

Statewide Information Technology Contracted Services

Service Categories and Sub-Service Categories

SERVICE CATEGORY 1 - APPLICATION SUPPORT

DATABASE ADMINISTRATOR

The Database Administrator is responsible for data analysis and database management. Database Administrators typically are involved in maintenance, enhancement, designing of data dictionaries, physical and logical database models, database security, and performance tuning. Database Administrators have a range of skills and knowledge of the utilities and production tools used for data storage management to support the Application Team.

DBA1

Years of Relevant Experience:	Two plus years of experience.
Preferred Education:	Four year college degree or equivalent technical study.
Role Description:	<p>Skills and knowledge in the following areas.</p> <ul style="list-style-type: none"> • Data dictionary analysis and design and data model analysis design. • Central data repository. • Data dictionary backup and recovery. • Definition of standards of data dictionaries. • Program dictionary analysis and maintenance software. • Performance tuning. • Database performance and space requirements.

DBA2

Years of Relevant Experience:	Four plus years of experience.
Preferred Education:	Four year college degree or equivalent technical study.
Role Description:	<p>All roles specified in DBA1 plus the following.</p> <ul style="list-style-type: none"> • Business systems analysis and design experience. • Logical data modeling techniques. • Production environment tools/utilities. • Knowledgeable in data analysis and database management techniques. • Execution of all responsibilities with little direct supervision of Team Lead. • Administration and scripting experience in relative platform.

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DBA3

Years of Relevant Experience:	Six plus years of experience.
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>All roles specified in DBA1 and DBA2 plus the following.</p> <ul style="list-style-type: none"> • Highly skilled at database design, installations, conversions. • Responsible for database backup and recovery procedures, access security and database integrity, physical data storage design and data storage management. • Participates in Database Management System selection and maintains database performance. • May supervise other contractors.

DATABASE ARCHITECT

The Database Architect Senior is responsible for designing, developing, and implementing infrastructure to provide highly complex, reliable, and scalable databases to meet the organization’s objectives and requirements. Database Architects are familiar with a variety of the database technologies, concepts, methodologies, practices, and procedures and rely on experience and judgment to plan and accomplish goals. Database Architects are able to perform a variety of complicated tasks with minimal or no direct supervision. They assist in defining system and application architecture and provide vision, problem anticipation, and problem solving ability to organization. They consult with the client to define needs or issues, conduct research, perform studies and surveys to obtain data, and analyze problems to advise on or recommend solutions, utilizing knowledge of theory, principles, or technology of specific discipline or field of specialization.

Database Architect

Years of Relevant Experience:	Six plus years of experience.
Preferred Education:	Four year college degree in computer science or related field with advanced study preferred.
Role Description:	<p>Skills and knowledge in the following areas.</p> <ul style="list-style-type: none"> • Possesses extensive knowledge of one or more database systems, and is capable of hands-on work in all phases of database design and management. • Designs, develops, and implements infrastructure to provide highly-complex, reliable, and scalable database to meet the organization's objectives and requirements. • Analyzes organization's business requirements for database design, and implements changes to database as required. • Performs systems analysis on database, and resolves performance, capacity, and replication issues as necessary. • Provides detailed design and specification documentation, including flowcharts, for all aspects of the database. • Participates in the identification, prioritization, and development of technical initiatives and strategies. • Develops and maintains database standards and naming conventions.

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	<ul style="list-style-type: none"> • May supervise other contractors.
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Data Warehouse Specialist ITB15000297-01

The Data Warehouse Specialist classification provides for three different positions used for architecting, developing and implementing a data warehouse. None of these positions are considered entry level positions. Specific software or tools may be a requirement of the appropriate candidate.

DATA WAREHOUSE ETL SPECIALIST

Years of Relevant Experience	Four plus years of experience.
Preferred Education	Four year college degree or equivalent technical study.
Role Description	<p>Skills and knowledge in the following areas.</p> <ul style="list-style-type: none"> • Designs, codes, test and implements programs to extract data from source systems, performs data transformations services and load data into data warehouse, data marts and star schemas. • Knowledge of ETL tool security administration and upgrades.

DATA WAREHOUSE ARCHITECT

Years of Relevant Experience	Six plus years of experience.
Preferred Education	Four year college degree or equivalent technical study.
Role Description	<p>Skills and knowledge in the following areas.</p> <ul style="list-style-type: none"> • Designs and implements data warehouse, data marts and data stores, while ensuring high level of data availability. • Defines data standards and creates data models for warehouse architects. • May evaluate database warehouse management systems, and select infrastructure components such as software, hardware, database warehouse management systems and networking capabilities.

DATA WAREHOUSE BUSINESS INTELLIGENCE SPECIALIST

Years of Relevant Experience	Four plus years of experience.
Preferred Education	Four year college degree or equivalent technical study.
Role Description	<p>Skills and knowledge in the following areas.</p> <ul style="list-style-type: none"> • Designs, codes, tests and implements data reporting structures using third-party business intelligence tools. • Knowledgeable in tool security, administration and upgrades.

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SOFTWARE ENGINEER

The software engineer is responsible for analysis, design, coding, component and assembly testing of software. Software Engineers typically are involved in maintenance (including production support), enhancement and development work. Software engineers have a range of skills and knowledge of current technologies.

SE1

Years of Relevant Experience:	Two plus years of experience.
Preferred Education:	Four year college degree or equivalent technical study.
Role Description:	<p>Skills and knowledge in the following areas.</p> <ul style="list-style-type: none"> • Code enhancement and development programs and/or required fixes to production problems using the functional and technical programming standards. • Test enhancement and development programs. • Structured code reviews / walkthroughs. • Create and provide content for operational documentation to Technical Writers. • Utilize configuration management tools, design tools, debugging tools, and any other environment specific tools necessary to create, test, and implement an application.

SE2

Years of Relevant Experience:	Four plus years.
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>All roles specified in SE1 plus the following.</p> <ul style="list-style-type: none"> • Analyze and design enhancements, development programs, and/or required fixes to production problems. • Design applications to functional and technical programming standards. • Gather and interpret user requirements into design specifications. • Develop system specifications and interfaces. • Determine time estimates and schedule for work.

SE3

Years of Relevant Experience:	Six plus years of experience.
Preferred Education:	Four year college degree or equivalent technical study.
Role Description:	<p>All roles specified in SE1 and SE2 plus the following.</p> <ul style="list-style-type: none"> • This is a professional level position which may require coordination of programming activities being conducted by the team. • Confers with other business and technical personnel to resolve problems of intent, inaccuracy, or feasibility of computer processing. • Leverages excellent written and verbal communication skills to develop new

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	<p>business process and programming solutions as directed by business and technical stakeholders.</p> <ul style="list-style-type: none"> • Utilize deep modeling, design and coding skills. • May supervisor contract SE's.
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SOFTWARE ARCHITECT

The Software Architect Senior is responsible for designing, developing, and implementing application infrastructure to provide highly complex, reliable, and scalable applications and systems to meet the organization's objectives and requirements. Senior Architects are familiar with a variety of the application technologies, environments, concepts, methodologies, practices, and procedures and rely on experience and judgment to plan and accomplish goals. Software Architect Seniors are able to perform a variety of complicated tasks with minimal or no direct supervision. They have proven experience defining systems and application architecture and provide vision, problem anticipation, and problem solving ability to organization.

Software Architect

Years of Relevant Experience:	Six years plus software development, testing, and /or project management.
Preferred Education:	Four year college degree in computer science or related field with advanced study preferred.
Role Description:	<p>Skills and knowledge in the following areas.</p> <ul style="list-style-type: none"> • Manages, organizes, and administers systems analysis and preparation of applications and operating systems programming to process data and solve problems by use of computers. • Establishes priorities and schedules, and oversees and reviews work of systems analysis personnel and programming personnel. • Assists in the development of standards, procedures, and operating systems applications. • Works with stakeholders and management to ensure projects are completed on time and according to organization standards. • Consults with management to clarify systems and programs requirements, identify problems, suggest changes, and determine extent of application systems changes required. • Compiles documentation of program development and subsequent revisions. • May supervise other contractors.

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SOFTWARE QUALITY ASSURANCE ANALYST

Aligned with the business users and responsible for conducting User Acceptance Testing, evaluates and tests new or modified software programs and to verify that programs function according to user requirements and conform to established guidelines. Also provides assessment of overall software quality based on established guidelines, industry best practices, and agency policy. Software evaluated may be internally developed, commercially available products, or customized products. Internal development projects may be managed and executed as Waterfall, Agile, Scrum or combinations and variations thereof.

SQAA1

Years of Relevant Experience:	Two plus years of software quality assurance experience.
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>Skills and knowledge in the following areas.</p> <ul style="list-style-type: none"> • Evaluates and tests new or modified software programs used to verify that programs function according to user requirements and conform to establishment guidelines. • Writes, revises, and verifies quality standards and test procedures for program design and product evaluation to attain quality of software economically and efficiently. • Reviews new or modified program, including documentation, diagrams, and flow charts, to determine if program will perform according to user requirements and conform to guidelines.

SQAA2

Years of Relevant Experience:	Four plus years of software quality assurance experience.
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	<p>All roles specified in SQAA1 plus the following.</p> <ul style="list-style-type: none"> • Monitors program performance after implementation to prevent reoccurrence of program operating problems and ensure efficiency of operation. • Writes documentation to describe program evaluation, testing, and correction. • May evaluate proposed software or software enhancement for feasibility. • May recommend and use utility programs, queries or scripts to test, track, and verify defects in software programs. • May train software program users.

SQAA3

Years of Relevant Experience:	Six plus years of software quality assurance experience.
Preferred Education:	Four year college degree or equivalent technical study.
Role Description:	<p>All roles specified in SQAA1 and SQAA2 plus the following.</p> <ul style="list-style-type: none"> • May supervise other SQAA's.

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SQAA4

Years of Relevant Experience:	Six plus years of software quality assurance experience.
Preferred Education:	Four year college degree or equivalent technical study.
Certification:	Minimum Certified Scrum Developer. Certified Scrum Professional or equivalent.
Role Description:	<p>All the roles specified for a SQAA1, SQAA2, and SQAA3, plus the following.</p> <ul style="list-style-type: none"> • Brings deep knowledge of software development life cycle principles (SDLC) and the tool sets used to implement a highly effective development and support infrastructure. • Recommend improvements to development and support tools and processes. • Ability to analyze and recommend designs for specific steps and processes for promotion of code and database changes to various development, test and production environments with the appropriate automated and support tools. • Develop understanding of technical issues, and working with development group to resolve more advanced issues when necessary and teach strategies to resolve and create solutions. • Document troubleshooting and problem resolution steps. • Create and maintain high-quality documentation of all relevant specifications, systems, and procedures. • Diagnose and share root cause analysis for application, hardware, network, and O/S issues and the support tools to work/implement in the development environments. • Supports the continuous integration environment. • Understand configuration management tools, design tools, debugging tools, and any other environment specific tools necessary to create, test, and implement an application. • Teach and transfer functional skill sets to client staff to allow sustainable operation after the project period. • Recommend, teach, and support the tools that will support a continuous integration environment. • Ability to use agencies source code version control system for code configuration management. • Support an automated regression test environment (and related automated testing and support tools). • Support an automated load testing environment (and related automated test loading tools). • Experience with scripting languages. • Understand installation, configuration and troubleshooting of Server operating systems.

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SOFTWARE TESTER

The Tester is a member of a software development team which plans, constructs, and executes product tests, system tests, unit tests, load tests, volume tests, network tests as well as works with others for release control processes. The more experienced Tester manages, plans, constructs, and executes tests and integrates with release control process. Working closely with software engineers, the Tester provides immediate and frequent feedback on defects to enhance overall software quality. The Tester provides an assessment of overall software quality based on established guidelines, industry best practices, and agency policy, and projects may be managed and executed as Waterfall, Agile, Scrum or combinations and variations thereof.

ST1

Years of Relevant Experience:	Two plus years of software tester experience.
Preferred Education:	Four year college degree or equivalent technical study.
Role Description:	Skills and knowledge in the following areas. <ul style="list-style-type: none"> • Create test models for product test and release control (plans, data, and scripts). • Conduct structured walk-throughs. • Execute assembly or product tests.

ST2

Years of Relevant Experience:	Four plus years of software tester experience.
Preferred Education:	Four year college degree or equivalent technical study.
Role Description:	All roles specified in ST1 plus the following. <ul style="list-style-type: none"> • Define product test plans and criteria for acceptance. • Develop, update, and maintain testing standards and procedures. • Assist in the planning, creation, and control of the test environments. • Conduct inspections; resolve issues. • Coordinate and execute assembly or product tests. • Work with Test Team members to enhance their testing skills and build technical and business knowledge. • Determine time estimates and schedule for work efforts. • Define and utilize entry / exit criteria for testing. • Schedule the design of structured walk-throughs or inspections; resolve issues.

ST3

Years of Relevant Experience:	Six plus years of software tester experience.
Preferred Education:	Four year college degree or equivalent technical study.
Role Description:	All roles specified in ST1 and ST2 plus the following. <ul style="list-style-type: none"> • Review and understand the Test Team work plan. • Assist Application Teams to plan and execute component and assembly tests.

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	<ul style="list-style-type: none"> • Install, configure, administer and utilize automated testing tools. • Write and execute SQL statements to test outcomes. • May supervise other contract testers.
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ST4

Years of Relevant Experience:	6 plus years of software tester experience.
Preferred Education:	Four year college degree or equivalent technical study.
Certification:	Minimum Certified Scrum Developer, Certified Scrum Professional or equivalent.
Role Description/Background:	<p>All the roles specified for a ST1, ST2, and ST3, plus the following.</p> <ul style="list-style-type: none"> • Software testing experience plus some business analyst experience, especially related to coaching development teams. • Assistance in the development of user stories and defining acceptance criteria, especially related to coaching and or teaching teams. • Understand test plans, test scripts, test cases and links that connect to requirements and done criteria. • Analysis and knowledge/experience to implement and maintain framework components to support test execution, and the ability to share with others to create a sustainable system. • Strong regression testing skills. • Experience testing large, multi-tiered web applications such as Java/J2EE and/or MVC applications. • Analyze and interact with complex sets of automated test assets and an ability to provide insights into alternatives or improvements to test systems, test framework components, test databases and test servers. • Provide recommendations for execution of automated tests and troubleshoot complex failures including failures of the system under test. • Knowledge and understanding of fundamental concepts of waterfall and agile software development, continuous integration, and automated testing. • Knowledge and/or Experience with testing batch, flat file and web service based interfaces. • Knowledge and/or Experience with automated regression test strategies/tools for batch, flat file and web service based interfaces. • Experience with and ability to effectively evaluating user stories as it relates to testing strategies. • Create and maintain high-quality documentation of all relevant specifications, systems, and procedures. • Familiarity with automated testing tools. • Experience testing on scrum projects with multiple cross-functional scrum teams. • Experience with user stories, acceptance criteria and product backlog grooming. • Experience with automated testing tools. • Experience writing and executing SQL statements to test outcomes. • Ability to support automated regression test environment (or other regression testing tools) and provide recommendations. • Configure and support automated load testing environment (or other automated test loading tools).

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SERVICE CATEGORY 2 - NETWORK AND INFRASTRUCTURE SUPPORT

NETWORK ADMINISTRATOR

The Network Administrator directs and participates in activities related to the selection, installation, configuration, monitoring and maintenance of network systems that will meet the customer's communication requirements. The Network Administrator is responsible for all technology and connectivity involving data networks. Often times, the Network Administrator is specialized or is certified in particular network hardware or software.

NA1

Years of Relevant Experience	Two plus years of experience.
Preferred Education	Four year college degree or equivalent technical study.
Role Description	<p>Skills and knowledge in the following areas.</p> <ul style="list-style-type: none"> Reviews, plans, and evaluates network systems. May troubleshoot network systems and recommend improvements to network. Provides documentation/project tracking and management reporting. Provides tactical and strategic input on overall network planning and related projects.

NA2

Years of Relevant Experience	Four plus years of experience.
Preferred Education	Four year college degree or equivalent technical study.
Role Description	<p>Includes all skills in NA1 plus the following.</p> <ul style="list-style-type: none"> Installs, configures and maintains organization's network. Builds networks and maintains external and internal web presence, administers the networks. Performs system backups on its internal and external web network servers. Designs and supports server system(s) and supporting software.

NA3

Years of Relevant Experience	Six plus years of experience.
Preferred Education	Four year college degree or equivalent technical study.
Role Description	<p>Includes all skills in NA1 and NA2 plus the following.</p> <ul style="list-style-type: none"> Responsible for the design, implementation and overall performance, security and availability of the entire LAN/WAN/MAN for enterprises designing network topology between sites such as data centers, field offices

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	<p>and DR sites.</p> <ul style="list-style-type: none"> • Extensive technical product experience in network security controls. • Experience in developing enterprise networks and security design architecture in a multiple site environment. • Provides consultation to business area management and staff at the highest technical level for all aspects of LAN/WAN design and configuration in multi-server environment. • Demonstrated knowledge of systems, networks and applications, Microsoft networking concepts, back office products. • May supervise other contract staff.
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SYSTEM ADMINISTRATOR

The System Administrator is responsible for server maintenance, back up and security, along with performance tuning and capacity planning. System Administrators should possess an understanding of network and distributed computing concepts.

SA1

Years of Relevant Experience:	Two plus years of experience.
Preferred Education:	Four year college degree or equivalent technical study.
Role Description:	<p>Skills and knowledge in the following areas.</p> <ul style="list-style-type: none"> • Familiarity with most basic system administrator tools and processes. • Provides general maintenance activities including backup. • Ability to write scripts in a particular administrative language. • Programming experience with any applicable language. • Communicate accurate and useful status updates. • Follow quality standards.

SA2

Years of Relevant Experience:	Four plus years of experience.
Preferred Education:	Four year college degree or equivalent technical study.
Role Description:	<p>All roles specified in SA1 plus the following.</p> <ul style="list-style-type: none"> • Responsible for operating and other system software. • Responsible for upgrading the operating and system software and keeping patches current. • Familiarity with fundamental networking/distributed computing environment concepts. • Ability to do minimal debugging and modification of programs. • Execute the disaster recovery/back up procedures and archiving procedures. • Manage security for servers.

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	<ul style="list-style-type: none"> • Responsible for performance tuning, capacity planning, database administration, and fault management. • Review, prioritize, and research service requests.
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SA3

Years of Relevant Experience:	Six plus years of experience.
Preferred Education:	Four year college degree or equivalent technical study.
Role Description:	<p>All roles specified in SA1 and SA2 plus the following.</p> <ul style="list-style-type: none"> • Solid understanding of networking/distributed computing environment concepts. • Understands principles of routing client/server programming. • Manage expectations at all levels: customers/end users, executive sponsors. • Understand the business application of technical support and design in an application development environment. • Work with the various Infrastructure teams and operations provider to identify the strategic direction of systems management activities. • Understands the design of consistent network-wide file system layouts. • Develop plans for disaster recovery/ backup and archiving. • May supervise other contractors.

SERVICE DESK TECHNICIAN

The Service Desk Technician provides service desk support by performing the skills listed below.

SDT1

Years of Relevant Experience:	One plus years of experience.
Preferred Education:	Two year associates degree or equivalent technical study.
Role Description:	<p>Skills and knowledge in the following areas.</p> <ul style="list-style-type: none"> • Serves as level 1 support. • Receive telephone calls and e-mails from users having problems using computer software and hardware or inquiring how to use specific software, programming languages, electronic mail, or operating systems. • Ascertain the nature of problem; determine whether problem is caused by hardware such as modem, printer, cables, or telephone, and log in tracking system. • Escalate problems in accordance with defined procedures. • Assist users through problem solving steps. • Communicate accurate and useful status updates.

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SDT2

Years of Relevant Experience:	Three plus years of field experience.
Preferred Education:	2 year associates degree or equivalent technical study.
Role Description:	<p>All roles specified in SDT1 plus the following.</p> <ul style="list-style-type: none"> • Serves as Level 2 support and contact for level 1 support. • Provides technical assistance, support, and advice to end users for hardware, software, and systems. • Provides hands-on technical assistance to business and technical users. • Investigates and resolves computer software and hardware problems of users. • Determines whether problem is caused by hardware, software, or system. • May supervise SDT1 support.

VOICE/DATA ENGINEER

The Voice/Data Engineer directs and participates in all activities related to the selection and installation of telephone facilities and special on-premises equipment that will meet the customer's communication requirements. The Voice/Data Engineer is responsible for all technology and connectivity involving telecommunications and data networks. The Voice/Data Engineer will typically specialize in telephony and data interfaces and systems that have proprietary functions within the communications area of a corporation/business. General wiring excluded, the Voice/Data Engineer ensures that any specialized conduit or wiring is properly deployed and installed according to code. The Voice/Data Engineer is also an expert in audio/visual, teleconferencing, and voice mail equipment. Often times, the Voice/Data Engineer is specialized or is certified in a particular piece of equipment such as VOIP.

VDE1

Years of Relevant Experience	Two plus years of experience.
Preferred Education	Four year college degree or equivalent technical study.
Role Description	<p>Skills and knowledge in the following areas.</p> <ul style="list-style-type: none"> • Ensure proper connectivity of voice and data services and technologies. • Prepare all job-related paperwork. • Create test plan and perform related work. • Close out work authorization when equipment is in service.

VDE2

Years of Relevant Experience	Four plus years of experience.
Preferred Education	Four year college degree or equivalent technical study.
Role Description	<p>All roles specified in VDE1 plus the following.</p> <ul style="list-style-type: none"> • Prepare equipment floor plan for customer or architect approval. • Determine telephone, data services/components, and audio visual equipment placement within facility. • Act as installer of equipment for data/voice or Audio visual use.

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	<ul style="list-style-type: none"> • Install, test, configure, and train users on products and equipment. • Support systems and products associated with telecommunications/telephone and data within a facility or department.
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VDE3

Years of Relevant Experience	6 plus years of experience.
Preferred Education	4 year college degree or equivalent technical study.
Role Description	<p>All roles specified in VDE1 and VDE2 plus the following.</p> <ul style="list-style-type: none"> • Familiar with at least one type of equipment or service that is highly specialized. • Prepare cost estimate for equipment and installation and submit data to management for authorization to proceed with job. • Monitor installation progress to ensure that the facilities are ready on projected date. • May supervise other contractors.

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SERVICE CATEGORY 3 - PROJECT AND PROCESS MANAGEMENT

PROJECT COORDINATOR

Coordinate project activities such as setting up project meetings, managing risk and issue logs, distributing meeting minutes etc. Facilitate the development of project scope definitions, manage deliverable review process and maintain project web site. Some experience developing and implementing project budgets, schedules and resources. Conducts team meetings, manage project work plans, develop tasks, and assign roles and responsibilities. Participate in special projects or assignments as needed.

Project Coordinator

Years of Relevant Experience	Two plus years of experience.
Preferred Education	Four year college degree or equivalent technical study.
Role Description	<p>Skills and knowledge in the following areas.</p> <ul style="list-style-type: none"> Experience planning and implementing projects. Experience managing project work plans and the deliverable review processes. Experience with managing project documents and web sites.

PROJECT MANAGER

Designs, plans, and coordinates work teams, develops project charter, work plans, schedule, and budgets, provides support to project team members, and relies on experience and judgment to plan and accomplish goals. Projects may be managed and executed as Waterfall, Agile, Scrum or combinations and variations thereof.

PMI

Years of Relevant Experience	Two plus years of experience.
Preferred Education	Four year college degree or equivalent technical study.
Role Description	<p>Skills and knowledge in the following areas.</p> <ul style="list-style-type: none"> Experience planning and implementing projects. Development of project charter, scope, goals, work plans, timelines, implementation strategies. Creation of measurement processes/methods for assessing progress toward goals and project outcomes.

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PM2

Years of Relevant Experience	Four plus years of experience.
Preferred Education	Four year college degree or equivalent technical study.
Role Description	<p>All roles specified in PM1 plus the following.</p> <ul style="list-style-type: none"> • Planning, development, implementation, and evaluation of complex enterprise projects. • Identify decision-making issues and key stakeholders, develop and implement strategies to encourage and obtain stakeholder and/or community awareness and support, and identify project partners. • Experience interpreting and explaining specialized or complex material into information usable by the public. • Experience developing and monitoring contracts.

PM3

Years of Relevant Experience	Six plus years of experience.
Preferred Education	Four year college degree or equivalent technical study.
Role Description	<p>All roles specified in PM2.</p> <ul style="list-style-type: none"> • This is the expert-level project manager and the person must be an expert in project management, including the planning, development, implementation, and evaluation of large, complex projects. • May supervise contractors and provide direction to a large and diverse project teams.

PM4

Years of Relevant Experience:	Ten plus years of experience.
Preferred Education:	Four year college degree or equivalent technical study.
Certification:	Certified Scrum Professional or better.
Role Description:	<p>All the roles specified for a PM1, PM2, and PM3, plus the following.</p> <ul style="list-style-type: none"> • Direct experience managing projects with a budget in excess of \$20 M over the life of the project. Must have a proven project completion record. • Must have proven skills in project integration across multiple business units. • Proven hardware and software interactions/dependencies skills necessary to achieve large project outcomes. • Ability to explore technical and business options quickly and reach agreement for streamlined and effective business and technology designs across multiple business units. • The ability to interact with executive leadership and convey technical options and opportunities. • Must have proven project management experience working across multiple state agencies.

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PROJECT QUALITY ASSURANCE ANALYST

The Project Quality Assurance Analyst (PQAA) is responsible for the planning, design, implementation and reporting of a project's quality assurance processes and metrics. Projects may be managed and executed as Waterfall, Agile, Scrum or combinations and variations thereof. This **is not** software development quality assurance.

PQAA1

Years of Relevant Experience:	Two plus years of project quality assurance experience.
Preferred Education:	Four year college degree, equivalent technical study or certification such as a Project Management Professional (PMP).
Role Description:	<p>Skills and knowledge include.</p> <ul style="list-style-type: none"> • Ability to create a quality assurance plan that includes quality standards, work plan, schedule, checklists and templates. • Ability to establish measurement procedures and metrics for project management and software development activities. • Ability to evaluate and report the quality of the project's required work products against standard work product templates. • Provide quality assurance analysis and recommendations for improvement in the areas of project management and vendor management. • Provide feedback to project teams regarding process/procedure improvement opportunities and other potential areas for improvement. • Provide regular reports on the results of compliance reviews to the project team, project team leaders and management. Report on progress on action item resolution and possible risk areas.

PQAA2

Years of Relevant Experience:	Four plus years of quality assurance experience.
Preferred Education:	4 year college degree, equivalent technical study or certification such as a Project Management Professional (PMP).
Role Description:	<p>All roles specified in PQAA1 plus the following.</p> <ul style="list-style-type: none"> • Ability to analyze project work plans to determine if adequate resources have been allocated to the project to complete the project according to the approved schedule. • Compare actual project procedures to the specified standards, procedures, and, if required, specific 3rd party contractual requirements. • Review and check project's software development activities and the associated internal tasks required as employed by the project and specified in the project plan.

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PQAA3

Years of Relevant Experience:	Six plus years of quality assurance experience.
Preferred Education:	Four year college degree, equivalent technical study or certification such as a Project Management Professional (PMP).
	All roles specified in PQAA1 and PQAA2 plus the following. <ul style="list-style-type: none"> The position may supervise other PQAA contractors.

PQAA4

Years of Relevant Experience:	Six plus years of project and process management experience.
Preferred Education:	Four year college degree, equivalent technical study, or certification such as a Project Management Professional (PMP).
Certification:	Minimum – Certified Scrum Coach.
Role Description/Background:	<p>All the roles specified for a PQAA1, PQAA2, and PQAA3, plus the following.</p> <ul style="list-style-type: none"> Direct experience (getting your hands dirty) in software development and may have published their experiences. Active member of the Scrum community, learning from others and sharing own experiences. Have a breadth and depth in both the tools and techniques learned and a proven track record demonstrating continuous improvements in skill such as learning new techniques or disciplines on a regular basis. Possess coaching, teaching, and mentoring skills, helping development teams improve capacity, accuracy, and feel satisfaction in their contribution to the development effort and new functionality. Likes to work with teams instead of dictating direction; knows how to build the team's collaborative ability. Listens and asks questions rather than making immediate statements or decisions. Responsible for educating and mentoring individuals/organizational units and organization leadership on principles and processes. Prioritizes work and assists in prioritizing the team's work, taking into account risk, effort, and dependencies. Able to prioritize process improvements and work with individuals/teams/organizational units to get the most improvement for the least cost. Inspire teams and individuals to rise to the occasion and try new things. Respects the team and the individuals. Transparent and upfront about not just what to do but why. Open to criticism and constructive feedback and willing to listen to other ideas and give those ideas due consideration. Willing to try something and fail and be transparent about what might not have worked. Able to transfer experience and knowledge respectfully and quickly; Teach without creating a long-term dependency on the coach as the 'solution creator'.

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BUSINESS PROCESS ANALYST

Reviews, analyzes, and evaluates business systems and user needs. Facilitates the discovery of as-is and to-be business processes. Documents business processes in a manner that facilitates long term maintenance, business process automation, and process improvement. May work as a part of a development team acting as the business representative/advocate on software development projects.

Business Process Analyst

Years of Relevant Experience:	Two plus years of experience.
Preferred Education:	Four year college degree or equivalent technical study.
Role Description:	<p>Skill and knowledge include but are not limited to.</p> <ul style="list-style-type: none"> • Work with customer business units to understand their business processes. • Develops performance metrics for successful business process management initiatives. • Does workflow design and process improvement.

BUSINESS PROCESS ENGINEER

The Business Process Engineer brings proven experience from related businesses or organizations as well as system integration and technology experience. They consult with the client to define needs or problems, conduct research, perform studies and surveys to obtain data, and analyze problems to advise and make recommendations on business and technical solutions based on hands-on experience solving similar business problems. They are able to utilize knowledge of theory, principles, or technology of specific discipline or field of specialization.

Business Process Engineer

Years of Relevant Experience:	Four plus years of experience.
Preferred Education	Four year college degree or equivalent study in the area of business process design.
Role Description	<p>Skills and knowledge include.</p> <ul style="list-style-type: none"> • Consults with stakeholders to define business need or problem; conducts research, performs studies and surveys to obtain data; and analyzes problems to advise on or recommend solutions, utilizing knowledge of theory, principles, or technology of specific discipline or field of specialization. • Conducts study or survey on need or problem to obtain data required for solution. • Analyzes data to determine solution, such as installation of alternate methods and procedures, changes in processing methods and practices, modification of machines or equipment, or redesign of products or services. • Advises client or department heads on alternate methods of solving need or problem, or recommends specific solution. • Requires experience providing consulting services to governmental entities. • May be designated according to field of business and technical specialization. • Provides documentation according to agency standards • May supervise other contractors.

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FUNCTIONAL ARCHITECT

The Functional Architect is the business expert for the application, a defined set of applications or a portfolio of related applications. The Functional Architect is also responsible for bringing an understanding of the enterprise, business system and industry to the team(s) supporting or interfacing with the application. The primary responsibility of a Functional Architect is to define and document the functional requirements needed to develop an application based on the current and /or future business process. The Functional Architect will also prepare and review designs, to recommend improvements, and to provide guidance during the testing process. The Functional Architect helps the Software Engineers establish a clear understanding of the business functional requirements and creates the functional designs to meet the requirements.

Functional Architect

Years of Relevant Experience:	Six plus years of experience.
Preferred Education:	Four year college degree or equivalent technical study.
Role Description:	<p>Skill and knowledge include but are not limited to.</p> <ul style="list-style-type: none"> • Analyze, determine, and document functional requirements. • Gather and interpret requirements into use cases, user stories, or functional specifications. • Understand specific business needs and overall business strategy of the business customer. • Provide standard, well-structured work planning which defines scope, resources, commitments, quality, risk, tasks, and acceptance criteria. • Ensure that overall application requirements remain within project scope. • Work with customer business units to understand their business processes. • Ensure business requirements are supported by the software. • May supervisor other contracts

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SERVICE CATEGORY 4 - OTHER REQUIRED IT SERVICES

TECHNICAL WRITER

The Technical Writer develops and maintains user and technical documentation and project process documentation. Technical Writer understands the user’s view of applications and /or technology and is able to put procedures in a logical sequence. The experienced Technical Writer provides expertise on technical concepts of applications and /or user groups and structuring procedures in a logical sequence, due to a broad understanding of the applications.

TW1

Years of Relevant Experience:	Two plus years of experience.
Preferred Education:	Four year college degree or equivalent technical study.
Role Description:	Skills and knowledge include. <ul style="list-style-type: none"> • Develop, enhance, and maintain user documentation for multiple applications including documentation required for the operations provider. • Develop on-line source documentation as appropriate. • Identify, create, revise, and maintain documentation and templates • Ensure appropriate control access/use of documentation materials. • Ensure messages and terminology is consistent across all written materials.

TW2

Years of Relevant Experience:	Four plus years of experience.
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	All roles specified in TW1 plus the following. <ul style="list-style-type: none"> • Determine procedures for use of on-line documentation tools and version control documentation as appropriate. • Assist or guide other Technical Writer as needed to develop and maintain user and technical documentation for their assigned applications. • Identify and make recommendations around documentation and templates • Work with users and other State personnel to ensure that the solutions meet State business requirements. • Identify and initiate continuous improvement opportunities. • Direct the development of accurate estimates for documentation requests/activities as required

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IT SECURITY SPECIALIST

The Information Technology Security Specialist is responsible for the development and delivery of an information security and privacy program. The IT Security Specialist will plan, coordinate, and implement security measures for information systems to regulate access to computer data files and prevent unauthorized modification, destruction, or disclosure of information.

ITSS1

Years of Relevant Experience:	Two plus years of experience.
Preferred Education:	Four year college degree or equivalent technical study.
Role Description:	<p>Skills and knowledge include.</p> <ul style="list-style-type: none"> • Familiarity with most basic system administrator tools and processes. • Train users and promote security awareness to ensure system security. • Develop plans to safeguard computer files. • Monitor reports of malicious software to determine when to update protection systems. • Coordinate implementation of computer system plans. • Perform risk assessments and execute tests of data processing security.

ITSS2

Years of Relevant Experience:	Four plus years of experience.
Preferred Education:	Four year college degree or equivalent technical study.
Role Description:	<p>All roles specified in ITSS1 plus the following.</p> <ul style="list-style-type: none"> • Apply basic understanding of networking/distributed computing environment concepts. • Encrypt data transmissions and erect firewalls to conceal confidential information. • Document computer security and emergency measures, policies, and procedures. • Review violations of computer security procedures; discuss with management. • Apply security principles, techniques, and procedures to planned network designs. • Study basic laws, legal codes, government regulations, executive orders, agency rules related to security. • Develop and implement an ongoing risk assessment program targeting information security and privacy matters. • Run basic penetration testing and security audits of systems.

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ITSS3

Years of Relevant Experience:	Six plus years of experience.
Preferred Education:	Four year college degree or equivalent technical study.
Role Description:	<p>All roles specified in ITSS1 and ITSS2 plus the following.</p> <ul style="list-style-type: none"> • Apply solid understanding of networking/distributed computing environment concepts. • Understands principles of secure wireless routing. • Handle problem resolution, and root cause analysis at every level. • Manage all aspects of access to specified systems to include customer needs resolution. • Understand the business application of security support and design in an application development environment. • Coordinate on all jobs with Infrastructure and Operations teams to identify the security perspective in strategic systems management planning. • Work with key IT and business offices and governance groups to develop security policies, standards and guidelines. • Plan and implement network security audits and audits; develop and implement corrective measures. • Develop plans for disaster recovery/ backup and archiving. • May supervise other contractors.

DATA ENTRY OPERATOR

For data entry projects that require manual key entry and/or data capture through scanning.

DEO1

Years of Relevant Experience:	Two plus years.
Preferred Education:	High School Graduate or equivalent.
Role Description:	<p>Skills and knowledge include.</p> <ul style="list-style-type: none"> • Ability to follow written and spoken instructions. • Comprehensive PC skills. • Ability to accurately enter information into a computer, accessing information from a computer, and verifying information on a screen. • Abilities to utilize automated equipment, including electronic keyboard, display screen, and sorted memory to perform. • Ability to operate and understand basic scanning and imaging equipment, including pan, skew, and image correction techniques. • Ability to conduct basic data mining and data capture efforts. • Knowledge of imaging and visual display operating practices, procedures, and techniques.

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DEO2

Years of Relevant Experience:	Four plus years of experience.
Preferred Education:	High School Graduate or equivalent.
Role Description:	All roles specified in DEO1 plus the following. <ul style="list-style-type: none"> • Ability to supervise, advise, or train DEO1 personnel.

GIS PROGRAMMER/ANALYST

The GIS Programmer/Analyst (GIS-PA) is responsible for providing geospatial technical and project support using a variety of software and hardware environments.

GIS-PA1

Years of Relevant Experience:	Two plus years of experience.
Preferred Education:	Four year college degree or equivalent technical study.
Role Description:	Skills and knowledge include. <ul style="list-style-type: none"> • Assist in troubleshooting GIS system problems and work with the appropriate service and warranty vendors to make the necessary repairs and fixes. • Perform data conversion activities. • Perform data conditioning activities and data quality control routines. • Perform basic spatial operations and spatial analysis using batch routines and simple scripting. • Design and develop maps, tabular reports and posters.

GIS-PA2

Years of Relevant Experience:	Four plus years of experience.
Preferred Education:	Four year college degree or equivalent technical study.
Role Description:	All roles specified in GIS-PA1 plus the following. <ul style="list-style-type: none"> • Design and perform advanced spatial analysis tasks. • Plan and perform complex data integration operations. • Journeyman-level expertise in programming and developing map-centric application and publishing Web services. • Assist in developing standards for data and applications.

GIS-PA3

Years of Relevant Experience:	Six plus years of experience.
Preferred Education:	4 year college degree or equivalent technical study.
Role Description:	All roles specified in GIS-PA1 and GIS-PA2 plus the following.

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	<ul style="list-style-type: none"> • Provide consultation in strategic planning and large-scale application design and related issues. • Lead team of GIS-PAs developing geospatial software and hardware plans and solutions. • Expertise in teaching/conveying technical and/or functional courses/concepts. • May supervise other contractors.
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WEB DEVELOPER

The Web Developer is responsible for developing code, installing, testing, and debugging Web-based applications. Designing and developing Web pages, and performing related work. The position requires both graphic design skills and information technology skills necessary to develop and maintain a web site. The Web Developer 3 position is often classified as a Web Master.

WD1

Years of Relevant Experience	Two plus years of experience.
Preferred Education	Four year college degree or equivalent technical study.
Role Description	<p>Skills and knowledge include.</p> <ul style="list-style-type: none"> • Good knowledge of computer graphic design techniques, design and desktop publishing software, and how the Web site interacts with other sites on servers. • Experience creating and designing art work and digital files via computers and output devices, using a Web-editor program that involves reading and writing the coding within documents, and using graphics, content, and web tools.

WD2

Years of Relevant Experience	Four plus years of experience.
Preferred Education	Four year college degree or equivalent technical study.
Role Description	<p>Includes all skills in WD1 plus the following.</p> <ul style="list-style-type: none"> • Designs, codes, tests and implements data reporting structures using third party business intelligence tools. • Knowledgeable in tool security, administration and upgrades.

WD3

Years of Relevant Experience	Six plus years of experience.
Preferred Education	Four year college degree or equivalent technical study.
Role Description	<p>Includes all skills in WD1 and WD2 plus the following.</p> <ul style="list-style-type: none"> • Insures that servers and browsers are configured to provide visibility of site to

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	<p>the largest possible audience;</p> <ul style="list-style-type: none">• Sets up and implements Web-based authorization on Web sites, directories and pages.• Utilizes security software packages and related procedures to administer user access, ensure adherence to security policies and procedures;• Audits security access control design practices; assists outside auditors.• May direct the implementation of web-based e-commerce/e-business applications.• May supervise other contractors.
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