

Fortinet

NSE6_FWF-6.4 Exam

Fortinet NSE 6 - Secure Wireless LAN 6.4

Questions & Answers

Demo

Version: 4.0

Question: 1

Which two statements about distributed automatic radio resource provisioning (DARRP) are correct? (Choose two.)

- A. DARRP performs continuous spectrum analysis to detect sources of interference. It uses this information to allow the AP to select the optimum channel.
- B. DARRP performs measurements of the number of BSSIDs and their signal strength (RSSI). The controller then uses this information to select the optimum channel for the AP.
- C. DARRP measurements can be scheduled to occur at specific times.
- D. DARRP requires that wireless intrusion detection (WIDS) be enabled to detect neighboring devices.

Answer: A, D

Explanation:

DARRP (Distributed Automatic Radio Resource Provisioning) technology ensures the wireless infrastructure is always optimized to deliver maximum performance. Fortinet APs enabled with this advanced feature continuously monitor the RF environment for interference, noise and signals from neighboring APs, enabling the FortiGate WLAN Controller to determine the optimal RF power levels for each AP on the network. When a new AP is provisioned, DARRP also ensures that it chooses the optimal channel, without administrator intervention.

Reference: http://www.corex.at/Produktinfos/FortiOS_Wireless.pdf

Question: 2

Which factor is the best indicator of wireless client connection quality?

- A. Downstream link rate, the connection rate for the AP to the client
- B. The receive signal strength (RSS) of the client at the AP
- C. Upstream link rate, the connection rate for the client to the AP
- D. The channel utilization of the channel the client is using

Answer: B

Explanation:

SSI, or "Received Signal Strength Indicator," is a measurement of how well your device can hear a signal from an access point or router. It's a value that is useful for determining if you have enough signal to get a good wireless connection.

Reference: <https://www.metageek.com/training/resources/understanding-rssi.html>

Question: 3

When configuring Auto TX Power control on an AP radio, which two statements best describe how the radio responds? (Choose two.)

- A. When the AP detects any other wireless signal stronger than -70 dBm, it will reduce its transmission power until it reaches the minimum configured TX power limit.
- B. When the AP detects PF Interference from an unknown source such as a cordless phone with a signal stronger than -70 dBm, it will increase its transmission power until it reaches the maximum configured TX power limit.
- C. When the AP detects any wireless client signal weaker than -70 dBm, it will reduce its transmission power until it reaches the maximum configured TX power limit.
- D. When the AP detects any interference from a trusted neighboring AP stronger than -70 dBm, it will reduce its transmission power until it reaches the minimum configured TX power limit.

Answer: A, C

Reference: https://www.watchguard.com/help/docs/help-center/en-US/Content/en-US/Fireware/wireless/ap_wireless_signalstrength_c.html

Question: 4

Refer to the exhibits.
Exhibit A

```
config wireless-controller wtp-profile
  edit "Main Networks - FAP-320C"
    set comment "Profile with standard networks"
    config platform
      set type 320C
    end
    set handoff-rssi 30
    set handoff-sta-thresh 30
    set ap-country GB
    config radio-1
      set band 802.11n
      set power-level 50
      set channel-utilization enable
      set wids-profile "default-wids-apscan-enabled"
      set darrp enable
      set vap-all manual
      set vaps "Main-Wifi" "Contractors" "Guest"
      "Wifi_IOT" "Wifi_POS" "Staff" "Students"
      set channel "1" "6" "11"
    end
    config radio-2
      set band 802.11ac
      set channel-bonding 40MHz
      set power-level 60
      set channel-utilization enable
      set wids-profile "default-wids-apscan-enabled"
      set darrp enable
      set vap-all manual
      set vaps "Main-Wifi" "Contractors" "Guest"
      "Wifi_IOT" "Wifi_POS" "Staff" "Students"
      set channel "36" "44" "52" "60"
    end
  next
end
```

Exhibit B

Diagnostics and Tools - Office

Office	
Serial Number	FPXXXXXXXXXXXX
Base MAC Address	xx:xx:xx:xx:xx:xx
Status	✔ Online
Country/Region	GB
Uplink Interface	FortiAP management (ap)
IPv4 Address	192.168.5.98
Uptime	12m1s
Version	v6.4 build0437

General

- 56% CPU Usage
- 70% Memory Usage
- 0 days Connection Uptime
- 1.0 Gbps lan1
- 0 Mbps lan2

Radio 1 - 2.4 GHz

- 31 Interfering SSIDs
- 1 Clients
- 25% Channel Utilization

Radio 2 - 5 GHz

- 0 Interfering SSIDs
- 30 Clients
- 5% Channel Utilization

	Radio 1 - 2.4 GHz	Radio 2 - 5 GHz
Mode	AP	AP
SSID	<ul style="list-style-type: none"> fortinet (Main-WiFi) fortinet2 (Contractors) fortinet3 (Guest) 	<ul style="list-style-type: none"> fortinet (Main-WiFi) fortinet2 (Contractors) fortinet3 (Guest)
Clients	1	20
Bandwidth Tx	4.65 kbps	1.16 kbps
Bandwidth Rx	20.46 kbps	176 bps
Operating Channel	1	60
Channels		
Operating TX Power	3 dBm	21 dBm
Band	802.11n	802.11ac

Interfering SSIDs for Office (Radio 1) x

SSID	AP BSSID	Channel	Signal
Husky	aa:aa:aa:aa:aa	1	-84 dBm
Husky guest	bb:bb:bb:bb:bb	1	-84 dBm
KBANK5007	cc:cc:cc:cc:cc	1	-85 dBm
mandikaylee	dd:dd:dd:dd:dd	1	-86 dBm
	ee:ee:ee:ee:ee	1	-87 dBm
HUAWEI-EMIX4f	ee:ee:ee:ee:ef	1	-88 dBm
trojan-3	ff:ff:ff:ff:ff	1	-88 dBm
	fg:gg:gg:gg:gg	1	-89 dBm
	hg:gg:gg:gg:gg	1	-89 dBm

Exhibit C

```
# get wireless-controller rf-analysis FPXXXXXXXXXXXXXXXXX
```

WTP: Office 0-192.168.5.98:5246

channel	rsssi-total	rf-score	overlap-ap	interfere-ap	chan-utilization
1	100	6	13	13	63%
2	23	10	0	22	47%
3	15	10	0	22	15%
4	24	10	0	22	15%
5	51	10	0	22	41%
6	223	1	9	9	75%
7	52	10	0	17	47%
8	32	10	0	17	13%
9	27	10	0	19	10%
10	45	10	0	19	28%
11	177	1	8	10	65%
12	46	10	0	10	34%
13	45	10	2	10	70%
14	14	10	0	10	0%
36	16	10	2	2	0%
44	83	7	5	5	0%

A wireless network has been installed in a small office building and is being used by a business to connect its wireless clients. The network is used for multiple purposes, including corporate access, guest access, and connecting point-of-sale and IoT devices.

Users connecting to the guest network located in the reception area are reporting slow performance. The network administrator is reviewing the information shown in the exhibits as part of the ongoing investigation of the problem. They show the profile used for the AP and the controller RF analysis output together with a screenshot of the GUI showing a summary of the AP and its neighboring APs.

To improve performance for the users connecting to the guest network in this area, which configuration change is most likely to improve performance?

- A. Increase the transmission power of the AP radios
- B. Enable frequency handoff on the AP to band steer clients
- C. Reduce the number of wireless networks being broadcast by the AP
- D. Install another AP in the reception area to improve available bandwidth

Answer: A

Question: 5

Which two statements about background rogue scanning are correct? (Choose two.)

- A. A dedicated radio configured for background scanning can support the connection of wireless clients
- B. When detecting rogue APs, a dedicated radio configured for background scanning can suppress the rogue AP
- C. Background rogue scanning requires DARRP to be enabled on the AP instance
- D. A dedicated radio configured for background scanning can detect rogue devices on all other channels in its configured frequency band

Answer: A, B

Explanation:

To enable rogue AP scanning

Reference: https://fortinetweb.s3.amazonaws.com/docs.fortinet.com/v2/attachments/723e20ad-5098-11e9-94bf-00505692583a/FortiWiFi_and_FortiAP-6.2.0-Configuration_Guide.pdf