CCNA 200-301

CERTIFICATE NUMBER : CERT0425813683

IDN.ID
INDONESIAN EXPERT FACTORY

This is to certify that :

Ahmad Ruslandia Papua

Has completed a 32 hours program of Cisco CCNA Training at the IDN.ID Training Center, Makassar, on 25, 26, 28, 29 November 2024
The student was able to obtain proficiency :

1. Network Fundamental

- Introduction to Network
- OSI & TCP/IP
- TCP & UDP
- Configure and Verify IPv4 Addressing & Subnetting
  - IPv4 Private Addressing
  - IPv4 Subnetting
- Configure and verify IPv6 addressing and prefix
  - IPv6 addressing and prefix
  - IPv6 address types
- Network Topology Architecture
- Cisco IOS Initial Configuration

2. Network Access

- Configure and verify VLANs (normal range)
  - Access port
  - Trunk ports (802.1Q & Native VLAN)
  - InterVLAN connectivity
- Configure and verify Layer 2 discovery protocols
- Port-security
- Understand basic operations of Rapid PVST+ Spanning-tree Protocol
  - Root port, root bridge (primary/secondary), and other port names
  - Port states and role
  - Portfast
  - Root guard, loop guard, BPDU Filter and BPDU guard
- Configure and verify Layer 2/Layer 3 Etherchannel (LACP)

3. IP Connectivity

- Understanding the component of routing table
  - Routing protocol code
  - Prefix
  - Network Mask
  - Next hop
  - Administrative distance
  - Metric
  - Gateway of last resort
- Determine how a router makes forwarding decisions
  - Longest prefix match
  - Administrative distance
  - Routing protocol metric
- Configure and verify IPv4 & IPv6 static routing
  - Default route
  - Network/Host route
  - Floating static
- Configure and verify single area OSPFv2
  - Neighbor adjacencies
  - OSPF Network Type (Broadcast & Point-to-point)
  - Router ID
- Describe the purpose and concept of first hop redundancy protocol (FHRP)

4. IP Services

- Configure and verify inside source NAT using static and pools
- Configure and verify NTP client/server mode
- Configure and verify the operation of DHCP
  - DHCP Server
  - DHCP Client
  - DHCP Relay
- Understand the operation of DHCP, SNMP, TFTP & FTP within the network
- Configure network device for remote access (SSH & Telnet)
- Describe the use of syslog feature (facilities and severity levels)

5. Security Fundamentals

- Configure and verify device access control using local passwords
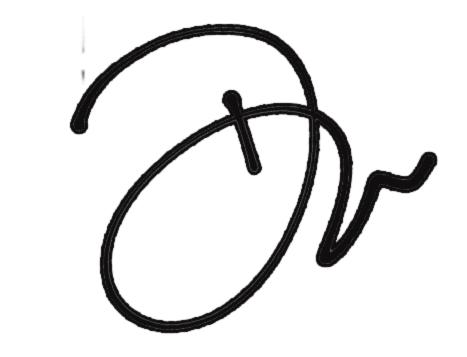- Configure and verify access control lists
  - Standard ACL
  - Extended ACL
- Configure and verify Layer 2 security features (Port-security, DHCP Snooping)
- Compare authentication, authorization, and accounting (AAA) concepts
- Configure and verify WLAN within the GUI using WPA2 PSK

6. Automation and Programmability

- Explain how automation impact network management
- Compare traditional networks with controller-based networks (SDN)
- Explain AI (generative and predictive) and machine learning in network operations
- Recognize the capabilities of configuration management mechanisms such as Ansible and Terraform
- Recognize components of JSON-encoded data

29 November 2024

Dedi Gunawan
CEO of IDN.ID Training Center