KOENIG SOLUTIONS · COURSE OUTLINE

Cisco Wireless LAN: WLC, APs & FlexConnect

Learn to configure, manage and troubleshoot Cisco WLCs and APs, from basic WLANs to FlexConnect and high availability.

5 Days	8	24	8
40 HOURS	MODULES	TOPICS	HANDS-ON ACTIVITIES

COURSE OVERVIEW

This course covers Cisco wireless networking fundamentals and the architecture of Cisco Wireless LAN Controllers (WLC) and Access Points (AP). It then moves through configuring basic and advanced WLANs, including security, VLAN mapping and guest access, followed by WLC management, monitoring and administrative access. High availability and redundancy with HA-SKU and AP SSO are addressed alongside RF management and radio resource management for coverage and capacity. The course also covers advanced AP configurations such as AP groups, RF profiles, FlexConnect and Mesh networking, concluding with troubleshooting common WLAN and client connectivity issues.

WHO THIS COURSE IS FOR

- **Network Administrators**
- **Network Engineers**
- **Wireless Engineers**
- **Systems Administrators**
- **Network Support Technicians**

LEARNING OBJECTIVES

- Explain fundamentals of wireless networking and Cisco solutions
- Describe Cisco WLC and AP architecture
- Configure WLANs, SSIDs and basic security on Cisco WLC
- Implement advanced security features such as WPA3
- Apply VLAN mapping and guest access with captive portals
- Manage and monitor Cisco WLC using GUI and CLI
- Configure high availability with HA-SKU and AP SSO
- Analyse RF performance and troubleshoot WLAN client issues

COURSE SYLLABUS

8 Modules, 24 Topics

01

Hands-on lab

Introduction to Cisco Wireless Technologies

TOPICS

- Fundamentals of wireless networking
- Understanding Cisco wireless products and solutions
- Cisco Wireless LAN Controller (WLC) and Access Point (AP) architecture

02

Hands-on lab

Configuring Basic WLAN with Cisco WLC

TOPICS

- Setting up initial configurations on Cisco WLC
- Creating WLANs and SSIDs
- Configuring basic security and authentication

03

Hands-on lab

Advanced WLAN Configurations

TOPICS

- Implementing advanced security features (e.g., WPA3)
- VLAN mapping and tagging for efficient traffic management
- Leveraging guest access and captive portals

04

Hands-on lab

Cisco WLC Management and Monitoring

TOPICS

- Managing Cisco WLC with GUI and CLI
- Configuring administrative access and authentication
- Monitoring WLAN performance and client statistics

05

Hands-on lab

High Availability and Redundancy with Cisco WLC

TOPICS

- Implementing high availability with HA-SKU
- Configuring redundant WLCs with AP SSO
- Understanding failover and stateful switchover

06

Hands-on lab

Cisco WLC RF Management

TOPICS

- Analyzing radio frequency and channel utilization
- Configuring radio resource management (RRM) for optimal performance
- Optimizing WLAN coverage and capacity

07

Hands-on lab

Advanced AP Configurations

TOPICS

- Efficiently organizing APs with AP groups and RF profiles
- Deploying FlexConnect mode for remote sites
- Leveraging Mesh networking for wireless backhaul

08

Hands-on lab

Cisco WLC and AP Troubleshooting

TOPICS

- Identifying and resolving common WLAN issues
- Utilizing debugs and logs for effective troubleshooting
- Analyzing client connectivity problems

HANDS-ON ACTIVITIES

Practise What You Learn

#	MODULE	ACTIVITY
01	**Introduction to Cisco Wireless Technologies**	Exploring Cisco WLC and AP interfaces
02	**Configuring Basic WLAN with Cisco WLC**	Building a foundational WLAN with Cisco WLC
03	**Advanced WLAN Configurations**	Implementing robust WLAN features
04	**Cisco WLC Management and Monitoring**	Efficiently managing and monitoring Cisco WLC
05	**High Availability and Redundancy with Cisco WLC**	Ensuring seamless WLAN operations with Cisco WLC
06	**Cisco WLC RF Management**	Mastering RF management with Cisco WLC
07	**Advanced AP Configurations**	Configuring APs with advanced features
08	**Cisco WLC and AP Troubleshooting**	Gaining proficiency in WLAN troubleshooting

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

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Classroom Training | Live Online Classes (ILO) | Fly-Me-A-Trainer (FMAT) | Flexi (Self-Paced) | 1-on-1 Training

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