SENIOR INFORMATION TECHNOLOGY ANALYST

DEFINITION

To plan, organize and coordinate professional level work involving the support of the City's telecommunications, network infrastructure or server/storage activities; and to provide technical and functional supervision over professional staff. Positions will be assigned a functional area. Periodically employees may be temporarily assigned duties of other functional areas or rotated based on operational needs.

DISTINGUISHING CHARACTERISTICS

The Senior Information Technology Analyst is the advanced journey level in the Information Technology Analyst class series. Positions at this level are distinguished from other classes within the series by the level of responsibility assumed, complexity of duties assigned, independence of action taken, by the amount of time spent performing the duties, and by the nature of the public contact made. Employees perform the most difficult and responsible types of duties assigned to classes within this series and provide technical and functional supervision over professional and technical personnel.

SUPERVISION RECEIVED AND EXERCISED

Receives general direction from an Information Technology Division Manager.

Exercises technical and functional supervision over professional and technical personnel.

EXAMPLES OF ESSENTIAL DUTIES - Duties may include, but are not limited to, the following:

All Functional Areas:

Develop schedules and methods to accomplish assignments ensuring work is completed in a timely and efficient manner.

Participate in the selection of staff; provide or coordinate staff training; work with employees to correct deficiencies; implement discipline procedures.

Participate in evaluating the activities of staff, recommending improvements and modifications.

Manage complex projects involving multiple City departments.

Prepare technical and administrative reports; review, prepare, and update internal system documentation and end user training instructional materials; conduct cross-training, and end user training on group or individual basis as needed; develop policies and procedures.

Provide Tier I and Tier II support of City communications, storage, and computing systems that have 24/7 criticality; maintain systems outside of normal business hours.

Participate in the development of Requests for Proposal; assist with the selection and oversight of consultants and vendors.

Participate in budget preparation and administration for assigned projects.

Build and maintain positive working relationships with co-workers, other City employees, vendors, other public agencies, and the public using principles of good customer service.

Prioritize competing problems, projects, and ad-hoc customer requests.

Perform related duties as assigned.

Communications Functional Area:

Plan, prioritize, and review the work of personnel assigned to professional level work involving systems support for the City's communications network infrastructure, including architecture, implementation, analysis, diagnosis, maintenance and troubleshooting of telephony, radio, cardkey, and camera/video systems along with related integration to other systems.

Perform the most difficult and complex work related to the maintenance of servers and related infrastructure, telephone and voicemail system, call center systems, call accounting, fax system, cardkey systems, camera systems, multiple radio systems, dispatch consoles, field subscribers.

Lead the management of the City's FCC licenses, including maintaining, tracking, updating, and coordinating with local frequency coordinator and FCC.

Prepare and maintain system procedures and documentation; monitor systems and network resources; maintain and administer security systems and methodologies.

Provide complex interoperability support including system use agreements, mutual aid agreements, encryption agreements, system ID assignments, encryption key coordination, system change coordination and letters of concurrence; develop incident-driven ICS communication plans and build regional relationships.

Manage radio tower site maintenance and support per basic preventative maintenance schedule and as environmental issues occur; plan and implement upgrades or changes to tower site facilities and technologies.

Design, implement, and maintain voice communications network infrastructure; develop cabling plans and hardware specifications for changes and updates to the citywide voice communications network.

Maintain and implement internal control, network security and other security systems for telecommunication data, systems, and hardware protection.

Lead the process to design, implement, maintain, and troubleshoot the City's disaster recovery and business continuity planning as it relates to telecommunications and radio infrastructure; coordinate with all subject matter experts as well as various departments and regional partners to provide fault

tolerant and highly available phone and radio services.

Assist with the identification of new systems, make recommendations, document, and communicate accordingly as vehicle and/or radio service needs change.

Analyze, procure, and coordinate data and voice antenna systems for new Police and Fire vehicles.

Monitor systems and network resources; maintain and administer security systems and methodologies.

Network Functional Area:

Plan, prioritize, and review the work of personnel assigned to provide systems support for the City's network and server infrastructure, including analysis, diagnosis, maintenance, and troubleshooting.

Perform the most difficult and complex work related to the design, development, testing, implementation, troubleshooting, security, and maintenance of complex LAN and WLAN network and server systems.

Analyze and solve complex operating problems; make system modifications as necessary; elicit technology requirements, evaluate, and make recommendations to improve network security and technology systems.

Configure security controls in multiple protection systems and IT infrastructure in accordance with policy, standards, and procedures; respond to and remediate security incidents occurring on desktops or servers, in the cloud, or within a specific system.

Design, implement, maintain, and troubleshoot complex data center network infrastructure; develop cabling plans and hardware specifications for changes and updates to the citywide network.

Provide advanced level support for the design, implementation, maintenance, and troubleshooting email infrastructure on-premises and in the cloud; serve as subject matter expert for electronic messaging, confidential litigation/eDiscovery requests, and electronic messaging security.

Provide advanced level support for design, implementation, maintenance, and troubleshooting the City's disaster recovery and business continuity planning as it relates to network infrastructure; coordinate with all subject matter experts to provide fault tolerant and highly available systems and networking infrastructure.

Serve as subject matter expert in the maintenance and support directory and authentication services, email and collaboration services and application service provision.

Design, implement, maintain, and troubleshoot cloud-based infrastructure and security.

Lead efforts to improve and maintain physical data center power, environmental, technology racking, cabling, and support partners.

Lead design, implementation, maintenance and troubleshooting efforts for the City's Single Sign-

On and Multi-Factor Authentication technologies.

Plan, implement, maintain, and monitor data center changes for environmental, physical, and power systems; plan and implement power, network, and racking solutions for technology equipment.

Maintain and implement internal control, network security and other security systems for computer and telecommunication data, systems, and hardware protection.

Server/Storage Functional Area:

Plan, prioritize, and review the work of personnel assigned to the design, implementation, maintenance, updating, troubleshooting, planning for future needs, testing, and procurement of the City's enterprise storage infrastructure, physical and virtual server infrastructure.

Design, implement, maintain, and troubleshoot the City's disaster recovery planning as it relates to systems infrastructure.

Consult on troubleshooting complex issues with various systems, integrations, and clients both on premises and in the cloud.

Lead the process to design, implement, maintain, and troubleshoot the City's disaster recovery and business continuity planning as it relates to server and storage infrastructure; coordinate with all subject matter experts as well as various departments and regional partners to provide fault tolerant and highly available server and storage infrastructure services.

Design, build, configure, install, monitor, and support the physical and virtual server environment, including cloud infrastructure, virtual platforms, operating systems, and security.

Design, configure, manage, and monitor highly scalable physical and virtual storage environment, including multiple Storage Area Network and Network Attached Storage solutions.

Design, configure, manage, and monitor data backup environment, including off-site disaster. Recovery, Backup Libraries, and File Recovery utilizing multiple vendor solutions; regularly test backup files to check for data errors.

Install, configure, test and update server operating systems and related server-class software and monitoring systems for citywide server computing platforms, including cloud infrastructure.

Provide infrastructure support for enterprise applications, including meeting with business and application owners to define technology requirements prior to project implementation.

Plan, implement, maintain, and monitor data center changes for environmental, physical, and power systems; plan and implement power, network, and racking solutions for technology equipment.

Monitor system resources; maintain and administer security systems and methodologies.

Respond to and remediate security incidents occurring on desktops or servers, in the cloud, or within

a system following Incident Command System protocols as appropriate.

MINIMUM QUALIFICATIONS

Knowledge of:

All Functional Areas:

Computer operating systems, local area networks, data communications software and hardware and network technology and environment.

Principles and practices of complex operating system design, analysis, and documentation.

System licensing, auditing, and compliance.

Information Technology Service Management practices and processes.

Principles of power, effective radiated power, voltage, grounding, electrical wiring, and basic electronics.

Advanced project management methodologies.

Communications Functional Areas:

Principles and practices of complex radio and phone system architecture and programming.

RF Radio Systems including conventional, trunking, simulcast and voting system technologies as well as various frequency spectrum including VHF and 800MHz.

Radio principles including wavelength, decibels, voltage standing wave ratio, transmit, and receive.

Transmission, broadcasting, switching, control, and operation of telecommunications and radio systems.

Design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models.

Advanced information technology security concepts for communications.

Network fundamentals including software-defined networking.

Application troubleshooting in server-client environment.

Servers, server operations and operating systems.

Fundamentals of Uninterruptable Power Systems design and maintenance.

Phone system architecture and programming fundamentals.

Electrical wiring and basic electronics.

Cable plant wiring including fiber, copper, and punch blocks.
Incident command system principles, structure and communication-related roles and forms.

FCC spectrum allocation, policies, regulations, and FCC license requirements.

Principles and techniques of various data communication systems, computer logic and mathematics.

Data center architecture.

Network Functional Area:

Principles and practices of complex network and server infrastructure related analysis and design.

Principles and practices of security and maintenance.

Various operating systems include Microsoft Windows, Linux, iOS, Cisco IOS XE and Cisco NX-OS.

Servers, server operations and operating systems.

Principles and practices of data communications, data center architecture, UPS design and maintenance, and environmental design and monitoring.

Networking protocols, services, and concepts, including, but not limited to, TCP/IP, HTTP, HTTPS, SSH, SNMP, FTP, TFTP, BGP, OSPF, HSRP, STP, VLANs, subnetting and the OSI model.

Network monitoring tools and techniques used to perform troubleshooting including packet capture and protocol analysis tools.

IEEE 802.11/Wi-Fi standards, technologies, tools, and signal analysis.

Principles and practices of authenticating users and devices including Active Directory and Public Key Infrastructure.

Principles and practices of virtualization technologies and various operating systems.

Techniques, equipment, and diagnostic software used in the assembly, troubleshooting and repair of server and network infrastructure.

Single sign-on, Multi-factor Authentication and SAML concepts and applications.

Methods of application integration in a heterogeneous environment.

Design techniques, tools and principles involved in production of precision technical plans, blueprints, drawings, and model.

Server/Storage Functional Area:

Principles and practices of complex operating system design, analysis and documentation, server, and storage infrastructure.

Windows and Linux operating systems.

Virtualization technologies including VMWare.

File storage technologies, file structures, and file systems.

Storage hardware buildup, maintenance, and troubleshooting.

Servers, server operations and operating systems.

Principles and practices of complex data communications, data center architecture, UPS design and maintenance, and environmental design and monitoring.

Principles and practices of authenticating users and devices including Active Directory and Public Key Infrastructure.

Methods for application troubleshooting in server-client environment.

Methods for application integration within a heterogeneous environment.

Electrical wiring and basic electronics.

Principles and techniques of various Internet and data communication systems, computer logic and mathematics.

Internet security practices and standards.

Single sign-on, Multi-factor Authentication and SAML concepts and applications.

Ability to:

All Functional Areas:

On a continuous basis, know and understand all aspects of the job. Intermittently analyze work papers, reports, and special projects; identify and interpret technical and numerical information; observe and problem solve operational and technical policy and procedures.

On a continuous basis, sit at desk for long periods of time. Intermittently twist to reach equipment surrounding desk; perform simple grasping and fine manipulation; intermittently climb stairs and/or ladders to rooftops and walk rooftops perimeter; use telephone and write or use a keyboard to communicate through written means; and lift or carry weight of 50 pounds or less.

Write operating instructions and procedures for electronic data processing machine applications.

Provide advanced end-user support, including researching user complaints and issues and answering technical questions.

Prepare a variety of reports and maintain accurate records and files.

Perform statistical analysis to troubleshoot enterprise-level issues.

Effectively manage the more complex projects.

Effectively lead cross-functional teams.

Understand and determine system and/or business requirements in collaboration with other IT staff, users, and vendors.

Maintain confidentiality as necessary.

Work weekends and evenings, as required.

Communicate clearly and concisely, both orally and in writing.

Establish and maintain effective working relationships with those contacted in the course of work.

Communications Functional Area:

Plan, organize and coordinate the performance of professional work in support of the City's communications network infrastructure.

Intermittently drive for long period of time stopping to exit the car frequently to find elevated spots and walk location with computer and antenna.

Perform the most complex professional work in support of the City's telephony, physical security, and radio infrastructure.

Analyze, design, program, install and maintain highly technical and complex communication systems.

Analyze, design, program, maintain, and provide various forms of training on multiple

subscriber manufactures and models both within and outside of the City.

Analyze, track and inventory various voice and data lines provided by various providers.

Analyze, diagnose, program, upgrade, maintain, and troubleshoot complex telephone, radio, and video/camera systems.

Ensure FCC license management and regional interoperability practices are being adhered to.

<u>Network Functional Area:</u>

Plan, organize and coordinate professional work in support of the City's network and server infrastructure.

Analyze, diagnose, maintain, and troubleshoot complex network and server infrastructure.

Use network monitoring tools and techniques used to perform troubleshooting including packet capture and protocol analysis tools.

<u>When Assigned to Server/Storage:</u>

Plans organize and coordinate professional work in support of the City's operating systems, enterprise storage, servers, security, datacenter hardware, software, and systems infrastructure.

Perform complex professional work in support of the City's operating systems, enterprise storage, servers, security, datacenter hardware, software, and systems infrastructure.

Analyze, diagnose, maintain, and troubleshoot operating systems, enterprise storage, and servers.

Design, implement, maintain, and troubleshoot physical and virtual server infrastructure both on-premises and in the cloud, endpoint protection platform, and file server infrastructure.

Provide data recovery services as per the City's data retention policy.

Analyze, design, program, install and maintain highly technical and complex operating systems, storage, and servers.

<u>Experience and Training</u>

<u>Experience:</u>

Two years of responsible experience performing duties similar to that of an Information Technology Analyst II, within the respective functional area(s), with the City of Roseville.

AND

Training:

A Bachelor's degree from an accredited college or university, preferably with major course work in computer science, information systems or a related field.

License or Certificate

Possession of a valid California driver's license by date of appointment.

Some positions require clearance of a comprehensive Police Department (PD) background check within 12 months of appointment. If not cleared prior to initial appointment, security access will be limited to non-PD related systems until clearance is received.

04-23-24	Background Language
04-09-22	
11-15-18	
05-24-17	
05-14-13	
08-25-12	Information Technology Analyst I/II
07-01-04	Systems Administrator
04-26-04	Network Analyst I/II
07-01-99	GIS Analyst I/II