



Customer Training Catalog Training Programs IPv6 Solution Training



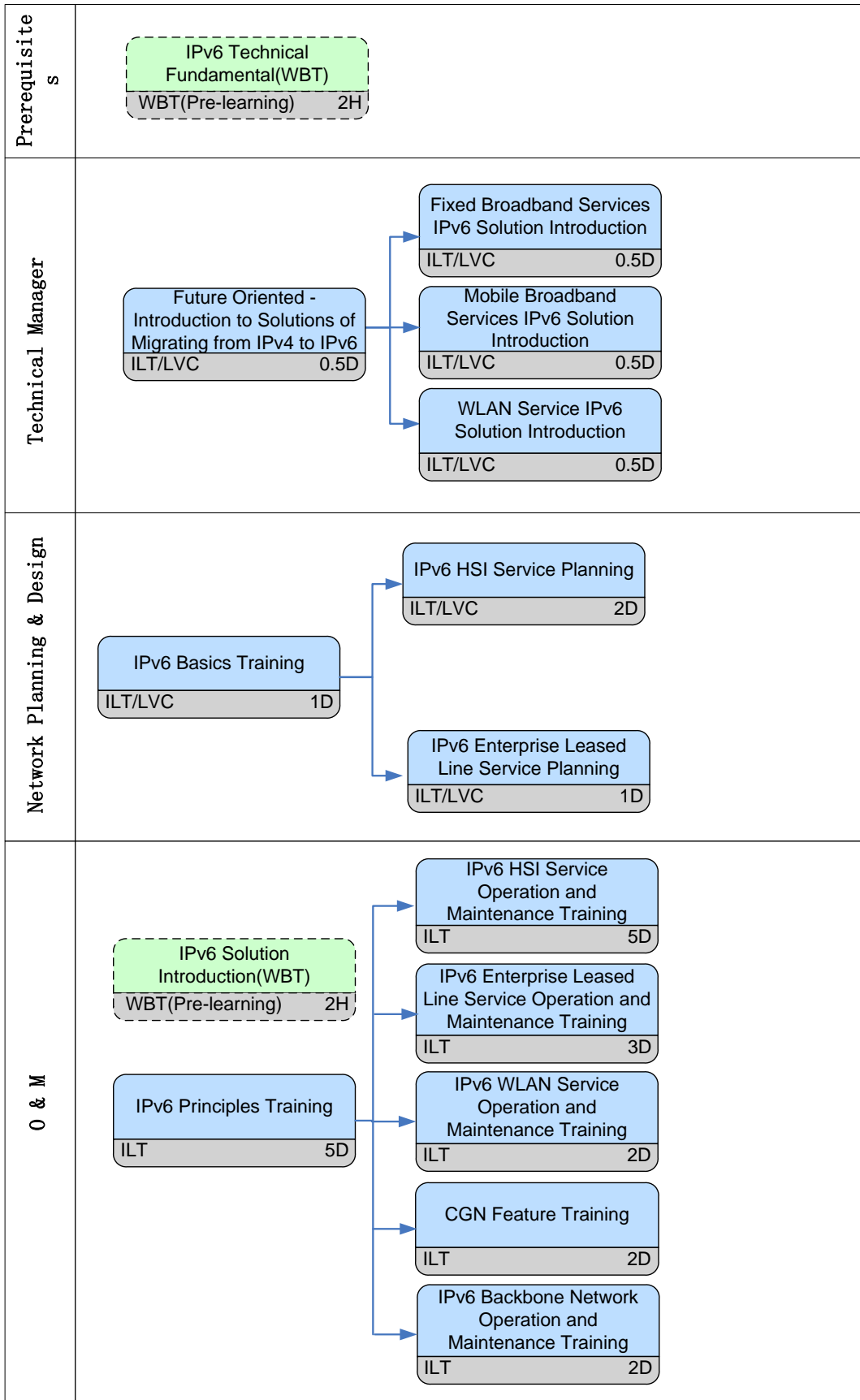
HUAWEI
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1 Training Path



2 Training Programs

IPv6 Solution Training Programs are designed as follows:

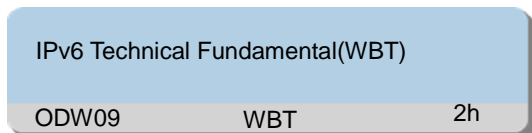
Training Programs	Level	Duration (working days)	Training Location	Class Size
IPv6 Solution (WBT)				
IPv6 Technical Fundamental(WBT)	II	2 h		No limit
IPv6 Solution Introduction(WBT)	II	2 h		No limit
IPv6 Evolution and Trends				
Future Oriented - Introduction to Solutions of Migrating from IPv4 to IPv6	II	0.5		6 ~ 12
Fixed Broadband Services IPv6 Solution Introduction	II	0.5		6 ~ 12
Mobile Broadband Services IPv6 Solution Introduction	II	0.5		6 ~ 12
WLAN Service IPv6 Solution Introduction	II	0.5		6 ~ 12
IPv6 Planning and Design				
IPv6 Basics Training	I	1		6 ~ 12
IPv6 HSI Service Planning	IV	2		6 ~ 12
IPv6 Enterprise Leased Line Service Planning	IV	1		6 ~ 12
IPv6 Operation and Maintenance				
IPv6 Principles Training	II	5		6 ~ 12
IPv6 HSI Service Operation and Maintenance Training	III	5		6 ~ 12
IPv6 Enterprise Leased Line Service Operation and Maintenance Training	III	3		6 ~ 12
IPv6 WLAN Service Operation and Maintenance Training	III	2		6 ~ 12
CGN Feature Training	III	2		6 ~ 12
IPv6 Backbone Network Operation and Maintenance Training	III	2		6 ~ 12

Level Description: I :Basic Course II : Intermediate Course III:Advanced Course IV: Expert Course

2.1 IPv6 Solution (WBT) Training Programs

2.1.1 IPv6 Technical Fundamental(WBT)

Training Path



Target Audience

- New staff
- Operation maintenance engineer

Prerequisites

- Having basic knowledge in IP network
- Understanding basic network equipment

Objectives

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

- Describe why there is a need to upgrade IPv4 to IPv6
- Describe the constitution of an IPv6 address

- Describe the constitution of an IPv6 packet
- Describe the type of ICMPv6 messages
- Describe the principle of IPv6 neighbor discovery
- Describe the principle of IPv6 address auto configuration
- Describe the process of PMTU discovery
- Describe the DNS of IPv6
- Describe the basic features of IPv6
- Describe the mainstream IPv6 network evolution solution
- Describe the application scenario of different IPv6 evolution solution

Duration

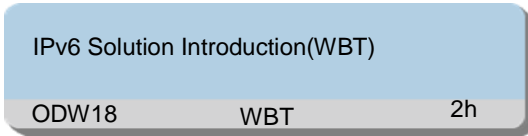
2 hours

Class Size

No limit

2.1.2 IPv6 Solution Introduction(WBT)

Training Path



Target Audience

Manager

Prerequisites

Having basic knowledge of Datacom

Having basic knowledge in IP network

Understanding basic network equipment

Objectives

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

- Describe the evolution trend of the FBB network
- Describe the impact on the existing network due to FBB IPv6 evolution
- Describe FBB IPv6 solution application scenario division, solution features and solution selection

- Describe FBB IPv6 solution involved products and their functions
- Describe the evolution trend of the MBB network
- Describe the impact on the existing network due to MBB IPv6 evolution
- Describe MBB IPv6 solution application scenario division, solution features and solution selection
- Describe the evolution trend of the WLAN network
- Describe the impact on the existing network due to WLAN IPv6 evolution
- Describe WLAN IPv6 solution application scenario division, solution features and solution selection

Duration

2 hours

Class Size

No limit

2.2 IPv6 Evolution and Trends Training Programs

2.2.1 Future Oriented - Introduction to Solutions of Migrating from IPv4 to IPv6

Training Path

IPv6 Migrating Solutions Introduction		
ODN40	Lecture, LVC	0.5d

Target Audience

Manager
IPv6 service operation and maintenance engineer
Network planning engineer

Prerequisites

- Having basic knowledge of TCP/IP
- Familiar with the IPv4 communications network principle

Objectives

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

- Describe the basic features of IPv6
- Describe the mainstream IPv6 network evolution solution
- Describe the application scenario of different IPv6 evolution solution

Duration

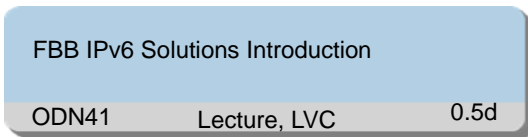
0.5 working day

Class Size

Min 6, Max 12

2.2.2 Fixed Broadband Services IPv6 Solution Introduction

Training Path



Target Audience

Manager
IPv6 service operation and maintenance engineer
Network planning engineer

Prerequisites

Having basic knowledge of TCP/IP
Familiar with the IPv4 communications network principle

Objectives

On completion of this program, the participants will

be able to:

- Describe the evolution trend of the FBB network
- Describe the impact on the existing network due to FBB IPv6 evolution
- Describe FBB IPv6 solution application scenario division, solution features and solution selection
- Describe FBB IPv6 solution involved products and their functions

Duration

0.5 working day

Class Size

Min 6, Max 12

2.2.3 Mobile Broadband Services IPv6 Solution Introduction

Training Path

Mobile Broadband Services IPv6 Solutions Introduction		
ODN42	Lecture, LVC	0.5d

Target Audience

Manager
IPv6 service operation and maintenance engineer
Network planning engineer

Prerequisites

Having basic knowledge of TCP/IP
Familiar with the IPv4 communications network principle

Objectives

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

- Describe the evolution trend of the MBB network
- Describe the impact on the existing network due to MBB IPv6 evolution
- Describe MBB IPv6 solution application scenario division, solution features and solution selection

Duration

0.5 working day

Class Size

Min 6, Max 12

2.2.4 WLAN Service IPv6 Solution Introduction

Training Path

WLAN Services IPv6 Solutions Introduction		
ODN43	Lecture, LVC	0.5d

Target Audience

Manager
IPv6 service operation and maintenance engineer
Network planning engineer

Prerequisites

Having basic knowledge of TCP/IP
Familiar with the IPv4 communications network principle

Objectives

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

- Describe the evolution trend of the WLAN network
- Describe the impact on the existing network due to WLAN IPv6 evolution
- Describe WLAN IPv6 solution application scenario division, solution features and solution selection

Duration

0.5 working day

Class Size

Min 6, Max 12

2.3 IPv6 Planning and Design Training Programs

2.3.1 IPv6 Basics Training

Training Path

IPv6 Basic Protocols Introduction		
ODN44	Lecture, Lab, E-lab	1d

Target Audience

IPv6 service operation and maintenance engineer
Network planning engineer

Prerequisites

- Familiar with the IPv4 data communications network protocols and related technologies
- At least three years of experience in the operation and maintenance of data communication equipment

Objectives

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

- Analyze the IPv6 packet structure
- Analyze the differences of the IPv6 and IPv4

packets

- Describe ICMPv6 protocol message format
- Describe ICMPv6 protocol packet type
- Describe ICMPv6 protocol function
- Describe the different functions of the ND protocol
- Describe the type of ND protocol messages
- Describe how the ND address assignment protocol works
- Describe how DHCPv6 address assignment protocol works
- Describe the difference between Stateless address assignment and Stateful address assignment
- Describe the IPv6 address allocation process of HSI users getting on-line

Duration

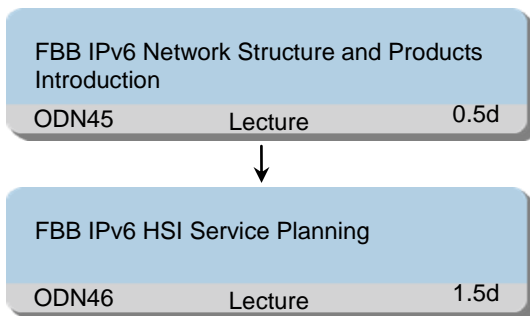
1 working day

Class Size

Min 6, Max 12

2.3.2 IPv6 HSI Service Planning

Training Path



Target Audience

Network planning engineer

Prerequisites

Familiar with the HSI service processes

Familiar with the features of HSI service

At least three years of experience in the operation and maintenance of data communication equipment

Objectives

On completion of this program, the participants will

be able to:

- Describe IPv6 mainstream evolution solution
- Describe the dual-stack + NAT scene HSI service networking
- Describe the DS-Lite scene HSI service networking
- Describe the different scenarios HSI service related products
- Describe how to plan IPv6 HSI backbone network
- Describe how to plan IPv6 HSI dual-stack user access
- Describe how to plan IPv6 HSI CGN solution
- Describe how to plan IPv6 HSI DS-Lite solution

Duration

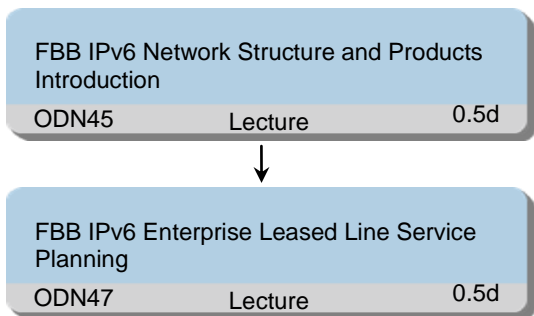
2 working days

Class Size

Min 6, Max 12

2.3.3 IPv6 Enterprise Leased Line Service Planning

Training Path



Target Audience

Network planning engineer

Prerequisites

Familiar with the Enterprise Leased Line service processes

Familiar with the features of enterprise leased line service

At least three years of experience in the operation and maintenance of data communication equipment

Objectives

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

- Describe IPv6 mainstream evolution solution
- Describe the IPv6 scene enterprise leased line service networking
- Describe the IPv6 scene enterprise leased line service related products
- Describe the IPv6 scene enterprise leased line service networking and products
- Describe how to plan IPv6 enterprise leased line service
- Describe how to plan IPv6 enterprise leased line network carrier solution

Duration

1 working day

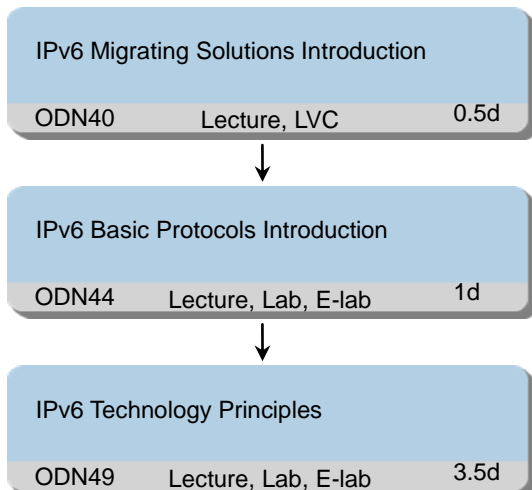
Class Size

Min 6, Max 1

2.4 IPv6 Operation and Maintenance Training Programs

2.4.1 IPv6 Principles Training

Training Path



Target Audience

IPv6 service operation and maintenance engineer

Prerequisites

- Familiar with the IPv4 data communications network protocols and related technologies
- At least three years of experience in the operation and maintenance of data communication equipment

Objectives

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

- Describe the basic features of IPv6
- Describe the mainstream IPv6 network evolution solution
- Describe the application scenario of different IPv6 evolution solution
- Analyze the IPv6 packet structure
- Analyze the differences of the IPv6 and IPv4

packets

- Describe ICMPv6 protocol message format
- Describe ICMPv6 protocol packet type
- Describe ICMPv6 protocol function
- Describe the different functions of the ND protocol
- Describe the type of ND protocol messages
- Describe how the ND address assignment protocol works
- Describe how DHCPv6 address assignment protocol works
- Describe the difference between Stateless address assignment and Stateful address assignment
- Describe the IPv6 address allocation process of HSI users getting on-line
- Describe the principle and configuration of OSPFv3
- Describe the principles and configuration of ISISv6
- Describe the principle and configuration of BGP4 +
- Describe the IPv6 mobility features
- Describe the IPv6 security features
- Configure IPv6 various types of routing
- Configure IPv6 ND and DHCPv6

Duration

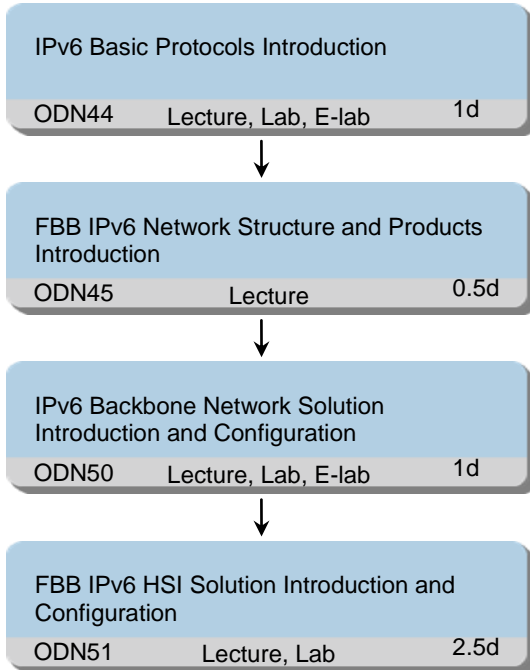
5 working days

Class Size

Min 6, Max 12

2.4.2 IPv6 HSI Service Operation and Maintenance Training

Training Path



Target Audience

IPv6 service operation and maintenance engineer

Prerequisites

At least three years of experience in the operation and maintenance of data communication equipment

Familiar with FBB network structure

Familiar with IPv4 FBB HSI related service

Objectives

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

- Analyze the IPv6 packet structure
- Analyze the differences of the IPv6 and IPv4 packets
- Describe ICMPv6 protocol message format
- Describe ICMPv6 protocol packet type
- Describe ICMPv6 protocol function
- Describe the different functions of the ND protocol
- Describe the type of ND protocol messages

- Describe how the ND address assignment protocol works
- Describe how DHCPv6 address assignment protocol works
- Describe the difference between Stateless address assignment and Stateful address assignment
- Describe the IPv6 address allocation process of HSI users getting on-line
- Describe IPv6 mainstream evolution solution
- Describe the dual-stack + NAT scene HSI service networking
- Describe the DS-Lite scene HSI service networking
- Describe the different scenarios HSI service related products
- Describe IPv6 backbone relevant technical solution
- Describe 6PE
- 6VPE principles
- Configure backbone network dual-stack solution
- Configure backbone network 6PE
- 6VPE solution
- Describe IPv6 HSI business backbone network solutions
- Describe IPv6 HSI business dual-stack user access solutions
- Describe IPv6 HSI business CGN solutions
- Describe IPv6 HSI business DS-Lite solutions
- Describe IPv6 HSI business network carrier solutions
- Configure IPv6 backbone network
- Configure IPv6 HSI business dual-stack, DS-Lite and CGN solutions

Duration

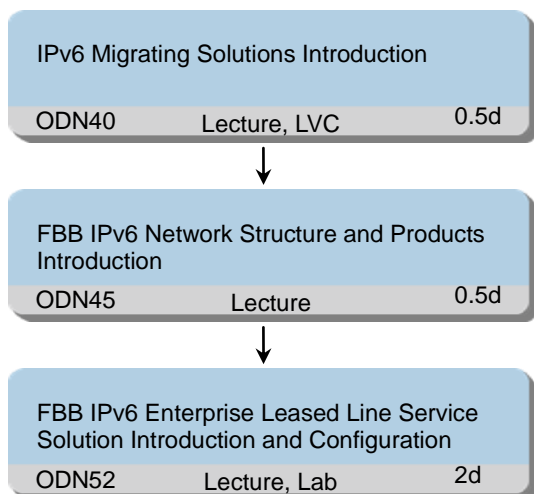
5 working days

Class Size

Min 6, Max 12

2.4.3 IPv6 Enterprise Leased Line Service Operation and Maintenance Training

Training Path



Target Audience

IPv6 service operation and maintenance engineer

Prerequisites

At least three years of experience in the operation and maintenance of data communication equipment
 Familiar with FBB network structure
 Familiar with IPv4 FBB Enterprise Leased Line related service

Objectives

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

- Describe the basic features of IPv6
- Describe the mainstream IPv6 network evolution solution
- Describe the application scenario of different IPv6 evolution solution
- Describe IPv6 mainstream evolution solution
- Describe the IPv6 scene enterprise leased line service networking
- Describe the IPv6 scene enterprise leased line service related products
- Describe IPv6 enterprise leased line service solutions
- Configure IPv6 enterprise leased line service solutions

Duration

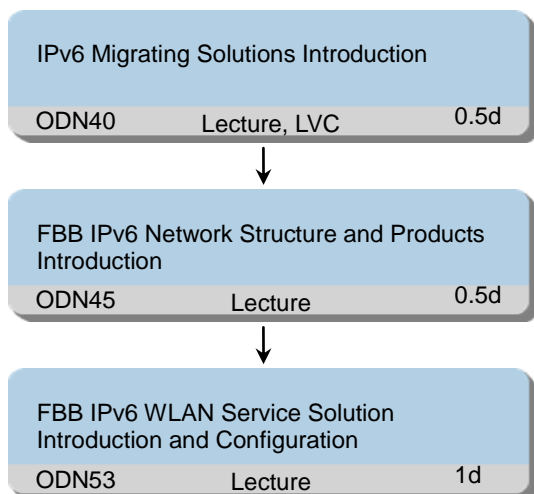
3 working days

Class Size

Min 6, Max 12

2.4.4 IPv6 WLAN Service Operation and Maintenance Training

Training Path



Target Audience

IPv6 service operation and maintenance engineer

Prerequisites

At least three years of experience in the operation and maintenance of data communication equipment
Familiar with FBB network structure
Familiar with IPv4 FBB WLAN related service

Objectives

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

- Describe the basic features of IPv6
- Describe the mainstream IPv6 network evolution solution
- Describe the application scenario of different IPv6 evolution solution
- Describe IPv6 mainstream evolution solution
- Describe the IPv6 scene WLAN service networking
- Describe the IPv6 scene WLAN service related products
- Describe IPv6 WLAN service solutions

Duration

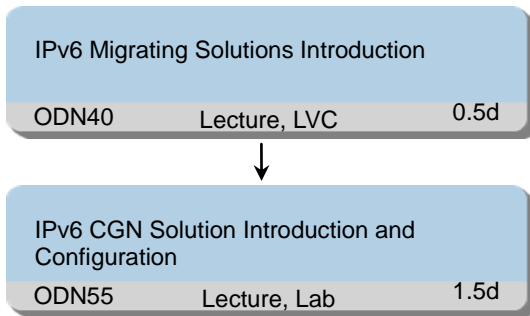
2 working days

Class Size

Min 6, Max 12

2.4.5 CGN Feature Training

Training Path



Target Audience

IPv6 service operation and maintenance engineer

Prerequisites

Having basic knowledge of TCP/IP

Familiar with the IPv4 NAT principle

Objectives

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

- Describe the basic features of IPv6
- Describe the mainstream IPv6 network evolution solution
- Describe the application scenario of different IPv6 evolution solution
- Describe CGN function in the IPv6 transition solution
- Describe CGN deployment scenarios
- Describe the characteristics of CGN port resource allocation scheme
- Configure the CGN features

Duration

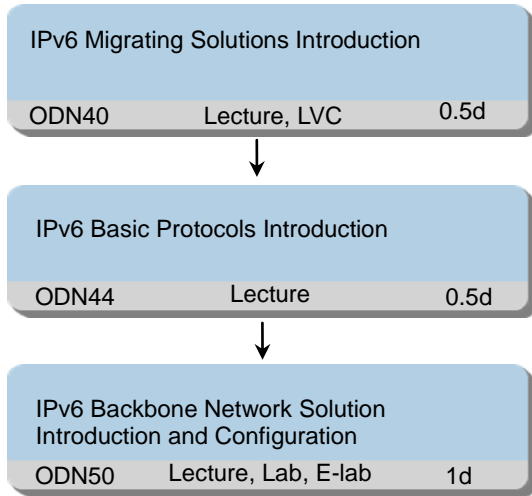
2 working days

Class Size

Min 6, Max 12

2.4.6 IPv6 Backbone Network Operation and Maintenance Training

Training Path



Target Audience

IPv6 service operation and maintenance engineer

Prerequisites

Having basic knowledge of TCP/IP

Familiar with the IPv4 backbone network communications technique

Objectives

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

- Describe the basic features of IPv6
- Describe the mainstream IPv6 network evolution solution
- Describe the application scenario of different IPv6 evolution solution
- Analyze the IPv6 packet structure

- Analyze the differences of the IPv6 and IPv4 packets
- Describe ICMPv6 protocol message format
- Describe ICMPv6 protocol packet type
- Describe ICMPv6 protocol function
- Describe the different functions of the ND protocol
- Describe the type of ND protocol messages
- Describe how the ND address assignment protocol works
- Describe how DHCPv6 address assignment protocol works
- Describe the difference between Stateless address assignment and Stateful address assignment
- Describe the IPv6 address allocation process of HSI users getting on-line
- Describe IPv6 backbone relevant technical solution
- Describe 6PE & 6VPE principles
- Configure backbone network dual-stack solution
- Configure backbone network 6PE & 6VPE solution

Duration

2 working days

Class Size

Min 6, Max 12