

**EL DORADO IRRIGATION DISTRICT**  
**Class Specification**

**CLASS TITLE: Information Technology Analyst I/Information Technology Analyst II**

**DEFINITION**

This is a multi-discipline classification in the Information Technology Department. Under general supervision performs a variety of professional and highly technical level duties related to network administration and support, database administration and support, and or network security administration and support. Provides enterprise-wide administrative, technical and operational support and ensures the integrity and resiliency of District technological systems, programs, communications, access control, programming, web, media, and provides internal customer services across District departments. Performs a variety of complex, technical and administrative tasks related to assigned area of responsibility.

**DISTINGUISHING CHARACTERISTICS**

Information Technology Analyst I - This is the entry-level class in the Information Technology Analyst series. Incumbents of this class will have prior technical experience performing information technology activities under direct supervision in one of the core areas described above. As an analyst, incumbents may specialize in one or more of the department's core programs. As knowledge and experience are gained, the work becomes broader in scope and assignments more varied and are performed under general supervision as independent judgement is attained and effectively utilized. The Information Technology Analyst I class is distinguished from the II level by the performance of less than the full range of duties assigned to the II level.

Information Technology Analyst II - This is the journey level class in the Information Technology Analyst series and is distinguished from the I level by the assignment of the full range of duties. Employees at this level receive only occasional instruction or assistance as new, unusual or unique situations arise and are fully aware of the operating procedures and policies within the work unit. Positions in this class are flexibly staffed and are normally filled by advancement from the I level.

**SUPERVISION RECEIVED AND EXERCISED**

Information Technology Analyst I

Receives general supervision from assigned management personnel or lead analyst.

Information Technology Analyst II

Receives direction from assigned management personnel. May exercise technical and functional supervision over support or technical staff.

**EXAMPLES OF ESSENTIAL DUTIES:** *the duties specified below are representative of the range of duties assigned to this class and are not intended to be an inclusive list.*

Performs a variety of specialized, highly technical and complex computer database system or network system duties in support of specialized functions or programs.

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Provides operation systems oversight to the District's network and database infrastructure, including but not limited to programming, building, analyzing, diagnosing, maintaining, securing and operating various systems.

Answers questions, responds to end-user requests in a timely manner; and provides information, assistance and training to personnel and departments on technology-related issues.

Coordinates information system activities with users; assists in the assessment of output requirements, data processing schedules, volume of transaction data and other factors to determine the level and type of computer information system support required.

Analyzes, diagnoses, tests and recommends, or provides appropriate solutions for problems with system, terminal, computer, E-mail, Internet, software, hardware, geographic information system, telecommunications or other technology related issues.

Stays current with technology advancements; develops and presents training to District staff on relevant technology related information, new equipment, and program upgrades.

Prepares and maintains documentation and instructions; maintains and updates manuals, codebooks, templates, web pages and related documents; and follows protocols and procedures.

Assists with research of solutions and the procurement of technology related equipment or services; researches specifications and costs; tests beta and experimental systems, programs, and equipment; and researches and prepares related reports with recommendations.

Acts as liaison between vendors, technical support, and departments to resolve system problems; resolves user problems and maintains user contact to assess needs, answer questions and provide technical information.

May plan, prioritize, and review the work of technical staff, develop schedules and methods to accomplish assignments, provide and coordinate staff training, and work with employees to correct deficiencies.

Provides technical assistance for desktop support issues; interviews, analyzes and documents end-user work processes and system requirements.

Builds and maintains positive working relationships with co-workers, other District employees and the public using principles of good customer service.

Performs related duties as assigned.

**When Assigned to Information Technology Network Systems Administration:**

Installs, configures, manages and supports the network, server and telecommunications infrastructure; monitors and maintains local and wide area computer network; manages network

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file and print server functions; creates and maintains user connectivity; creates user accounts based on established protocols; coordinates installation of network and application software.

Implements internal control, network security methodologies and other security systems for data, systems, hardware protection and recovery procedures; ensures timely and accurate back-up of data; implements disaster recovery procedures as needed; maintains appropriate confidentiality of sensitive information.

Installs, configures, programs and tests servers, network systems and other computer related software and hardware; monitors systems and network resources; performs appropriate testing functions as needed; coordinates network and software upgrades; develops time and cost estimates for new projects and maintenance changes as needed.

Maintains availability of network systems; reviews system logs and trouble shoots network malfunctions; allocates and monitors server disk storage space for users on network; allocates and monitors server memory usage to insure efficient dynamic memory usage.

**When Assigned to Information Technology Security:**

Provides or assists with providing oversight, design, selection, implementation and maintenance of technical and organizational security and access controls to ensure the confidentiality, integrity, security and availability of assets, information, data, functionality of information technology systems and services.

Develops and implements security applications, procedures, and standards intended to prevent the unauthorized use, disclosure, modification, loss or destruction of data; actively monitor and test system performance, architecture changes, and applies necessary upgrades to proactively avert system intrusions and support system functionality. Oversees and coordinate disaster recovery planning and testing

Identifies, troubleshoots, diagnose, resolves, and reports information technology security problems and incidents; performs day-to-day cyber security duties of the District's system infrastructure. Evaluates operations and activities of assigned responsibilities; recommends improvements and modifications; prepares various reports on operations and activities.

Develop and implement a comprehensive cyber security program by researching, identifying, and analyzing existing and potential security threats that could harm or destroy District information assets. Coordinate and provide ongoing cyber security awareness and threat identification training for District employees,

Promotes and coordinates the development of training and education initiatives and content related to information technology security systems and procedures. Develops or assists with the development of goals and objectives, ensuring District-wide networks, systems and practices meet all state and federal security compliance requirements; establish schedules and methods related to the District's cyber security operations and activities; implement policies and procedures.

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Reviews, evaluates, and recommends software products related to information technology security and access control, such as virus scanning and repair, encryption, firewalls, internet filtering and monitoring, intrusion detection etc. Serves as subject matter expert across the District, including external stakeholders.

Participates or may lead complex projects designed to provide for the protection of District information assets; recommends solutions and appropriate technology to meet District needs; designs project and resource plans and schedules; develops proposals using cost/benefit analysis; evaluates proposed system hardware and software to ensure compatibility with existing systems; coordinates with vendors and contractors.

Participates in budget recommendations and administration; prepares cost estimates for information security and access control programs; submits justifications for program materials, equipment, supplies, and services; monitors and control expenditure.

**When Assigned to Information Technology Database Administration:**

Provides technical support for the database environment; plans, designs, develops, modifies, tests and implements all aspects of database administration and relational database management system support including geographic information systems.

Prepares recommendations to users for the collection of data to be stored in tables; maintains/creates schematics, data models and/or schemas for databases; manages naming conventions and data dictionaries; performs routine maintenance to the organization's tables.

Implements and maintains database and data file security features and procedures to assure the integrity and security of data resources and maintains appropriate confidentiality of sensitive information.

Creates and maintains scheduled tasks to automate routine procedures and processes; develops test plans and scripts; monitors logs; implements and tests backup, restore and disaster recovery procedures.

Monitors, supports and oversees vendor software release cycles and deployment activities; develops time and cost estimates for new projects and maintenance changes as needed.

Reviews database utilization and performs tuning to ensure optimal performance; conducts and reviews tests of database servers to verify performance objectives and quality standards.

Creates tables, custom queries, and export/import data as needed; designs and creates reports.

Uses software to produce geographical analysis and graphical interpretations of data for maps and reports used by the District and outside agencies.

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Develops and designs databases associated with GIS base mapping and subsequent map layers; creates and maintains data sets using a variety of databases; creates and interprets reports or maps as requested.

**QUALIFICATIONS**

Information Technology Analyst I

Knowledge of:

Methods and techniques of evaluation and analysis of software, hardware, and application systems and for achieving efficient system utilizations. Principles and practices of state-of-the-art cyber security systems, programs and procedures. Understanding of security policies, and regulations related to network security. Principles and practices of business office automation and information technology including administration of network systems, geographic information systems, database systems administration and operating systems, software and hardware, and telecommunications. Principles and practices of digital surveillance, cyber security, digital access control, and intrusion detection and prevention. Cyber security vulnerability testing and risk analysis. Common application programming languages. Computer logic and capabilities, characteristics and limitations of automation systems. Principles and practices of systems and procedures analysis, and design, including procedures and methods for systems documentation.

Skill/Ability to:

Perform a variety of professional level duties related to technical and operational support, programming, and internal customer services for District departments. Work efficiently and effectively with various software, hardware, operating systems, databases, network systems, geographic information systems and telecommunications systems to include installation, upgrade, maintenance and trouble shooting. Establish strategies and District-wide policies designed to protect against unauthorized access, modification and or destruction of District enterprise systems. Write and perform programming functions in appropriate computer languages. Monitor computer information system utilization and recommend appropriate revisions to processes. Develop and test programs; prepare test data, and test and debug application programs. Research, recommend, and install cyber security technology and countermeasures. Establish and maintain effective working relationships with those contacted in the course of work. Effectively develop, implement and administer network security, programs and procedures. Communicate clearly and concisely, both orally and in writing. On a continuous basis, know and understand all aspects of the job; intermittently analyze work papers, reports and special projects; identify and interpret technical and numerical information; observe and problem solve operational and technical policy and procedures. Ability to maintain regular and predictable attendance is a condition of employment, subject to applicable medical and disability leave laws. On a continuous basis, sit at desk for long periods of time; intermittently twist to reach equipment surrounding desk; perform simple grasping and fine manipulation; use telephone, and write or use a keyboard to communicate through written means; and lift or carry weight of 35 pounds or less.

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Experience and Education:

Any combination of experience and training that would provide the required knowledge and abilities is qualifying. A typical way to obtain the required knowledge and abilities would be:

Experience:

Three years of recent technical and responsible experience similar to the District's Information Technology Technician classification, or three years of recent experience performing technical and analytical duties in coordinating and managing networks, database or cyber security programs and initiatives.

Education:

Equivalent to a Bachelor's degree from an accredited college or university in computer science, information systems, network administration or a related field.

**SPECIAL QUALIFICATIONS**

License and Certificate:

Possession of, or ability to obtain, a valid California driver's license at the time of appointment. Individuals who do not meet this requirement due to physical disability will be reviewed on a case-by-case basis.

Some positions may require vendor and/or industry specific certifications, including but not limited to those from Cisco, CIW, CompTIA, ESRI, LPIC, Microsoft, GIAC, or ISC.

Information Technology Analyst II

In addition to the qualifications for the Information Technology Analyst I:

Knowledge of:

Advanced knowledge of security system analysis. This includes knowledge of best practices in system design, programming, configuration, and security planning Computer technology, system analysis, programming techniques, and computer and system capacity. Networks, database, geographic information systems, Internet, hardware and software technology. Knowledge to resolve difficult system operation problems. Advanced incident response management. Understanding the proper application information security standards and disaster recovery methods. Troubleshooting methods to resolve difficult system problems. Database security standards and file and recovery methods, and techniques. Principles and practices of technical and functional supervision and training.

Skill/Ability to:

Independently perform a variety of professional level duties related to technical and operational support, programming, and internal customer services for District departments. Develop, revise, install, and utilize automated systems and procedures. Analyze and develop functional and

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technical requirements and specifications and conduct feasibility studies. Operate and maintain hardware and software systems. Integrate various software applications. Conduct research and analysis to solve technical and administrative problems and recommend alternatives. Provide technical and functional supervision over assigned staff; effectively train staff.

Experience and Education:

Any combination of experience and training that would provide the required knowledge and abilities is qualifying. A typical way to obtain the required knowledge and abilities would be:

Experience:

Three years of recent responsible experience similar to Information Technology Analyst I with the El Dorado Irrigation District.

Education:


Equivalent to a Bachelor's degree from an accredited college or university in computer science, information systems, network administration or a related field.

**SPECIAL QUALIFICATIONS**

License and Certificate:

Possession of, or ability to obtain, a valid California driver's license at the time of appointment. Individuals who do not meet this requirement due to physical disability will be reviewed on a case-by-case basis.

Possession of current vendor or industry certifications required for certain assignments, including but not limited to those from Cisco, CIW, CompTIA, ESRI, LPIC, Microsoft, GIAC, or ISC, based upon the specific assignment.

 _____ Director of Human Resources	<u>12/29/2023</u> Date
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