



Career Service Authority

Page 1 of 6

Information Technology Systems Architect

GENERAL STATEMENT OF CLASS DUTIES

Performs full performance information technology work in the planning, designing, developing, and monitoring of information systems (specializing in Windows, UNIX, Security, Telecommunications, Data Network, and/or Storage Area Network systems) utilized within an agency or throughout the city.

DISTINGUISHING CHARACTERISTICS

This class is distinguished from the *Senior Information Technology System Administrator* because the primary duties of this position are more operational in nature. Specifically, the Senior IT System Administrator is responsible for developing and maintaining information systems and updates. This class is also distinguished from the *Senior Information Technology System Analyst* because the primary duties of this position focus on analyzing, refining, and documenting the business requirements of clients. The IT System Architect focuses more on the planning, designing, and implementation of information systems and updates. In addition, the Information Technology System Architect is responsible for developing the processes and procedures for the integration and maintenance of new systems with existing information systems.

This class is distinguished from the *Information Technology Project Manager* because the primary duties of this position focus more on organizing, administering, and managing one or more information technology projects. While project management duties are performed by the IT System Architect, these duties are not the position's main focus. Similarly, this class is distinguished from the *Information Technology Supervisor* since the primary duties of this position involve formal supervisory responsibilities over IT professional incumbents. The IT System Architect does not perform any supervisory responsibilities.

Additionally, the IT System Architect possesses knowledge, skills, and abilities in highly specialized areas (such as Windows, UNIX, Security, Telecommunications, Data Network, and/or Storage Area Network), which provides strong support for the planning, designing, and developing functions performed by the position.

Guidelines, Difficulty and Decision Making Level:

Guidelines are generally in the form of stated objectives only, with issues and factors largely undefined, requiring the employee to exercise creativity and ingenuity in devising criteria, techniques, strategy and methodologies for approaching assigned functions or projects.

Duties performed involve concepts, theories and concrete factors to be evaluated and weighed, requiring a high degree of analytical ability, and independent judgment and decision-making.

Work assignment is generally unstructured and employee is responsible for organizing complex, varied and simultaneous coordination of several functions, programs or projects in various stages of completion.

Level of Supervision Received and Quality Review:

Under administrative supervision, the employee has personal accountability for carrying out an assigned function, program or project within the scope of established guidelines and objectives and is expected to resolve problems that arise in the normal course of the work. Completed work is generally reviewed for soundness of judgment, conclusion, adequacy and conformance to policy.

Interpersonal Communications and Purpose:

Contacts of a remedial nature involving the resolution of problems and where some degree of discretion and judgment are required in carrying out a major program and/or function of the organization.

Level of Supervision Exercised:

May perform lead work on a project or rotating basis.

ESSENTIAL DUTIES

Plans, designs, and implements citywide information systems including: operating systems, software, and hardware; plans, designs, and implements information systems for an agency on a project basis.

Researches and evaluates new technological advances in the external technology marketplace for the following:

- To assess current practices for compliance with the city's information systems requirements,
- To anticipate the city's future information system needs,
- To develop solutions to address current and future information system needs, and
- To create process improvements and controls.

Works closely with customers and colleagues to identify opportunities to utilize information systems to:

- Improve business processes,
- Promote the strategic use of information, and
- Enable seamless access to information.

Analyzes budget implications and technical requirements associated with implementing new system technologies or upgrading existing system technologies.

Works with customers to assess and make recommendations on:

- Information system needs and requirements,
- Impacts on the budget associated with implementing new system technologies or upgrading existing system technologies, and
- Possible alternatives to meet information system needs.

Coordinates disaster recovery plans which include: designing, testing, and maintaining systems protocols.

Designs and builds prototypes and working models of complex and/or new elements of an information system then directs colleagues with the development, execution, and review of test plans and results.

Trains colleagues on new information system technologies and requirements related to administration and operations.

Coordinates monitoring and maintenance of information systems, including:

- Tracking errors and data movements,
- Configuring software and hardware,
- Maintaining optimum system capacity levels,
- Developing dependency models to be used in risk management, and
- Maintaining consistent system standards agency/citywide.

Performs and documents system back-up and recovery or directs others to do so.

Writes or modifies software programs including analysis, writing specifications and code, program installation and documentation for use with multi-application, multi-user database systems.

Coordinates and monitors the troubleshooting of information systems on daily basis.

Coordinates with vendors the documentation and application of solutions to information system problems.

Develops and maintains a problem reporting system that includes: establishing a communication plan to alert users of the problem and monitoring the resolution of the problem.

Assists in the resolution of critical information system problems and complaints.

By position, may coordinate work activities and assign duties on a project basis.

Performs other related duties as assigned or requested.

.....
Any one position may not include all of the duties listed.
However, the allocation of positions will be determined by
the amount of time spent in performing the essential duties
listed above.
.....

MINIMUM QUALIFICATIONS

Competencies, Knowledges & Skills:

Technology Awareness – Knowledge of developments and new applications of information technology (hardware, software, telecommunications), emerging technologies and their applications to business processes, and applications and implementation of information systems to meet organizational requirements.

Technical Competence – Uses knowledge that is acquired through formal training or extensive on the job experience to perform one's job; works with, understands, and evaluates technical information related to the job; advises others on technical issues.

Decision Making – Makes sound, well informed, and objective decisions; perceives the impact and implications of decisions; commits to action, even in uncertain situations, to accomplish organizational goals; causes change.

Problem Solving – Identifies problems; determines accuracy and relevance of information; uses sound judgment to generate and evaluate alternatives, and to make recommendations.

Creative Thinking – Uses imagination to develop new insights into situations and applies innovative solutions to problems; designs new methods where established methods and procedures are inapplicable or are unavailable.

Integrity/Honesty – Contributes to maintaining the integrity of the organization; displays high standards of ethical conduct and understands the impact of violating these standards on an organization, self, and others; is trustworthy.

Customer Service – Works with clients and customers (that is, any individuals who use or receive the services or products that your work unit produces, including the general public, individuals who work in the agency, other agencies, or organizations outside the Government) to assess their needs, provide information or assistance, resolve their problems, or satisfy their expectations; knows about available products and services; is committed to providing quality products and services.

Planning and Evaluating – Organizes work, sets priorities, and determines resource requirements; determines short- or long-term goals and strategies to achieve them; coordinates with other organizations or parts of the organization to accomplish goals; monitors progress and evaluates outcomes.

Technology Application – Uses machines, tools, or equipment effectively; uses computers and computer applications to analyze and communicate information in the appropriate format.

Interpersonal Skills– Shows understanding, friendliness, courtesy, tact, empathy, concern, and politeness to others; develops and maintains effective relationships with others; may include effectively dealing with individuals who are difficult, hostile, or distressed; relates well to people from varied backgrounds and different situations; is sensitive to cultural diversity, race, gender, disabilities, and other individual differences.

Self Management – Sets well defined and realistic personal goals; displays a high level of initiative, effort, and commitment towards completing assignments in a timely manner; works with minimal supervision; is motivated to achieve; demonstrates responsible behavior.

Information Management – Identifies a need for and knows where or how to gather information; organizes and maintains information or information management systems.

Oral Communication – Expresses information (for example, ideas or facts) to individuals or groups effectively, taking into account the audience and nature of the information (for example, technical, sensitive, controversial); makes clear and convincing oral presentations; listens to others, attends to nonverbal cues, and responds appropriately.

Reasoning – Identifies rules, principles, or relationships that explain facts, data, or other information; analyzes information and makes correct inferences or draws accurate conclusions.

Learning – Uses efficient learning techniques to acquire and apply new knowledge and skills; uses training, feedback, or other opportunities for self learning and development.

Reading – Understands and interprets written material, including technical material, rules, regulations, instructions, reports, charts, graphs, or tables; applies what is learned from written material to specific situations.

Writing – Recognizes or uses correct English grammar, punctuation, and spelling; communicates information (for example, facts, ideas, or messages) in a succinct and organized manner;

produces written information, which may include technical material that is appropriate for the intended audience.

Teamwork – Encourages and facilitates cooperation, pride, trust, and group identity; fosters commitment and team spirit; works with others to achieve goals.

Flexibility – Is open to change and new information; adapts behavior or work methods in response to new information, changing conditions, or unexpected obstacles; effectively deals with ambiguity.

Administration and Management – Knowledge of planning, coordination, and execution of business functions, resource allocation, and production.

Stress Tolerance – Deals calmly and effectively with high stress situations (for example, tight deadlines, hostile individuals, emergency situations, dangerous situations).

Knowledge of enterprise architecture principles, methods, and techniques.

Knowledge of the principles, methods, and techniques of IT project planning, management, monitoring, and evaluation.

Knowledge of current information systems trends and technologies.

Knowledge of data processing sufficient to be able to review program specification, design programs and write or modify code.

Knowledge of data processing hardware, monitors, operating system software, application programming and system configuration sufficient to be able to perform the duties related to the work assignment.

Physical Demands:

Standing: Remaining on one's feet in an upright position.

Sitting: Remaining in the normal seated position.

Talking: Expressing or exchanging ideas by means of spoken words.

Hearing: Perceiving the nature of sounds by the ear.

Repetitive Motions: Making frequent movements with a part of the body.

Visual: Near Acuity: Ability to see clearly at 20 inches or more.

Accommodation: Ability to adjust vision to bring objects into focus.

Color Vision: Ability to distinguish and identify different colors

Working Environment:

Subject to many interruptions.

Subject to long irregular hours.

Pressure due to multiple calls and inquiries.

Education Requirement:

Baccalaureate Degree in Computer Science, Computer Information Systems, Business Administration, Mathematics, or a related field.

Experience Requirement:

Three years of professional information technology experience installing, maintaining, and/or modifying operating system and/or network operating system software and associated hardware. Two of these years must include experience in designing and implementing enterprise level systems and scalable solutions.

Education/Experience Equivalency:

Additional appropriate education and experience may be substituted for the minimum education and experience requirement.

Licensure and/or Certification:

By position, may require a license or certification as it relates to the specific area of application.

CLASS DETAIL

FLSA CODE: Exempt

ESTABLISHED DATE: 02/01/2007

ESTABLISHED BY: Melissa Palmer

REVISED DATE:

REVISED BY:

CLASS HISTORY