

SD-WAN Management – Advanced

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Introduction

Software-Defined Wide Area Network SD-WAN technology has transformed enterprise networking by enabling centralized control, enhancing performance, and reducing costs. This advanced course dives into the technical, strategic, and operational elements of SD-WAN management. It is designed for IT professionals who already have experience with WANs and want to master SD-WAN deployment, monitoring, optimization, and security.

Course Objectives

By the end of this course, participants will be able to:

- Analyze and evaluate SD-WAN architectures and deployment models
- Configure advanced policies for application performance, security, and routing
- Optimize SD-WAN for high availability, scalability, and QoS
- Integrate SD-WAN with cloud services, SASE, and Zero Trust frameworks
- Implement SD-WAN monitoring, analytics, and troubleshooting methodologies

Course Outlines

Day 1: Advanced SD-WAN Architecture and Design

- Evolution of SD-WAN: From Traditional WANs to AI-Driven Networks
- Centralized Orchestration and Control: Deep Dive into Controllers and Edge Devices
- Multi-Cloud and Hybrid Integration: Architectural Considerations
- Advanced Deployment Models Hub-and-Spoke, Full Mesh, Dynamic Path Selection

Day 2: Application-Aware Routing and Policy Configuration

- Policy-Based Routing PBR: Advanced Rule Configuration
- Application Classification and Real-Time Optimization
- Dynamic Path Selection and Failover Strategies
- Segment Routing and MPLS/Internet Link Coexistence

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A graphic of a chessboard with several chess pieces (a king, a queen, a rook, and a pawn) positioned on it. The board is white and black, and the pieces are gold and silver. The text 'UK Training PARTNER' is overlaid on the board.

Day 3: Security in SD-WAN Environments

- Integration with Secure Access Service Edge SASE Framework
- Next-Gen Firewall Features, IPS/IDS in SD-WAN Edge Devices
- End-to-End Encryption and Key Management
- Zero Trust Networking: Concepts and SD-WAN Implementation

Day 4: Monitoring, Analytics, and Troubleshooting

- Real-Time Monitoring and Telemetry Tools
- SD-WAN Analytics: KPIs, Anomalies, and Predictive Insights
- Troubleshooting Connectivity and Performance Issues
- Using AI and ML for Autonomous Network Optimization

Day 5: Advanced Use Cases and Future Trends

- Integration with IoT, Edge Computing, and 5G
- SD-WAN as a Service SD-WANaaS and Service Chaining
- Vendor Comparison and Open Standards MEF 3.0, ONUG, etc.
- Future Trends: AI-Driven Networking, Intent-Based Networking IBN

Why Attend this Course: Wins & Losses!

- Master the latest in SD-WAN architecture and security — or risk falling behind in managing complex enterprise networks
- Learn to integrate SD-WAN with cloud and Zero Trust frameworks — or struggle with inefficient, fragmented systems
- Gain expertise in monitoring and analytics — or remain reactive to performance issues
- Understand advanced deployment models — or face limited scalability and poor failover
- Stay ahead of future networking trends — or miss critical innovation opportunities

Conclusion

This course equips participants with the technical depth and strategic insight to lead SD-WAN implementations in modern enterprises.

From advanced deployment models to future-ready integrations, attendees will leave with actionable skills to enhance security, performance, and operational agility.

A graphic of a chessboard with several pawns and a king piece. The king piece is gold and stands prominently on the right side of the board. The pawns are silver and black. The board is white and black squares. In the background, there are concentric circles radiating from the king piece.

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