Tytuł szkolenia: HPE Comware VXLAN Ethernet VPN

Kod szkolenia: HQ7C4S

Wprowadzenie

This course explains Virtual Extensible Local Area Network (VXLAN) and Ethernet Virtual Private Network (EVPN) protocols to provide Layer 2 connectivity across a Layer 3 network. The class covers both protocol theory and HPE Comware 7 Command Line Interface (CLI) commands. It includes exterior Border Gateway Protocol (eBGP) lab Activities and an interior BGP (iBGP) lab activity using Open Shortest Path First (OSPF). The lab activities are performed in a virtual HPE Comware environment.

Adresaci szkolenia

This course is intended for network or systems administrators, network engineers, and consultants who plan to deploy VXLAN and EVPN using HPE Comware 7 switches into a new or existing network.

Prerequisites

- This course is recommended for students who need to deploy HPE FlexFabric products based on HPE Comware 7. It does not require completion of any previous HPE networking courses.
- BGP and OSPF experience is required as minimal explanation is provided.

Cel szkolenia

After completing this course, students should to be able to:
• Describe the VXLAN technology • Configure static VXLAN tunnels
• Describe VXLAN IP gateways
• Describe the Multiprotocol BGP (MP-BGP) technology
• Configure MP-BGP to pass EVPN information
• Describe the EVPN technology
• Configure EVPN to establish VXLAN tunnels automatically

Czas i forma szkolenia

- 7 godzin (1 dni x 7 godzin), w tym wykłady i warsztaty praktyczne.

Plan szkolenia

Module 1: VXLAN

- VXLAN theory
- VXLAN tunnels overview
- VXLAN underlay and overlay
- Terminology
- VXLAN packet format
- VXLAN tunnels creation
- VXLAN traffic assignment
- VXLAN MAC learning on the VSI
- ARP and ND flood suppression
- VXLAN configuration
- VXLAN verification
- VXLAN IP gateways
- VXLAN IP gateways separated from VTEPs
- Centralized VXLAN IP gateway deployment
- Distributed VXLAN IP gateway deployment

Module 2: EVPN

- EVPN overview
- EVPN benefits
- EVPN network model
- BGP supported topologies (underlay)
- MP-BGP extension for EVPN
- Configuration parameters
- Layer 2 forwarding
- Layer 3 forwarding
- MAC mobility
- EVPN configuration
- EVPN verification

Lab Activity 1: Apply VXLAN

- Connect to the HPE vLabs
- Launch the HCL Cloud Lab
- Apply VXLAN configurations
- Understand BGP configuration
- Understand VXLAN configuration

Lab Activity 2: Separate VXLAN Traffic

- Builds on the configurations applied in Lab Activity 1
- Demonstrate required configuration changes to separate production traffic

Lab Activity 3: Apply EVPN eBGP Configurations

- Understand and apply MP-BGP EVPN configuration
- Understand and apply Virtual Switched Interface (VSI) configuration

Lab Activity 4: Apply EVPN iBGP Configurations

- Apply OSPF configuration
- Apply MP-BGP EVPN configuration
- Apply Virtual Switched Interface (VSI) configuration

Lab Activity 5: Add a Third VTEP

- Understand and apply MP-BGP EVPN configuration
- Understand and apply Virtual Switched Interface (VSI) configuration
- Understand the configuration requirements for multiple Virtual Tunnel End Points (VTEP)