

## IT PROJECT SPECIALIST

### General Statement of Duties and Responsibilities

This class of positions encompasses professional responsibilities unique to the assessment and implementation of complex information technology initiatives which require specialized expertise and experience beyond what is expected of a generalist in any given area. With varying levels of difficulty and with high degrees of latitude for independent action. All personnel perform complex information technology project work that delivers usable software systems and technology solutions for business needs.

In addition to using traditional project methodologies and best practices throughout all phases of the IT project lifecycle, where appropriate, an IT Project Specialist applies their experience with specific and/or emerging technologies and non-standard IT projects to identify patterns and make recommendations on approach, methodologies and policies. All personnel must have a specialization in a technology, platform, methodology and/or domain that distinguishes them and their contributions to the strategic development of a unit or program. May supervise project staff or a unit of project managers, business analysts, designers or testers.

### Examples of Typical Tasks

Recommends and manages the application of a specific methodology or technology on IT projects or advocates for exceptions to established practices in order to account for complexities and achieve project objectives.

Uses specialized business domain knowledge to define requirements based on an understanding of the customer's business needs and objectives.

Effectively articulates project nuances and complexities to City executives, Agency Heads, Assistant Agency Heads, City business partners, and other stakeholders while being responsive and sensitive to underlying politics.

IT PROJECT SPECIALIST (continued)

Examples of Typical Tasks (continued)

Leads teams in the execution of iterative workflows and the use of collaboration tools that focus on speed to market, return on investment and delivery of business value.

Effectively articulates project nuances and complexities to City executives, Agency Heads, Assistant Agency Heads, City business partners, and other stakeholders while being responsive and sensitive to underlying politics.

Leads teams in the execution of iterative workflows and the use of collaboration tools that focus on speed to market, return on investment and delivery of business value.

Manages a program or portfolio of projects and/or processes in order to ensure strategic alignment with the organization, streamline dependencies, track total cost of ownership and report on metrics.

Drives improvement initiatives using creative collaboration techniques, emerging methodologies and automation tools.

Oversees, plans, manages and coordinates complex information technology projects from initiation to completion, including defining project scope, creating/updating project plans and work breakdown structures, scheduling project deliverables, goals and milestones, identifying and managing IT project risks, determining resource needs, obtaining signoff on project deliverables, etc.

Provides day-to-day oversight and leadership of multidisciplinary project teams including teams working on IT integration projects and consultants. Coordinates, tracks, and reports on project tasks and progress to management, stakeholders and relevant teams. Supports project deliverable readiness for service operations.

IT PROJECT SPECIALIST (continued)

Examples of Typical Tasks (continued)

Develops IT project budgets and funding requests. Prepares statements of work and other procurement documents needed for projects using services provided by vendors. Develops IT vendor requests for proposal (RFPs) and participate in vendor solicitations, selections and negotiations. Oversees and tracks IT vendor and consultant contracts and budgets. May review vendor financial documentation such as timesheets, invoices and audit forms.

Elicits, documents and analyzes business requirements on information technology projects in order to recommend business and information technology solutions. Assesses business problems and process gaps; identifies opportunities for new requirements. Creates functional deliverables such as business scenarios, as-is/to-be flow diagrams, use cases, functional designs, screen mock-ups, etc. Facilitates user acceptance testing.

Creates interaction models and interface designs for IT projects based on established standards, business and technical requirements and input from functional team members. Participates in human-centered design activities, user research, software prototyping and usability testing.

Ensures that software products and solutions are appropriately tested to meet functional (usability) and technical (performance) requirements. Creates test cases, test scripts and defect reports. Execute test scripts and document progress and results. Collaborates with business analysts to understand business requirements. Collaborates with technical teams to understand application capabilities, environment set up and defect fixes.

Researches and identifies emerging technologies; coordinate demonstrations and proof of concept initiatives. Liaises with vendors, as necessary.

**IT PROJECT SPECIALIST** (continued)

**Qualification Requirements**

1. A baccalaureate degree from an accredited college in computer science, engineering, human computer interaction, interactive media, digital and graphics design, data visualization, communication or a related field, and four years of satisfactory full-time experience related to the area(s) required by the particular position and a specialization in a relevant technology, process, methodology and/or domain; or,
2. An associate degree from an accredited college in computer science, engineering, human computer interaction, interactive media, digital and graphics design, data visualization, communication or a related field, and six years of satisfactory fulltime experience related to the area(s) required by the particular position and a specialization in a relevant technology, process, methodology and/or domain; or,
3. A baccalaureate degree from an accredited college, and eight years of satisfactory full-time experience related to the area(s) required by the particular position and a specialization in a relevant technology, process, methodology and/or domain; or,
4. Education and/or experience which is equivalent to "1", "2" or "3" above.

**Direct Lines of Promotion**

**None:** This class of positions is classified in the Non-Competitive Class.

**IT SERVICE MANAGEMENT SPECIALIST**

**General Statement of Duties and Responsibilities**

This class of positions encompasses highly specialized responsibilities for the planning, work management, coordination, and quality assurance associated with information technology service management. Under administrative direction, with broad latitude of independent action or decision, performs difficult and responsible professional work in the planning, organizing and controlling of incident and change management activities of a major IT service and / or Agency information technology; evaluates, designs and implements IT Service Management processes and tools; design and engineer largescale, complete monitoring systems including manager-of-manager (MOM) type environments. All personnel perform related work and may supervise IT service management staff.

**Examples of Typical Tasks**

Identifies, assesses, coordinates, and implements and / or oversees implementation of corrective actions for IT service disruptions involving complex IT solutions.

Collaborates with other engineering units to establish automation protocols for specific systems, apply automation standards to new builds, and implement and monitor automation configurations.

Serves as Subject Matter Expert (SME) for specific service management tools, with a deep knowledge of their architecture and functionality.

Oversees, participates in and / or trains staff in the service management lifecycle, including service strategy, service design, service transition, service operations, and continual service improvement.

IT SERVICE MANAGEMENT SPECIALIST (continued)

Examples of Typical Tasks (continued)

Oversee IT service management processes. Identify and remedy failures and / or noncompliance of processes.

Designs, assesses and trains users in standardized methods and procedures for implementing IT changes.

Monitors, tracks and records changes in IT service assets and throughout asset service lifecycle.

Designs, conducts and assesses performance and risk evaluations for IT changes. Identifies and mitigates potential risk during the transitioning of IT services. Assists and provides guidance to Agency staff to minimize disruptions during unplanned or emergency IT service changes.

Identifies and recommends improvements in IT systems, processes, tools and employee training for IT services.

Develops and maintains IT service policy and process documentation. Documents IT problems and appropriate solutions for Agency needs.

Monitors industry trends in IT service management standards. Liaises with vendors, as necessary.

Configures, implements, upgrades, maintains and provides continued support for Agency IT service management tools and tool usage.

Assists in the development and review of technical specifications for IT service management solutions.

**IT SERVICE MANAGEMENT SPECIALIST** (continued)

**Examples of Typical Tasks** (continued)

Diagnoses root cause of incidents and resolves service disruptions.

May supervise IT service management staff.

Liaises with relevant stakeholders to ensure proper service delivery of their IT services.

Assists in the creation of Agency Service Level Agreements (SLAs) and ensures the adherence to SLAs for continual service improvement via the use of key performance indicators and trend analysis.

**Qualification Requirements**

1. A baccalaureate degree from an accredited college in computer science, engineering or a related field and four years of satisfactory full-time experience related to information technology service management, process management, operations; or,
2. A baccalaureate degree from an accredited college and eight years of satisfactory full-time experience related IT service management, process management, operations; or,
3. Education and/or experience which is equivalent to "1" or "2" above.

**Direct Lines of Promotion**

None. This class of positions is classified in the Non-Competitive Class.

**IT SECURITY SPECIALIST**

**General Statement of Duties and Responsibilities**

This class of positions encompasses professional and responsible technical consultative and/or administrative work. Under administrative direction of an agency IT manager, with broad latitude of independent action or decision, serves as subject matter expert on IT security, identity and access infrastructure; provides IT security architectural guidance; designs security solutions; conducts IT risk assessments and recommended mitigating solutions. All personnel perform related work.

**Examples of Typical Tasks**

Plan, define and maintain policies, standards, configuration and operating procedures and guidelines regarding security, identity and access.

Monitors industry developments; liaises with vendors. Ensures compliance with Citywide and agency security policies and standards. Recommends updates and improvements to agency security policies and standards.

Identifies probable system exposure, compromise, problems or design flaws and escalates issues to upper management to limit serious performance impact.

Define, manage and monitor data security, confidentiality, integrity, and availability.

May provide training, conduct new hire orientations, and produce ongoing monthly security awareness newsletters.

Analyzes, designs, implements, tests, troubleshoots, integrates, documents and configures IT security infrastructure to maximize performance and capacity.

Plan, initiate and implement new security infrastructure architecture or design changes.

IT SECURITY SPECIALIST (continued)

Examples of Typical Tasks (continued)

Consult with agency executives to provide IT Security policy guidance.

As per requirement, offers support to application development, network, server, database and storage teams regarding new technologies, services, and system requirements.

Provide security design assistance on new products and internally-developed projects.

Define, manage and monitor security devices, including procedures for detecting, reporting, and responding to computer security incidents.

Serves as subject matter expert regarding security design of applications, networks, servers, storage and virtualization, directory services, identity connectors, authentication, web single sign-on and federation, and application servers providing delegated administration, role management, and web services.

Liaise with vendors, as necessary.

Monitor developments regarding various IT architectural platforms, including hardware, software and network communication components, operating systems, LDAP, server networking, basic load-balancing, DNS, certificate management, and HTTPS.

Review and analyze design and/or accreditation documentation to ensure appropriate security controls are in place.

Perform security assessments of applications and infrastructure.

Oversees multiple projects, supervises employees.

**IT SECURITY SPECIALIST** (continued)

**Examples of Typical Tasks** (continued)

Assists in the development and review of technical specifications for the procurement of various IT security systems and services, including the evaluation of vendor submissions solicited via bids, requests for information and proposals.

May lead a team or participate in a team in planning, designing, implementing and maintaining highly secure application architecture solutions that includes network devices, servers, storage and virtualization technologies.

May lead a team or participate in a team in planning, designing, implementing and maintaining identity and access management services that include directory services, identity integrators/connectors, authentication services, web single sign-on and federation services, role and group management and delegated administration services.

**Qualification Requirements**

1. A baccalaureate degree from an accredited college and four years of satisfactory full-time experience related to projects and policies required by the particular position; or,
2. Education and/or experience which is equivalent to "1" above.

**Direct Lines of Promotion**

**None.** This class of positions is classified in the Non-Competitive Class.

**IT INFRASTRUCTURE ENGINEER**

**General Statement of Duties and Responsibilities**

This class of positions encompasses professional and responsible highly technical consultative responsibilities unique to the design and engineering of complex datacenters and networks. Under administrative direction of an agency IT manager, with broad latitude of independent action or decision, is responsible for the development of comprehensive infrastructure solutions. Engineer and operate mission critical infrastructure and be responsible for the access and protection of sensitive data, systems, and networks. Design and engineer components of New York City's proprietary network, CityNet. Lead a team or participate in a team in planning, designing, implementing and maintaining datacenter operations that includes the management of IT facilities, network, security, telecommunications, servers, storage and virtualization components. All personnel perform related work.

**Examples of Typical Tasks**

Analyzes, designs, implements, documents and monitors infrastructure to maximize performance and capacity; ensures security and availability of data.

Plans, initiates and implements new infrastructure or design changes.

Plans, initiates and implements new solutions for cloud infrastructure, including network and system design and engineering.

Plans, defines and maintains standards and guidelines for efficiency, security, reuse, interoperability, availability, consistency and integration.

Define optimal performance level for infrastructure components and ensure that the level is met.

Monitors industry developments; liaises with vendor, as necessary. Ensures compliance with agency standards.

IT INFRASTRUCTURE ENGINEER (continued)

Examples of Typical Tasks (continued)

Assists with application development regarding new technologies and system requirements.

Identifies probable system problems or design flaws and escalates issues to upper management before serious performance impact.

Define, manage and monitor data retention, replication, data protection, and disaster recovery strategies, to ensure proper recoverability.

Serves as subject matter expert on topics related to networks, servers, storage and virtualization; provides training.

Manages inventory of IT hardware and software assets.

Liaises with relevant stakeholders to ensure availability of infrastructure solutions.

Maintains disaster recovery configurations for infrastructure, perform periodic disaster recovery test and maintain disaster recovery documentation and procedures in support of infrastructure.

Works closely with various IT teams to resolve infrastructure issues.

Ensures that all changes to the infrastructure adheres to established Change Management policies and procedures.

Manages network or infrastructure engineering for cloud solutions.

Prepares system configurations and management/support documentation.

Assists in the development and review of technical specifications for the procurement of relevant IT systems and services, including the evaluation of vendor submissions solicited via bids, requests for information and proposals.

**IT INFRASTRUCTURE ENGINEER** (continued)

**Examples of Typical Tasks** (continued)

May oversee multiple projects and supervise employees.

**Qualification Requirements**

1. A baccalaureate degree from an accredited college in computer science, engineering or a related field and four years of satisfactory full-time experience related to datacenter engineering and operations, cloud engineering and operations, complex IT infrastructure engineering; or,
2. A baccalaureate degree from an accredited college and eight years of satisfactory full-time experience related to datacenter engineering and operations, cloud engineering and operations, complex IT infrastructure engineering; or,
3. Education and/or experience which is equivalent to "1" or "2" above.

**Direct Lines of Promotion**

**None.** This class of positions is classified in the Non-Competitive Class.

**SENIOR IT ARCHITECT**

**General Statement of Duties and Responsibilities**

This class of positions encompasses professional and responsible technical consultative responsibilities unique to the architecture of enterprise applications and infrastructure solutions. With broad latitude for independent action or decision, all personnel serve in a critical role in the execution of the design and implementation of complex IT systems. Responsible for converting business requirements into a technical architecture and design and for implementing IT applications and solutions by working with stakeholders, project managers, analysts and technical teams. The Senior IT Architect has a deep understanding of an organization's IT policies, infrastructure, technology stack and support processes and uses their experience in systems engineering and enterprise architecture to define standards and enforce adherence to those standards. May supervise technical leads, developers and engineers in the implementation of IT application and infrastructure designs and solutions. All personnel perform related work.

**Examples of Typical Tasks**

Develops and maintains IT architecture diagrams of enterprise, business, data, security and/or technology architectures for IT solutions, concepts and strategies to meet business requirements for target audiences.

Defines and maintains the methodology, principles, roadmap, standards and guidelines for the IT architecture team for security, reuse, interoperability and integration.

Confirms the conformance of applications, components and services to established standards. Ensures compliance with architecture standards and guidelines throughout the application development lifecycle.

Assists with major internally-developed projects and new software products, including continued support, documentation and training.

**SENIOR IT ARCHITECT** (continued)

**Examples of Typical Tasks** (continued)

Identifies probable system problems or design flaws and escalates issues to upper management before serious performance impact.

Recommends hardware and server requirements and works with clients to build application environments.

Monitors developments regarding various architectural platforms including hardware, software, and network communication components, as well as mobile technology, relational database technology, data integrity and distribution, canonical data models, and application and data architecture.

Analyzes and makes recommendations regarding the possibility of optimizing and enhancing existing functionalities.

Assists in the development and review of technical specifications for the procurement of IT systems and services, including the evaluation of vendor submissions solicited via bids, requests for information and proposals. Liaises with IT vendors, as necessary.

May oversee multiple areas of responsibility of development including but not limited to presentation, business logic, persistence, performance, scalability, and integrations.

**Qualification Requirements**

1. A baccalaureate degree from an accredited college in computer science, information systems, engineering, mathematics or related field and six years of satisfactory full-time experience related to enterprise architecture, solutions architecture, network architecture and/or IT infrastructure systems; or
2. A baccalaureate degree from an accredited college and ten years of satisfactory full-time experience related to enterprise architecture, solutions architecture, network architecture and/or IT infrastructure systems; or,
3. Education and/or experience which is equivalent to "1" or "2" above.

SENIOR IT ARCHITECT (continued)

Direct Lines of Promotion

None. This class of positions is classified in the Non-Competitive Class.

**IT AUTOMATION AND MONITORING ENGINEER**

**General Statement of Duties and Responsibilities**

This class of positions encompasses professional and responsible highly technical responsibilities unique to the design, monitoring and maintenance of complex IT solutions and enterprise infrastructure. Under administrative direction of an agency IT Manager, with broad latitude of independent actions or decision, serves in a critical role in the design and implementation of infrastructure monitoring or automation tools. All personnel perform related work and may supervise employees.

**Examples of Typical Tasks**

Analyzes, designs, implements, maintains, and supports IT automation and monitoring solutions for enterprise infrastructure systems and platforms.

Develops and maintains standards and guidelines for implementing IT automation and monitoring.

Oversees configuring of IT automation and monitoring tools at an enterprise level, including the analysis, selection and deployment of emerging technologies.

Monitors industry developments; liaises with vendors regarding new products and technologies. Ensures compliance with agency standards. Proposes updates to agency standards in line with industry advancements.

Oversees Event Management, Patch Management, Release Management, Change Management development and processes.

IT AUTOMATION AND MONITORING ENGINEER (continued)

Examples of Typical Tasks (continued)

Oversees major tool implementations and/or upgrades, including continued support, documentation and training.

Recommends hardware, software and server requirements to implement building the monitoring or automation tool's environment.

Collaborates with relevant partners to fully understand automation and monitoring requirements. Assists in defining and implementing Service Level Agreements (SLAs).

Collaborates with team leads to produce outage reports and ensure proper automated notifications are distributed when outages occur or when there is a change in the production environment.

Assists in cost analysis to determine and justify the financial need for automation and monitoring enhancements.

Assists in the development and review of technical specifications for automation and monitoring solutions.

Assists in the procurement of relevant IT systems and services, including the evaluation of vendor submissions solicited via bids, requests for information and proposals.

May supervise employees.

IT AUTOMATION AND MONITORING ENGINEER (continued)

Qualification Requirements

1. A Baccalaureate degree in computer science, engineering or a related field from an accredited college and four years of satisfactory full-time experience related to IT automation engineering, monitoring engineering, management of infrastructure; or
2. Eight years of satisfactory full-time experience related to IT automation engineering, monitoring engineering, management of infrastructure.
3. Education and/or experience which is equivalent to "1" or "2" above.

Direct Lines of Promotion

None. This class of positions is classified in the Non-Competitive Class.

**INVESTIGATOR (EMPLOYEE DISCIPLINE) (DOT)**

**General Statement of Duties and Responsibilities**

This class of positions encompasses the performance of highly confidential and sensitive investigations and studies concerning the administrative misconduct and incompetency of agency officials or employees, violations of Agency/City rules and regulations by same, and the development and implementation of plans and programs for the control and prevention of misconduct or incompetent practices, including internal security. There are three Assignment Levels within this class of positions based upon the level of responsibility and/or technical expertise required. All personnel perform related work.

**Assignment Level I**

Under supervision, with latitude for independent action and decision, performs surveillances, interrogates, subjects and witnesses, examines and analyzes employee records. Maintains case records, prepares reports, and analyzes agency records. Makes recommendations as to appropriate action to be taken following investigation. Testifies at hearings. May testify at court proceedings. May work in close coordination with City investigatory agencies. Analyzes and evaluates existing and proposed agency procedures. Conducts security surveys of agency operations and facilities. Develops security plans. Performs training in detection and control procedures to limit misconduct and incompetency to other agency staff.

**Assignment Level II**

Under general supervision, with considerable latitude for independent action and decision, performs work as described above in cases requiring a high degree of specialization and/or technical expertise. Supervises a small unit of subordinates performing duties as indicated in Assignment Level I above. Trains subordinates in basic investigative methodologies. Interprets rules, regulations, codes and policies for subordinates. Assists in the supervision of a large unit performing investigations. In the temporary absence of the supervisor, may perform the duties of that position.

**INVESTIGATOR (EMPLOYEE DISCIPLINE) (DOT)** (continued)

**Assignment Level III**

Under direction, with wide latitude for independent action and decision, supervises a large unit performing disciplinary investigations and/or performs complex work in the development of plans and programs for the control and prevention of misconduct or incompetent practices and related policy matters. Advises subordinates on difficult matters and interprets rules, regulations, codes and policy for the guidance of the investigating staff. Serves as consultant in the investigation of difficult cases. Plans and coordinates investigation of difficult cases. Plans and coordinates investigation schedules and assignments. Prepares, reviews, evaluates, and acts on all reports and recommendations submitted for administrative action. Supervises training and programs. Conducts highly complex or special investigations. In the temporary absence of the supervisor, may perform the duties of that position.

**Qualification Requirements**

1. A baccalaureate degree from an accredited college; or
2. A four-year high school diploma or its educational equivalent and four years of satisfactory full-time experience in one or more of the fields of accounting, auditing, correction administration, criminal justice administration and planning, forensic science, human resources administration, investigation, labor relations, law enforcement, police science, security, or in a major operational area of the agency in which the appointment is to be made; or
3. Education and/or experience equivalent to "1" or "2" above.

**License Requirements**

At the time of appointment, all candidates must possess a Motor Vehicle Driver License valid in the State of New York. This license must be maintained for the duration of employment.

**Lines of Promotion**

None. This position is classified in the Non-Competitive Class.