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# Dell EMC PowerSwitch Data Center Implementation and Administration (PSDCIA)

**ID** PSDCIA **Price** CHF 3,120.—(excl. VAT) **Duration** 5 days

## Who should attend

This course is intended for professionals those who configure, manage, and troubleshoot Dell EMC Data Center Networking products.

## Prerequisites

The pre-requisite for this course is that, the student must have completed the Associate course-Dell EMC PowerSwitch Concepts and Features.

## Course Objectives

Upon successful completion of this course, participants should be able to:

- Describe networking technologies and data flows found in the data center environment.
- Perform basic switch setup tasks.
- Describe, configure, and troubleshoot VLANs.
- Explain the importance of Spanning Tree Protocol (STP), and then configure, verify, and troubleshoot the feature.
- Describe static and dynamic Link Aggregation Groups (LAG). Configure and troubleshoot port channel configuration issues.
- Configure discovery protocols and interpret Link Layer Discovery Protocol (LLDP) output.
- Demonstrate familiarity with IP subnetting and configure static routes.
- Explain, Configure, and validate Open Shortest Path First (OSPF) routing.
- Explain, configure, and validate Border Gateway Protocol (BGP) and Equal-cost multi-path routing (ECMP).
- Describe, configure, and validate Virtual Link Trunking (VLT).
- Configure and validate Virtual Router Redundancy Protocol (VRRP) and list use cases.
- Configure uplink failure detection and explain what it is used for.
- Implement Policy based routing (PBR).

- Configure and validate Virtual Routing and Forwarding (VRF).
- Describe and configure security features including Access Control List (ACL), Port Security, and Authentication, Authorization, and Accounting (AAA).
- Explain the need for Quality of Service (QoS) and configure for a data center environment.
- Configure a switch to function as a Dynamic Host Configuration Protocol (DHCP) server or relay agent.
- Differentiate between Internet Group Management Protocol (IGMP) and Protocol-Independent Multicast PIM and configure into an existing multicast environment.

## Course Content

The content of this course is designed to support the course objectives.

- Data Center Networking Overview
- Basic Switch Configuration
- Virtual LANs
- Link Aggregation Groups
- Spanning Tree Protocols and Discovery Protocols
- Border Gateway Protocol
- Virtual Router Redundancy Protocol
- Basic Routing
- Open Shortest Path First - OSPF
- Virtual Link Trunking
- Uplink Failure Detection
- Policy-Based Routing
- Virtual Routing and Forwarding
- Security

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## Training Centres worldwide



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