Customer Training Catalog Course Descriptions

CloudEngine Series Switches Training

HUAWEI Learning Service

2015

CONTENTS

1.1 Training Course Descriptions

CloudEngine Series Switches Training Training Courses are designed as follows:

Code	Training Courses	Level	Duration (working days)	Training Location	Class Size
CloudEngine Series Switches Operation and Maintenance Training Training Courses					
ODE31	IDC Network Solution Introduction	III	0.5		6 ~ 12
ODE32	CloudEngine Series Switch Hardware Introduction	II	0.5		6 ~ 12
ODE33	CloudEngine Series Switch VRP8 Platform Introduction	II	1		6 ~ 12
ODE35	CloudEngine Series Switch Switch IDC Feature Operation and Maintainenance	III	3.5		6 ~ 12
ODE36	CloudEngine Series Switch Switch Ethernet Feature Operation and Maintainenance	II	1		6 ~ 12
ODE37	CloudEngine Series Switch Switch Routing Operation and Maintainenance	II	2		6 ~ 12
ODE38	CloudEngine Series Switch Switch HA Feature Operation and Maintainenance	II	1		6 ~ 12
ODE34	CloudEngine Series Switch Switch Routine Maintenance and Troubleshooting	II	0.5		6 ~ 12
ODE39	CloudEngine Series Switches Feature Description	II	0.5		6 ~ 12
CloudEngine Series Switches lanning and Design Training Training Courses					
ODE41	CE12800 Hardware Introduction	II	0.5		6 ~ 12
ODE42	CE12800 Ethernet Switching Feature Planning and Design	IV	0.5		6 ~ 12
ODE43	CE12800 Routing Feature Planning and Design	IV	0.5		6 ~ 12
ODE44	CE12800 MPLS VPN Feature Planning and Design	IV	0.5		6 ~ 12
ODE45	CE12800 Reliability Feature Planning and Design	IV	0.5		6 ~ 12
ODE46	CE12800 Security Feature Planning and Design	IV	0.25		6 ~ 12
ODE47	CE12800 Virtualization Feature Planning and Design	IV	0.25		6 ~ 12

1.2 CloudEngine Series Switches Operation and Maintenance Training Training Course Descriptions

1.2.1 ODE31 IDC Network Solution Introduction

Objectives

On completion of this course, the participants will be able to:

- Describe Data Center Network Overview
- Describe Data Center Network Trend
- Describe Data Center Network Solution

Target Audience

CloudEngine Series Switches 2nd Line maintenance engineers

Prerequisites

- Having basic knowledge of Lanswitch

Content

- DCN Overview
- DCN Trend
- DCN Solution

Training Methods

Lecture

Duration

0.5 working day

Class Size

Min 6, max 12

1.2.2 ODE32 CloudEngine Series Switches Hardware Introduction

Objectives

On completion of this course, the participants will be able to:

- Know the trend of data center development
- Know the basic concepts of data center
- Grasp CE series data center switches hardware
- Know CE series data center switches advantages
- Know CE series data center switches features

Target Audience

CloudEngine Series Switches 2nd Line maintenance engineers

Prerequisites

- Having basic knowledge of Lanswitch

Content

- Products Position
- Products Architecture
- Boards and Modules
- Products Features
- Products Applications

Training Methods

Lecture

Duration

0.5 working day

Class Size

Min 6, max 12

1.2.3 ODE33 CloudEngine Series Switches VRP8 Platform Introduction

Objectives

On completion of this course, the participants will be able to:

- Know the development of VRP Network Operation System
- Know VRP8 Features
- Grasp VRP8 Basic Operation and Configuration

Target Audience

CloudEngine Series Switches 2nd Line maintenance engineers

Prerequisites

- Having basic knowledge of Lanswitch

Content

- VRP Network Operation System Overview
- VRP8 Features
- VRP8 Basic Operation and Configuration

Training Methods

Lecture, Hands-on exercise

Duration

1 working day

Class Size

Min 6, max 12

1.2.4 ODE35 CloudEngine Series Switches IDC Feature Operation and Maintainenance

Objectives

On completion of this course, the participants will be able to:

- Know the background of the TRILL technology
- Be familiar with the concepts related to TRILL
- Know the working mechanism of the TRILL protocol
- Understand the data forwarding process
- Know the applications of TRILL on modern networks
- Grasp TRILL configurations on Huawei devices
- Understand the stack working mechanism Implementation on CE switches
- Describe the differences between Implementations on TOR and CE12800
- Grasp the stack configurations on TOR
- Grasp the stack configurations on CE12800
- Know the VS application advantages
- Know the VS technology principles
- Know the VS deployment modes
- Grasp the Basic VS configurations
- Know the data center development trend in the virtualization era
- Know the vCenter and nCenter Working mechanisms
- Understand the VM Migration Process
- Grasp the nCenter Network Deployment
- Know the FCoE background
- Understand the FCoE implementation
- Be familiar with relevant FCoE technologies
- Know the technologies used by lossless Ethernet
- Grasp Huawei FCoE solution

Target Audience

CloudEngine Series Switches 2nd Line maintenance engineers

Prerequisites

- Having basic knowledge of Lanswitch

Content

- TRILL Overview
- Protocol Mechanism
- Data Forwarding
- Applications
- Basic Configuration
- Stack Overview
- Implementation Mechanism
- Applications
- Data Forwarding and Failover
- Basic Configurations
- VS Overview
- VS Implementation
- VS Deployment
- VS Typical Applications
- Challenge of Server Virtualization Facing Data Centers
- Virtualization Awareness Technical Principles
- Virtualization Awareness Deployments
- Data Center Network Development Trend
- FC Network Overview
- FCoE Network Overview
- FCoE Data Forwarding
- Enhanced Ethernet Technologies
- Huawei FCoE Network Convergence Solution
- Basic Configurations of FCoE

Training Methods

Lecture, Hands-on exercise

Duration

3.5 working days

Class Size

Min 6, max 12

1.2.5 ODE36 CloudEngine Series Switches Ethernet Feature Operation and Maintainenance

Objectives

On completion of this course, the participants will be able to:

- Know what VLAN is
- Be familiar with the concepts about VLAN
- Grasp the mechanism and configuration of communication between VLANs
- Know the mechanism and configuration of VLAN aggregation
- Know the mechanism and configuration of MUX VLAN
- Know the mechanism and configuration of Management VLAN
- Understand trunk implementation
- Understand trunk forwarding
- Be familiar with LACP concepts
- Grasp the configurations of link aggregation

Target Audience

CloudEngine Series Switches 2nd Line maintenance engineers

Prerequisites

- Having basic knowledge of Lanswitch

Content

- VLAN Overview
- VLAN Aggregation Overview and Configuration
- MUX VLAN Overview and Configuration
- Management VLAN Overview and Configuration
- Hands-on Exercises
- Eth-Trunk Overview
- LACP
- Link Aggregation Hands-on Practice

Training Methods

Lecture, Hands-on exercise

Duration

1 working day

Class Size

Min 6, max 12

1.2.6 ODE37 CloudEngine Series Switches Routing Operation and Maintainenance

Objectives

On completion of this course, the participants will be able to:

- Describe the IP routing process
- Understand the fields in the routing table
- Configure a static route on an CE series switches
- Configure OSPF on the network consisting of CE series switches
- Troubleshooting OSPF on CE series switches
- Describe the meanings and functions of IS-IS configuration parameters
- Configure IS-IS on a network that consists of CE series switches
- Analyze and handle common faults that occur during IS-IS configuration on CE series switches
- Describe the meanings and functions of the parameters relevant to the BGP configuration
- Configure BGP on CE series switches
- Analyze and troubleshoot common faults in the BGP configuration on CE series switches

Target Audience

CloudEngine Series Switches 2nd Line maintenance engineers

Prerequisites

- Having basic knowledge of Lanswitch

Content

- IP Routing Overview
- Static Route
- OSPF Overview
- Basic Concepts of OSPF
- Calculating OSPF Routes
- CE OSPF Hands-on Practice
- IS-IS Overview
- Basic Concepts of IS-IS
- IS-IS Route Calculations
- IS-IS Configuration on CE5850 Switch
- Hands-on IS-IS Configuration Practice
- BGP Overview
- BGP Route Transmission
- BGP Path Selection and Control
- BGP Configuration on CE
- BGP Hands-on Exercises on CE

Training Methods

Lecture, Hands-on exercise

Duration

2 working days

Class Size

Min 6, max 12

1.2.7 ODE38 CloudEngine Series Switches HA Feature Operation and Maintainenance

Objectives

On completion of this course, the participants will be able to:

- Be familiar with the basic VRRP concepts
- Understand common VRRP features
- Configure VRRP on CE series switches
- Know STP functions
- Know STP implementation
- Know RSTP improvement compared with STP
- Understand MSTP calculation
- Configure MSTP on CE series switches

Target Audience

CloudEngine Series Switches 2nd Line maintenance engineers

Prerequisites

- Having basic knowledge of Lanswitch

Content

- VRRP Overview
- VRRP Configuration
- VRRP Hands-on Practice
- STP Overview
- MSTP Overview
- MSTP Configuration
- MSTP Hands-on Practice on CE

Training Methods

Lecture, Hands-on exercise

Duration

1 working day

Class Size

Min 6, max 12

1.2.8 ODE34 CloudEngine Series Switches Routine Maintenance and Troubleshooting

Objectives

On completion of this course, the participants will be able to:

- View device status
- Describe the routine maintenance contents of CE series switches
- Know the precautions during maintenance
- Know how to replace the parts of CE series switches
- Know the precautions of replacement of parts

Target Audience

CloudEngine Series Switches 2nd Line maintenance engineers

Prerequisites

- Having basic knowledge of Lanswitch

Content

- Routine Maintenance Overview
- Risky Operations
- Common Maintenance Commands
- Parts Replacement

Training Methods

Lecture, Hands-on exercise

Duration

0.5 working day

Class Size

Min 6, max 12

1.2.9 ODE39 CloudEngine Series Switches Feature Description

Objectives

On completion of this course, the participants will be able to:

- Understand the principle and application of CloudEngine Series Switches key features

Target Audience

CloudEngine Series Switches 1st line /field maintenance engineers

Prerequisites

- Having basic knowledge of TCP/IP

Content

- Feature Oview
- Data Center Features
- Device Virtualization
- VPN Features
- Reliability
- Security
- QoS

Training Methods

Lecture

Duration

0.5 working day

Class Size

Min 6, max 12

1.3 CloudEngine Series Switches lanning and Design Training Training Course Descriptions

1.3.1 ODE41 CE12800 Hardware Introduction

Objectives

On completion of this course, the participants will be able to:

- Know the product positioning of CE12800
- Grasp the product architecture and cards of CE12800
- Understand the product applications of CE12800

Target Audience

CloudEngine Series Switches Planning and Design engineers

Prerequisites

- Completion of CloudEngine Series Switches 2nd Line Maintenance Training

Content

- Product Positioning
- Product Architecture
- Cards and Modules
- Product Applications

Training Methods

Lecture

Duration

0.5 working day

Class Size

Min 6, max 12

1.3.2 ODE42 CE12800 Ethernet Switching Feature Planning and Design

Objectives

On completion of this course, the participants will be able to:

- Understand the working principles of CE12800 Ethernet Switching Feature
- Grasp the planning and designing principles of CE12800 Ethernet Switching Feature

Target Audience

CloudEngine Series Switches Planning and Design engineers

Prerequisites

- Completion of CloudEngine Series Switches 2nd Line Maintenance Training

Content

- Ethernet Switching Feature Overview
- Ethernet Switching Feature Planning and Design

Training Methods

Lecture

Duration

0.5 working day

Class Size

Min 6, max 12

1.3.3 ODE43 CE12800 Routing Feature Planning and Design

Objectives

On completion of this course, the participants will be able to:

- Understand the functions and selection principles of the IGPs for an IDC
- Grasp the principles of OSPF planning
- Grasp the principles of IS-IS planning
- Grasp the principles of BGP planning

Target Audience

CloudEngine Series Switches Planning and Design engineers

Prerequisites

- Completion of CloudEngine Series Switches 2nd Line Maintenance Training

Content

- Overview of IDC Routing Planning
- IDC OSPF Planning
- IDC IS-IS Planning
- IDC BGP Planning

Training Methods

Lecture

Duration

0.5 working day

Class Size

Min 6, max 12

1.3.4 ODE44 CE12800 MPLS VPN Feature Planning and Design

Objectives

On completion of this course, the participants will be able to:

- Grasp the planning rules of MPLS L2 VPN in DC
- Grasp the planning rules of MPLS L3 VPN in DC
- Understand the DC interconnection solutions in DC

Target Audience

CloudEngine Series Switches Planning and Design engineers

Prerequisites

- Completion of CloudEngine Series Switches 2nd Line Maintenance Training

Content

- Overview of DC Interconnection
- MPLS L2 VPN Service Planning for a DC Network
- MPLS L3 VPN Service Planning for a DC Network

Training Methods

Lecture

Duration

0.5 working day

Class Size

Min 6, max 12

1.3.5 ODE45 CE12800 Reliability Feature Planning and Design

Objectives

On completion of this course, the participants will be able to:

- Understand CE12800 Reliability Feature
- Grasp CE12800 E2E reliability Feature Planning and Design

Target Audience

CloudEngine Series Switches Planning and Design engineers

Prerequisites

- Completion of CloudEngine Series Switches 2nd Line Maintenance Training

Content

- CE12800 Reliability Feature Overview
- CE12800 E2E Reliability Feature Planning and Design

Training Methods

Lecture

Duration

0.5 working day

Class Size

Min 6, max 12

1.3.6 ODE46 CE12800 Security Feature Planning and Design

Objectives

On completion of this course, the participants will be able to:

- Understand CE12800 Security Feature
- Grasp CE12800 Security Feature Planning and Design

Target Audience

CloudEngine Series Switches Planning and Design engineers

Prerequisites

- Completion of CloudEngine Series Switches 2nd Line Maintenance Training

Content

- CE12800 Security Feature
- CE12800 Security Feature Planning and Design

Training Methods

Lecture

Duration

0.25 working day

Class Size

Min 6, max 12

1.3.7 ODE47 CE12800 Virtualization Feature Planning and Design

Objectives

On completion of this course, the participants will be able to:

- Understand the stack working mechanism
- Understand the Virtual System working mechanism
- Grasp how to plan and design CSS and virtual system in DC network

Target Audience

CloudEngine Series Switches Planning and Design engineers

Prerequisites

- Completion of CloudEngine Series Switches 2nd Line Maintenance Training

Content

- Stack Overview
- CSS Implementation Mechanism
- CSS feature Planning for a DC network
- Virtual System Overview
- Virtual System Implementation Mechanism
- Virtual System Planning for a DC Network

Training Methods

Lecture

Duration

0.25 working day

Class Size

Min 6, max 12