



**GWA RESOLUTION NO. 07-FY2025**

**RELATIVE TO THE AMENDMENT AND APPROVAL OF POSITION  
CLASSIFICATION SPECIFICATION FOR THE NETWORK ANALYST AND THE  
NETWORK SYSTEMS ADMINISTRATOR POSITIONS**

**WHEREAS**, under 12 G.C.A. § 14105, the Consolidated Commission on Utilities (“CCU”) has plenary authority over financial, contractual, and policy matters relative to the Guam Waterworks Authority (“GWA”); and

**WHEREAS** the Guam Waterworks Authority (“GWA”) is a Guam Public Corporation established and existing under the laws of Guam; and

**WHEREAS** 4 GCA, §6303(e) authorizes the amendment of position in Autonomous Agencies and Public Corporations; and

**WHEREAS** the GWA is responsible for developing, maintaining, and supporting its Enterprise and Operational Technology Infrastructure, which includes a network of over 250 assets such as water and wastewater treatment plants, booster and sewer pump stations, deep wells, and springs; and

**WHEREAS** it is essential that GWA maintains seamless network operations and efficiently responds to the growing demands for advanced network support, cybersecurity, and data management; and

**WHEREAS** the classified positions of Network Analyst and Network Systems Administrator were established in 2010 and 2008, respectively, with outdated qualification requirements and job specifications that no longer reflect current industry standards or technological advancements; and

1           **WHEREAS** the existing job standards result in a narrow pool of potential candidates by  
2 restricting acceptable educational qualifications and requiring excessive years of experience,  
3 limiting GWA's ability to attract qualified professionals; and  
4

5           **WHEREAS** the proposed amendments to the Network Analyst and Network Systems  
6 Administrator positions include broadening acceptable degree types, updating the required years  
7 of experience, and modernizing the duties and responsibilities to align with emerging fields such  
8 as cloud computing, network automation, and cybersecurity; and  
9

10           **WHEREAS** these amendments are critical to ensuring that GWA attracts and retains  
11 highly skilled professionals capable of managing its complex technology infrastructure, while also  
12 enhancing the organization's ability to remain competitive in the public utility sector; and  
13

14           **WHEREAS** the proposed amendments will not require any changes to GWA's current  
15 compensation plan, as they align with the Strategic Pay Plan Methodology and market data,  
16 ensuring compliance with Public Law 28-159 and other applicable regulations.  
17

18           **NOW BE IT THEREFORE RESOLVED;** the Consolidated Commission on Utilities  
19 does hereby approve the following:

- 20           1. The recitals set forth above hereby constitute the findings of the CCU.
- 21           2. The CCU finds that GWA has met the requirements of the 4 GCA, §6303(e)  
22           and P.L. 28-159 Section 3(c).
- 23           3. The CCU hereby authorizes the approval of the amendment of the job  
24           classification specifications of the Network Analyst and Network Systems  
25           Administrator positions. The existing job classification specifications will be  
26           superseded by the approved amendments (see Exhibits A and B).
- 27           4. The implementation of any reallocations resulting from this resolution shall  
28           follow the applicable policies outlined in the GWA Personnel Rules &  
29           Regulations regarding classification and compensation adjustments.

5. The CCU hereby further authorizes the GWA management to implement the salary ranges of the respective positions as follows:

25 <sup>th</sup> Market Percentile (2022 Market Data – 5 Sub-Steps) – GWA											
Benchmark Position	Structural Adjustment- MIN						Structural Adjustment- MIN				
	JE Points	Base Salary	Hourly	Grade	Step	Sub-Step	Base Salary	Hourly	Grade	Step	Sub-Step
Network Analyst	791	\$70,738	\$34.01	K	2	A	\$73,610	\$35.39	K	3	A
Network Systems Administrator	898	\$82,727	\$39.77	L	4	A	\$86,086	\$41.39	L	5	A

**RESOLVED**, that the Chairman certified, and the Board Secretary attests to the adoption of this Resolution.

**DULY AND REGULARLY ADOPTED**, this 22<sup>nd</sup> day of October 2024.

Certified by:



**JOSEPH T. DUENAS**

Chairperson

Attested by:



**PEDRO ROY MARTINEZ**

Secretary

//

//

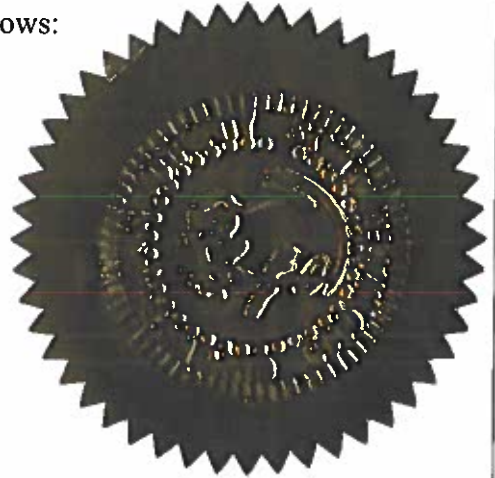
//

**SECRETARY'S CERTIFICATE**

I, Pedro Roy Martinez, Board Secretary of the Consolidated Commission on Utilities as evidenced by my signature above do hereby certify as follows:

The foregoing is a full, true and accurate copy of the resolution duly adopted at a regular meeting by the members of the Guam Consolidated Commission on Utilities, duly and legally held at a place properly noticed and advertised at which meeting a quorum was present and the members who were present voted as follows:

AYES:	<u>5</u>
NAYS:	<u>0</u>
ABSENT:	<u>0</u>
ABSTAIN:	<u>0</u>



///

///

///

///

///

///



## GUAM WATERWORKS AUTHORITY

### NETWORK ANALYST

#### NATURE OF WORK IN THE CLASS:

Under general direction, employees in this class perform advanced analysis, design, configuration, installation, maintenance, and support of network systems and components. Responsibilities include monitoring network performance, diagnosing issues, and optimizing the organization's Local Area Network (LAN), Wide Area Network (WAN), and wireless networks. Network Analysts work closely with Network Administrators and Information Security teams to ensure reliable and secure network operations across physical, virtual, and cloud environments, while also contributing to network improvements and scalability.

#### ILLUSTRATIVE EXAMPLES OF WORK:

(These are examples of work and do not indicate all job-related duties required of this position.)

##### Network Monitoring & Performance:

- Monitor and analyze network performance across the organization's LANs, WANs, and wireless deployments, assessing system capacity to identify performance impacts and recommend enhancements for evolving network demands.
- Ensure efficient, secure, and stable operation of network systems and infrastructure, identifying and remedying performance bottlenecks.
- Plan, implement, and document improvements or modifications to network components to meet compliance and performance requirements.

##### Network Installation, Configuration, & Maintenance:

- Perform technical activities in support of network equipment installation, configuration, and operation, including routers, switches, hubs, firewalls, wireless access points, and cabling.
- Install, configure, and maintain system hardware and software, including operating systems, network printers, workstations, application servers, and data communication lines.
- Assist in developing and implementing policies for network asset management, inventory maintenance, and system documentation.

##### Troubleshooting & Problem Resolution:

- Diagnose and resolve network-related issues, including server connectivity, user access problems, security vulnerabilities, and software or hardware malfunctions.
- Respond to system functionality complaints from users, providing helpdesk support and addressing network performance issues both onsite and remotely.
- Maintain and troubleshoot user accounts and access for Windows networks, email servers, Structured Query Language (SQL) databases, Oracle systems, and related applications.

##### Network Security & Disaster Recovery:

- Assist in developing and implementing security procedures to protect the network, including anti-virus updates, backup protocols, and disaster recovery plans.
- Conduct research and assessment of new technologies, hardware, and software for improved network security and performance.
- Participate in creating and maintaining Intranet content, user manuals, and technical documentation to support network operations and security.



## GUAM WATERWORKS AUTHORITY

### NETWORK ANALYST

#### System Administration & User Support:

- Install, configure, and maintain Windows servers, including routine updates, backup verification, and security protocols for Transmission Control Protocol (TCP)/Internet Protocol (IP) networks.
- Provide technical support for workstations, ensuring proper installation of applications, software updates, and network connectivity.
- Coordinate with vendors for technical support and troubleshooting of network issues at remote workstation sites.

#### Network Policy Development & Training:

- Assist with developing policies, procedures, and training for appropriate network resource utilization, disaster recovery, and secure network practices.
- Participate in developing and implementing network resource administration policies and establish service-level agreements for network uptime and reliability.

#### Research & Development:

- Conduct research on emerging network technologies, tools, and protocols to support procurement and network development efforts.
- Evaluate and recommend network enhancements and system upgrades based on industry standards and organizational needs.

#### Documentation & Reporting:

- Document all network activities, configurations, changes, and performance analyses to maintain accurate records.
- Generate and maintain technical manuals, installation processes, and standard operating procedures for network operations and troubleshooting. Performs related duties as required.

### KNOWLEDGE, ABILITIES, AND SKILLS

#### Knowledge of:

- Fundamentals, principles, and operational practices of computer networking, including LAN/WAN concepts, network cabling, and equipment.
- Practices and techniques for installing, configuring, operating, maintaining, and troubleshooting network systems, hardware, and software.
- Networking protocols and operations, including TCP/IP, Domain Name System (DNS), Windows Internet Naming Service (WINS), and Microsoft Exchange Server.
- Modern technologies and platforms, including physical, virtual, and cloud-based servers and cybersecurity practices.
- Business software applications, such as word processing, spreadsheets, anti-virus programs, and backup solutions.

#### Ability to:

- Perform technical tasks related to network installation, maintenance, and troubleshooting for secure and efficient network operations.
- Analyze, diagnose, and resolve complex network issues with equipment and peripherals, maintaining reliable and high-performance systems.
- Implement network administration activities, including user account management, server operations, and system backups.



## GUAM WATERWORKS AUTHORITY

### NETWORK ANALYST

- Assist in project implementation, workflow management, and adherence to schedules and timelines for network activities.
- Communicate effectively both verbally and in writing, explaining technical information clearly and concisely to various stakeholders.
- Think critically, evaluate alternatives, and make recommendations to improve network operations and support organizational goals.

#### Skill in:

- Network analysis, design, and implementation practices across LAN, WAN, and telecommunications systems.
- Utilizing network tools and protocols for performance monitoring, troubleshooting, and secure configuration.

### MINIMUM EXPERIENCE AND TRAINING

- A) Bachelor's degree in computer science, computer information systems, computer engineering, cybersecurity/information security or related degree and two (2) years of progressive experience in technology infrastructure, telecommunication network management, or network design; *or*
- B) Any equivalent combination of experience and training, which provides the minimum experience knowledge, skills, and abilities.

### NECESSARY SPECIAL QUALIFICATION

Must possess a valid driver's license.

### LICENSURE OR CERTIFICATE

Possession of or the ability to obtain a Cisco Certified Network Associate (CCNA) *or* Network+, and Security+ certification within 3 years of hire may be required.

**ESTABLISHED:      OCTOBER 2010**

**AMENDED:          OCTOBER 2024**

**JE POINTS:        791**

**FLSA STATUS:     Non-Exempt**

This classification specification revises and supersedes the classification specification established in October 2010.

JOSEPH T. DUENAS, Chairman  
**Consolidated Commission on Utilities**



## GUAM WATERWORKS AUTHORITY

### NETWORK SYSTEMS ADMINISTRATOR

#### NATURE OF WORK IN THE CLASS:

The Network Administrator is responsible for the management and maintenance of complex network systems, including design, configuration, installation, and support. The Network Administrator ensures efficient, secure, and reliable operation of Local Area Network (LAN), Wide Area Network (WAN), and wireless networks, collaborating closely with Network Analysts and Information Security staff. The role includes implementing and monitoring network policies, troubleshooting issues, and optimizing network performance across all environments, including physical, virtual, and cloud servers. The Network Administrator also takes a lead role in developing network architecture and ensuring compliance with security standards.

#### ILLUSTRATIVE EXAMPLES OF WORK:

(These are examples of work and do not indicate all job-related duties required of this position.)

##### Network Installation, Configuration, and Maintenance

- Oversees the installation, configuration, operation, maintenance, and repair of LAN and WAN wired and wireless systems, along with related hardware and software.
- Implements, configures, and maintains physical, virtual, and cloud servers/networks, ensuring optimal performance, security, and availability. Monitors and analyzes network performance and traffic.
- Supervises the evaluation, installation, configuration, and maintenance of network hardware and software, including operating systems, application software, system upgrades, network printers, and data communication lines. Ensures documentation of processes and configurations.

##### Troubleshooting and Diagnostics

- Oversees and performs network issue resolution, including addressing equipment-related problems with servers, access points, routers, switches, cabling, firewalls, and other components; configures and adjusts network devices as needed and replaces faulty hardware.
- Assesses user-reported issues with system functionality; diagnoses and resolves advanced computer hardware, software, and network problems, ensuring timely resolution through the helpdesk or appropriate channels.
- Diagnoses and addresses network connectivity problems, ensuring consistent printing functionality across the organization by configuring printers and resolving user issues.

##### Server and Workstation Management

- Oversees the installation, maintenance, and configuration of Windows servers; supervises the application of operating system and server updates, and troubleshoots issues related to network security, Transmission Control Protocol (TCP)/Internet Protocol (IP), backups, and viruses.
- Oversees installation, configuration, and troubleshooting of software on workstations; addresses network issues across the WAN and coordinates with vendors to resolve problems at remote sites. Provides helpdesk support and remote assistance to end users.
- Oversees the performance of file backups on all servers, ensuring error-free operations and adherence to backup schedules and storage routines.





## GUAM WATERWORKS AUTHORITY

### NETWORK SYSTEMS ADMINISTRATOR

#### Policy Development and Research

- Creates and implements policies, procedures, and training for efficient network resource administration, disaster recovery, and appropriate utilization of network assets.
- Evaluates emerging network technologies, software, and hardware solutions; maintains an updated and secure Intranet site with user and technical manuals. Assists in security policy creation and performs regular updates for antivirus software.

#### Administrative and Supervisory Responsibilities

- Analyzes and resolves defined information system issues, developing feasible solutions aligned with industry standards and technology advancements.
- and supervises access for user accounts across Windows network, email systems, SQL, Oracle databases, and helpdesk applications; manages print queues and access controls.
- Conducts performance evaluations, provides mentorship, and recommends training and development to enhance the technical skills of lower-level staff, fostering a knowledgeable and capable network team.

Performs related duties as required.

### KNOWLEDGE, ABILITIES, AND SKILLS

#### Knowledge of:

- Knowledge of network security principles and best practices, including firewalls, VPNs, Intrusion detection systems (IDS)/Intrusion Prevention Systems (IPS), and encryption protocols for secure data transmission.
- Knowledge of wireless networking standards and technologies, including 802.11 protocols, wireless access point configuration, and security practices for deploying and troubleshooting Wi-Fi networks.
- Knowledge of network monitoring and performance tools, such as Wireshark, SolarWinds, and PRTG, for traffic analysis, troubleshooting, and ensuring optimal network performance.
- Knowledge of virtualization and cloud networking concepts, including the management of virtual LANs (VLANs), VMware, Hyper-V environments, and cloud platforms like AWS, Azure, or Google Cloud.
- Knowledge of routing and switching technologies, including routing protocols such as OSPF, BGP, and RIP, and the ability to configure and troubleshoot various types of routers and switches.
- Knowledge of compliance standards and policies relevant to network security and data privacy, such as Health Insurance Portability and Accountability Act of 1996 (HIPAA), Payment Card Industry-Data Security Standards (PCI-DSS), General Data Protection Regulations (GDPR), and National Institute of Standards and Technology (NIST), and their implications for network architecture and operations.
- Knowledge of disaster recovery and business continuity planning for networks, including strategies for network backup, redundancy, failover, and maintaining availability during emergencies.
- Knowledge of scripting and automation for network tasks, utilizing tools like Python, PowerShell, or Bash, and configuration management solutions such as Ansible, Puppet, or Chef to streamline network processes.



## GUAM WATERWORKS AUTHORITY

### NETWORK SYSTEMS ADMINISTRATOR

- Knowledge of VoIP and unified communications platforms, including the setup, configuration, and troubleshooting of Voiceover Internet Protocol (VoIP) systems and familiarity with tools like Microsoft Teams, Cisco WebEx, and Zoom for efficient communication.

#### Ability to:

- Supervise and support a range of technical activities related to the installation, configuration, operation, maintenance, troubleshooting, diagnosis, and repair of network systems, including both hardware and software components, ensuring secure and efficient network operations.
- Troubleshoot, diagnose, and resolve complex network issues, including connectivity problems, hardware malfunctions, and security incidents, while overseeing and mentoring technical teams to follow best practices.
- Oversee installation and configuration of server and workstation software, including network operating systems, virtual environments, and cloud-based platforms, ensuring all systems are optimized for network connectivity and performance.
- Design, implement, and manage network projects and workflows, such as network upgrades, migrations, and expansions, effectively coordinating resources to meet schedules, budgets, and performance requirements.
- Administer and maintain comprehensive network activities, including configuring network devices (e.g., routers, switches, firewalls), managing domains and accounts, ensuring system backups are performed, overseeing email services, and ensuring stable internet connectivity across the organization.
- Proactively monitor network performance, identify bottlenecks, security vulnerabilities, and areas for improvement, and recommend solutions to enhance efficiency, reliability, and security of network operations.
- Evaluate and apply network policies and compliance standards, ensuring adherence to regulations (e.g., HIPAA, PCI-DSS) and implementing security policies for access control, data protection, and user activity monitoring.
- Develop and implement disaster recovery and network continuity plans, ensuring that backup and failover systems are functional and that procedures are in place to restore operations quickly in the event of a network disruption or disaster.
- Utilize automation and scripting for network management, developing scripts or using automation tools to perform routine network tasks, configurations, or deployments, reducing manual effort and enhancing consistency.
- Think critically and analyze complex technical scenarios, evaluate alternatives, assess potential risks and impacts, and make informed recommendations that align with organizational goals and technological trends.
- Communicate effectively with diverse stakeholders, including technical teams, end-users, vendors, and senior management, providing clear and concise information both verbally and in writing to ensure understanding of network issues, plans, and strategies.
- Lead and mentor technical teams, providing administrative supervision, conducting performance evaluations, offering constructive feedback, and recommending training and professional development opportunities to foster growth in lower-level employees.
- Adapt quickly to new technologies and methodologies, continuously updating technical skills and network knowledge to remain current with evolving network architectures, cybersecurity threats, and industry best practices.



## GUAM WATERWORKS AUTHORITY

### NETWORK SYSTEMS ADMINISTRATOR

#### Skill in:

- LAN/WAN/Telecommunications analysis, design, and implementation, with expertise in configuring, optimizing, and managing network connections to ensure seamless and secure data flow across the organization.
- Network troubleshooting and diagnostics tools, such as SolarWinds, and command-line utilities (e.g., ping, traceroute, netstat) for effective resolution of network issues and performance optimization.
- Advanced network security practices, including firewall configuration, VPN setup, intrusion detection/prevention, access control policies, and network encryption to ensure protection against internal and external threats.
- Routing and switching technologies, including protocols such as Open Shortage Path First (OSPF), Border Gateway Protocol (BGP), and Routing Information Protocol (RIP), and experience with devices like Cisco routers, switches, and load balancers for efficient and secure network traffic management.
- Wireless network deployment and management, including Wi-Fi design, implementation, and security, as well as configuring wireless LAN controllers and access points for reliable wireless connectivity.
- Network automation and scripting, using languages like Python, PowerShell, or Bash, as well as tools like SolarWinds Network Configuration Manager for automating network configurations, deployments, and monitoring tasks.
- Configuring, deploying, and managing virtual networks (VLANs), including creating and maintaining virtualized environments using platforms like VMware and Hyper-V. Proficiency in setting up and administering cloud networking infrastructure on platforms such as Oracle Cloud, AWS, or Azure, ensuring secure, efficient, and scalable virtual network operations.
- Disaster recovery and business continuity planning, implementing and testing backup solutions, redundancy measures, and failover systems to ensure network availability and data integrity during emergencies.
- Prepare and maintain and update Policies, records, maps.

#### MINIMUM EXPERIENCE AND TRAINING

- A) Bachelor's degree in computer science, computer information systems, computer engineering, cybersecurity/information security or related degree and four (4) years of progressive experience in technology infrastructure, telecommunication network management, or network design and 1 year of administrative supervisory duties; **or**
- B) Any equivalent combination of experience and training, which provides the minimum experience knowledge, skills, and abilities.

#### NECESSARY SPECIAL QUALIFICATION

Must possess a valid driver's license.

**GUAM WATERWORKS AUTHORITY****NETWORK SYSTEMS ADMINISTRATOR****LICENSURE OR CERTIFICATE**

Possession of or the ability to obtain a Cisco Certified Network Associate (CCNA), Network+, and Security+ certification within 1 year of hire may be required.

**ESTABLISHED: MARCH 2008**

**AMENDED: OCTOBER 2024**

**JE POINTS: 898**

**FLSA STATUS: Non-Exempt**

This classification specification revises and supersedes the classification specification established in October 2008.

\_\_\_\_\_  
**JOSEPH T. DUENAS, Chairman**  
**Consolidated Commission on Utilities**