Greene County
Position Description

Position Title: Network Engineer: Security	Department: Information Systems
Reports to: Information Systems Manager	Grade: 15
Date Reviewed: November 2026	FLSA: Exempt

Purpose of Position

Under the supervision of the Information Systems Manager, this role is responsible for maintaining and supporting Greene County's data, voice, surveillance, and audio-visual networks and infrastructure. The primary focus of this position is the security infrastructure, policies, and processes. The position encompasses the operation, upkeep, and assurance of network stability and security.

Essential Duties and Responsibilities

The following duties are normal for this position. These are not to be construed as exclusive or all-inclusive. Other duties may be required and assigned.

Research and Training

Research new and future technologies and provide recommendations to management based on modern standards. Train coworkers on technologies, concepts, policies, and procedures as assigned. Document processes and techniques according to the standards set by the Information Systems department and Security Team.

Customer, End User, Coworker, and Administrative Cybersecurity Support

Provide first-level and second-level technical support for county data, voice, audio visual, and surveillance networks. Address routine technical inquiries, recommend solutions, and assist users with Windows operating systems, printers, switches, wireless devices, and fax machines.

Open support cases with various equipment vendors. Work with managed services providers to implement outsourced solutions.

Create and maintain documentation on processes, and techniques for the Information Systems department and end users. Maintain and track supplies and inventory in county software. Generate and deliver reports on security infrastructure to supervisors, and county users as assigned.

Defend and implement protections against Social Engineering attacks. This is to include working towards training all county users on basic precautions and defenses.

Layer 1 Physical Cybersecurity Support

Configure, operate, maintain, diagnose, and repair network components, including: Switches, routers, firewalls, physical servers, virtual servers, appliances, audio visual components, surveillance cameras, wireless access points, and uninterruptible power supplies (UPSes). Install, terminate, and troubleshoot various circuits for voice, data, audio visual cabling.

Analyze, test, and design network security solutions using firewall technology and security tools. Install, test, and manage network routers and switches. Install, design, test, and manage physical components in data centers.

Maintain and install wiring closets, structured cabling (copper & fiber optics), switches, routers, wireless access points, and other peripherals as needed. Route cable through conduit pathways and building infrastructure. Install and terminate cable in data closets, test and certify cables as necessary to ensure device connectivity and stability. Identify, and report on, physical security weaknesses in network closets, data centers, and in other relevant locations around the county campuses. Implement surveillance cameras, access control, monitoring, and alerting to help in securing physical equipment and locations.

Analyze, test, and design network security solutions using firewall technology and security tools. Install, test, and manage network routers and switches. Install, design, test, and manage physical components in data centers.

Layer 2 Switch Cybersecurity Support

Permit or deny access to the county's cabled and wireless networks using the layer 2 protections in place. This includes use of standard port security configurations, and DHCP whitelist policy configurations.

Configure, operate, maintain, diagnose, and repair common network technologies including: Virtual Local Area Networks (VLANs), Power over Ethernet (PoE), and Spanning Tree Protocol (STP).

Layer 3 Route Cybersecurity Support

Implement and maintain basic static routing across Greene County's switching infrastructure.

Configure, operate, maintain, diagnose, and repair common network technologies, including: Subnets, static routes, IP address conflicts, and layer 3 access control lists (ACLs).

Layer 4: Firewall Administration

Implement and maintain access control lists and individual port allowances for allowing users to access resources necessary for doing their job.

Layers 5-7: Software Security

Assist with the design and implementation of software and systems that allow users to accomplish the tasks required by their job. Implement and maintain servers, applications, and services that provide protections with email, web, and communications filtering.

Identify software vulnerabilities, apply patches and updates, and remediate threats.

Maintain a secured network infrastructure using tools provided by the county, including: access control lists, VPN connectivity, Quality of Service, SNMP monitoring, and Intrusion Prevention Systems.

Train and support Network Engineers in configuring, operating, maintaining, diagnosing, and repairing common Windows network services, including Domain Name System (DNS), Dynamic Host Control Protocol (DHCP), and Active Directory services.

Telephony Security

Implement, report on, and provide security services on the telephone infrastructure. This includes configuration of and implementation of secured VLANs, and appropriate software configurations.

Surveillance System Security

Configure, operate, maintain, diagnose, and repair surveillance services and components, including: IP cameras, audio recording components, video decoders, video encoders, and video storage platforms. Secure all aspects of the system, including device authentication, IP addressing protocols, and port configuration standards.

Technical Troubleshooting

Identify, document, and resolve network problems or issues with anything that prevents the delivery of stable network services to end users. Evaluate and diagnose network performance issues and recommend and implement solutions.

Data Backup and Restoration

Responsible for the success of regular nightly incremental backups. Troubleshoot failures, maintain existing backup jobs, new servers to backup infrastructure, decommission old servers from backup infrastructure, regularly test restoration capabilities from magnetic tape, regularly test restoration capabilities from alternate backup destinations, and take precautions to minimize the risks associated with data loss. This position is responsible for guaranteeing complete recoverability in the case of system failure or data destruction.

Backup and be able to recover telephony systems and logs.

SCCM/WSUS Update Administration

Use the provided tools to administer the delivery of Windows updates to networked clients and servers. Regularly evaluate new backups and push them to end-points in a timely manner. Troubleshoot failures, maintain related systems, and take precautions to minimize the risks associated with unpatched systems.

Storage Area Network Security

Maintain the individual components of the storage infrastructure. Perform software, firmware, and hardware upgrades and modifications as required. Optimize the stability and performance of these systems and take precautions to minimize risks associated with the loss of data.

Communication

Communicate and coordinate work orders to IS Management and other department personnel in order to resolve problems and correct errors. Refer major system issues to the appropriate Senior-level Engineer, the Engineer Lead, and/or the Information Systems Manager.

Minimum Training and Experience Required to Perform Essential Job Functions

Bachelor's degree in Computer Science or related field, at least 5+ years of experience in network administration and support, or any combination of education and experience that provides equivalent knowledge, skills, and abilities. A minimum of 1-2 years hands-on experience with Cisco routers and switches. Relies on experience and judgment to plan and accomplish goals. A wide degree of creativity and latitude is expected.

Physical and Mental Abilities Required to Perform Essential Job Functions

Language Ability and Interpersonal Communication

Ability to analyze and categorize data and information in order to determine the relationship of the data with reference to established criteria/standards. Ability to compare, count, differentiate, measure, and/or sort data, as well as assemble, copy, record, and transcribe data and information. Ability to classify, compute, and tabulate data.

Ability to persuade, convince, and/or train others, including the ability to act in a lead worker capacity. Ability to advise and interpret how to apply policies, procedures, and standards to specific situations.

Ability to utilize a variety of reference, descriptive, and advisory data and information, such as electrical diagrams, blueprints, requisition orders, computer hardware/software operating manuals, technical manuals, computer periodicals, procedures, guidelines, and non-routine correspondence.

Ability to communicate effectively with County personnel, County computer users, and vendor representatives.

Mathematical Ability

Ability to apply algebraic and trigonometric formulas. Ability to interpret inferential statistical reports and/or formulation and equation data.

Ability to calculate percentages, fractions, decimals, volumes, ratios, and present values. Ability to interpret basic descriptive statistical reports.

Judgment and Situational Reasoning Ability

Ability to apply principles of influence systems, such as supervising, managing, leading, teaching, directing, planning, coordinating and controlling. Ability to exercise independent judgment to apply facts and principles for developing approaches and techniques to problem resolution.

Ability to exercise the judgment, decisiveness, and creativity required in situations involving the evaluation of information against sensory, judgmental, and/or subjective criteria, as opposed to criteria that are clearly measurable or verifiable.

Physical Requirements

Ability to operate a variety of equipment, including computer terminals, computer printers, telephones, fax machines, calculator/adding machines, photocopiers, wiring tools, cable testers, multi-meters, and common hand and power tools.

Ability to coordinate eyes, hands, feet, and limbs in performing semi-skilled movements such as data entry and assembling.

Ability to exert moderate physical effort in sedentary to light work, typically involving some combination of stooping, kneeling, crouching, crawling, picking up, lifting, carrying, pushing, and pulling up to 50 pounds.

Ability to recognize and identify degrees of similarities or differences between characteristics of colors, forms, sounds, tastes, and odors associated with job-related objects, materials and tasks.

Environmental Adaptability

Ability to work under generally safe and comfortable conditions where exposure to environmental factors such as temperature variations or extremes, noise, machinery, and/or electrical currents may cause discomfort and poses little risk of injury.

Condition of Employment

Employee will be required to demonstrate continued knowledge of this position's current regulations and requirements. Sustained satisfactory performance is required. Employee must meet the requirements of the full job description as stated throughout the duration of employment with Greene County.

Candidate must meet the requirements of the full job description as stated throughout the duration of employment with Greene County.

Disclaimer

Greene County is an Equal Opportunity Employer. In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), the County will provide reasonable accommodations to qualified individuals with disabilities and encourages both prospective and current employees to discuss potential accommodations with the employer.

Network Engineer: Security ####

Employee's Signature Date

Supervisor's Signature Date

Last Reviewed: 11/20/2026

Comments/Sections Updated: Reviewed and approved by management