

# Training Proposal for IPv6 Solution Training Project



**HUAWEI**  
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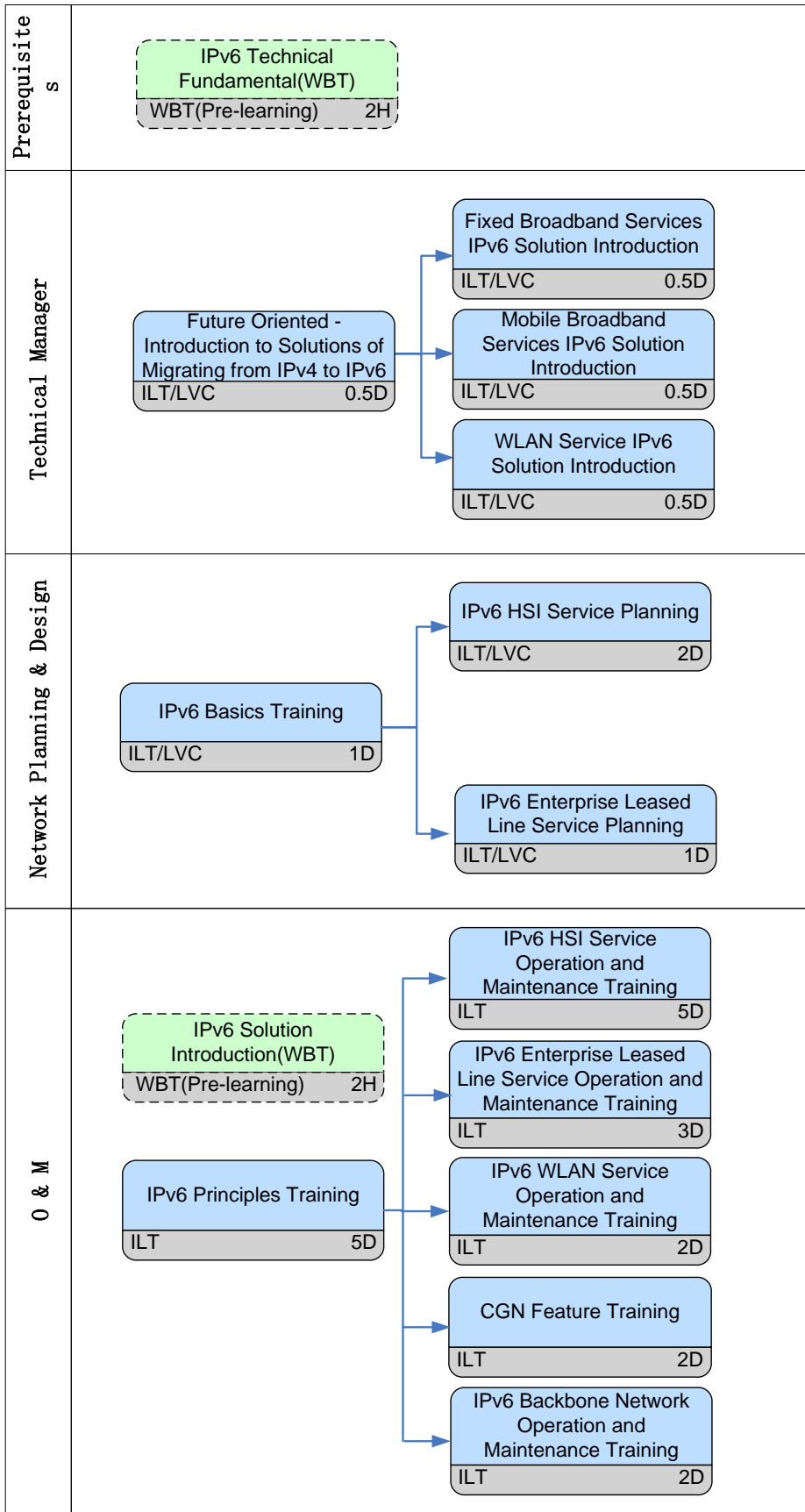
## CONTENTS

|       |   |    |
|-------|---|----|
| 1     | Training Solution .....   | 3  |
| 1.1   | IPv6 Solution Training Path .....   | 3  |
| 1.2   | Required Training Programs .....  | 5  |
| 1.3   | IPv6 Solution (WBT) .....   | 6  |
| 1.3.1 | IPv6 Technical Fundamental(WBT) .....   | 6  |
| 1.3.2 | IPv6 Solution Introduction(WBT).....  | 8  |
| 1.4   | IPv6 Evolution and Trends .....   | 10 |
| 1.4.1 | Future Oriented - Introduction to Solutions of Migrating from IPv4 to IPv6..... | 10 |
| 1.4.2 | Fixed Broadband Services IPv6 Solution Introduction .....                       | 11 |
| 1.4.3 | Mobile Broadband Services IPv6 Solution Introduction.....                       | 12 |
| 1.4.4 | WLAN Service IPv6 Solution Introduction .....                                   | 13 |
| 1.5   | IPv6 Planning and Design .....  | 14 |
| 1.5.1 | IPv6 Basics Training.....   | 14 |
| 1.5.2 | IPv6 HSI Service Planning.....  | 16 |
| 1.5.3 | IPv6 Enterprise Leased Line Service Planning.....                               | 18 |
| 1.6   | IPv6 Operation and Maintenance.....   | 20 |
| 1.6.1 | IPv6 Principles Training.....   | 20 |
| 1.6.2 | IPv6 HSI Service Operation and Maintenance Training .....                       | 23 |
| 1.6.3 | IPv6 Enterprise Leased Line Service Operation and Maintenance Training.....     | 26 |
| 1.6.4 | IPv6 WLAN Service Operation and Maintenance Training.....                       | 28 |
| 1.6.5 | CGN Feature Training .....  | 30 |
| 1.6.6 | IPv6 Backbone Network Operation and Maintenance Training.....                   | 32 |

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# 1 Training Solution

## 1.1 IPv6 Solution Training Path



The WBT indicates optional module

## 1.2 Required Training Programs

IPv6 Solution Training For this project, the whole training solution is designed into the following programs. List of Training Program(s) for IPv6 Solution Training Project:

| Training Program   | Program Level | Duration (workdays) | Training Location | Class Size |
|--|---------------|---------------------|-------------------|------------|
| <b>IPv6 Solution (WBT)</b>   |               |                     |                   |            |
| IPv6 Technical Fundamental(WBT)  | II            | 2 h                 |                   | No limit   |
| IPv6 Solution Introduction(WBT)  | II            | 2 h                 |                   | No limit   |
| <b>IPv6 Evolution and Trends</b>   |               |                     |                   |            |
| 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     |
| <b>IPv6 Planning and Design</b>  |               |                     |                   |            |
| 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     |
| <b>IPv6 Operation and Maintenance</b>                                      |               |                     |                   |            |
| 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

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## 1.3 IPv6 Solution (WBT)

### 1.3.1 IPv6 Technical Fundamental(WBT)

#### Training Path

|                                 |     |    |
|---------------------------------|-----|----|
| IPv6 Technical Fundamental(WBT) |     |    |
| ODW09                           | WBT | 2H |

#### 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

#### Training Content

##### ODW09 IPv6 Technical Fundamental(WBT)

- IPv6 Addresses and Packet Encapsulation (WBT)
  - IPv6 background introduction
  - IPv6 address introduction
  - IPv6 encapsulation introduction
- IPv6 Basic Principles (WBT)
  - ICMPv6
  - IPv6 ND
  - IPv6 address allocation technologies
  - PMTU

- 
- IPv6 DNS
  - IPv6 Migration Solutions Introduction (WBT)
    - IPv6 migration driving force
    - IPv6 current development
    - IPv6 migration solutions

Duration

2 hours

Class Size

No limit

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## 1.3.2 IPv6 Solution Introduction(WBT)

### Training Path

|                                 |     |    |
|---------------------------------|-----|----|
| IPv6 Solution Introduction(WBT) |     |    |
| ODW18                           | WBT | 2H |

### 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

### Training Content

#### ODW18 IPv6 Solution Introduction(WBT)

- Fixed Broadband Services IPv6 Solutions Introduction(WBT)
  - Service analysis of FBB IPv6 solution
  - Application scenario of FBB IPv6 solution
  - Products involved in FBB IPv6 solution
- Mobile Broadband Services IPv6 Solutions Introduction(WBT)
  - Service analysis of MBB IPv6 solution
  - Application scenario of MBB IPv6 solution
- WLAN Services IPv6 Solutions Introduction(WBT)
  - Service analysis of WLAN IPv6 solution





- Application scenario of WLAN IPv6 solution

Duration

2 hours

Class Size

No limit

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## 1.4 IPv6 Evolution and Trends

### 1.4.1 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

#### Training Content

##### ODN40 IPv6 Migrating Solutions Introduction

- IPv6 Migrating Solutions Introduction
  - IPv6 migration driving force
  - IPv6 current status
  - The introduction of IPv6 evolution solution
  - Huawei IPv6 evolution solution

#### Duration

0.5 working day

#### Class Size

Min 6, Max 12

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## 1.4.2 Fixed Broadband Services IPv6 Solution Introduction

### Training Path

|                                 |              |      |
|---------------------------------|--------------|------|
| FBB IPv6 Solutions Introduction |              |      |
| ODN41                           | 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 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

### Training Content

#### ODN41 FBB IPv6 Solutions Introduction

- Fixed Broadband Services IPv6 Solutions Introduction
  - Service analysis of FBB IPv6 solution
  - Application scenario of FBB IPv6 solution
  - Products involved in FBB IPv6 solution

### Duration

0.5 working day

### Class Size

Min 6, Max 12

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### 1.4.3 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

#### Training Content

ODN42 Mobile Broadband Services IPv6 Solutions Introduction

- Mobile Broadband Services IPv6 Solutions Introduction
  - Service analysis of MBB IPv6 solution
  - Application scenario of MBB IPv6 solution

#### Duration

0.5 working day

#### Class Size

Min 6, Max 12

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## 1.4.4 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

### Training Content

ODN43 WLAN Services IPv6 Solutions Introduction

- WLAN Services IPv6 Solutions Introduction
  - Service analysis of WLAN IPv6 solution
  - Application scenario of WLAN IPv6 solution

### Duration

0.5 working day

### Class Size

Min 6, Max 12

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## 1.5 IPv6 Planning and Design

### 1.5.1 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

#### Training Content

##### ODN44 IPv6 Basic Protocols Introduction

- IPv6 Basic Protocols Lab Guide
  - IPv6 address configuration practice
  - IPv6 ND protocol practice
  - DHCPv6 practice
- IPv6 Address and Architecture Manual
  - IPv6 addresses generated background
  - Introduction to IPv6 Address

- 
- IPv6 packet structure introduction
  - ICMPv6 and ND Introduction Manual
    - The ICMPv6 protocol introduction
    - ND protocol introduction
  - IPv6 Address Assign Protocols Introduction Manual
    - Overview of IPv6 address automatically assigned solution
    - ND address auto-configuration protocol introduction
    - DHCPv6 address allocation protocol introduction
    - IPv6 broadband access address assignment case

Duration

1 working day

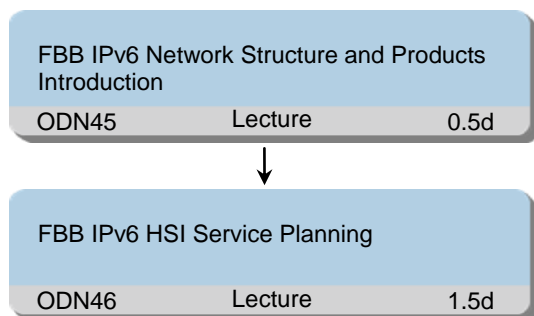
Class Size

Min 6, Max 12

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## 1.5.2 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

### Training Content

#### ODN45 FBB IPv6 Network Structure and Products Introduction

- IPv6 HSI Network Structure and Products Introduction Manual
  - IPv6 HSI service networking solutions introduction
  - Dual-stack + NAT scenes HSI for service networking introduction
  - DS-Lite scene HSI networking introduction
  - IPv6 HSI networking products introduction

#### ODN46 FBB IPv6 HSI Service Planning

- IPv6 HSI Backbone Network Planning Manual
  - IPv6 HSI backbone network solution planning
- IPv6 HSI Dual Stack & DS-Lite Solution Planning Manual



- 
- IPv6 HSI Dual Stack user-access solution planning
  - IPv6 HSI CGN Solution Planning Manual
    - IPv6 HSI CGN solution planning

Duration

2 working days

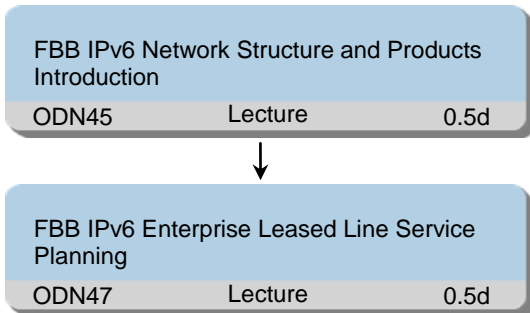
Class Size

Min 6, Max 12

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### 1.5.3 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

#### Training Content

##### ODN45 FBB IPv6 Network Structure and Products Introduction

- IPv6 Enterprise Leased Line Service Network Structure and Products Introduction Manual
  - IPv6 enterprise leased line service networking solutions introduction
  - IPv6 enterprise leased line service networking and products introduction

##### ODN47 FBB IPv6 Enterprise Leased Line Service Planning

- IPv6 Enterprise Leased Line Service Solution Planning Manual
  - IPv6 Enterprise Leased Line Service Solution Planning

#### Duration

1 working day

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Class Size

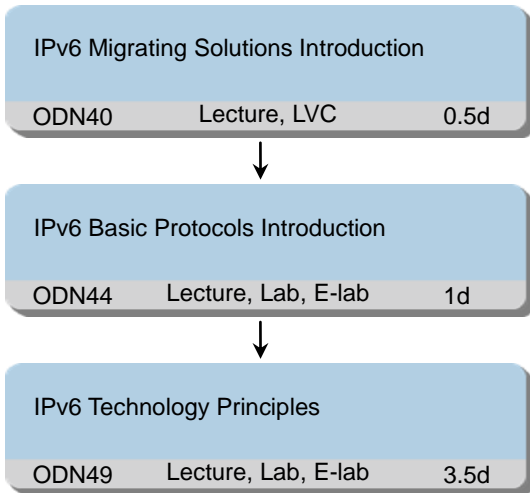
Min 6, Max 12

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## 1.6 IPv6 Operation and Maintenance

### 1.6.1 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

## Training Content

### ODN40 IPv6 Migrating Solutions Introduction

- IPv6 Migrating Solutions Introduction
  - IPv6 migration driving force
  - IPv6 current status
  - The introduction of IPv6 evolution solution
  - Huawei IPv6 evolution solution

### ODN44 IPv6 Basic Protocols Introduction

- IPv6 Basic Protocols Lab Guide
  - IPv6 address configuration practice
  - IPv6 ND protocol practice
  - DHCPv6 practice
- IPv6 Address and Architecture Manual
  - IPv6 addresses generated background
  - Introduction to IPv6 Address
  - IPv6 packet structure introduction
- ICMPv6 and ND Introduction Manual
  - The ICMPv6 protocol introduction
  - ND protocol introduction
- IPv6 Address Assign Protocols Introduction Manual
  - Overview of IPv6 address automatically assigned solution
  - ND address auto-configuration protocol introduction
  - DHCPv6 address allocation protocol introduction
  - IPv6 broadband access address assignment case

### ODN49 IPv6 Technology Principles

- IPv6 Routing Protocol Configuration Lab Guide
  - IPv6 routing protocol configuration practice
- 6PE&6vPE Configuration Lab Guide
  - 6PE configuration practice
  - 6vPE configuration practice
- Principles and Implementation of IPv6 Routing Protocols
  - RIPng principle
  - OSPFv3 principle and configuration

- 
- ISISv6 principle and configuration
  - BGP4+ principle and configuration
  - 6PE and 6VPE Principles and Implementation Manual
    - 6PE and 6VPE Principles and Implementation
  - IPv6 Security Manual
    - IPv6 security introduction
  - Mobile IPv6 Manual
    - Why mobile IPv6
    - Mobile IPv6 - building blocks
    - Mobile IPv6 - example

Duration

5 working days

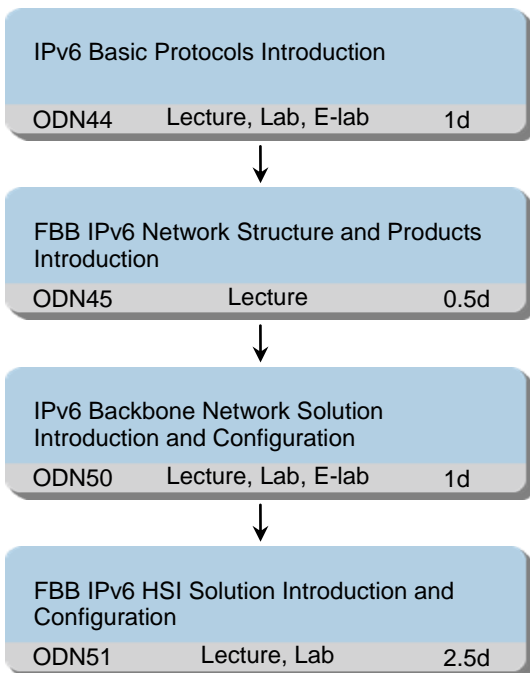
Class Size

Min 6, Max 12

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## 1.6.2 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

#### Training Content

##### ODN44 IPv6 Basic Protocols Introduction

- IPv6 Basic Protocols Lab Guide
  - IPv6 address configuration practice
  - IPv6 ND protocol practice
  - DHCPv6 practice
- IPv6 Address and Architecture Manual
  - IPv6 addresses generated background
  - Introduction to IPv6 Address
  - IPv6 packet structure introduction
- ICMPv6 and ND Introduction Manual
  - The ICMPv6 protocol introduction
  - ND protocol introduction
- IPv6 Address Assign Protocols Introduction Manual
  - Overview of IPv6 address automatically assigned solution
  - ND address auto-configuration protocol introduction
  - DHCPv6 address allocation protocol introduction
  - IPv6 broadband access address assignment case

##### ODN45 FBB IPv6 Network Structure and Products Introduction

- IPv6 HSI Network Structure and Products Introduction Manual
  - IPv6 HSI service networking solutions introduction
  - Dual-stack + NAT scenes HSI for service networking introduction
  - DS-Lite scene HSI networking introduction



- 
- IPv6 HSI networking products introduction
- ODN50 IPv6 Backbone Network Solution Introduction and Configuration
- IPv6 Backbone Network Solution Configuration Lab Guide
    - IPv6 Backbone network configuration practice
  - IPv6 Backbone Network Solution Introduction Manual
    - IPv6 HSI backbone network solution introduction
- ODN51 FBB IPv6 HSI Solution Introduction and Configuration
- IPv6 HSI Dual Stack Solution Configuration Lab Guide
    - IPv6 HSI dual stack user-access solution configuration practice
  - IPv6 HSI DS-Lite Solution Configuration Lab Guide
    - IPv6 HSI DS-Lite solution configuration practice
  - IPv6 HSI CGN Solution Introduction Manual
    - CGN principle introduction
    - CGN classification
    - The CGN access scene classification introduction
  - IPv6 HSI Dual Stack Solution Introduction Manual
    - Dual-stack access solution key technologies
    - Dual-stack access solution introduction
    - Examples of typical application scenarios
  - IPv6 HSI DS-Lite Solution Introduction Manual
    - DS-Lite basic concept introduction
    - DS-Lite network introduction
    - DS-Lite technology
  - IPv6 HSI Network Carrier Solution Introduction Manual
    - IPv6 the DNS introduction
    - IPv6 the QoS introduction
    - IPv6 HSI user access authentication

Duration

5 working days

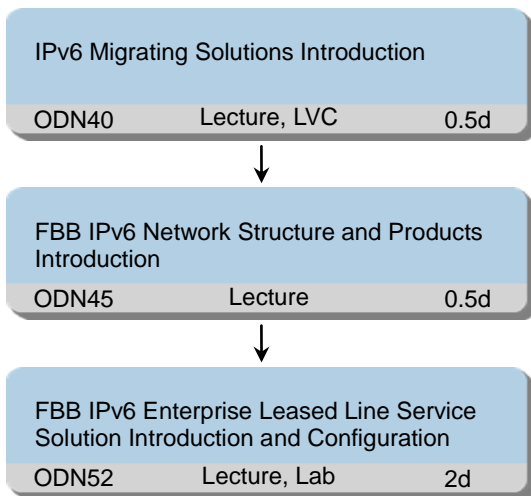
Class Size

Min 6, Max 12

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### 1.6.3 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

#### Training Content

##### ODN40 IPv6 Migrating Solutions Introduction

- IPv6 Migrating Solutions Introduction
  - IPv6 migration driving force
  - IPv6 current status
  - The introduction of IPv6 evolution solution
  - Huawei IPv6 evolution solution

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ODN45 FBB IPv6 Network Structure and Products Introduction

- IPv6 Enterprise Leased Line Service Network Structure and Products Introduction Manual
  - IPv6 enterprise leased line service networking solutions introduction
  - IPv6 enterprise leased line service networking and products introduction

ODN52 FBB IPv6 Enterprise Leased Line Service Solution Introduction and Configuration

- IPv6 Enterprise Leased Line Service Solution Introduction Manual
  - IPv6 enterprise leased line service solution key technologies
  - IPv6 enterprise leased line service solution introduction
  - Examples of typical application scenarios
- IPv6 Enterprise Leased Line Service Network Carrier Solution Introduction Manual
  - VLAN solution
  - Routing solution
  - QoS solution
- IPv6 Enterprise Leased Line Service Solution Configuration Lab Guide
  - IPv6 enterprise leased line service configuration practice

Duration

3 working days

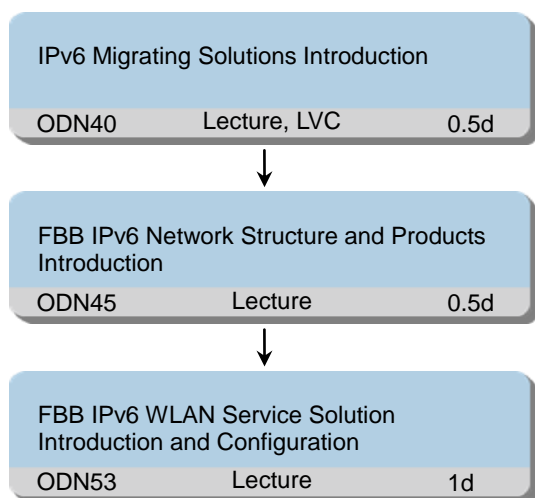
Class Size

Min 6, Max 12

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## 1.6.4 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

### Training Content

#### ODN40 IPv6 Migrating Solutions Introduction

- IPv6 Migrating Solutions Introduction
  - IPv6 migration driving force
  - IPv6 current status
  - The introduction of IPv6 evolution solution
  - Huawei IPv6 evolution solution

#### ODN45 FBB IPv6 Network Structure and Products Introduction

- 
- IPv6 WLAN Service Network Structure and Products Introduction Manual
    - IPv6 WLAN service networking solutions introduction
    - IPv6 WLAN service networking and products introduction

ODN53 FBB IPv6 WLAN Service Solution Introduction and Configuration

- IPv6 WLAN Service Solution Introduction Manual
  - IPv6 WLAN service solution key technologies
  - IPv6 WLAN service solution introduction
  - Examples of typical application scenarios
- IPv6 WLAN Service Network Carrier Solution Introduction Manual
  - VLAN solution
  - Routing solution
  - QoS solution

Duration

2 working days

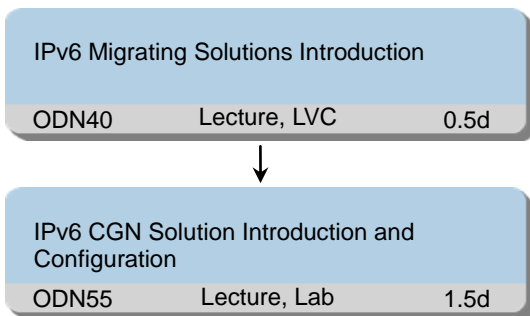
Class Size

Min 6, Max 12

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## 1.6.5 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

### Training Content

#### ODN40 IPv6 Migrating Solutions Introduction

- IPv6 Migrating Solutions Introduction
  - IPv6 migration driving force
  - IPv6 current status
  - The introduction of IPv6 evolution solution
  - Huawei IPv6 evolution solution

#### ODN55 IPv6 CGN Solution Introduction and Configuration

- IPv6 HSI CGN Solution Introduction Manual
  - CGN principle introduction
  - CGN classification
  - The CGN access scene classification introduction
- CGN Port range&Session Solution Introduction Manual
  - NAT basic principle

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- NAT Session principle
  - Port-Range principle and configuration suggestion
  - CGN Features Configuration Lab Guide
    - CGN configuration practice

Duration

2 working days

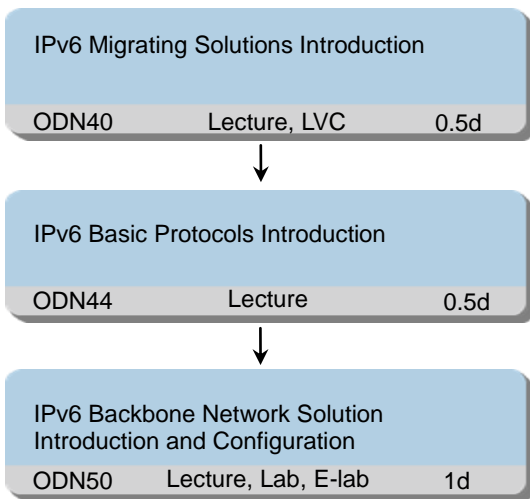
Class Size

Min 6, Max 12

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## 1.6.6 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



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- Configure backbone network dual-stack solution
  - Configure backbone network 6PE & 6VPE solution

#### Training Content

##### ODN40 IPv6 Migrating Solutions Introduction

- IPv6 Migrating Solutions Introduction
  - IPv6 migration driving force
  - IPv6 current status
  - The introduction of IPv6 evolution solution
  - Huawei IPv6 evolution solution

##### ODN44 IPv6 Basic Protocols Introduction

- IPv6 Address and Architecture Manual
  - IPv6 addresses generated background
  - Introduction to IPv6 Address
  - IPv6 packet structure introduction

##### ODN50 IPv6 Backbone Network Solution Introduction and Configuration

- IPv6 Backbone Network Solution Configuration Lab Guide
  - IPv6 Backbone network configuration practice
- IPv6 Backbone Network Solution Introduction Manual
  - IPv6 HSI backbone network solution introduction

#### Duration

2 working days

#### Class Size

Min 6, Max 12