and storage array RAID configuration.~~
- ~~➤ Enterprise backup administration, including pool creation and tape management.~~
- ~~➤ Networking services and protocols such as DNS, TCP/IP v4 and v6 protocol, and DHCP, WINS, etc. DNS, SNMP, SMTP, FTP, HTTP, HTTPS, and ICMP.~~
- ~~➤ Design and implementation of hypervisor/virtualization systems.~~
- ~~➤ Remote administration of department or enterprise infrastructure client/server systems.~~
- ~~○ Server virtualization and various data storage fundamentals (NAS, SAN, SAS)~~
- ~~○ Computer operations and facilities.~~
- ~~○ Business systems applications.~~
- ~~○ Principles and practices of technical problem solving.~~
- ~~○ Principles, processes, Methods and techniques of project management and related software.~~
- ~~➤ Methods of long term evaluating technology assessment and deployment. — products for potential modification to meet business specifications.~~

- ~~Principles, practices~~ Methods and techniques of providing customer service, designing and coordinating information technology testing processes.
- Industry best practices of data center virtualization, management, and controls.
- Disaster recovery concepts.
- Methods and techniques of conducting research and technical problem solving.
- ⇒ Methods and techniques of developing and delivering training.
- ⇒ Principles and practices of producing effective project and technical documentation.
- ~~Restart and recovery concepts.~~
- ~~Basic supervisory practices and principles.~~
- ~~Team dynamics and team building.~~

**Specific Knowledge:**

- ~~Advanced knowledge and concepts of client/server and desktop computer operating systems.~~
- Complex Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and County staff.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination.
- Computers and software programs (e.g., Microsoft software packages) to conduct, compile, and/or generate documentation.

**Ability to:**

- Plan, organize, and coordinate the work of technical, paraprofessional, and professional staff.
- Provide staff leadership and work direction.
- Train others in proper and safe work procedures.
- ~~Provide advanced professional support to a diverse range of enterprise infrastructure client/server systems configurations.~~
- ~~Client/server hardware/software and operating system resource requirements.~~
- ~~Planning, design and implementation of client/server hardware/software installation/upgrades.~~
- ~~Advanced development of utility programs and shell scripts.~~
- ~~Skilled use of server diagnostic systems and tools.~~
- ~~Managing and monitoring server performance.~~
- ~~Managing disk storage arrays~~
- ⇒ Management of wide and department or enterprise infrastructure client/server application deployments-specific systems used throughout the County.
- ~~Enterprise backup management, to include pool creation, tape management, file recoveries and managing off-site tape storage.~~
- ~~Advanced knowledge and concepts of server-based, distributed, client/server and desktop computer operating systems.~~
- ~~Advanced understanding of server/desktop/network operating systems architecture, structure, operations, and utilities.~~
- ~~Systems utilities version control principles.~~

**Skill In:**

- ~~Recognizing~~ Identify complex technology solutions to business process improvements and efficiencies.
- ⇒ Recognize server problems, developing/develop recommendations and solutions, and managing/manage corrections.
- ⇒ Integrating highly sophisticated/Integrate department and/or enterprise infrastructure client/server systems.
- ⇒ Advanced administration and maintenance of/Administer and maintain centralized directory, file, and print services.

- ➤ ~~Complicated technical~~Manage client/server user ~~permission~~permissions and ~~account management~~accounts.
- ➤ ~~Expert knowledge of the enforcement of~~Enforce server security policies and procedures through the use of account, directory, and file rights filters.
- ~~Evaluating, installing,~~Develop and implement testing ~~and implementing~~models.
- ➤ Evaluate, install, test, and implement new servers, and server operating systems.
- ➤ ~~Installing~~Install new versions, releases, or maintenance levels of existing server ~~and desktop~~ operating systems and related components through centralized ~~resource~~resources.
- ~~Designing and engineering highly complex client/server systems and solutions based on business requirements.~~
- ~~Making~~Coordinate activities with vendors, clients, and staff.
- Collaborate with colleagues in developing and documenting process work flows, applications specifications, and models.
- ➤ Make technical oral presentations to technical and non-technical audiences.
- ~~Coordinating technical activities with vendors, clients and staff.~~
- ➤ ~~Understanding~~Understand complex information technology systems and issues.
- ~~Interpreting, applying rules and explaining technical policies and procedures.~~
- ➤ ~~Using~~Use sound independent judgment within established guidelines.
- ➤ ~~Preparing~~Prepare clear and concise reports, correspondence, documentation, and other written materials~~material~~.
- ➤ ~~Communicating effectively,~~Communicate clearly and concisely, both orally and in writing, ~~with Information Technologies management, professional and support staff, department system users and vendors.~~ using appropriate English grammar and syntax.
- ~~Establishing and maintaining~~Understand, interpret, and apply all pertinent laws, codes, regulations, policies and procedures, and standards relevant to work performed.
- Use tact, initiative, prudence, and independent judgment within general policy, procedural, and legal guidelines.
- ➤ Establish, maintain, and foster positive and effective working relationships with those contacted in the course of ~~the~~ work.
- ~~Planning, assigning and reviewing the work of others, when required.~~
- ~~Training others in work procedures.~~
- ~~Promoting and maintaining a team environment.~~

### **Special Requirements:**

~~May be required to work on-call, weekends and irregular hours. Applicants must pass a criminal history and background check which may include contact of prior employers and personal references, and fingerprinting for purposes of searching local, state and national fingerprint files through the Department of Justice and Federal Bureau of Investigation to disclose any criminal record.~~

### **Education and Experience:**

~~*Any combination of the required experience, education, and training that would provide the essential knowledge, skills, and abilities is qualifying.*~~

Equivalent to a bachelor's

~~**EITHER** (1) A Bachelor's degree from an accredited four-year college or university with major coursework in Computer Science, MIS, Business Administrationinformation technology, computer science, or a closely related field ~~with emphasis in server management, administration, maintenance, design and/;~~ possession of one or ~~engineering,~~ **OR,** Two years, (60+ semester unitsmore approved nationally recognized industry specific technology certifications may be substituted for some or all of the education; and~~

~~EITHER 90+ quarter units), of college-level coursework in Computer Science, MIS, Business Administration or a closely related field with emphasis in server management, administration, maintenance, design and/or engineering AND two~~

~~Four (4) years of professional level experience working in server management, providing analytical support related to the development and administration, maintenance, design and/ of enterprise or engineering, customized information technology systems;~~

~~AND~~

~~Five years experience working in server management, administration, maintenance, design and/or engineering. At least two years of experience must have been in a multi-platform information systems environment.~~

~~OR~~

~~Two (2) Two years of professional experience at a level equivalent to the County's class of Information Technology Analyst II – Server Administration.~~

~~NOTE: The above qualifications are a typically accepted way of obtaining the required knowledge Design and skills. Administration.~~

### Licenses and Certifications:

~~➤ Possession of, or ability to obtain and maintain, a valid California Driver's License by time of appointment and a satisfactory driving record.~~

### PHYSICAL DEMANDS

~~Must possess mobility to work in an office setting; use standard office equipment, including a computer; some positions may be required to operate a motor vehicle; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. Standing in and walking between work areas is frequently required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification frequently bend, stoop, kneel, and reach to perform assigned duties, as well as push and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects up to 25 pounds. Reasonable accommodations will be made for individuals on a case-by-case basis.~~

### ENVIRONMENTAL CONDITIONS

~~Employees work in an office environment with loud to moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.~~

### WORKING CONDITIONS

~~Must be willing to work after hours, weekends, and holidays as needed. Must be able to pass a thorough background investigation.~~