DUTY STATEMENT

Employee Name: Vacant	Current Date: 03-06-2025
Classification: Information Technology Specialist II	Position #: 673-860-1414-001
Division/Office: Office of Information Services	CBID: R01
Section: Enterprise Service Unit	
Supervisor Name: Ward Johnson	Supervisor Classification: IT Manager I

I certify that this duty statement represents an accurate description of the essential functions of this position.	
Supervisor:	Date:

I have read this duty statement and agree that it represents the duties I am assigned.	
Employee:	Date:

SPECIAL REQUIREMENTS OF POSITION (IF ANY):

☒ Designated under Conflict of Interest Code.
☐ Duties performed may require pre-employment physical.
☐ Duties performed may require drug testing.
☐ Duties require participation in the DMV Pull Notice Program.
☐ Requires the utilization of a 32-pound self-contained breathing apparatus.
☐ Operates heavy motorized vehicles.
☐ Requires repetitive movement of heavy objects.
☐ Works at elevated heights or near fast moving machinery or traffic.
☐ Performs other duties requiring high physical demand. (Explain below):
☐ Duties require use of hearing protection and annual hearing examinations.

SUPERVISION EXERCISED

☒ None	☐ Lead Person
☐ Supervisor	☐ Team Leader

FOR SUPERVISORY POSITIONS ONLY: Indicate the number of positions by classification that this position DIRECTLY supervises:

Total number of positions in Section/Branch/Office for which this position is responsible:

FOR LEADPERSONS OR TEAM LEADERS ONLY:

Indicate the number of positions by classification that this position LEADS:

MISSION OF SECTION:

The mission of the Office of Information Services (OIS) is to leverage the most effective information technologies available to achieve the California Air Resources Board's (CARB) program goals. The mission includes ensuring that such technologies are professionally managed, properly maintained and efficiently used.
The Enterprise Systems Management (ESM) Section is responsible for architecting and supporting the databases, applications, web servers, system software, storage systems, networks, and hardware used to host all of CARB's most complex information systems and business applications. These systems and applications capture, process, report, and manage collected air quality data, perform scientific modeling of air quality and meteorological data to assess the extent of the State's air quality problems, as well as register and track the performance of regulated parties whose businesses affect air quality. These systems are utilized extensively to disseminate critical program information to staff, districts, researchers, and stakeholders world wide. The Enterprise Service Unit (ESU) responsibilities within ESM include the analysis of technical requirements, development of technical specifications and architectures, the integration of database systems with custom and commercial applications, the provisioning, administration and maintenance of both physical and logical servers, backup and restoration of data, availability and performance monitoring, network management, and the administration of services and support received from the State's data centers.

Enterprise Server Unit has the primary responsibility for developing, implementing, maintaining, and administering the CARB enterprise core servers and systems software, including multiple highly complex Storage Area Networks (SANs) as well as a cloud computing environment utilizing multiple seperate high-density blade computing systems at multiple locations. The team is responsible for hosting production business applications, as well as system administration for many of these systems, and the majority of CARB's critical infrastructure, including mail relays, Secure Proxy servers, SharePoint, Microsoft database servers, Anti-Virus servers, remote access systems (Direct Access), Portal1, and Terminal Services Gateway. Further the section has taken on hosting support for CARB's new complex modeling system, crucial to the PTSD Air Quality modeling program. The section handles backup and restoration of data, the administration of services and support received from the State's data centers, perform analysis of requirements for hardware and software; and supports the migration of business applications to the CARB enterprise hosting environment.

CONCEPT OF POSITION:

Under administrative direction, the IT Specialist II (IT Spec II) in the Enterprise Systems Management Section is the enterprise architect and senior technical expert in Microsoft-based technologies supporting some of the State's most complex regulatory and life-critical applications, databases, and web sites that need to remain operational and available to the public in any disaster significantly affecting California's air quality. These technologies include Windows Server, SQL Server, SharePoint 2013, .Net application framework, and VMware and Hyper-V virtualization, among others. The incumbent plays a major role in formulating CARB IT strategies and policies, and is also responsible for providing strategic leadership to the enterprise infrastructure team—ensuring the secure, effective and efficient operation of computer hardware, virtual servers, and system software. The incumbent must be available to travel up to 5% of the time.

The IT Spec II conducts business activities in a professional manner that leads to superior customer satisfaction and delivers services that meet or exceed the customer's expectations. The IT Spec II is responsible for individual decisions and actions while working on systems using best practices and innovative technologies. When handling confidential personnel and/or business data, the IT Spec II must maintain confidentiality.

INFORMATION TECHNOLOGY DOMAINS:

☐ Business Technology Management
☒ Information Security Engineering
☐ IT Project Management
☒ Software Engineering
☐ Client Services

☒ System Engineering

% OF TIME	RESPONSIBILITIES OF POSITION
35% E	Enterprise Systems Administration – Provides master level leadership and plans, organizes, executes, and monitors all system administration activities for CARB's largest and most complex Linux Servers and Microsoft Windows servers and systems, including Systems Administration of AWS and Azure Cloud Systems, SharePoint, SQL Server, web servers, application servers, and VMware and Hyper-V virtualization platforms. Develops, documents, implements, schedules, and follows standard Microsoft Windows system administration, Microsoft Active Directory, Security certificate Administration and configuration management processes and procedures following industry best practices and standards, such as the Information Technology Infrastructure Library (ITIL). Complies with agency and state IT policies. Performs Linux, and Windows system administration and maintenance tasks on CARB's largest and most complex systems, including provisioning virtual severs; installing, configuring, and patching operating systems; installing, configuring, upgrading, and testing system and user applications;

	monitoring, analyzing, and reporting server performance, resource usage, and availability; performing data backup and recovery; developing and implementing scripts and group policies; troubleshooting server problems; performing audits of accounts, logs, system file usage, system services, and security events; managing Active Directory, Domain Name Service, software update services, remote access services, threat management services, proxy services, mail services, file transfer services, F5 Load Balancers and security services; managing storage allocation; writing and maintaining operating system scripts; and managing scheduling of one-time and recurring batch jobs and processes.
	Leads, plans, organizes, executes, and monitors all database administration activities for CARB's largest and most complex Microsoft SQL Server database servers and Oracle databases that are hosted on Microsoft platforms. Develops, documents, implements, schedules, and follows standard SQL Server database administration and configuration management processes and procedures following industry best practices and standards, such as ITIL, and complying with department, agency and state IT policies.
	Performs SQL Server and Oracle database administration and maintenance tasks on CARB's largest and most complex systems, including installing, configuring, upgrading, and patching database management system software; testing system and user applications for database connectivity and accessibility; monitoring, analyzing, and reporting database performance, resource usage, security, and availability; database performance tuning; performing database backup and recovery; administering database user and group roles and permissions; troubleshooting database server problems; performing audits of database accounts, logs, resource usage, and security events; and managing database replication and job schedules.
	Supports the most complex user data analysis and management needs, including data modeling, designing databases and tables, reviewing proposed database changes, writing SQL queries and stored procedures, creating data views, developing scheduled database tasks, and designing, developing and running extract-transform-load processes.
30% E	Enterprise Operations Strategic Leadership – Maintains the highest level of technical knowledge, mentors the Enterprise Infrastructure Team and manages daily operation of the enterprise virtualized hosting environment; operates, monitors, maintains, installs, isolates faults, plans upgrades, and coordinates outages, restorations and other operational recovery processes.
	Provides master-level expertise and operational oversight for CARB's general purpose Storage Area Networks (SANs). Provides provisioning, backup, restore, and disaster recovery of CARB's essential data storage environment. Researches and evaluates updated services and features of SAN and file server operating systems in an effort to find improvements that will benefit and improve the quality and depth of the services provided to CARB users.

	Provides master-level expertise and operational oversight for CARB's infrastructure server systems comprised of rack mounted and blade servers hosting hundreds of virtual servers spanning multiple operating systems and platforms. Provides master-level expertise in the installation, operation, and maintenance of CARB's Cisco Unified Computing System. Installs, monitors, and maintains all aspects of VMware vSphere Enterprise for central management of virtualization as a service across the CARB enterprise. Provisions virtual servers to support multi-tier enterprise applications using web, database, middleware, and application tiers. Serves as security expert for virtual computing environment and monitors to ensure it meets security requirements. Provides master-level expertise, operational oversight, and data analysis for CARB's cloud computing environment. Reviews provision of historical Virtual Machines (VMs) to ensure they are sized appropriately with regard to resource allocation, such memory, CPU cores, and storage. Identifies VMs that have excess resources allocated and works with business application owners to reallocate resources more appropriately. Monitors, analyzes, documents and reports data usage trends and metrics holistically and by division or work-group to aid in capacity planning. Provides master-level expertise and operational oversight for CARB's extensive Air Quality and Meteorology Modeling system and off-site Disaster Recovery system. Monitors and reports system performance and resource usage; plans for upgrades and replacements to address increasing workloads, and to satisfy new business needs. Leads new equipment procurement, installation and upgrade projects.
10% E	Technical Expert/Architect – serves as CARB's most senior technical expert in Linux Systems and Microsoft technologies and architects the largest and most complex applications and systems utilizing Microsoft operating systems and databases. Follows Microsoft technology trends relevant to CARB systems in order to provide guidance and recommendations to CARB's Chief Information Officer and other technology leaders supporting development of organizational IT strategies and policies. Provides enterprise-level leadership in the most complex application and database server architectural designs, including performance, availability, capacity planning and security. Serves as the Microsoft technical expert team member on the largest and most complex application development projects, especially in the early architectural design and prototyping phases. Provides application architecture and database design and performance expertise for activities such as feasibility studies and conceptual designs.
10% E	Technical Project Lead – leads, plans, organizes, monitors, controls, and executes the largest and most complex technical infrastructure projects and commercial software implementation projects supporting technical processes and IT business processes. Performs feasibility studies, cost/benefit analysis, and product selection. Writes business cases,

	technical documentation, and procurement documentation for technology acquisitions, system software licensing, and computer hardware. Manages scope, cost, schedule, quality, communications, risks, and resources for technology implementation projects.
10% E	Mentor – provides formal and informal training to staff in backup and collateral roles on Microsoft system and database software technologies, topics and issues.
5% M	Technical Consultation – demonstrates the most proficient and effective oral and written communications skills while serving as technical expert to development teams, user groups, and external organizations on Microsoft system and database software technologies, topics and issues; consults on the most complex problems and projects regarding Microsoft system and database software technology implementations. Staff Backup – serves as backup to staff in related unit roles, including network and system infrastructure administration.