INFORMATION TECHNOLOGY ANALYST III –
SERVER DESIGN AND ADMINISTRATION

DEFINITION

Under general direction, provides lead direction, training, and performs advanced and specialized analytical duties of a professional nature in the design, engineering, enhancement, administration, and maintenance of County information technology servers and related systems, including server hardware and core infrastructure applications; leads and coordinates complex system development projects; analyzes complex customer and enterprise infrastructure client/server systems 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 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 requires the use independence, initiative, and discretion within established guidelines.

This class is distinguished from the Information Technology Supervisor in that the latter performs full supervisory responsibilities.

EXAMPLES OF TYPICAL JOB FUNCTIONS (Illustrative Only)

➢ Performs advanced and complex duties of a professional nature in the design, engineering, enhancement, administration, and maintenance of County information technology servers and related systems, including server hardware and core infrastructure applications.
➢ Serves as a technical expert within area of assignment, providing guidance and direction to technical, paraprofessional, and professional staff and resolving the most complex problems; participates in the development of strategic plans for systems development and modification as assigned.
➢ Provides direction 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 approval.

➢ Coordinates the design and development of new or enhanced system architectures; identifies system requirements; 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 department or enterprise infrastructure client/server systems over multiple platforms and technologies, ensuring that the design incorporates comprehensive security measures.

➢ 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 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, technical support, and departments to resolve client/server system impairments; coordinates and implements corrective measures.

➢ Models changes to hardware and software configurations to optimize the utilization of resources.

➢ Develops and implements comprehensive test plans to ensure that department or enterprise infrastructure client/server technology components are tested and debugged.

➢ Monitors and collects data on department or enterprise infrastructure client/server system performance.

➢ Monitors and enforces security policies and procedures; plans, develops, and implements backup and recovery procedures.

➢ Determines and adjusts thresholds for client/server system resources.

➢ 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 duties as assigned.

QUALIFICATIONS

Knowledge of:

➢ Advanced principles and techniques for working with groups and fostering effective team interaction.

➢ Advanced design, installation, deployment, administration, and maintenance of department or enterprise infrastructure client/server systems, including operating system resource requirements.

➢ 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 TCP/IP v4 and v6 protocol, and DHCP, 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.
- Methods and techniques of evaluating technology products for potential modification to meet business specifications.
- Methods and techniques of 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.
- 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-wide and department-specific systems used throughout the County.
- Identify complex technology solutions to business process improvements and efficiencies.
- Recognize server problems, develop recommendations and solutions, and manage corrections.
- Integrate department and/or enterprise infrastructure client/server systems.
- Administer and maintain centralized directory, file, and print services.
- Manage client/server user permissions and accounts.
- Enforce server security policies and procedures through the use of account, directory, and file rights filters.
- Develop and implement testing models.
- Evaluate, install, test, and implement new servers and server operating systems.
- Install new versions, releases, or maintenance levels of existing server operating systems and related components through centralized resources.
- 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.
- Understand complex information technology systems and issues.
- Use sound independent judgment within established guidelines.
- Prepare clear and concise reports, correspondence, documentation, and other written material.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- 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 work.

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 degree from an accredited four-year college or university with major coursework in information technology, computer science, or a closely related field; possession of one or more approved nationally recognized industry specific technology certifications may be substituted for some or all of the education; and

EITHER

Four (4) years of professional experience providing analytical support related to the development and administration of enterprise or customized information technology systems;

OR

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