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練習問題

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1年間無料アップデート

Exam : RCWA

**Title : RUCKUS Certified Wi-Fi
Associate Exam**

Version : DEMO

1.Which current RUCKUS AP family features an AP model with a PoE output port?

- A. E Series
- B. H Series
- C. M Series
- D. R Series

Answer: B

Explanation:

The RUCKUS H Series access points are specifically designed for environments such as hospitality, student housing, and multi-dwelling units, where compact, in-room installation is ideal. A distinctive feature of the H Series—such as the RUCKUS H550 and H510 models—is their PoE output port, allowing the AP to power downstream devices like IP phones, set-top boxes, or security cameras directly through Ethernet.

This design minimizes cabling and infrastructure costs while maintaining enterprise-grade Wi-Fi performance. According to the RUCKUS One Online Help and the official RUCKUS AI documentation, the H550 supports 802.3af/at PoE input and provides 802.3af PoE output on one of its Ethernet ports.

The feature is highlighted as part of RUCKUS's integrated wired and wireless connectivity solution, combining dual-band Wi-Fi 6 access with switch-like wired connectivity for room-based deployments.

The R Series and E Series are ceiling-mounted APs primarily used for large-area coverage and typically do not include PoE passthrough functionality. The M Series (outdoor mesh APs) are designed for outdoor coverage extension, also lacking this downstream PoE capability.

Reference: RUCKUS One Online Help – Access Point Hardware Descriptions (H550, H510)

RUCKUS Analytics 3.5 User Guide – Device Inventory and AP Capability Data

RUCKUS AI Documentation – H550 Technical Overview (docs.cloud.ruckuswireless.com/RUCKUS-AI/userguide/index.html)

2.When configuring a WLAN for 802.1X, which mode will provide authentication service for APs in the event of a controller failure?

- A. Proxy
- B. Dynamic PSK
- C. Non-proxy
- D. Local user database

Answer: D

Explanation:

When configuring an 802.1X-secured WLAN, RUCKUS systems such as SmartZone, RUCKUS One, or RUCKUS Cloud typically rely on an external RADIUS server for user authentication. However, in the event of a controller failure or connectivity loss to the RADIUS server, RUCKUS APs can continue to authenticate users locally if the local user database is enabled and configured.

The Local Authentication Database allows APs or controllers to store a limited set of credentials that can be used when external AAA services are unavailable. This ensures continued access and redundancy for critical WLANs without requiring external dependency. According to RUCKUS One Online Help – WLAN Configuration and AAA Settings, enabling the Local Authentication Database provides fallback authentication for 802.1X clients during system or connectivity failures.

In contrast, the proxy and non-proxy modes define how authentication requests are relayed to the RADIUS server, while Dynamic PSK (DPSK) is a separate authentication method that replaces 802.1X

with per-user keys.

Reference: RUCKUS One Online Help – WLAN Configuration: AAA Authentication and Fallback Options
RUCKUS Analytics 3.5 User Guide – Client Authentication and WLAN Events Ruckus Cloud / RUCKUS AI Documentation – Authentication Mode Descriptions

3. Using the rule of 10s and 3s, how many mW does 23 dBm convert to?

- A. 150 mW
- B. 200 mW
- C. 225 mW
- D. 250 mW

Answer: B

Explanation:

The Rule of 10s and 3s is a quick mental calculation used to convert between dBm (decibel-milliwatts) and milliwatts (mW), which represent power levels.

The rule states that:

Every 10 dB increase corresponds to a 10× increase in power.

Every 3 dB increase corresponds to approximately a 2× increase in power.

Starting from 0 dBm = 1 mW:

+10 dBm = 10 mW

+20 dBm = 100 mW

Add 3 dB → 23 dBm = 100 mW × 2 ≈ 200 mW

Thus, 23 dBm converts to approximately 200 mW. This principle is used throughout RUCKUS documentation for understanding EIRP (Effective Isotropic Radiated Power) and ensuring compliance with regulatory transmit power limits.

According to RUCKUS One Online Help and RUCKUS AI user documentation, administrators often use this conversion when optimizing transmit power settings to balance coverage and interference. The rule helps design engineers translate dB settings into physical power outputs during Wi-Fi tuning and planning.

Reference: RUCKUS One Online Help – Radio Settings and Transmit Power Configuration RUCKUS Analytics 3.5 User Guide – RF Metrics and Power Analysis
RUCKUS AI Documentation – Understanding RF Signal Levels
(docs.cloud.ruckuswireless.com/RUCKUS-AI/userguide/index.html)

4. Which organization certifies wireless devices as interoperable across vendors?

- A. Wi-Fi Alliance
- B. Internet Engineering Task Force (IETF)
- C. International Standards Organization (ISO)
- D. Institute of Electrical and Electronics Engineers (IEEE)

Answer: A

Explanation:

The Wi-Fi Alliance (WFA) is the global organization responsible for testing and certifying interoperability of wireless LAN products based on the IEEE 802.11 standards. While the IEEE develops and maintains the technical specifications (e.g., 802.11a/b/g/n/ac/ax), it does not perform certification or compliance testing. Instead, the Wi-Fi Alliance ensures that certified devices from different manufacturers operate

together seamlessly under the “Wi-Fi CERTIFIED™” program.

According to RUCKUS One Online Help and the RUCKUS AI documentation, RUCKUS access points and controllers undergo Wi-Fi Alliance certification to ensure compatibility with a wide range of client devices, including those using WPA3, Wi-Fi 6 (802.11ax), and Wi-Fi 6E technologies. This certification is critical for enterprise environments where heterogeneous client ecosystems exist.

The IETF focuses on internet protocols (e.g., IP, TCP), and the ISO handles broader international standards, not wireless interoperability. Therefore, the Wi-Fi Alliance is the correct organization ensuring cross-vendor interoperability for Wi-Fi.

Reference: RUCKUS One Online Help – Wi-Fi Standards and Certification Overview RUCKUS AI User Guide – Wi-Fi Alliance Certification Compliance Wi-Fi Alliance Official Resource (www.wi-fi.org)

5.What is a true statement regarding MIMO in Wi-Fi networks?

- A. It uses a single transmitter.
- B. It was introduced in 802.11n.
- C. It is supported upstream only.
- D. It needs support on the AP only.

Answer: B

Explanation:

MIMO (Multiple Input, Multiple Output) is a fundamental wireless technology that enhances Wi-Fi throughput and reliability by transmitting multiple data streams simultaneously using multiple antennas on both the transmitter and receiver. It was introduced in the IEEE 802.11n standard, which marked the beginning of high-throughput (HT) Wi-Fi.

According to RUCKUS One Online Help and the RUCKUS Analytics 3.5 User Guide, MIMO enables spatial multiplexing, diversity gain, and beamforming, allowing higher data rates and improved signal quality in multipath environments. Subsequent standards (802.11ac and 802.11ax) expanded this concept to MU-MIMO (Multi-User MIMO), allowing simultaneous communication with multiple clients. MIMO requires support on both the AP and client for full functionality; otherwise, the connection falls back to single-stream operation. It is used in both uplink and downlink directions (especially in Wi-Fi 6 and later). Thus, option B—introduced in 802.11n—is correct, while options A, C, and D are incorrect.

Reference: RUCKUS One Online Help – PHY Technologies and MIMO Concepts

RUCKUS Analytics 3.5 User Guide – Radio Metrics and Client PHY Data

RUCKUS AI Documentation – Wi-Fi 6 (802.11ax) MIMO and MU-MIMO Capabilities