

ALERT: This form is mandatory for all Requests for Personnel Action (RPA).

INSTRUCTIONS: Before completing this form, read the instructions located on last page.

Section A: Position Profile

A. DATE 03/01/2019	B. APPOINTMENT EFFECTIVE DATE	C. INCUMBENT NAME
D. CIVIL SERVICE CLASSIFICATION Information Technology Specialist III	E. POSITION WORKING TITLE Infrastructure Architect	
F. CURRENT POSITION NUMBER 695-362-1414-001	G. PROPOSED POSITION NUMBER (Last three (3) digits assigned by HR) 695-362-1415-xxx	
H. OFFICE / SECTION / UNIT / PHYSICAL LOCATION OF POSITION Infrastructure Services / Compute & Storage	I. SUPERVISOR NAME AND CLASSIFICATION Richard Gillespie, IT Manager II	
J. WORK DAYS / WORK HOURS / WORK SHIFT (DAY, SWING, GRAVE) MONDAY – FRIDAY 8:00 AM – 5:00 PM	K. POSITION REQUIRES:	FINGERPRINT BACKGROUND CHECK <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO DRIVING AN AUTOMOBILE <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

Section B: Position Functions and Duties

Identify the major functions and associated duties, and the percentage of time spent annually on each (list higher percentages first).

	<p>Information Technology Domains (Select all domains applicable to the incumbent's duties/tasks.)</p> <p><input checked="" type="checkbox"/> Business Technology Management <input checked="" type="checkbox"/> IT Project Management <input type="checkbox"/> Client Services <input type="checkbox"/> Information Security Engineering <input type="checkbox"/> Software Engineering <input checked="" type="checkbox"/> System Engineering</p>
	<p>Organizational Setting and Major Functions</p> <p>Under the administrative direction of the Information Technology Manager II (IT Mgr II), the Information Technology Specialist III (IT Spec III) serves as the Infrastructure Architecture lead at the mastery level in the evaluation and selection of technology standards and governance processes. The IT Spec III ensures cloud solutions and network management are in alignment with Infrastructure Services group and department strategic goals and objectives. The IT Spec III will work collaboratively with internal California Department of Technology (CDT) Information Technology (IT) personnel within the Infrastructure Services group and other Service Areas to ensure CDT develops cost-effective solutions to meet customers' business requirements and align solutions with CDT service offerings. The IT Spec III will also participate in the modernization of the statewide technology systems through the development of processes and policies surrounding Infrastructure and Cloud architecture. They will serve as a key advisor to infrastructure architecture practices and methodologies to the Data Center cloud architecture community. The IT Spec III is responsible for providing expert technical and architectural consultation by advising the IT Mgr IIs and Infrastructure Services Deputy Director in the development, maintenance and organization of the state's data center infrastructure, and cloud IT architecture framework and associated policies, standards, and governance methods. Implementation of this framework methodology requires unique mastery-level skills that demands the ability to direct and advise cloud architecture and data center technical network teams to effectively develop technology solutions that strategically align with its business vision.</p> <p>The IT Spec III is responsible for the development and implementation of the cloud and network infrastructure services framework and methodology in alignment with the Office of Technology's (OTech) Infrastructure Services. The IT Spec III makes recommendations to the IT Mgr II and executives on Infrastructure and cloud policies, compliance, and on current and new cloud, infrastructure, data center and network IT developments and State network. The IT Spec III works with organizations' functional areas, as well as stakeholders, which include but are not limited to departments' and agencies' cloud architects and engineers, vendors, and partners. With IT constantly changing, the IT Spec III will stay up-to-date on emerging technologies and information that can affect the cloud and network management culture. At the mastery-level, the IT Spec III maintains first-rate architectural, pioneering, and presentation skills for creative facilitation, organization, and reporting. Collaborates and leads project support teams to facilitate and implement infrastructure network and cloud IT initiatives and processes to achieve strategic goals and business objectives for the CDT and other state agencies and departments.</p>
% of time performing duties	<p>Essential Functions (Percentages shall be in increments of 5, and should be no less than 5%.)</p>

40%

Lead Infrastructure Solutions Architect

The IT Specialist III – Infrastructure Architect serves as a subject matter expert (SME) for all data center network infrastructure and cloud architecture and design initiatives. The IT Specialist III is expected to possess mastery level knowledge and expertise and is responsible for the following duties.

- Lead and work with cross-functional CDT and vendor teams to architect, design and develop the most complex Cloud computing solutions.
- Work closely with business units, service areas, vendors, Compute & Storage, and Infrastructure Services groups to define strategies for technical solutions, determine requirements, and develop cross-functional network infrastructure cloud computing designs based on the analysis of line of business needs, objectives, and existing systems infrastructure.
- Influence clients and partners to prioritize for enterprise benefit and risk reduction and assist in driving the adoption of technology solutions that leverage cloud and network infrastructure computing and CDT service offerings.
- Lead and own activities related to the design, development, and maintenance of the cloud environment. Work closely with Network management to ensure it aligns with CDT services.
- Collaborate with all relevant parties to review the objectives and constraints of each solution and determine alignment with CDT strategic goals and objectives. Recommends the most suitable technical architecture and defines the solution at a high level.
- Identifies and recommends areas appropriate for further study and participates in any Proof of Concept projects required to investigate architectural possibilities and strengthen arguments for their adoption.
- Accountable for the identification, management, and mitigation of all Infrastructure architecture risks that have the potential to impact the business' objectives, including ensuring our customers receive fair outcomes.
- Provide Cloud computing technical expertise and knowledge in collaboration with Infrastructures Services procedures, to CDT and customer design, development and implementation teams.
- Provide assessments, advice, and recommendations to CDT management, executives and customers detailing architected designs and proposed solutions.
- Provide guidance on integrating the data center infrastructure network and cloud services with existing Infrastructure and networking architecture.

Research and Development

30%

The IT Specialist III will maintain a high level of knowledge and mastery of Infrastructure data center cloud-related technologies through on-going research and development. These responsibilities include:

- Work with strategic vendors and partners to review and influence product roadmaps, strategies, run proof of concepts, and identify gaps and solutions.
- Monitor new technological advances in application development and information technologies.
- Maintain a high level of knowledge on existing and emerging cloud technologies and cloud and hybrid cloud frameworks
- Evaluate, test and recommend new cloud and infrastructure technologies and services for inclusion into the CDT service catalog
- Attend conferences, seminars, and meetings to keep abreast of new cloud, and data center network management services technologies within the industry.
- Research, analyze, recommend and select technical approaches to address challenging development and integration problems with cloud environments.
- Perform research activities to identify emerging technologies and trends that may affect the enterprise
- Maintain awareness of vendor/product industry developments, regulations and trends and identify potential impacts to the enterprise

Consulting

15%

The IT Specialist III represents CDT in a consulting capacity with vendors, business units and customers. These duties include:

- Participate in meetings with customers to assist with architecting IT modernization strategies.
- Help customers align Infrastructure network and cloud computing technologies with business needs, and helping identify the most appropriate resource for identified workloads.
- Meet with customers' architects/developers to assist in assessing the skills needed to be successful in their long-term IT modernization efforts
- Consult on the application of reference architecture, strategic direction of merging the Infrastructure network and cloud computing technology, and serve as a SME with contextual knowledge of the business model.
- Finding the best technology solution among all possible to solve the existing business problems in regards to infrastructure and cloud technologies.
- Conduct and actively participate in meetings related to the designated project/s, both locally and internationally, with clients and partners.

Training

5%

- Foster an innovative culture, promoting an open and proactive approach to collaboration.
- Work with management to develop training materials and test environments for CDT staff.

Cloud, Network and Infrastructure Architecture Liaison.

5%

The IT Specialist III will serve as the main point of contact for all Infrastructure related projects and initiatives. The incumbent will serve as the lead for cross-functional teams involving Network, Cloud and Infrastructure Architecture services.

Marginal Functions (Percentages shall be in increments of 5, and should be no more than 5%)

5%

Perform other job-related duties as required

Work Environment Requirements

- Must pass a fingerprint background criminal record check completed by the Department of Justice (DOJ) and the Federal Bureau of Investigation (FBI).
- May be required to travel to various offices and locations throughout the State and surrounding areas to provide client services and attend meetings, conferences and training.
- May be required to travel via private or public transportation including overnight lodging.
- May be required to carry a mobile device and be available by phone and/or email.
- May be required to work outside of normal business hours; periodic off-shift and weekend work.
- Works in an office environment operating a laptop, keyboard, mouse, monitor(s) and printers under non-natural lighting for prolonged periods.
- Must maintain consistent, predictable attendance.
- Professional business attire may be required.

Allocation Factors (Complete each of the following factors.)

Supervision Received:

The Information Technology Specialist III receives administrative direction from the Information Technology Manager II.

Actions and Consequences:

The IT Spec III is expected to demonstrate strategic technical leadership; act independently in their duties, and advise on major decisions that can have an impact on the governance and policies related to Infrastructure Services and Cloud architecture. Poor recommendations and facilitation can create significant problems in the development of a system and result in project delays and over-expenditures. This is especially important for systems that provide critical services to the public or satisfy a legislative mandate.

Personal Contacts:

The IT Spec III works closely with department's technical personnel and will have frequent contact with other Agency/Department's executive staff, managers, and staff, as well as vendors to advise, plan, implement and support advanced Infrastructure and Cloud Computing initiatives. The IT Spec III has frequent contact with CDT executive staff, and sub-organizations to CDT to ensure that state procedures are followed and that critical issues and policies are well

understood and acted appropriately upon. Represent the CDT in a way that will enhance public respect for and confidence in the employee, Department and State Government.

Administrative and Supervisory Responsibilities (Indicate "None" if this is a non-supervisory position.)
None

Supervision Exercised:

The IT Spec III does not supervise but may lead. The IT Spec III provides technical and project management leadership but does not provide day-to-day operational management or supervision. The IT Spec III has defined responsibility and authority for decision making related to projects or in advisory function.

Other Information

Desirable Qualifications: (List in order of importance.)

- Extensive project experience architecting, documenting, migrating and deploying cloud-based solutions.
- Excellent verbal and written communication, time management, presentation, and organizational skills.
- Hands-on, technical subject matter expert with the ability to propose, present and influence architectural design ideas to executives and technical management and work with customers' developers, architects, and technical management.
- Identify key trends and emerging technologies that can enhance or impact the solution architecture to maximize the value of CDT Cloud offerings.
- Extensive knowledge and practical application experience working in advanced software-defined networks concepts, Cloud computing, and Platform as a Service methodology.
- Strong creative ability demonstrated with an exceptional track record of innovation and hybrid cloud strategy generation.
- Ability to support a culture of idea generation/thought leadership.
- Experience with complex cross product implications.
- Ability to communicate, influence and work with a wide audience to help drive the target system architecture across CDT Cloud systems portfolio.
- Customer-focused with an ability to learn and adapt quickly to new technologies and environments while being able to see and present the "big picture."
- Lead cross-functional teams to deliver collaborative services using mostly public cloud IaaS+PaaS, and a combination of SaaS solutions.
- Strong analytical and problem-solving skills with the ability to remain calm under pressure
- Experience designing security from both a cloud architecture and infrastructure perspective.
- Experience with git or other source control tools.
- Experience with infrastructure and application deployment automation tools.
- Performance analysis, troubleshooting and remediation techniques.
- Experience with networking principles and technologies (DNS, Load Balancers, Reverse Proxies).
- Provide cloud technology training and education to cross-functional teams and management.
- Basic understanding of compliance as it relates to the cloud covering vertical market and sovereign regulations.
- High Availability and Disaster Recovery principles, patterns and usage.
- Ability to adapt the role of architect to a modern DevOps environment with both pre and post-development engagements.
- Participate with a cross department-functional team to establish a cloud operational governance framework.
- Excellent knowledge of routing protocols and their application.
- Experience in technology strategy development.
- In-depth knowledge of Data Center operations.

INCUMBENT STATEMENT: I have discussed the duties of this position with my supervisor and have received a copy of the duty statement.

INCUMBENT NAME (PRINT)	INCUMBENT SIGNATURE	DATE
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SUPERVISOR STATEMENT: I have discussed the duties of this position with the incumbent.

SUPERVISOR NAME (PRINT) Richard Gillespie	SUPERVISOR SIGNATURE	DATE
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