

## HCIP- WLAN POEW (Planning & Optimizing Enterprise WLAN)

### Objectives

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

- (1). Become familiar with typical networking applications and features of large-sized WLANs.
- (2). Understand the CAPWAP tunnel establishment process.
- (3). Master the configuration methods of large-sized WLANs.
- (4). Understand the maintenance methods of basic WLAN services.
- (5). Master WLAN radio frequency management.
- (6). Become familiar with the WIDS/WIPS technology.

### Target Audience

Those who hope to become senior WLAN engineers. Those who hope to become WLAN planning and optimization experts. Those who hope to obtain an HCIP-WLAN certificate.

### Prerequisites

HCIA-WLAN certificate or similar knowledge.

### Training Content

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

Project Cases