Staff Report

TO: Board of Directors

FROM: John Ortiz, Information Technology Administrator

DATE: August 24, 2022

SUBJECT: New Job Description – Network Analyst

ADMINISTRATION

RECOMMENDATION:
Provide input on the attached job description for an Information Technology, Network Analyst.

BACKGROUND:
Currently, multiple departments are responsible for the District's Internet Protocol (IP) network and security. Therefore, the Information Technology (IT) division seeks to add a Network Analyst position to design and support the IP network with a focus on security. This additional position was included in the 2022 Annual Budget.

The Network Analyst position is a technology professional who is highly skilled in maintaining the connectivity of networks in terms of data, voice, video, and wireless network services. Additionally, the fundamental goal of a Network Analyst is to design and support the network infrastructure, network security, and optimize network performance for the end users.

Current IT job descriptions (Information Technology Technician and Information Technology Analyst) describe general networking as an essential function. The Information Technology Network Analyst position will provide a unique skillset that is required with the growth of technology and the complexity surrounding the network infrastructure.

To develop the proposed job descriptions and associated salary schedule, staff reviewed job descriptions and salary schedules for like classifications from the following agencies: City of Lincoln, City of Roseville, El Dorado Irrigation District, Modesto Irrigation District, Placer County Water Agency, Sonoma County Water Agency, and Turlock Irrigation District. As a result, the proposed job description is included in attachment A.

Attachment B includes the salary survey for the proposed position. At this time, Step 5 of the salary schedule should be placed at the average of the agencies surveyed. This will allow step 5 of the new Network Analyst position to be $124,000, which will still qualify for a 10% separation from the next highest position of Information Technology Administrator. The addition of this position will also give the District the ability to allow for internal growth.

Due to the confidential nature of the position, the Network Analyst position will be designated in the Confidential Unit of the Unrepresented Employee Benefits and Compensation Plan.

BUDGETARY IMPACT:
None anticipated. New position was presented during the December 8, 2021, Board meeting. The position is included in the 2022 Annual Budget and adopted Resolution 2021-47 on December 15, 2021.

Attachments: (2)
- Attachment A – Job Description
- Attachment B – Network Analyst Salary Survey

NEVADA IRRIGATION DISTRICT Job Description			
Classification	Information Technology Network Analyst	Reports To:	Information Technology Administrator
Salary Range:	xxxxx	Approved by Board of Directors:	xx/xx/xxxx
FLSA Status:	Exempt	Unit:	Unrepresented - Confidential
Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the job.			

Definition

Under the direction of the Information Technology Administrator, the Network Analyst is responsible for the network infrastructure and security, including configuration, installation, maintenance, and operation of all network equipment. The Network Analyst also operates, monitors performance, performs network security and intrusion prevention/detection services, and diagnoses problems with the Wide Area Network (WAN), Local Area Network (LAN), server, and associated workstations. In addition, the Network Analyst monitors and manages network devices to ensure reliable, consistent, and secure connectivity.

Supervision Received and Exercised

Receives general direction from the Information Technology Administrator.

Essential Functions Statements

Essential and other important responsibilities and duties may include, but are not limited to, the following:

1. Install, configure, and maintain the corporate network infrastructure to carry data, voice, and video communications.

2. Oversee and manage network security utilizing Firewalls, Intrusion Protection Systems (IPS), Virtual Private Network (VPN), Web Filtering systems, and Spam Filters.

3. Monitor and report network and server performance and utilization.

4. Troubleshoot and resolve network problems to ensure the Nevada Irrigation District's networks are secure and performing as expected.

5. Administer Local Area Network (LAN) / Wide Area Network (WAN) using Cisco Meraki switches and routers, Windows servers, network performance tools and applications.

6. Prepare and present network enhancements, optimizations, and /or modification recommendations.

7. Evaluate new technology across the organization and present recommendations for appropriate changes and enhancements.

8. Create and maintain network and security configuration standards.

9. Design, implement and manage WiFi networks.

10. Support Information Technology Analyst and other team members as required.

11. Other related duties as assigned.

Qualifications

Knowledge of:
- Network management and monitoring tools, including WUG Netflow monitor, Traffic Analyzers, and Protocol Analyzer.
- Network protocols including TCP/IP, OSPF, SNMP, SMTP, NAT/PAT, STP, 802.11a/b/g/n, IPSec.
- Cisco Meraki / IOS and related features including VTP, STP, 802.11x, VLANs, Multi-Layer Switching.
- Security services including RADIUS, IDS/IPS systems, Intrusion Detection (IDS), Network lateral movement, Barracuda Networks and Cisco Any Connect VPN.
- Domain Name Service (DNS) record types, record conventions, and troubleshooting.
- Web Filter practices and techniques.
- Email communication, routing, troubleshooting, and filtering.
- Microsoft Hyper-V.
- Network diagramming tools (MS VISIO) to demonstrate network flow and design.

Ability to:
- Configures, maintains, and monitors Network Management Systems, appliances, and software.
- Manage and oversee high-level projects from beginning to end.
- Utilize field experience and knowledge of data networking and IP technologies, including VLAN configuration, DHCP, DNS, NAT, and performing packet captures and analysis to deliver network services.
- Manage and negotiate vendor hardware and software contracts.
- Analyze and monitor network traffic to provide early intrusion detection and prevention and rapid reaction to unexpected and suspicious situations such as unusual traffic volume, port attacks, and rogue devices in the network.
- Diagnoses hardware and software problems; replacing defective components using industry best practices.
- Analyzes and monitors network traffic, documenting trends and capacity.
- Able to manage and prioritize multiple related projects, including troubleshooting, operations, and maintenance of the enterprise in a team environment.
- Troubleshoot complex Layer 2 and Layer 3 connectivity issues.
- Follow verbal or written plans and technical instructions with minimal supervision and guidance.
- Evaluate, design, quote, present and implement complex network and system upgrades.
- Document configurations, procedures, and settings.
- Provide excellent customer service to our users.
- Communicate effectively both written and verbally with all team members and the user community.

- Establish and maintain network and server standards, policies, and procedures, including disaster recovery, remote access, and appropriate security actions to ensure the safety and integrity of data, hardware and service delivery.

Responsibility to:
- Obey safe work practices, procedures, and regulations including wearing protective equipment and safety devices.
- Operate equipment in a careful and safe manner.
- Acknowledge the use of safeguards by other employees.
- Report any removal, displacement, damage, destruction, or tampering of safety devices, safeguards, notices or warnings.
- Report any safety risks or hazards to your supervisor or other management personnel.
- Report to your supervisor or other management personnel any work assignment that you feel would require you to perform the work in an unsafe manner.

Experience and Education Guidelines

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

Experience:
Three years of directly related experiences, including network, designing, installing, security and supporting local and wide area networks and servers.

Education:
Bachelor's degree in Computer Science or Computer Information Systems preferred. Education can be substituted with considerable experience.

License and Certificate:
IT certification(s) strongly preferred, such as CCIE, CCNP or CCNA.

Working Conditions
Environmental Conditions:
Work is normally performed in a temperature controlled office environment subject to typical office noise.

Physical Conditions:
Essential functions may require maintaining physical condition necessary to sit at desk for long periods of time; intermittently twist to reach equipment surrounding desk; perform simple grasping and fine manipulation; use telephone, write or use a keyboard to communicate through written means; and lift or carry weight of 50 pounds or less.

Mental Conditions:
Essential functions may require maintaining mental condition necessary to 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; handle conflict.

Attachment B - Network Analyst Salary Survey

Job Title	Average	Average % +/-	NID 2022 Step 5	City of Grass Valley (FY 20/21)	City of Roseville	El Dorado Irrigation District	Modesto Irrigation District	Placer County Water Agency	Turlock Irrigation District
			Network Analyst	IT Analyst	Information Security Client Services Supervisor	IT Analyst or Technician / Business Systems Analyst	Network Analyst	Information Security Mgr	IT Network Engineer I/II, Database / Senior
Network Analyst	128,745.18	-3.70%	124,147.97	124,059.50	123,154.30	109,830.68	125,525.64	142,348.96	147,552.00
					Information Security Admin				
					135,192.10				

Current Salaries	Schedule / Range	Step 5	% Delta
IT Technician	WOA41	90,542.40	
IT Analyst	WOA61	110,489.60	18%
Network Analyst		124,147.97	11%
IT Administrator	UOA81	146,016.00	15%