

HCIP-WLAN V1.0

Training Content

HCIP-WLAN-CEWA Constructing Enterprise WLAN Architecture

1.WLAN WIDS Introduction(Optional)

- WLAN WIDS Introduction
- Wireless Intrusion Detection and Prevention
- Attack Detection
- WIDS Configuration
- Typical Application Scenarios

2.. Connecting Agile Controller with Severs

- Deploy Agile Controller in Large-sized network
- Directory server
- Agile Controllers connects with external authentication source
- Application in Wireless Authentication

3.Mesh Principle and Configuration

- Mesh Overview
- Mesh Concept
- Mesh Architecture
- Establish Mesh Network
- Applicable Scenarios of Mesh

- Configure Mesh Network

4.Large-sized WLANs Introduction

- Typical WLAN Application of Large-sized Campus Network
- Configuring APs to Go Online
- VLAN Pool Introduction
- Large-sized WLAN Introduction
- Maintain WLAN Basic

5.WLAN Radio Resource Management

- WLAN Radio Resource Management Introduction
- Radio Calibration
- AP-based Load Balancing
- Band Steering
- User CAC
- Smooth Channel Switching
- Per Packet Power Adjustment

6.WLAN Roaming-Inter AC Roaming

- Introduction to WLAN Roaming
- Distinguish between Different Roaming
- Inter AC Roaming
- Applicable Scenarios of WLAN Roaming

- Configure Layer 3 Roaming

7.WLAN Reliability Introduction—Dual-Link Backup

- WLAN Reliability Overview
- WLAN Dual-Link Backup Introduction
- N+1 Backup Introduction

8.Deploy Huawei Outdoor AP

- Applicable Scenarios of Deploying Outdoor AP
- WLAN Outdoor Coverage
- Fresnel zone

9.Huawei Outdoor AP and Antenna(Optional)

- Huawei Outdoor AP Introduction
- Huawei Antenna
- Antenna Selection

10.Deploy WLAN Secure Connectivity Services

- WLAN Access Authentication
- Agile Controller Introduction
- Agile Controller Typical Configuration

11.WLAN Reliability Introduction—Hot-Standby Backup

- Hot-Standby Backup Introduction
- Hot-Standby Backup Principle

- Applicable Scenarios of Hot-Standby Backup
- Configure Hot-Standby Backup

12.WLAN Roaming- Smart Roaming

- Smart Roaming Overview
- Applicable Scenarios of Smart Roaming
- Process of Smart Roaming
- Configure Smart Roaming

HCIP-WLAN-POEW Planning and Optimizing Enterprise WLAN

1.WLAN Optimization Overview

- WLAN Optimization Overview
- WLAN Optimization Process
- WLAN Data Optimization
- Basic WLAN Parameter Calibration
- WLAN Optimization Benefits

2.WLAN Pre-sales Network Planning

- Necessity of pre-sales network planning in the WLAN project
- Procedure of pre-sales network planning in the WLAN project
- Precautions of pre-sales network planning in the WLAN project

3.WLAN WDS & Mesh Planning

- Project Preparation
- Product Selection
- Backhaul Link Design
- Bandwidth Design
- Deployment Design
- Typical Application Scenarios

4.Site Survey

- Site Survey Overview
- Survey Preparations
- Site Survey
- Typical Scenarios

5.Brief WLAN Planning Scenario

- Background
- Other Requirements
- Planning Discussion
- Detailed Planning

6.Introduction to WLAN Tester

- WLAN Tester Introduction
- WLAN Tester Usage Procedure

7.Clarifying Customer Requirements

- Basic Requirements
- High-level Requirements

8.PoE Planning

- PoE Components
- PoE Power Budget
- PoE Configuration

9.WLAN Campus Network Solution

- The Trend and Challenge of WLAN Campus Network
- Huawei WLAN Campus Network Solution
- Application Scenarios of WLAN Campus Network

10.WLAN HA Planning

- WLAN HA Overview
- AC Dual-Link Cold Standby
- AC Dual-Link Hot-Standby
- VRRP Dual-Node Hot-Standby
- N+1 Cold Standby

11.WLAN Coverage Optimization

- AP Quantity Adjustment
- AP Location Adjustment

- AP Power Adjustment
- Antenna Location Adjustment
- Coverage in High Density Scenarios

12.WLAN Planning and Optimization Overview

- WLAN Project LifecycleWLAN Planning Importance
- WLAN Planning Methods
- WLAN Optimization Methods

13.WLAN Network Planning in Typical Scenarios

- Introduction to Typical WLAN Scenarios
- WLAN Network Planning in Typical Scenarios

14.Standards

- Standard Organizations
- Frequency Band Standards
- EIRP

15.WLAN Overview

- WLAN Basics
- WLAN Application on Enterprise Networks: BYOD
- Huawei WLAN Devices and Models
- Usage Scenarios and Characteristics of WLAN on Industry Networks
- Carrier WLAN Situation

16.WLAN Outdoor Coverage

- Project Preparation
- Product Selection
- Capacity Design
- Deployment Design
- Typical Application Scenarios

17.WLAN Roaming Planning

- Basic Principles of Roaming
- Basic Concepts of Roaming
- Roaming Planning

18.WLAN Data Planning

- Hierarchical Network Design
- IP Address Planning
- VLAN and DHCP Planning
- Route Planning

19.WLAN Interference Optimization

- WLAN Interference Test
- WLAN Interference Sources
- Analysis of WLAN Interference Types
- WLAN Interference Optimization Examples

20.WLAN Design for Small- and Medium-scale Enterprises

- Application of WLAN in Small- and Medium-scale Enterprises
- Networking Modes of Small- and Medium-scale Enterprise WLANs
- Basic Planning of Small- and Medium-scale Enterprise WLANs
- Detailed Design of Small- and Medium-scale Enterprise WLANs

21.WLAN Architecture Design

- Basic WLAN Architectures and Components
- AC Forwarding and Deployment Modes
- AC Networking Modes and Layers
- Planning Typical WLAN Architectures
- Other WLAN Architectures

22.Indoor Distributed WLAN Planning

- Indoor Distributed WLAN Planning
- Indoor Distributed Planning Overview
- Indoor Distributed Components
- Indoor Distributed Network Planning
- Indoor Distributed Solutions
- WOC Solution

23.Huawei WLAN High-density Venue Solution Introduction

- The Trend and Challenge of WLAN High-density Venue
- Huawei WLAN High-density Venue Solution
- Successful stories of WLAN High-density Venue

24.WLAN Network Design Overview

- Huawei Enterprise Service Lifecycle Model
- Basic Principles for WLAN Network Planning
- Huawei WLAN Networking Modes

25.WLAN HLD at the Early Stage

- Planning Scenarios
- WLAN Interference Sources
- AP Calculation
- Product Selection and Placement
- WLAN Planning Software

26.Indoor Settled WLAN Design Guide

- Project Preparation
- Coverage Design
- Deployment Design
- Bandwidth Design
- Power Supply and Cable Route Design