# SYSTEMS AND NETWORK SECURITY ANALYST
## (Range 127)

## DEFINITION

Perform a variety of information assurance/security responsibilities in support of the Library District, including assessing, tracking, reporting, and correcting vulnerabilities that are identified by CERT, SANS Institute, NIPC, vendors, etc. Serves as an internal auditor for information security issues. Initiates, facilitates, and promotes activities to create information security awareness within the organization and all other activities related to organizational computer security.

Performs installation, monitoring, maintenance, operations, and modification of network, minicomputer, and microcomputer systems hardware, and software systems, applications, and utilities.

## SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from the IT Director, CIO and direct supervision from the Assistant Information Technology Director.

Coordinates the security activities of Information Technology Department's staff.

## RESPONSIBILITIES:

**Essential and marginal functions and responsibilities may include, but are not limited to the following:**

1.  Collaborates with network and system administrators in analyzing, designing, and implementing the global security solutions.

2.  Researches, identifies, and implements new solutions and emerging technologies to improve network and application security.

3.  Conducts periodic vulnerability assessments and penetration testing and document and resolve findings.

4.  Provides technical support in investigation of security related issues.

5.  Recommends configurations based upon industry best practices.

6.  Stays abreast of current trends and developments in the fields of network systems, security systems, minicomputer and microcomputer hardware and software systems, applications and utilities.

7.  Evaluates network, minicomputer and microcomputer hardware and software systems upgrades, and oversees their installation, configuration, implementation and integrations with other systems.

8.  Specifies, designs, writes, tests, documents and implements utility and other programs as required to support systems operations in assembler or higher programming languages.

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9.    Designs, installs, maintains, supports, and troubleshoots Local Area Networks (LAN) and Wide Area Networks (WAN).

10.   Configures and modifies operating system parameters, scripts, utility programs, database management systems, application development systems, telecommunications systems and third-party systems.

11.   Develops and maintains relationships with vendor help desks and outside agencies for the purpose of developing system enhancements and solving system problems.

12.   Assists in the implementation of the strategies for continued and improved network, minicomputer and microcomputer system efficiency; develops performance metrics and insures efficient operation of the systems to achieve management goals and objectives.

13.   Assists in the preparation and implementation of the Library District's Strategic Plan and the Department's Technology Plan, and other reports as required.

14.   Interacts extensively in person, and over the telephone with patrons, district-wide staff and management, outside governmental agencies, vendors, and other libraries.

15.   Responds to inquiries and concerns from staff and patrons in a courteous and timely manner.

16.   Coordinates in service training as it pertains to network and minicomputer, and microcomputer hardware and software systems.

17.   Interprets and implements Library District policies and procedures.

18.   Attends staff and other miscellaneous meetings.

19.   Operates and utilizes office equipment including but not limited to: personal computer, the Internet, e-mail, copy machine, telephone, and facsimile machine.

20.   Operates Library District vehicles.

21.   Maintains a high degree of confidentiality.

**Marginal Functions:**

1.    Serves as a technical resource to Library District patrons and staff.

2.    Attends and participates in professional group meetings.

3.    Performs related duties and responsibilities as required.

**KNOWLEDGE, SKILLS, AND ABILITIES**

**Knowledge of:**

1.    Security boundary technologies, including Virtual Private Networks (VPNs), firewalls, Public Key Infrastructures (PKI), Intrusion Detection Systems (IDS) and Intrusion Prevention Systems (IPS), vulnerability assessment (VA) and penetration testing

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techniques, and other security processes.

2.    Security terminology, i.e. Denial of Service (DoS) attacks, Man-in-the-middle attacks, IP-Spoofing, etc.

3.    Network, minicomputer and microcomputer hardware and software systems, peripheral equipment, and associated subsystems.

4.    LANs, WANs, routers, switches, firewalls, hubs, servers, multimedia workstations, remote access systems, data cabling topologies, and electrical systems.

5.    Security applications and appliances.

6.    Current trends and developments in the fields of network, minicomputer and microcomputer hardware and software systems and services.

7.    Modern and complex principles and practices of computer programming, systems analysis and database design.

8.    Planning principles and cost benefit analysis for proposed network growth strategies.

9.    Pertinent Federal, State, and local laws, codes, and regulations.

10.   Research techniques and the sources and availability of current information.

11.   Library District, branch, and department policies and procedures.

12.   Library District terminology and functions.

13.   Correct English usage, spelling, punctuation, and grammar.

**Ability to:**

1.    Evaluate and provide recommendation for hardware and software acquisitions and upgrades for the Library District.

2.    Recognize equipment malfunctions and software errors.

3.    Maintain, repair, and troubleshoot network minicomputer and microcomputer hardware and software systems, peripherals, and subsystems.

4.    Operate diagnostic equipment.

5.    Analyze and interpret complex and technical materials.

6.    Work under pressure and meet deadlines.

7.    Perform multiple tasks concurrently.

8.    Work quickly and accurately.

9.    Exercise initiative and discretion.

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10. Perform basic project management, organize and review work for efficient results.

11. Accept and manage change and maintain flexibility.

12. Interpret, explain, and apply the Library District and Division policies and procedures.

13. Work both independently and as part of a team.

14. Understand and follow oral and written instructions.

15. Prepare clear and concise reports.

16. Effectively perform the full range of microcomputer and minicomputer operation duties.

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

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

19. Maintain the mental capacity for making sound decisions and demonstrating intellectual capabilities.

20. Work a flexible schedule which may include evenings and weekends.

21. Be on a stand-by status after normal working hours and carry a remote notification device (pager, cellular phone, etc.) and respond with little or no advance notice.

22. Maintain the physical condition appropriate to the performance of assigned duties and responsibilities which may include:

    --standing, walking, or sitting for extended periods of time;

    --bending, reaching, stooping, and pushing;

    --lifting and carrying;

    --operating assigned equipment.

23. Maintain effective auditory and visual and perception needed for:

    --making observations;

    --communicating with others;

    --reading and writing;

    --operating assigned equipment.

**Skilled in:**

1. Use of library and general office equipment.

2. Use of network, minicomputer and microcomputer hardware and software systems and associated peripheral equipment.

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**Training and Experience:**

Bachelor's degree in computer science, information technology, electrical engineering or a closely related field required. Three (3) years of progressively responsible experience maintaining and supporting local and wide area networks, minicomputer and microcomputer hardware and software systems in a complex, medium-to-large environment with multiple sites, including a minimum of two (2) years experience in information security analysis and support required; demonstrated ability in using enterprise management products to assess network health and to correct network related problems required; experience supporting and implementing services such as DHCP, SMTP, POP3, DNS, SNMP, TCP/IP, SSH, IP Sec, Internet, Intranet, web servers, Windows 2000, Windows 2003, and Cisco IOS, firewalls, routers, switches, and related systems; experience specifying, designing, writing, testing, documenting and maintaining programs, utilities, and scripts written in languages such as  Visual Basic, C++, and PERL.

**License, Certificate, or Requirements**:

Possess, or have the ability to obtain, a valid Nevada Driver's License at the time of hire.

**Physical Requirements:**

Essential and marginal functions may require maintaining a physical condition necessary for standing and walking, frequent light lifting (5 - 10 pounds), moderate lifting (12 - 20 pounds); and occasional heavy lifting or moving (50 - 100 pounds); frequent bending, stooping, reaching, and pushing; the continuous operation of hand or power tools to very exacting tolerances, calling for full coordination of sensory and manipulative ability; and standing or utilizing a keyboard for extended periods of time.

Tasks require depth perception, color perception, sound perception, visual perception, and oral communications ability.

**Environmental Requirements:**

Tasks are performed with infrequent exposure to adverse environmental conditions.


**FLSA:**          **NON-EXEMPT**

**CBA:**          **NON-SUPERVISOR**

**DEVELOPED:**          **AUGUST 7, 2003**

**REVISED:**          **AUGUST 14, 2007**
                              **MARCH 14, 2018**


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