IDAHO NETWORKING SUPPORT PROGRAM STANDARDS

2015

CONTENT STANDARD 1.0: END POINT TECHNOLOGIES

Performance Standard 1.1: PC Hardware Configuration and Installation

1.1.1 Identify and understand motherboards and related components.
1.1.2 Identify and understand RAM types and features.
1.1.3 Identify and understand expansion card uses and differences.
1.1.4 Understand differences and use of storage devices and media types.
1.1.5 Identify and understand CPU types and features.
1.1.6 Identify power supply requirements and select appropriate unit for a system.
1.1.7 Demonstrate custom configurations per customer needs.
1.1.8 Identify and understand the use of connector types and associated cables.
1.1.9 Demonstrate the installation and configuration of peripheral devices.
1.1.10 Identify when a field replacement unit is needed.

Performance Standard 1.2: Fundamental Networking Technologies

1.2.1 Identify network cables and connectors and their characteristics.
1.2.2 Explain TCP/IP suite characteristics and properties.
1.2.3 Identify and understand the use of common TCP / UDP ports, protocols, and their characteristics.
1.2.4 Understand wireless networking standards and encryption types.
1.2.5 Demonstrate installation, configuration, and deployment of a home office network.
1.2.6 Understand and explain different Internet connection types and features.
1.2.7 Understand different network devices, their functions, and features.
1.2.8 Demonstrate the appropriate use of field networking tools.
1.2.9 Identify appropriate hardware and software tools to troubleshoot connectivity issues.

Performance Standard 1.3: Laptops, Mobile Devices, and Related Hardware

1.3.1 Demonstrate the installation and configuration of related peripherals.
1.3.2 Understand and recognize different features of laptops and mobile devices.
1.3.3 Demonstrate custom configurations per customer needs.

Performance Standard 1.4: Printer and Imaging Hardware

1.4.1 Identify and explain the different types and use of printers.
1.4.2 Understand and explain the different imaging processes.
1.4.3 Identify proper basic printer maintenance.

Performance Standard 1.5: Operating Systems

1.5.1 Understand the features and requirements of various operating systems.
1.5.2 Demonstrate how to install, upgrade, and configure an operating system.
1.5.3 Understand and demonstrate the use of command line tools.
1.5.4 Understand and demonstrate operating system tools and utilities.
1.5.5 Understand networking and configuration of operating systems.
1.5.6 Understand and explain the differences in basic OS security settings.

1.5.7 Understand the basics of virtualization.

Performance Standard 1.6: Basic Workstation Security

1.6.1 Understand the application and usage of common prevention methods.
1.6.2 Understand the differences in common security threats.
1.6.3 Demonstrate the implementation of best practices to secure a workstation.
1.6.4 Understand appropriate data destruction and disposal methods.
1.6.5 Understand and demonstrate basic wired and wireless network security.

CONTENT STANDARD 2.0: NETWORKING TECHNOLOGIES

Performance Standard 2.1: Basic Networking Concepts

2.1.1 Compare the layers of the OSI and TCP/IP models.
2.1.2 Classify how applications, devices, and protocols relate to the OSI model layers.
2.1.3 Explain the purpose and properties of IP addressing.
2.1.4 Explain the purpose and properties of routing and switching.
2.1.5 Identify common TCP and UDP well-known ports.
2.1.6 Explain the function of common networking protocols.
2.1.7 Summarize DNS concepts and its components.
2.1.8 Identify virtual network components.

Performance Standard 2.2: Installation, Configuration and Troubleshooting

2.2.1 Configure network devices using basic CLI and/or GUI as appropriate.
2.2.2 Explain the purpose and properties of DHCP.
2.2.3 Troubleshoot common router and switch problems.
2.2.4 Design and implement a basic network.
2.2.5 Demonstrate appropriate use of hardware tools to troubleshoot connectivity issues.
2.2.6 Demonstrate appropriate use of software tools to troubleshoot connectivity issues.

Performance Standard 2.3: Network Media and Topologies Installation and Configuration

2.3.1 Categorize standard media types and associated properties.
2.3.2 Categorize standard connector types based on network media.
2.3.3 Categorize WAN technology types and properties.
2.3.4 Troubleshoot common physical connectivity problems.
2.3.5 Compare and contrast different network physical and logical topologies.
2.3.6 Identify components of wiring distribution.

Performance Standard 2.4: Network and Change Management

2.4.1 Identify and document the purpose and features of network devices.
2.4.2 Demonstrate best practices of network and configuration management.

Performance Standards 2.5: Basic Network Security

2.5.1 Explain the methods of network access security.

2.5.2 Explain methods of user authentication.
2.5.3 Explain common threats, vulnerabilities, and mitigation techniques.
2.5.4 Install and configure a basic firewall.
2.5.5 Categorize different types of network security appliances and methods.

Performance Standards 2.6: IP Addressing

2.6.1 Understand the importance of subnetting.
2.6.2 Demonstrate and apply prefix notation in subnetting.
2.6.3 Design, calculate, and apply subnet masks and addresses to fulfill given topology.

Performance Standards 2.7: Configuration of Network Devices Using CLI and GUI Commands

2.7.1 Configure hostname, password and interface configuration.
2.7.2 Configure static and dynamic routing.
2.7.3 Verify network device configurations using investigative commands.

CONTENT STANDARD 3.0: CUSTOMER SERVICE

Performance Standard 3.1: Customer Service Communication Skills

3.1.1 Listen actively and ask relevant questions to understand customer needs.
3.1.2 Communicate effectively with non-technical customers.
3.1.3 Deal professionally with frustrated customers.