SYSTEM ADMINISTRATOR
Infrastructure Division

DEFINITION
Under limited direction, to administer server hardware, software, operating systems, and security including the design, installation, configuration, optimization, maintenance, and support of host systems, database server administration, and systems programming. Perform other work as assigned.

DISTINGUISHING CHARACTERISTICS
This is the expert level classification for the Systems Administration series of the Infrastructure Division of IT, which provides support for agency servers and systems administration. Incumbents perform duties of the highest level of complexity and difficulty, with the greatest scope and impact; serve as an expert technical resource; and may act as a team leader. Incumbents participate in enterprise-level projects and exercise substantial independent judgment regarding high-impact infrastructure implementations; they may administer a medium-size site or assist in the administration of a large, complex site. Errors could jeopardize the assigned project(s) and may have significant financial and legal exposure across the enterprise.

REPORTS TO
Senior System Administrator
Infrastructure Manager
Information Technology Director

CLASSIFICATIONS DIRECTLY SUPERVISED
May provide direction, training, scheduling, and basic supervision for the IT Specialist Series.

EXAMPLES OF DUTIES
Duties include but are not limited to the following:
- Provides expert level, Tier II technical support on hardware and software used by agency personnel.
- Resolves highly complex system errors and issues, which involve advanced knowledge of operating systems, networks, and deployed software.
- Designs, configures, documents, and maintains operating systems and a converged network environment that support a large number of users and complex systems.
- Manages systems and technologies that ensure security compliance with agency policies, contracts, and partnerships, in a manner that reflects industry standards.
- Manages critical infrastructure systems including those with sensitive data requiring the maintenance of confidentiality.
- Manages Active Directory and designs Group Policies which impact the organization.
- Serves as a resource and mentor for IT Specialist staff with administrative supervision duties.
- Analyzes and modifies configurations to improve system performance, security and user functionality.
- Designs, develops, implements, configures and manages systems programs and applications.
- Designs system backup strategies and oversees Disaster Recovery.

- Determines feasibility, cost, equipment, and time constraints, and may be responsible for resource allocations for assigned projects.
- Develops standards and recommendations regarding technology and tools.
- Installs and administers databases.
- Researches vendor options and makes recommendations regarding vendor service relationships.
- Serves as Project Manager, creating project documents, plans, schedules, and task lists. Manages resource allocations, schedules, and risk. Reports and escalates appropriately.
- Directs and performs hardware and software installation and troubleshooting. Transports related equipment as necessary.
- Attends trainings, seminars and user conferences to ensure adherence to industry standards.
- Perform other related duties as assigned.

QUALIFICATIONS

Thorough knowledge of:
- All hardware and operating systems and platforms used at the agency.
- Computer/server operating systems, systems and/or application programming, and system security.
- The principles, practices and methods of designing and operating stand-alone and networked computer operating systems.
- Local operating system structures, policies and procedures.
- The principles, practices, and methods of designing server infrastructures.
- Service delivery standards.
- System configuration parameters.
- The languages, hardware and tools specific to the assignment(s).
- The principles, practices and methods of installing and maintaining server software and hardware.
- Problem analysis techniques such as Root Cause Analysis.

Working knowledge of:
- Networking, telephony, and communication.
- The principles, practices and methods of project management.
- The methods and techniques of developing and monitoring project budgets.
- The principles, practices and methods of training and mentoring.
- Basic Requests for Proposals (RFP) and Feasibility Study Reports (FSR) procedures.
- The principles, practices, and methods of supervision.

Some knowledge of:
- Programming and scripting with commonly utilized languages.
- Database and server performance tuning and security issues.

Ability and willingness to:
- Expertly install, upgrade, and maintain desktop hardware and software.
- Oversee documentation efforts to ensure quality and usability for department staff.
- Interpret customer/user requirements and use engineering techniques to design server based infrastructure and database systems.
- Support and participate in training for agency staff.
- Mentor, support, and supervise IT Department staff.
- Analyze systems and specifications, ultimately specifying detailed requirements for hardware and software, maintenance contracts, and software licenses.
- Lead project teams and manage projects to deliver them 'on-time' and 'on-budget'.
- Create functional and technical specifications for complex technologies.
- Implement computer and network based security standards and requirements at the enterprise level and create security standards and requirements as needed.
- Utilize and recommend appropriate technologies and applications for business needs and problem resolution.
- Utilize system commands and processes, including operating system/scripting languages to create complex system-level programs for server and database administration.
- Interpret data on system usage and develop engineering specifications to support changing service levels.
- Work effectively with a wide range of constituencies in a diverse political and technical environment.
- Assist with establishing project budgets and operate within budgetary constraints.
- Operate applicable troubleshooting equipment / software and analyze server, application/database and network problems using appropriate technologies.
- Understand and manipulate data structures.
- Use good judgment and work with minimal direction.
- Read, comprehend, and write technical documentation.
- Work cooperatively and effectively with other staff members, customers, contractors and vendors.
- Communicate expertly, both orally and in writing.
- Present technical concepts to technical and non-technical staff.
- Lift equipment weighing up to 40 pounds.
- Serve as a Disaster Service Worker during certain emergency operations.
- Be service oriented, effectively represent the County's Information Technology Department, and inspire others to think creatively for the good of the County.
- Establish and maintain cooperative working relationships.
- Maintain confidentiality.

TRAINING AND EXPERIENCE:

Any combination of training and experience which would provide the required knowledge and abilities is qualifying. A typical way to obtain the required knowledge and abilities might be:

A Bachelor's degree from an accredited college or university in a computer related field and four (4) years of experience working with and administering systems;

OR

Current MCSA with four (4) years of experience, an MCSE with five (5) years of experience, or an MCITP with six (6) years of experience working in some level of system administration.

Completed coursework in systems design is highly desirable.

TYPICAL PHYSICAL REQUIREMENTS

Sit for extended periods; frequently stand, walk, stoop, kneel, and crouch; physical ability to lift and carry objects weighing up to 50 pounds on an occasional basis and in excess of 50 pounds with assistance; normal manual dexterity and eye-hand coordination; corrected hearing and vision to normal range; excellent verbal communication; use of office equipment.

TYPICAL WORKING CONDITIONS

Work is generally performed indoors though a considerable amount will take place in the field.

SPECIAL REQUIREMENTS:

- Satisfactory completion of a Department of Justice background investigation.
- Possession of a valid driver's license and occasional need to drive in excess of 100mi./day.
- May be asked to work other than a normal 8:00 AM to 5:00 PM shift including On-Call/After-Hours emergency support.

This job specification should not be construed to imply that these requirements are the exclusive standards of the position. Not all duties are necessarily performed by each incumbent. Additionally, incumbents will be required to follow instructions and to perform other job related duties as may be required.

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