

CCNA v7 Enterprise Networking, Security and Automation (ENSA)



Course description:

CCNA v7 Enterprise Networking, Security, and Automation (ENSA) – The third course in the CCNA v7 curriculum describes the architectures and considerations related to designing, securing, operating, and troubleshooting enterprise networks. This course covers wide area networks (WAN), Quality of Service (QoS) mechanisms used for secure remote access. ENSA covers network automation concepts that support the digitalization of networks. Students will learn to identify and protect against cybersecurity threats. They are introduced to network management and software-defined networking, including controller-based architectures and how application programming interfaces (APIs) enable network automation.

Training subjects:

- Single-Area OSPFv2 Concepts;
- Single-Area OSPFv2 Configuration;
- Network Security Concepts;
- Network Security Concepts;
- ACLs for IPv4 Configuration;
- NAT for IPv4;
- WAN Concepts;
- VPN and IPsec Concepts;

- QoS Concepts;
- Network Management;
- Network Design;
- Network Troubleshooting.

Acquired skills:

- Explain how single-area OSPF operates in both point-to-point and broadcast multiaccess networks;
- Implement single-area OSPFv2 in both point-to-point and broadcast multiaccess networks;
- Explain how vulnerabilities, threats, and exploits can be mitigated to enhance network security;
- Explain how ACLs are used as part of a network security policy;
- Implement IPv4 ACLs to filter traffic and secure administrative access;
- Configure NAT services on the edge router to provide IPv4 address scalability.
- Explain how WAN access technologies can be used to satisfy business requirements.
- Explain how VPNs and IPsec secure site-to-site and remote access connectivity.
- Explain how networking devices implement QoS.
- Implement protocols to manage the network.
- Explain the characteristics of scalable network architectures.
- Troubleshoot enterprise networks.
- Explain the purpose and characteristics of network virtualization.
- Explain how network automation is enabled through RESTful APIs and configuration management tools.

Minimal requirements:

- Completion of the specialist course CCNA v7 SRWE.

Time: 40h

Data: To be defined

Location: Cyber Security Training Centre of Excellence, Warsaw.