



**Code: 06B3**

Family: IT-Architect

Service: Administrative

Group: Clerical, Accounting, and General Office

Series: Information Technology

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## **CLASS TITLE: SOLUTIONS ARCHITECT**

### **CHARACTERISTICS OF THE CLASS**

Under supervision, the class proactively and holistically leads and supports Enterprise Architecture activities that guide the development and management of an array of solutions architecture within the City's strategic objectives; and performs related duties as required.

This class is assigned to the City's Architect Information Technology Job Family which consists of architects that develop technology strategy and vision, create technology roadmaps, select specific technologies, provide conceptual designs of the technology environment, and create high-level solution designs.

### **ESSENTIAL DUTIES**

- Provides the necessary leadership, analysis and design tasks related to support the development of technology solutions to ensure that solutions meet business needs and align with, policy, architectural governance and standards
- Translates business and technical requirements into an architectural blueprint to achieve business objectives and documents all solution architecture design and analysis work
- Works closely with the product owners and product managers to ensure a robust architectural runway that can support future business requirements throughout the product life cycle
- Understands business drivers and business capabilities (future and current state) and determines corresponding enterprise solution designs and change requirements to drive the organization's targeted business outcomes
- Monitors the current-state solution portfolio to identify deficiencies through aging of the technologies used by the application, or misalignment with business requirements
- Supports product managers in end-of-life product decisions to maintain, refresh or retire services, or systems, including applications, technologies, processes, and information
- Understands emerging technology trends, disruptions and their practical application to enable new and evolving business and operating models
- Facilitates the evaluation and selection of software product standards and services, as well as the design of standard and custom software configurations
- Consults with application and infrastructure development projects and reviews products to fit systems or infrastructure to architecture and identify when it is necessary to modify designs to accommodate the solutions architecture
- Leads evaluation, design, and analysis for the implementation of a solutions architecture across a group of specific business applications or technologies based on enterprise business strategy, business capabilities, value-streams, business requirements and enterprise standards
- Works closely with the program management office (PMO) or project management office to ensure the execution of plans corresponds with what is being promised throughout the project or product life cycle
- Understands the concepts of business goals, objectives and business outcomes, business capabilities, value-streams, and business processes and their importance in solution architecture
- Provides consulting support to application architects within development teams to ensure the project or product is aligned with the overall enterprise architecture

- Provides deliverables like standard definitions, reference models and architecture designs to support architectural governance to assess the impact of new and ongoing technology investment on the business and IT estate
- Provides the necessary leadership, analysis and design tasks related to support the development of technology solutions to ensure that solutions meet business needs and align with policy, architectural governance and standards
- Supports a community of practice (CoP), guiding and helping development teams, product owners to align with the overall enterprise architecture governance and assurance
- Designs and directs the governance activities associated with ensuring solutions architecture assurance and compliance
- Defines the principles, guidelines, standards, and solution patterns to ensure solution decisions are aligned with the enterprise's future-state architecture vision
- Ensures solutions within the portfolio adhere to documentation requirements including but not limited to software bill of materials

**NOTE:** *The list of essential duties is not intended to be inclusive; there may be other duties that are essential to particular positions within the class.*

## **MINIMUM QUALIFICATIONS**

### **Education, Training, and Experience**

- Graduation from an accredited college or university with a Bachelor's degree in Computer Science, Information-Technology, Engineering, System Analysis or a directly related field plus four (4) years of experience in IT solution development disciplines (e.g., technical or infrastructure architecture, network management, application development, middleware, database management or cloud development); or an equivalent combination of education, training, and experience.

### **Licensure, Certification, or Other Qualifications**

- None

## **WORKING CONDITIONS**

- General office environment

## **EQUIPMENT**

- Standard office equipment (e.g., phone, printer, copier, computers, mobile devices)
- Standard productivity suites (e.g., Microsoft Office Suite, OpenOffice, Google Workspace)

## **PHYSICAL REQUIREMENTS**

- No specific requirements

## **KNOWLEDGE, SKILLS, ABILITIES, AND OTHER WORK REQUIREMENTS**

### **Knowledge**

Considerable knowledge of:

- \*application development methodologies and infrastructure and network architecture
- \*back-end development languages like Java, Go and Python

- \*database technologies like MySQL, MongoDB and Oracle and modeling languages (such as UML and ArchiMate)
- various frontend web development languages like JavaScript, HTML and CSS and various aspects of a technology architecture like integration, network, and security
- IT standards and controls, IT service management (ITSM) and Information Technology Infrastructure Library (ITIL)
- \*business goals, objectives and business outcomes, business capabilities, value-streams, and business processes and their importance in solution architecture
- \*developing architecture blueprints, strategies, and roadmaps

Moderate knowledge of:

- system development life cycle methodologies (such as waterfall, spiral, agile software development, rapid prototyping, incremental, synchronize and stabilize, and DevOps)
- strategic and emerging technology trends, and the practical application of existing and emerging technologies to new and evolving business and operating models
- product management, agile principles and development methodologies and capability of supporting agile teams by providing advice and guidance on opportunities, impact, and risks, taking account of technical and architectural debt
- information principles and processes and financial models and budgeting
- information security best practices

Knowledge of applicable City and department policies, procedures, rules, and regulations

### **Skills**

- ACTIVE LEARNING - Understand the implications of new information for both current and future problem-solving and decision-making
- ACTIVE LISTENING - Give full attention to what other people are saying, take time to understand the points being made, ask questions as appropriate, and not interrupt at inappropriate times
- CRITICAL THINKING - Use logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions, or approaches to problems
- COMPLEX PROBLEM SOLVING - Identify complex problems and review related information to develop and evaluate options and implement solutions
- TIME MANAGEMENT - Manage one's own time or the time of others
- COORDINATION WITH OTHERS - Adjust actions in relation to others' actions
- JUDGEMENT AND DECISION MAKING - Consider the relative costs and benefits of potential actions to choose the most appropriate one
- SYSTEMS ANALYSIS - Determine how a system should work and how changes in conditions, operations, and the environment will affect outcomes

### **Abilities**

- COMPREHEND ORAL INFORMATION - Listen to and understand information and ideas presented through spoken words and sentences
- SPEAK - Communicate information and ideas in speaking so others will understand
- COMPREHEND WRITTEN INFORMATION - Read and understand information and ideas presented in writing

- WRITE - Communicate information and ideas in writing so others will understand
- CONCENTRATE - Concentrate on a task over a period of time without being distracted
- RECOGNIZE PROBLEMS - Tell when something is wrong or is likely to go wrong
- REASON TO SOLVE PROBLEMS - Apply general rules to specific problems to produce answers that make sense
- COME UP WITH IDEAS - Come up with a number of ideas about a topic
- MAKE SENSE OF INFORMATION - Quickly make sense of, combine, and organize information into meaningful patterns
- REACH CONCLUSIONS - Combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events)

### **Additional Competency Requirements**

- COMMUNICATION FOR RESULTS – Writes, speaks and presents effectively. Explains the immediate context of the situation, asks questions with follow-ups and solicits advice prior to taking action. Develops presentations to influence others by using graphics, visuals or slides that display information clearly. Listens and asks questions to understand other people's viewpoints.
- GROWTH MINDSET – Takes ownership of personal growth. Identifies knowledge gaps. Asks questions of subject matter experts and seeks help when needed. Keeps abreast of information, developments and best practices within a field of expertise (e.g., by reading, interacting with others or attending learning events).
- INITIATIVE – Volunteers to undertake tasks that stretch his or her capability. Identifies who can provide support and procures their input. Identifies problems and acts to prevent and solve them.
- OWNERSHIP AND COMMITMENT – Volunteers to undertake tasks that stretch his or her capability. Checks the scope of responsibilities of self and others. Monitors day-to-day performance and takes corrective action when needed to ensure desired performance is achieved. Identifies problems and acts to prevent and solve them. Identifies who can provide support and procures their input.
- BUSINESS FUNCTION KNOWLEDGE – Assesses the needs of primary business functions. Suggests technical solutions for business functions, and implements action plans to improve ongoing business performance in ways that minimize day-to-day disruption of operations.
- SYSTEMS THINKING – Investigates the critical relationships between primary business, technology and system platforms. Devises approaches that recognize the interdependencies of key system components.
- ADAPABILITY – Recognizes and responds appropriately to new or changing situations. Adjusts to changing priorities. Determines when others' points of view are reasonable or valid.
- DECISION MAKING – Evaluates situations objectively. Gathers data to support recommendations and seeks approval for taking action that will set precedent while minimizing potential risk. Appropriately solicits the input of those who will be affected by the decision.
- DESIGN THINKING – Possesses the ability to undertake an analytic, creative and iterative process that leads to desired outcomes. Establishes a structural framework by which to analyze and define problems. Demonstrates the ability to flexibly use different problem-solving strategies and select the one that best meets the requirements of the situation.

- **PROBLEM SOLVING** – Issues are often challenging and require analysis to understand and resolve. Applies problem-solving methodologies to diagnose and solve operational and interpersonal problems. Determines the potential causes of the problem and devises testing methodologies for validation. Shows empathy and objectivity toward individuals involved in the issue. Analyzes multiple alternatives, risks and benefits for a range of potential solutions. Recommends resource requirements and collaborates with impacted stakeholders.
- **SERVICE PROVIDER ASSESSMENT AND EVALUATION** – Assesses and compares service providers and their products in meeting defined requirements. Documents findings in a report that articulates the challenges and opportunities of each option.
- **STRATEGIC THINKING** – Assesses and compares service providers and their products in meeting defined requirements. Documents findings in a report that articulates the challenges and opportunities of each option.

Other competencies as required for successful performance in the lower-level series.

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All employees of the City of Chicago must demonstrate commitment to and compliance with applicable state and federal laws, and City ordinances and rules; the City's Ethics standards; and other City policies and procedures.

The City of Chicago will consider equivalent foreign degrees, accreditations, and credentials in evaluating qualifications.

\* May be required at entry.

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City of Chicago  
Department of Human Resources  
March 2023