CONCEPT

Enterprise SD-WAN Design and Implementation Training Course



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Introduction:

Enterprise SD-WAN design and implementation training is a one-week course for network operations engineers, enterprise infrastructure specialists, telecommunications architects, and cybersecurity systems analysts, culminating in an Enterprise SD-WAN Architecture and Migration Plan. Organisations face escalating transport costs, rigid legacy Multiprotocol Label Switching connections, and operational latency across distributed multi-cloud services that disrupt business agility. Nominees already configure enterprise routing protocols, manage branch firewalls, and monitor wide-area circuits, with instruction delivered through hands-on technical lab exercises. CoreConcept Training Center delivers this Enterprise SD-WAN Design and Implementation Training Course to establish resilient overlays and optimise wide-area traffic routing.

Course Objectives:

- Design multi-tenant overlay network topologies adhering to MEF 70.1 Underlay Connectivity Service attributes and performance metrics.
- Configure centralized orchestration and control plane policies utilizing Cisco Catalyst SD-WAN vBond, vManage, and vSmart controllers.
- Deploy automated Zero Touch Provisioning and feature templates to streamline WAN Edge router provisioning across hybrid transport circuits.
- Implement dynamic application-aware routing and Direct Internet Access breakout rules aligned with MEF 88 security functions.
- Apply network segmentation and transport encryption controls supporting National Cybersecurity Authority ECC-2:2024 Domain 2 and Subdomain 4-2 cybersecurity specifications.
- Produce an Enterprise SD-WAN Architecture and Migration Plan to transition legacy branch infrastructure without service interruption.

Target Audience:

- Network operations engineers responsible for configuring enterprise routing protocols, maintaining WAN Edge appliances, and executing circuit failover procedures
- Enterprise infrastructure specialists responsible for provisioning branch connectivity, managing virtualised controller platforms, and monitoring transport performance metrics
- Telecommunications systems analysts responsible for integrating hybrid MPLS and broadband links, tracking circuit SLAs, and troubleshooting transport underlays
- Network security practitioners responsible for establishing IPsec overlay encryption, enforcing edge segmentation policies, and managing direct internet firewalls

Course Outline:

Day 1: Enterprise WAN Evolution and Architecture Foundations

- MEF 70 Standards Evaluating Enterprise WAN Service Attributes
- MEF 70.1 Specifications Assessing Underlay Connectivity Service Performance
- Legacy MPLS Networks Benchmarking Hybrid Transport Bandwidth Constraints
- CST Equipment Regulations Verifying WAN Edge Device Type Approvals
- Cisco Catalyst Architecture Mapping Orchestration Management And Control Planes

Day 2: Control Plane Protocols and Orchestration Frameworks

- Cisco vBond Orchestrator Automating Initial Device Identity Verification
- Cisco vManage Console Developing Standardised Device Feature Templates
- Overlay Management Protocol Designing Scalable Control Plane Routing
- Bidirectional Forwarding Detection Measuring Link Jitter And Latency
- MEF 95 Policy Framework Aligning SASE And Zero Trust

Day 3: Data Plane Configuration and Traffic Optimisation

- Cisco WAN Edge Routers Establishing Secure IPsec Overlays
- Zero Touch Provisioning Deploying Distributed Remote Branch Gateways
- Application Quality of Experience Tuning Latency Sensitive Traffic
- Direct Internet Access Rules Offloading Cloud SaaS Applications
- Cisco Cloud OnRamp Integrating Multi Cloud Transport Overlays

Day 4: Security Segmentation and Regulatory Compliance Controls

- MEF 88 Specifications Implementing Application Aware Edge Firewalls
- NCA ECC-2:2024 Controls Implementing Domain 2 Network Segmentation
- NCA Subdomain 4-2 Guidelines Securing Cloud Hosting Interconnections
- Critical Systems Cybersecurity Controls Scheduling Edge Penetration Testing
- Spirent MEF 90 Draft Testbeds Diagnosing Circuit Failovers

Day 5: Practical Lab Simulation and Deployment Planning

- Controller Deployment Lab Provisioning Centralised Management Plane Instances
- Policy Configuration Lab Enforcing Dynamic Application Aware Routing
- Security Hardening Lab Validating Cryptographic Transport Overlay Controls
- Hybrid Transport Lab Testing High Availability Failover Mechanisms
- Migration Architecture Lab Finalising Enterprise SD-WAN Deployment Plans

Skills You Will Gain:

- MEF 70.1 Underlay Service Profiling
- Overlay Management Protocol Engineering
- Centralised SD-WAN Controller Provisioning
- Application-Aware Routing Policy Administration
- Zero Touch Provisioning Template Design
- SD-WAN Edge Security Segmentation
- Dynamic Hybrid Circuit Path Selection

Why Attend This Course:

- Deliver an Enterprise SD-WAN Architecture and Migration Plan to the chief technology officer to guide infrastructure modernisation and circuit transition schedules.
- Determine optimal transport policies, controller deployment models, and breakout topologies for distributed enterprise branch sites.
- Eliminate costly circuit provisioning delays, unexpected carrier link outages, and configuration drift through automated centralised template management.
- Transfer operational knowledge on overlay troubleshooting, failover monitoring, and template deployment to departmental network administration teams.

Conclusion:

Upon returning to the organisation, participants apply the Enterprise SD-WAN Architecture and Migration Plan to execute wide-area network modernisation without disrupting ongoing business operations. The enterprise infrastructure steering committee uses this plan to authorise controller installations, direct branch migration schedules, and allocate transport capacity across telecommunications providers. Following the initial rollout phase, the network engineering team must review circuit utilisation telemetry, application latency metrics, and failover performance data to refine automated routing policies and ensure long-term transport resilience across all operational environments.

Frequently Asked Questions FAQ:

Which roles should an organisation nominate for the Enterprise SD-WAN Design and Implementation Training Course?

Network operations engineers, enterprise infrastructure specialists, telecommunications analysts, and network security practitioners should attend. These professionals manage enterprise routers, configure wide-area links, oversee edge security appliances, and maintain remote site connectivity across hybrid transport infrastructures.

What should nominees already do at work before attending the Enterprise SD-WAN Design and Implementation Training Course?

Nominees should already configure enterprise routing protocols such as BGP and OSPF, manage branch firewalls, and monitor operational wide-area circuits. Prior operational familiarity with IPsec tunnelling, basic virtualisation, and enterprise IP addressing schemes ensures participants can immediately engage with software-defined overlay architectures.

What does the organisation receive when the participant returns from the Enterprise SD-WAN Design and Implementation Training Course?

The organisation receives an Enterprise SD-WAN Architecture and Migration Plan. This technical blueprint details controller orchestration requirements, device template specifications, application-aware routing rules, transport security controls, and a phased cutover schedule for transitioning branch sites from legacy circuits.

Which standards and frameworks does the Enterprise SD-WAN Design and Implementation Training Course follow?

The course follows MEF 70.1 service attribute standards, MEF 88 security guidelines, and the MEF 95 policy framework. Practical implementation adheres to the Cisco Catalyst SD-WAN architecture, incorporating relevant transport security baselines including National Cybersecurity Authority ECC-2:2024 controls and Communications, Space and Technology Commission equipment approvals.