

Information Assurance and Security Apprentice Technician Competencies

Level 1

General

- Ability to understand and explain security and Information Assurance terminology.
- Ability to explain and discuss the IA organizational titles, roles and responsibilities.
- Ability to configure password characteristics for a domain.
- Ability to explain, discuss and communicate the importance of Information and Systems security including common risks, threats and vulnerabilities.
- Ability to discuss, explain and communicate organizational security policies and practices and supporting rationale.
- Ability to explain, discuss and communicate the organization's security ethics policies and fundamental federal security statutes.
- Ability of see individual IA career path.
- Ability to explain, discuss and communicate the organization's information classification system roles, classes and criteria.
- Ability to maintain the organizations internal security domain.
- Ability to focus on how operational systems are used to conduct an organization's business.

Network

- Ability to resolve network problems using software tools.
- Ability to support an organizations router administration.
- Ability to troubleshoot the backbone and keep the network secure.
- Ability to understand of the organizations network technologies and topologies
- Ability to read and revise physical network topology diagrams.
- Ability to perform network services back-ups and recoveries.
- Ability to explain basic operational concepts of Internet Protocols

Services

- Ability to establish, update and disestablish user accounts and access privileges.
- Ability to install and properly configure Windows/Unix and Windows/Unix Server computers.
- Ability to install and properly configure a web browser.
- Ability to provide security for PED's.

Operations and Applications

- Ability to understand application architecture security risks.
- Ability to install and configure an secure operating system.
- Ability to develop a sound testing strategy and implement the strategy against an application.

Practices

- Ability to provide security for desktop systems.
- Ability to provide secure User Account Management.
- Ability to understand the concepts and standards (CIS, FIPS) involved in hardening a system.

Tools

- Ability to support and maintain organizational anti-virus services.
- Ability to discuss and communicate basic information about the organization's firewall.
- Ability to understand firewall concepts.
- Ability to install and properly configure basic workstation and network firewalls.
- Ability to monitor network IDS; to configure IDS alerts and to perform IDS log analysis and incident reporting.
- Ability to manage Intrusion Detection systems.
- Ability to analyze log files.

Soft Skills

- Ability to communicate clearly and effectively to individuals and groups.
- Ability to write clearly with accurate punctuation, grammar and sentence structure.
- Ability to recognize and define problems and look at various solutions to solve them.
- Ability to work effectively with co-workers.
- Ability to manage time effectively and be self-directed.
- Ability to communicate effectively with customers and provide good customer service.
- Ability to respect and value the strengths and unique offerings of different groups/individuals.

Level 2

General

- Ability to determine the trade-offs between security, privacy and operations and the organizational liability.
- Ability to understand reporting requirements and procedures of incident reporting.

- Ability to maintain the organizations physical security.
- Ability to determine proper procedures for secure documents.

Network

- Ability to resolve network problems using software tools.
- Ability to understand various network designs.
- Ability to provide secure network administration and monitoring.
- Ability to implement various technologies to keep the LAN secure.
- Ability to implement various technologies to keep the WAN secure.
- Ability to secure an organization's VPN.
- Ability to configure and secure remote services.

Services

- Ability to secure E-Mail Services.
- Ability to manage Active Directory Users/Group/Organizational Units.
- Ability to Manage DNS (Domain Names Services).
- Ability to provide security for PED's.

Operations and Applications

- Ability to provide web server administration.
- Ability to implement best practices on desk tops.
- Ability to implement best practices on servers.
- Ability to provide database backup & recovery.
- Ability to write simple scripts to automate processes.

Practices

- Ability to use guidelines in Information Assurance auditing.
- Ability to perform & interpret vulnerability scans of the network.
- Ability to conduct external scans.
- Ability to understand the process of formal accreditation of networks and/or applications.
- Ability to perform security test & evaluations.
- Ability to provide risk/threat analysis.
- Ability to understand concepts of forensic analysis.

Tools

- Ability to manage firewalls.
- Ability to operate and maintain a Key Local Registration Authority Workstation.
- Ability to obtain and assist in installing and configuring PKI software certificates on a workstation or server.
- Ability to apply cryptography concepts.

Soft Skills

- Ability to present formal presentations to individuals and groups.
- Communicates effectively in writing; reviews and critiques others' writing.
- Demonstrates and encourages high standards of behavior; adapts leadership style to situations and people; empowers, motivates and guides others.
- Ability to employ high ethical and integrity standards.
- Ability to employ or receive effective coaching.
- Ability to effectively practice conflict management skills.
- Ability to effectively participate in teams.
- Ability to adapts to change in the work environment and effectively cope with stress.

Level 3**General**

- Ability to implement best industrial security practice.
- Ability to incorporate successful operational security practices, procedures and policies in the organization.
- Ability to incorporate successful security management employment policies in the organization.
- Ability to develop and implement security awareness training in the organization.
- Ability to understand federal and state law with regard to cyber crime.
- Ability to incorporate business continuity planning into the organization.
- Ability to incorporate CNSS standards into the organization.
- Ability to successfully apply principles and practices of risk management.

Network

- Ability to set up and design networks using good industry design practices.
- Ability to understand the concepts, attack types and various security risks associated with network attacks.

- Ability to incorporate wireless networking in to the organization with security considerations.

Services

- Ability to provide Multi-media security.
- Ability to understand and explain military messaging systems.
- Ability to assist in digital forensic analysis.
- Ability to provide securing collaborative work environments.
- Ability to incorporate convergence concepts in the organization.

Operations and Applications

- Ability to deploy a simple web application after a successful security scan.
- Ability to provide SQL Server Security Administration.
- Ability to provide advanced desktop back up and recovery.
- Ability to provide disaster recovery services.
- Ability to provide data base back up & recovery.

Practices

- Ability to perform vulnerability alert actions.
- Ability to audit user services.
- Ability to provide security monitoring, traffic and trend analysis.
- Ability to perform formal accreditation of networks and/or applications.
- Ability to operate and maintain a Key Local Registration Authority Workstation.
- Ability to identify the most appropriate biometric technology for a given requirement.

Tools

- Ability to incorporate latest techniques and protocols for protecting the C-I-A and non-repudiation of data.
- Ability to use encryption techniques for secure data.

Soft Skills

- Ability to solve problems creatively.
- Ability to practice ethical behavior.
- Ability to stay as technically current as practical.
- Ability to manage projects effectively.
- Ability to understand and apply mentoring techniques.

- Ability to develop and promote ideas.