

Advanced Metering Infrastructure (AMI) System Administrator

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DEFINITION

Under general direction, administers the Advanced Metering Infrastructure (AMI) systems, including configuring, maintaining, monitoring, and troubleshooting the systems to ensure its proper operation and efficient utilization. Provides assistance and guidance on AMI related requests and functions to all other sections and divisions. Performs other related work as assigned.

DISTINGUISHING CHARACTERISTICS

Positions in this information technology job classification are responsible for performing specialized, difficult, and responsible types of duties, including complex problem solving. Upon hire, incumbents are not required to have experience with AMI systems, however they should have sufficient systems experience in order to gain the knowledge and skills required to perform the duties of this classification prior to completing the twelve month probationary period. This class is distinguished from lower classifications by the specialized nature of the work pertaining to AMI systems and networks and from higher classifications that may have significant supervisory and management responsibilities.

EXAMPLES OF DUTIES

1. Configures the AMI system by completing new system integrations; configuring changes to optimize system performance; and configuring the system based on changing business requirements.
2. Maintains the AMI system by monitoring and updating system software and hardware firmware version requirements; importing and downloading firmware remotely to appropriate devices; performing ongoing radio frequency (RF) network tuning and adjustments; and developing preventive maintenance programs for various network equipment to optimize system performance.
3. Monitors the health and performance of the AMI system by regularly reviewing numerous related systems and reports for alarms, events, and abnormalities; also responsible for using and monitoring a variety of software systems, tools, and portals, including the AMI Head-End System and Meter Data Management System. Ensures service and daily read levels are achieved.
4. Troubleshoots and resolves issues with the AMI system by issuing commands to equipment, remotely querying equipment, checking the status of system networks, and securing endpoint information; issues, coordinates, and oversees related service orders to ensure that issues are resolved; and works with Operations staff to take corrective action to resolve conditions with system hardware.
5. Provides AMI system support to other operational areas in the department by providing technical assistance to field personnel performing installation and maintenance of the network equipment and devices; providing data and system information related to inquiries from billing, customer resource, and engineering sections; extracting data as needed; monitoring system events which will assist in proactively identifying data and system anomalies such as potential tamper/theft, outage, and communication events; and documents procedures and provides end user training on systems and processes.

6. Contributes to the efficient utilization of the AMI system by monitoring endpoint communication meter exception reports in order to validate readiness of reads; ensuring that meter changes (add/change/remove) are accurately and timely recorded; making recommendation on process improvements in response to system alarms and notifications; developing and customizing system reports; maintaining databases to track network devices; developing dashboards and key performance indicator views to monitor the AMI system, making recommendations on equipment procurement, repair, and disposal; and training users as needed.
7. Ensures ongoing security protocols are implemented, evaluated, and monitored by performing ongoing encryption maintenance; ensuring system and data integrity; and ensuring secure system integrations.

EMPLOYMENT STANDARDS

Education/Experience

Any combination of education and experience likely to provide the required knowledge and abilities; a typical way to obtain the knowledge and abilities would be:

Education: Graduation from an accredited four year college or university with major course work in computer science, information systems, or related field.

Experience: Four years of experience in IT system administration or related field, which includes experience in the configuration, troubleshooting, maintenance, and analysis of systems, networks, computers, and peripheral equipment. Experience with Advanced Metering Infrastructure (AMI) system administration and/or experience working at an electric utility is desirable.

Knowledge

Knowledge of methods, tools and procedures used in the installation, repair, and maintenance of computers, networks, and peripheral equipment; designated computer software and hardware; information systems applications; network system architecture; network operating systems; multiple networking protocols; performance and traffic monitoring; security and integrity maintenance; structure development, features, and access configurations and interfacing; help desk/service order methods and operations; data network operations and procedure analysis and design; principles and practices of project management; records storage and handling techniques; and safe work practices.

Ability

Ability to install, configure, troubleshoot, and maintain a variety of computers, networks and peripheral equipment; read and interpret documents such as operating and maintenance instructions and technical procedure manuals; troubleshoot complex systems; develop reports and establish and maintain accurate records; analyze and interpret computerized data; train others in use of computer equipment and operating procedures and provide technical support; meet established timelines; draw valid conclusions; work effectively with abstract and concrete variables; use initiative and judgment in situations where standard procedures may not apply; work independently and coordinate with multiple work parties; respond to and address urgent issues in a professional manner; communicate clearly and concisely with different divisions of AMP, outside vendors, and the public, both verbally and in writing; establish and maintain effective working relationships with those contacted in the course of work; safely drive; learn and apply the principles and practices of revenue metering, communication networks, and supporting systems (meters, routers, data collectors, etc.); learn and apply radio frequency (RF) and microwave theory; learn the overall concepts of electric utility service operations; learn to maintain and operate data and RF networks; learn and apply City policies and procedures; learn and apply pertinent local, state and federal laws, ordinances, rules, and general orders; and maintain level of knowledge required for satisfactory job performance.

Special Requirements

Willingness and/or ability to work outside regular scheduled hours to meet operational needs.

Other Requirements

Possession of a valid California Driver's License and satisfactory driving record at the time of appointment is required as a condition of initial and continued employment only if the operation of a vehicle, rather than the employee's ability to get to/from various work locations in a timely manner, is necessary to perform the essential functions of the position.

SN: File location