



GlobalNet Training Solutions Cisco Certified Network Professional Daily Schedule

GlobalNet Training's 12-day certification course covers all of the objectives for the Building Scalable Cisco Internetworks (BSCI 642-901), Building Cisco Multilayer Switched Networks (BCMSN 642-812), Implementing Secure Converged Wide Area Networks (ISCW 642-825), Optimizing Converged Cisco Networks (ONT 642-845).

*The following reflects the weekly CCNP 2-week schedule.

Week 1 – BSCI and ISCW

Monday:

- Describe IPv6 addressing operations.
- Describe IPv6 interoperation with IPv4.
- Design a hierarchical IPv4 addressing scheme using VLSM and route summarization
- Configure and verify RIPv2 operations
- Describe, configure or verify route filtering (i.e., distribute-lists and passive interfaces).
- Describe and configure DHCP services (e.g., Server, Client, IP helper address, etc.).
- Describe IP Multicast (e.g., Layer-3 to Layer-2 mapping, IGMP, etc.).
- Describe, configure, or verify IP multicast routing (i.e., PIM Sparse-Dense Mode).

Tuesday:

- Describe SPF calculation and OSPF operation, features, and benefits
- Configure and verify OSPF routing (with IPv6 addressing).
- Configure and verify OSPF areas STUB, NSSA, Totally Stubby, Backbone, and virtual links
- Describe the concepts, features, and benefits of integrated IS-IS operation
- Describe and configure NET addressing
- Configure and verify multi-area integrated IS-IS

Wednesday:

- Explain the functions and operations of EIGRP (e.g., DUAL).
- Configure EIGRP routing. (e.g., Stub Routing, authentication, etc.)
- Verify or troubleshoot EIGRP routing configurations.
- Describe the foundational concepts of eBGP and iBGP
- Configure and verify BGP operation
- Manipulate BGP path selection using Local Preference and MED attributes
- Describe, configure or verify route redistribution between IP routing IGPs. (route-maps, default routes, etc.)
- Configure policy-based routing to implement source-based routing

Thursday AM:

- Review and Test BSCI

Thursday PM:

- Describe Cable (HFC) technologies.
- Describe xDSL technologies.
- Configure ADSL (i.e., PPPoE or PPPoA).
- Verify basic teleworker configurations.
- Describe the components and operation of Frame-Mode MPLS (e.g., packet-based MPLS VPNs).
- Configure and verify Frame-Mode MPLS.
- Describe the components and operations of IPSec VPNs and GRE Tunnels.
- Configure a site-to-site IPSec VPN/GRE Tunnel with SDM (i.e., preshared key).
- Verify IPSec/GRE Tunnel configurations (i.e., IOS CLI configurations).
- Describe, configure, and verify VPN backup interfaces.
- Describe and configure Cisco Easy VPN solutions using SDM.

Friday:

- Describe, Configure, and verify AutoSecure/One-Step Lockdown implementations (i.e., CLI and SDM).
- Describe, configure, and verify AAA for Cisco Routers.
- Describe and configure threat and attack mitigation using ACLs.
- Describe and configure IOS secure management features (e.g., SSH, SNMP, SYSLOG, NTP, Role-Based CLI, etc.)
- Describe and mitigate common network attacks (i.e., Reconnaissance, Access, and Denial of Service).
- Describe and mitigate Worm, Virus, and Trojan Horse attacks.
- Describe and mitigate application-layer attacks (e.g., management protocols).
- Describe the functions and operations of Cisco IOS Firewall (e.g., Stateful Firewall, CBAC, etc.).
- Configure Cisco IOS Firewall with SDM.
- Verify Cisco IOS Firewall configurations (i.e., IOS CLI configurations, SDM Monitor).
- Describe the functions and operations of IDS and IPS systems (e.g., IDS/IPS signatures, IPS Alarms, etc.)
- Configure Cisco IOS IPS using SDM.

Saturday AM:

- Review and Test ISCW

Week 2 – BCMSN and ONT**Saturday PM:**

- Describe best practices for VLAN implementation in the Enterprise Composite Model
- Describe and configure VLANs including, Native, Static, and Voice (Aux)
- Describe and configure VTP to distribute VLAN information
- Verify VLAN implementations
- Describe the operation of CEF in a multi-layer switch environment
- Describe and configure Inter-VLAN routing in a LAN environment
- Describe and configure SVI and routed ports on Catalyst switches
- Verify InterVLAN routing implementations

Sunday:

- Describe and configure gateway redundancy protocols (e.g. HSRP, VRRP and GLBP)
- Verify High Availability configurations
- Describe common Layer 2 network attacks (e.g., MAC Flooding, Rogue Devices, VLAN Hopping, DHCP Spoofing, etc.)
- Explain and configure Port Security, 802.1x, VACLs, Private VLANs, DHCP Snooping, and DAI.
- Verify Catalyst switch (IOS-based) security configurations (i.e., Port Security, 802.1x, VACLs, Private VLANs, DHCP Snooping, and DAI).
- Explain the functions and operations of the Spanning Tree protocols (i.e., RSTP, PVRST, MSTP).
- Configure RSTP (PVRST) and MSTP.
- Describe and configure STP security mechanisms (i.e., BPDU Guard, BPDU Filtering, Root Guard).

Monday:

- Configure and Verify UDLD and Loop Guard.
- Verify or troubleshoot Spanning Tree protocol operations.
- Describe the characteristics of voice in the campus network.
- Describe the functions of Voice VLANs and trust boundaries.
- Configure and verify basic IP Phone support (i.e. Voice VLAN, Trust and CoS options, AutoQoS for voice).
- Describe the components and operations of WLAN topologies (i.e., AP and Bridge).
- Describe the features of Client Devices, Network Unification, and Mobility Platforms (i.e., CCX, LWAPP).
- Configure a wireless client (i.e., ADU).

Tuesday AM:

Review and Test BCMSN

Tuesday PM:

- Describe the functions and operations of a VoIP network (e.g., packetization, bandwidth considerations, CAC, etc.).
- Describe and identify basic voice components in an enterprise network (e.g. Gatekeepers, Gateways, etc.)
- Explain the necessity of QoS in converged networks (e.g., bandwidth, delay, loss, etc.).

Wednesday:

- Describe strategies for QoS implementations (e.g. QoS Policy, QoS Models, etc.).
- Describe classification and marking (e.g., CoS, ToS, IP Precedence, DSCP, etc.).
- Explain congestion management and avoidance mechanisms (e.g., FIFO, PQ, WRR, WRED, etc.).
- Describe traffic policing and traffic shaping (i.e., traffic conditioners).
- Describe WAN link efficiency mechanisms (e.g., Payload/Header Compression, MLP with interleaving, etc.).
- Describe and configure QoS Pre-Classify.
- Describe Control Plane Policing.

Thursday:

- Explain the functions and operations of AutoQoS.
- Describe the SDM QoS Wizard.
- Describe and configure NBAR for classification.
- Configure, verify, and troubleshoot AutoQoS implementations (i.e., MQC).
- Describe and Configure wireless security on Cisco Clients and APs (e.g., SSID, WEP, LEAP, etc.).
- Describe basic wireless management (e.g., WLSE and WCS). Configure and verify basic WCS configuration (i.e., login, add/review controller/AP status, security, and import/review maps).
- Describe and configure WLAN QoS.

Friday:

Review and Test ONT

*Weekly schedule is subject to change without notice.