

MAJOR FUNCTION

This is advanced and specialized professional and technical systems control and applications engineering work in the design, specification, configuration, selection, acquisition, implementation and management of computer hardware and software resources to support the Underground Utilities' networked data acquisition, monitoring and control systems. The incumbent serves as technical expert, administrator and systems engineer for all soft points related to planning, developing, integrating, evaluating and maintaining conflict free SCADA network services. The incumbent analyzes anomalies, recommends resolutions to problems, and conducts system testing with minimal management direction. Work also involves consulting with customers to gather information and determine requirements for information systems, coordinating and directing appropriate technological solutions, and providing front-line technical support for resolution of problems related to operating systems and processes. Work is performed under the general supervision of the Manager-Underground Utilities Business And Technology Development, with the incumbent exercising considerable independent judgment in executing program activities.

ESSENTIAL DUTIES AND OTHER IMPORTANT JOB DUTIES**Essential Duties**

Serves as technical expert, administrator and systems engineer for all information technology elements related to planning, developing, integrating and maintaining conflict free SCADA network services for the Underground Utilities. In response to customer requests, develops new and modifies existing SCADA computer application programs, applets, and scripts using JAVA, and VB code in Microsoft Windows Server environment. Provides interactive responses to complex computer operational and engineering software issues, as well as real time analysis of test results to obtain desired outcome from the system or its sub-components. Coordinates internal and external system segments to generate recurring, unique and special test activities. Manages detailed integration, testing, code promotion, and cut-over activities, according to accepted ISS Department policy and procedure. Plans, evaluates, and administers implementation of all hardware and software improvements to the SCADA system and manages the successful interface with peripheral control systems. Analyzes cost statistics and prepares economic comparisons of alternatives. Organizes and prepares technical documentation. Initiates timely contingency planning activities to head-off or abort system problems or abnormal circumstances. Gathers feedback on system operations and potential uses by surveying and consulting with managers, professionals, technicians and operators using or responsible for operating the various components of the network. Evaluates, plans, programs, and implements improvements to software and hardware that provide system operators with effective human-machine-interface to monitor and control networked systems. Coordinates with SCADA operations engineer and associated staff to ensure seamless integration of newly installed or upgraded system components. Performs related work as required.

Other Important Duties

Benchmarks with other Florida utilities with best practices in relation to SCADA management and control. Serves on ad hoc and cross-functional teams or committees as required. Prepares proposals, makes reports and maintains records. Conducts research, attends training and reads industry-related materials to keep abreast of developments in improvements in SCADA systems. Performs related work as required.

DESIRABLE QUALIFICATIONS**Knowledge, Abilities and Skills**

Considerable knowledge of computer systems, hardware and software configurations, and their potential interface with electrical control systems, networked and distributed systems and their various applications. Considerable SCADA communications knowledge. Considerable knowledge of project

management techniques. Considerable knowledge of design of distributed systems, both hardware and software, including large-scale computer systems, client-server methodology, open systems, and relational database. Ability to work productively in a complex, multi-customer, contractor and technology environment. Knowledge of system tuning and application development and documentation. Ability to use multiple proprietary software systems simultaneously to achieve desired outcomes. Ability to provide technical solutions to a wide range of difficult problems and solutions which are consistent with organizational objectives. Ability to work with general directions and independently determine and develop approaches to solutions. Ability to plan projects, prepare cost estimates, conduct engineering research, make inspections, and prepare progress and accomplishment reports. Ability to maintain effective communication and working relationships with fellow employees, contractors and the general public. Ability to express ideas on technical subjects clearly and concisely, both orally and in writing. Must demonstrate high degree of analytical skills. Considerable skill in the use of microcomputers and the programs and applications necessary for successful job performance.

Minimum Training and Experience

Possession of a bachelor's degree in electrical engineering, computer engineering, computer science or a related field and five years of professional experience that includes supporting a SCADA (Supervisory Control and Data Acquisition) communications system by providing hardware and software configuration, system tuning, and application development and documentation; or an equivalent combination of training and experience.

Necessary Special Requirement

Must possess a valid Class E State driver's license at time of appointment

Established: 05-08-10