

RCWA Exam Study Guide



RCWA RUCKUS Certified Wi-Fi Associate Exam



Price: \$150 USD

[RUCKUS Certification Store](#)

Passing Score: 65%

Questions: 50

Exam Duration: 2 Hours

Study time: 30-60 hours

Language: English only

Validity Period

Certification is valid for a period of three (3) years.

Retake Policy

Five (5) retakes allowed within one year.

Registration for retakes is restricted:

1st retake: immediate registration after failed attempt

2nd retake: 14-days after first failed attempt

3rd-5th: 30-days between each retake

Each attempt costs \$150 USD.

Exam Description

As a RUCKUS Certified Wi-Fi Associate (RCWA), you must be able to design, deploy and manage RUCKUS Wi-Fi solutions in a variety of production environments. This exam assesses your ability to design, configure, administer, troubleshoot, and optimize RUCKUS Wi-Fi solutions.

Ideal Candidate

Before attempting the exam, you should have these critical competencies and experience:

- Foundational Wi-Fi technologies, standards, and concepts
- RUCKUS technologies, products, and solutions
- Designing and planning RUCKUS Wi-Fi solutions
- Wi-Fi solution installation, configuration, and setup
- Wi-Fi solution enhancement through tuning and optimization
- Wi-Fi solution troubleshooting and repair
- RUCKUS Wi-Fi solution management

Preparatory Courses and Study Materials

RUCKUS provides a variety of free online supporting courses listed on page 3 of this document. The Exam Blueprint starting on page 2 an overview of the topics covered in the exam. See [Other Online Resources](#) below.

Target Audience

This certification is designed for wireless network designers, installers and administrators, Wi-Fi solutions architects and Wi-Fi support engineers tasked with design, installation, configuration, management, administration and troubleshooting of RUCKUS Wi-Fi deployments.

Self-Assessment Worksheet

To help you identify areas to focus your study activities, we offer a [self-assessment worksheet](#) that allows you to rate your confidence on the many topics covered in the exam. Below you'll find a blueprint of these topics with links into support documentation, followed by a list of supporting courseware.

VERY IMPORTANT: BEFORE SCHEDULING YOUR EXAM

Prepare and test your system by following the instructions in the RUCKUS [What to Expect](#) guide and on ProctorU's [What to Expect on Exam Day](#).

QUESTIONS?

Contact ruckuscerts@commscope.com

Blueprint & Study Materials

The RUCKUS Certified Wi-Fi Associate (RCWA) Exam is a rigorous assessment of your ability to design, configure, manage, optimize and troubleshoot RUCKUS Wi-Fi solutions, covering our full product portfolio across different deployment scenarios. Be prepared to spend up to 100 hours studying. Even if you have extensive field experience, use these study materials to refresh areas that may not be part of your day-to-day work.

These free online resources are provided as materials to assist in your exam preparation. Online courses are available in [CommScope University](#), and you will need a [MyCommScope account](#) to access these courses.

The exam blueprint outlines the range of content that may be included in the exam. Section weights are approximate and not all topics have associated questions.

20-60 hours of study is highly recommended. The exam is rigorous.

Weight	Section Name & Objectives
5%	Foundational Wi-Fi technologies, standards & concepts RF concepts and relations to 802.11 standard 802.11 channelization and frequency bands (a/b/g/n/ac/ax/BE) - Antenna patterns and characteristics - Fresnel Zone - Mesh vs. P2P bridge - OFDM vs. OFDMA Wi-Fi authentication methods - Wi-Fi authentication methods and association steps - Certificate signing process, certificate management/PKI - Hotspot 2.0, OSU, 802.11u, ANQP, WISPr, WebAuth Client roaming - Client roaming across APs (high-level concept)
15%	RUCKUS Technologies, products & solutions RUCKUS proprietary technologies - RUCKUS proprietary Wi-Fi technologies - RUCKUS implementation of Bonjour Gateway and Fencing - Auto-cell sizing - RUCKUS approach to Zero Touch: SWIPE, deploy APs, Registrar, SmartZone and ROne RUCKUS controllers & access points (AP) - Appropriate choice of controller/platform sizing: SmartZone, ZD, UnL, ROne/Cloud, limitations - SmartZone options: vSmartZone, 144, high scale v. essentials - ICX switch management from controller - AP software types: stand-alone/Solo, Unleashed, SmartZone, ROne - Data planes: SmartZone-144D, vDP - AP software types - Clustering, geo-redundancy, and failover - IoT basics, integration into APs, and related hardware and software modules Positioning additional RUCKUS services and products - Positioning of additional services: CloudPath, RUCKUS Analytics/RUCKUS AI, Network Director RUCKUS support tools - Licensing and registration for RUCKUS Products, including ROne - Support site documentation, software, firmware downloads
30%	Designing & Planning a RUCKUS Wi-Fi Solution Design requirements gathering - Process, methods, and tools used in site survey at basic level, e.g. predictive, on-site tools like Ekahau, floor plan documentation, indoor, outdoor, multi-floor, MTU, architectural, aesthetics, LAN drops, closets, services - Understand wireless planning add parameters, planning around 6ghz deployments (AFC, security



- considerations, density, client device type)
- Processes for gathering needs and system requirements
- Use cases for tunneling v. local breakout
- Network segmentation — tunneling, Edge (premise cloud), VXLAN, DPSK, verticals

Traffic and load planning

- Define traffic management and security strategies (L2 access control, L3, OS, application)
- Load and band balancing

Product selection for solution

- Appropriate products for design/verticals
- Requirements for additional RUCKUS services
- Understand appropriate hypervisor/host/resource sizing (KVM, ESXi, AWS, GCP, Azure, Nutanix)

Security planning & access control

- Security planning (RADIUS, PKI, AAA, authentication, encryption, guest portal, ACLs, MAC Auth, CA, DPSK/DSAE)
- Role-based access control (RBAC)
- Fundamentals of firewall policy
- Basics of PKI protocols and sequence

WLAN management planning

- AP discovery methods (DHCP Option 43, DNS, manual, NAT, Layer 2 for various platforms, Registrar)
- PoE budget and priorities and link speed (switch connectivity, LAG)
- Zone, domain, group planning, and templates (overrides)
- Cluster, redundancy, failover
- VLAN tagging scheme (access ports, trunks, overrides)

30%

RUCKUS Wi-Fi Solutions

System setup & configuration for SmartZone and RUCKUS One

- Initial wireless network design
- Basic controller setup
- Licensing implementation (controllers, APs, Google Maps, clusters)
- Support license enforcement
- Configure WLAN and AP groups, zones, and domains (include mapping)
- Licensing (APs, Switches, MSP, essentials vs professional)
- Cluster implementation, redundancy, failover
- AP groups and venues

Access point (AP) configuration

- Location and deployment best practices
- Preprovisioning
- Discovery methods (DHCP Option 43, DNS, manual, Layer 2 for various platforms, Registrar)
- AP attributes by zone, domain, group
- Migration and reimaging APs (AP software types)
- CLI to set up, configure, and manage APs

Advanced WLAN Configuration

- Bonjour Gateway and fencing
- Additional RUCKUS services (IoT, AI, CloudPath, etc.)
- traffic management policies (L2 access control, L3, OS, application)
- VLAN pooling and dynamic VLANs
- Importing floor plan/maps to controller
- Mesh, SmartMesh, Zero Touch Mesh configuration

Security & access control

- WLAN Security, authentication, and encryption (MAC)
- Role-based access control (RBAC)
- Guest access configuration: WISPr, walled garden, captive portal, CloudPath for specific services

10%

Wi-Fi Solution Enhancement through Tuning & Optimization

- Wi-Fi performance optimization
- Load and band balancing
- Airtime fairness, decongestion



	• 802.11k, 802.11r, 802.11v, sticky client; roaming, L3 roaming, OKC, PMK, OCE/join RSSI • Client Admission Control (CAC) • Enabling & configuring OFDM-Only, BSS Minrate, and Tx Management rates • Channel selection and optimization: DFS, pros and cons of DFS, ROne, RUCKUS AI • Automatic v. manual power optimization
5%	Wi-Fi Solution Troubleshooting & Repair • Data gathering, analysis and troubleshooting • Client connectivity troubleshooting tools and processes • AP to controller troubleshooting • Packet/frame capture • 3rd party and internal communication: APIs, NBI, AAA logs, Syslog, SNMP services • Built-in speed testing tool
5%	RUCKUS Wi-Fi Solution Management • Solution management functions (SmartZone and RUCKUS One) • Upgrade path and process mangement • Administrators and administrative role management: AD, RADIUS, TACACS, MFA, SSO • Events and alarms (SNMP, Syslog) • Administrative action monitoring and audit logging • Backup and restoration on SmartZone • Report creation and maintenance • Health dashboards and threshold settings • Rogue APs and locate on map (SSID spoofing, MAC spoofing)

Study Materials

Supporting Online Courses & Product Documentation	Online Courses - RWF 100- RUCKUS Wi-Fi Fundamentals - RASZA 200 RUCKUS SmartZone 6.0 - RWD 200- RUCKUS Wi-Fi Design - RWTS 300- RUCKUS Wireless Troubleshooting - UNL 200- RUCKUS Unleashed Administrator - RASZA 220 ICX Management with SmartZone 6.0 - RUCKUS Portfolio SE Pre-Sales Training - RLI 100 - RUCKUS Licensing Product Manuals - Ruckus Indoor AP 110.0 User Guide - RUCKUS SmartZone Technical Documents - Cloud-managed Systems - RUCKUS One Datasheet - RUCKUS SmartZone Cluster Redundancy Deployment Guide - RUCKUS One Online Help
Other Online Resources	- CommScope University > RUCKUS Networking - CommScope RUCKUS Support Website - RUCKUS Education YouTube Channel

