FIRE DEPARTMENT
SANTA CLARA COUNTY

NETWORK AND SECURITY ADMINISTRATOR

DEFINITION

The position of Network and Security Administrator generally performs professional level information systems duties in the area of network, security and system administrative duties, server virtualization; and duties relative to the assigned area of responsibility.

This classification is a Fair Labor Standards Act exempt, unrepresented position in the Classified Service.

DISTINGUISHING CHARACTERISTICS

This is the advanced-level class in the Information Technology unit. Positions at this level are distinguished from other classes within the series by the level of responsibility assumed and the complexity of duties assigned. Incumbents perform the most difficult and responsible types of duties assigned to classes related to the Information Technology unit including maintaining the most complex Department network and security systems, server virtualization, and performing systems analysis duties. Under general direction of the Information Technology Officer, incumbents in this role work independently, but may also hold a team lead position or supervise assigned personnel. Incumbents at this level are required to be fully trained and knowledgeable in all procedures related to assigned area of responsibility.

EXAMPLE OF DUTIES

Depending upon assignment, duties may include, but are not limited to the following:

− Perform a variety of professional level duties to support information technology systems and programs in assigned area; serve as liaison between system users and information systems staff in the development, implementation, administration and maintenance of information systems.

− Provide solutions to operations problems; refer users to appropriate staff member.

− Install, evaluate, and maintain server applications and hardware; troubleshoot and rectify problems; recommend changes as needed.

− Consolidate data center hardware, enable business continuity through server virtualization and cloud solutions.

− Coordinate and document testing of new or revised software applications.

− Perform system maintenance activities on various files; monitor server file systems for proper space allocation; maintain system security; reset user passwords; grant or revoke system access. Provide support to local area networks.

− Create and modify user accounts.

− Maintain electronic mail access.

EXAMPLES OF DUTIES (continued)

– Install, configure and support hardware.

– Maintain file servers; monitor network performance and troubleshoot network problems; coordinate maintenance and repair with information systems or vendor staff.

– Develop written technical documentation, internal operating procedures.

– As assigned, perform database administration duties; provide support to programming staff in planning, designing and implementing application databases; maintain database security and user access; design, create and maintain physical objects including tables, files, libraries and indexes to support computer applications using database management systems; monitor database performance and troubleshoot problems; monitor and maintain space allocation for databases and files.

– Analyze user needs; design, write and execute programs in a variety of programming environments; design input and output documents including screens, forms, and reports.

– Provide user and server backups;

– Perform hardware configuration and support.

– Prepare project cost estimates and justification for new or enhanced system modifications; may prepare requests for proposals for vendor services.

– Perform quality assurance duties; review new application software for compliance with applicable quality assurance standards before implementation.

– Attend and participate in professional group meetings; stay abreast of new trends and innovations in the field of information technology.

– May work irregular and protracted hours, including weekends.

– Perform other duties as assigned.

EMPLOYMENT STANDARDS

Education and Experience: Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

A bachelor's degree from an accredited college or university with major course work in computer science, information systems, network engineering or a related field and four (4) years of increasingly responsible experience designing, programming, IT analysis, system software development in networking domain and infrastructure, network security protocols, deploying and managing large-scale distributed systems, server virtualization, cloud computing platforms (i.e. AWS, Microsoft Azure, Google App

Education and Experience: (continued)
Engine, etc.), and administration of computer hardware and software experience. Applicable experience beyond the required years of experience can be substituted for required education on a year to year basis.

Knowledge Of:

– Advanced understanding of the Apple and Windows platforms.

– Advanced network configuration and tools to administer the network.

– Server virtualization.

– Principles and procedures of quality assurance and security related to computer information systems.

– Advanced principles and practices of network and security, including troubleshooting.

– Methods and techniques of application development, system design, and programming. Methods and techniques used in the installation, troubleshooting and maintenance of information systems.

– Methods and techniques of systems, programming, and system software installation.

– Leadership skills in project implementations.

– Advanced principles and practices of computer science and information systems.

– Advanced principles and practices of information systems programming.

– Operational characteristics of a variety of computer platforms and operating systems.

– Pertinent local, state, and federal codes, laws, and regulations.

Ability To:

– Recommend technical and procedural hardware, software, and administrative improvements to departmental staff.

– Research and evaluate network systems, performance capacity, and compatibility with computer systems and portable devices

– Perform highly advanced programming related to network, security and systems administration.

– Reduce capital expenditures by increasing utilization of existing hardware.

– Ensure business continuity by reducing or eliminating downtime of workloads and infrastructure.

Ability To: (continued)

– Troubleshoot network and security systems.

– Provide continuity through server virtualization and cloud solutions.

– Oversee quality assurance and security procedures for applications services.

– Interpret and analyze user information systems requirements and develop solutions.

– Perform highly advanced systems and analysis programming duties for network, security and systems administration.

– Install, test, and configure highly complex hardware and software applications and programs.

– Work independently, exercising independent judgment and making appropriate decisions.

– Establish and maintain excellent, effective, and professional working relationships with those contacted in the course of work.

– Work collaboratively.

– Effectively manage multiple projects and priorities.

– Recognize problems and develop recommendations and solutions.

– Work irregular or protracted hours, including evenings and weekends necessary to meet deadlines and achieve objectives.

– Lead others in the area of technology direction and/or effectively train, motivate and supervise assigned personnel.

– Communicate clearly and concisely, both orally and in writing.

Working Conditions/Physical Demands: Work is performed both in an office setting and in the field. There may be exposure to noise and dust. Work may involve physical exertion including walking, standing, kneeling, stooping, reaching, lifting, crawling, and climbing. Perform simple and power grasping, pushing, pulling, and fine manipulation; use telephone; write and use a keyboard to communicate through written means; and lift or carry weight up to 50 pounds. Manual dexterity; clear, understandable speech; and visual and hearing acuity are also required.

Required License: Possession of a valid state of California driver's license.

Pre-Employment Conditions: The candidate must pass a background check, Live Scan fingerprint, and complete a medical examination.