Meraki無線接入點中的DFS事件日誌和警報故障 排除

目錄

簡介
必要條件
需求
採用元件
問題
設定
網路圖表
驗證和疑難排解
1. DFS通道設定驗證
2. DFS事件模式警報驗證
3. DFS事件檢測到的日誌驗證
4. DFS事件故障排除
相關資訊

簡介

本文檔介紹如何解決Meraki無線接入點中的動態頻率選擇(DFS)事件日誌和警報。

必要條件

需求

思科建議您瞭解以下主題:

- 瞭解基本的Meraki軟體定義的廣域網(SD-WAN)解決方案
- 瞭解基本無線技術

採用元件

本文件所述內容不限於特定軟體和硬體版本。

本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除(預設))的組態來啟動。如果您的網路運作中,請確保您瞭解任何指令可能造成的影響。

問題

DFS使用通常為雷達保留的5 GHz Wi-Fi頻率,如軍用雷達、衛星通訊和天氣雷達。DFS管道因國家

/地區而異。使用DFS通道的主要優點是增加Wi-Fi通道的數量。

任何Meraki接入點都利用它觸發警報的DFS通道 Meraki MR接入點上的DFS事件日誌和警報。請參 閱在裝置上顯示的警報的螢幕截圖:



網路圖表



網路圖表

驗證和疑難排解

1. DFS通道設定驗證

可以驗證DFS通道設定 路徑中取決於Meraki接入點配置。

導航至 Meraki Dashboard > Meraki (選擇具有無線接入點的任何站點網路或配置模板,並在其中完成無 線接入點配置),然後導航至 Wireless > Radio Setting > RF Profile (選擇連線到無線接入點或網路的配 置檔案)。導航至 5 GHz Radio Setting > Channel Assignment Method 如下圖所示。

cisco Meraki							Q Search Dashboard	1 0 4
e ⁰ e MSP Portal	This network is acting as the c	onfiguration template for <u>196 r</u>						
o morrortai	Radio settings							View old version
Organization				Basic Indoor Profile	DE	FAULT INDOOR		
Network					2.4 GHZ	5 GHZ		
Small_Site ~				Channel assignment	Auto	Auto		
Network-wide		New Profile		AutoPower max	30	30		
Security & SD-WAN				AutoPower min	5	8		
() second a sp man				Min. bitrate	12	12		
Switching				Channel width		Auto		
🗢 Wireless	Configure SSIDs			CHANGE DEFAULT PROFILE	Сору	✓ EDIT		
, Organization	Access control Firewall & traffic shaping	DEFAUL	T OUTDOOR	Profile_18Mbps_40MHz				
	Splash page	2.4 GHZ	5 GHZ		2.4 GHZ	5 GHZ		
	SSID availability	Auto	Auto	Channel assignment	Auto	Auto		
	Radio settings	30	30	AutoPower max	30	30		
	Hotspot 2.0	5	8	AutoPower min	5	8		
	Air Marshal	12	12	Min. bitrate	18	18		
	STRATEGY PRACT		Auto	Channel width		40		
	CHANGE DEFAULT PROFILE	COPY	✓ EDIT	DELETE	СОРУ	✓ EDIT		ANALINA

驗證DFS設定1

diada Meraki									O Search	Dashboard	0	۰
o MSP Portal	General	UNI	4	UNI-2	UNI-2-Extended	Weather Radar		UNII-3	ISM			
Organization	20 MH 40 MH	2 36 40	44 48 45	52 56 60 64 54 62	100 104 108 112 102 110	116 120 124 128 118 126 126 126 126	132 136 140 144 134 142	149 153 157 151	101 965 159			
Network Small_Site ~		42		58	106 DFS channels D	122 select DFS channels	138	155				
Network-wide								Ca	ncel Done			
Security & SD-WAN												
Switching	Channel assignm	ent method	Unless n Change	nanually overridden, A channels used by Auto	utoChannel will assign rac <u>Channel</u>	ios to channels with low ir	iterference.					
🔶 Wireless	Radio transmit po (dBm)	ower range	Transmit si	horter distance			Transmit farther					
.* Organization				5 6 7 8 9 10	71 12 13 14 15 16 17	18 19 20 21 22 23 24	25 28 27 28 29 30					Pastor

驗證DFS設定2

2. DFS事件模式警報驗證

可以在所示路徑中驗證DFS事件模式警報。導航至 Meraki Dashboard > Network (選擇任何帶有無線接 入點的站點網路)。導航至 Wireless > Access Points.

🗆 # Name		Connectivity	Alerts	Channels	Configuration status	Model	Status 🛛 🔻	×
□1	AP3		DFS event pattern	1, 128	Up to date	MR56	•	
2	AP4		DFS event pattern	11, 116	Up to date	MR56	•	
□ 3	<u>-AP1</u>		DFS event pattern	6, 116	Up to date	MR56	•	Paint 2 Lite

3. DFS事件檢測到的日誌驗證

可以在顯示的路徑中驗證DFS事件檢測到的日誌 Meraki Dashboard > Network (選擇任何帶有無線接入 點的站點網路),然後 Network-Wide > Event Log.

Meraki					٩	Search Dashboard	2	?
ASD Dortal	This network is bound to the	the configuration template Small_Site						
ISP POTON	Event log for acce	ess points •						
ganization	Access point: Any	Cilent: Any	lefore: 01/19/2023	01:53	(CST)			
	Event type include:	DFS event detected x	Event type ignore: None					
letwork	Search Reset filter	15						
letwork	Download as -	2					<u>« ne</u>	wer s
etwork	Search Reset filter Download as Time (CST)	S Access point	SSID	Client Event typ	•	Details	<u>× ne</u>	wer s
twork-wide	Search Reset filter Download as Time (CST) Jan 19 01:45:54	S Access point -AP1	SSID	Client Event type DFS event	detected	Details channel: 116, radio: 1	<u>« ne</u>	wer i
twork-wide	Search Reset.filter Download as - Time (CST) + Jan 19 01:45:54 Jan 19 01:26:37	5 Access point - <u>-AP1</u> - <u>AP3</u>	SSID	Client Event typ DFS event DFS event	e detected detected	Details channel: 116, radio: 1 channel: 128, radio: 1	<u>« ne</u>	wer
twork etwork-wide vitching ireless	Search Reset.filter Download as - - Time (CST) * - Jan 19 01:45:54 - Jan 19 01:26:37 - Jan 19 01:21:55 -	5 Access point - AP3 - AP3 - AP4	\$510	Client Event typ DFS event DFS event DFS event	detected detected detected	Details channel: 116, radio: 1 channel: 128, radio: 1 channel: 116, radio: 1	<u>« ne</u>	wer
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etwork-wide witching ireless	Bearch Reset filter Download as ~ Time (CST) * Jan 19 01:45:54 Jan 19 01:26:37 Jan 19 01:15:55 Jan 19 01:15:35 Jan 19 00:15:35 Jan 19 00:56:18	5 Access point -AP1 -AP3 -AP4 -AP1 -AP3 -AP3 -AP3	550	Client Event typ DFS event DFS event DFS event DFS event DFS event	detected detected detected detected detected	Details channel: 116, radio: 1 channel: 128, radio: 1 channel: 116, radio: 1 channel: 116, radio: 1 channel: 128, radio: 1	<u>* ne</u>	wer
etwork witching /ireless rganization	Bearch Reset/filter Download as • • Jan 19 014544 Jan 19 012637 Jan 19 012637 Jan 19 012155 Jan 19 015135 Jan 19 005537	5 Access point - AP1 - AP1 - AP2 - AP2 - AP2 - AP2 - AP2 - AP4	\$50	Client Event typ DFS event DFS event DFS event DFS event DFS event DFS event	detected detected detected detected detected detected	Details channel: 116, radio: 1 channel: 128, radio: 1 channel: 116, radio: 1 channel: 116, radio: 1 channel: 128, radio: 1 channel: 110, radio: 1	<u>«.ne</u>	wer
etwork-wide witching /ireless rganization	Bearch Reset/filter Download as ~ - Jan 19 01:45:54 - Jan 19 01:24:55 - Jan 19 01:21:55 - Jan 19 00:51:35 - Jan 19 00:51:37 - Jan 19 00:51:37 -	5 Access point -AP1 -AP3 -AP3 -AP4 -AP1 -AP3 -AP4 -AP1 -AP3 -AP4 -AP1	\$580	Client Event typ DFS event DFS event DFS event DFS event DFS event DFS event DFS event DFS event DFS event	detected detected detected detected detected detected detected	Details Channel: 116, radio: 1 channel: 128, radio: 1 channel: 116, radio: 1 channel: 116, radio: 1 channel: 128, radio: 1 channel: 116, radio: 1 channel: 116, radio: 1	*.09	wer
etwork-wide witching /ireless rganization	Bearch Reset/filter Download as ~ Time (CST) * Jan 19 01:4554 Jan 19 01:2637 Jan 19 01:535 Jan 19 01:535 Jan 19 00:58:18 Jan 19 00:46:17 Jan 19 00:40:17 Jan 19 00:40:17	3 Access point - <u>AP</u> - <u>AP</u> - <u>AP</u> -	550	Client Event type DFS event DFS event DFS event DFS event DFS event DFS event DFS event DFS event DFS event DFS event	detected detected detected detected detected detected detected detected	Details channel: 116, radio: 1 channel: 128, radio: 1 channel: 128, radio: 1 channel: 128, radio: 1 channel: 116, radio: 1 channel: 116, radio: 1 channel: 116, radio: 1 channel: 116, radio: 1	<u>< ne</u>	wer :
letwork-wide witching fireless irganization	Bearch Reset/filter Download as • • Jan 19 01:45:54 Jan 19 01:21:55 Jan 19 01:21:55 Jan 19 01:21:55 Jan 19 00:51:32 Jan 19 00:51:32 Jan 19 00:51:37 Jan 19 00:51:37 Jan 19 00:21:00 Jan 19 00:21:00	3 Access point - AP1 - AP1 - AP2 - A	\$50	Client Event typ DFS event DFS event	e detected detected detected detected detected detected detected detected	Details channel: 110, radio: 1 channel: 128, radio: 1 channel: 110, radio: 1 channel: 110, radio: 1 channel: 128, radio: 1 channel: 110, radio: 1 channel: 128, radio: 1 channel: 128, radio: 1	<u>× ne</u>	wer :

4. DFS事件故障排除

DFS Pattern Detected Alert(檢測到的DFS模式)和DFS Event Detected Log(檢測到的DFS事件 日誌)已使用無線接入點上的無線電配置檔案中的配置更改進行故障排除。請參閱所示的路徑。

導航至 Meraki Dashboard > Network (選擇具有無線接入點的任何站點網路或配置模板,在配置模板中完成無線接入點配置),然後 Wireless > Radio Setting > RF Profile (選擇連線到無線接入點或網路的配置檔案) > 5 GHz Radio Setting > Channel Assignment Method.

diulu Meraki						Q Search Dashboard	1 0 A
e ⁰ e MSP Portal	This network is acting as the co	nfiguration template for <u>196 networ</u>					
Organization	Radio settings						View old version
			Basic Indoor Profile	D	EFAULT INDOOR		
Network				2.4 GHZ	5 GHZ		
Small_Site ~			Channel assignment	Auto	Auto		
Network-wide		New Profile	AutoPower max	30	30		
Security & SD-WAN			AutoPower min	5	8		
if second a sp man			Min. bitrate	12	12		
Switching			Channel width		Auto		
🗢 Wireless	Configure SSIDs		CHANGE DEFAULT PROFILE	Сору	/ EDIT		
Torganization	Access control Firewall & traffic shaping	DEFAULT OUT	Profile_18Mbps_40MH	z			
	Splash page	2.4 GHZ 5 G	ΗZ	2.4 GHZ	5 GHZ		
	SSID availability	Auto Ai	to Channel assignment	Auto	Auto		
	Radio settings	30	30 AutoPower max	30	30		
	Hotspot 2.0	5	8 AutoPower min	5	8		
	Air Marshal	12	12 Min. bitrate	18	18		
	VINIEN HAVE	A	to Channel width		40		
	CHANGE DEFAULT PROFILE	С СОРУ	DELETE	COPY	✓ EDIT		Faint Clar

DFS取消選擇設定1

dialo Meraki																	O Sea	rch Dashboard	0	۰
	General																×			
•°ੱ,● MSP Portal				INII-1		UNII-2	UNII-2-E	xtended		Weather I	ladar					INII-3	ISM			
Organization		20 MHz	36 40	44 48	52	56 60 6	4 100	104 108	112 1	16 120	124 128	132	136 140	144	149 153	157 1	61 165			
		40 MHz	38	46	54	62	102	110		118	126	134	142		151	159	_			
				42		58		106		122			138			155	_			
Network Small_Site ~							ļ	DFS channels	Selec	ct DFS chann	els									
💮 Network-wide																Cancel	Done			
Security & SD-WAN																				
Switching	Channel a	assignmen	t method	Unles: Chang	s manualt le channe	y overridder Is used by A	, AutoChannel	hel will assign	radios	to channels	with low i	interferer	nce.							
😨 Wireless	Radio tran	nsmit pow	er range	Transm	t shorter di	stance						T	ransmit farther							
. Organization	(abiii)			2 3	4 5 1	7 8 9	10 11 12	13 14 15 16	17 18	18 20 21	22 23 24	25 26 2	17 28 29 30)						PERITOR

DFS取消選擇設定2



- Meraki無線動態頻率選擇(DFS)
- <u>特格尼cal 支援與檔案 Cisco Systems</u>

關於此翻譯

思科已使用電腦和人工技術翻譯本文件,讓全世界的使用者能夠以自己的語言理解支援內容。請注 意,即使是最佳機器翻譯,也不如專業譯者翻譯的內容準確。Cisco Systems, Inc. 對這些翻譯的準 確度概不負責,並建議一律查看原始英文文件(提供連結)。