

# Troubleshoot DFS Event Log and Alert in Meraki Wireless Access Point

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## Introduction

This document describes how to resolve the Dynamic Frequency Selection (DFS) Event Log and Alert in the Meraki Wireless Access Point.

## Prerequisites

## Requirements

Cisco recommends that you have knowledge of these topics:

- Understand basic Meraki Software-Defined Wide Area Network (SD-WAN) solution
- Understand basic Wireless Technology

## Components Used

This document is not restricted to specific software and hardware versions.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

## Problem

DFS uses 5 GHz Wi-Fi frequencies generally reserved for radar, such as military radar, satellite communication, and weather radar. The DFS channels vary from country to country. The main benefit to use DFS channels is to increase the number of Wi-Fi channels.

Any Meraki Access point utilises the DFS channel it triggers an alert DFS Event Log and Alert on Meraki MR Access Point. Refer to the screenshot of the alert seen on the device:

## **Radar event pattern detected on channel 116**

This AP recorded 11 radar events across 1 channel between Jan 12 00:40 and Jan 13 00:40 CST:

- Ch. 116: 11 events

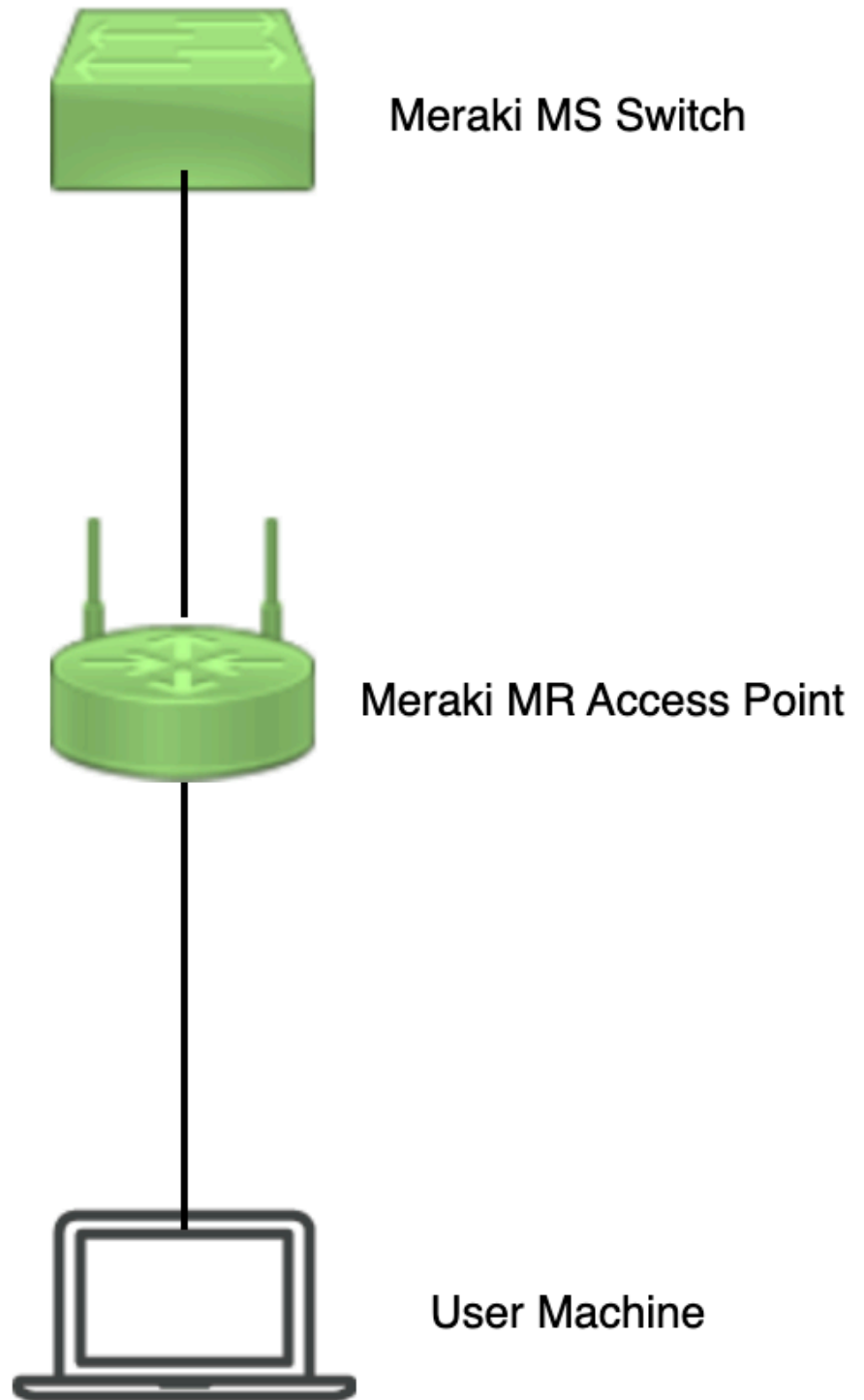
Please refer to the [event log](#) for more details.



*DFS pattern Event*

**Configure**

**Network Diagram**



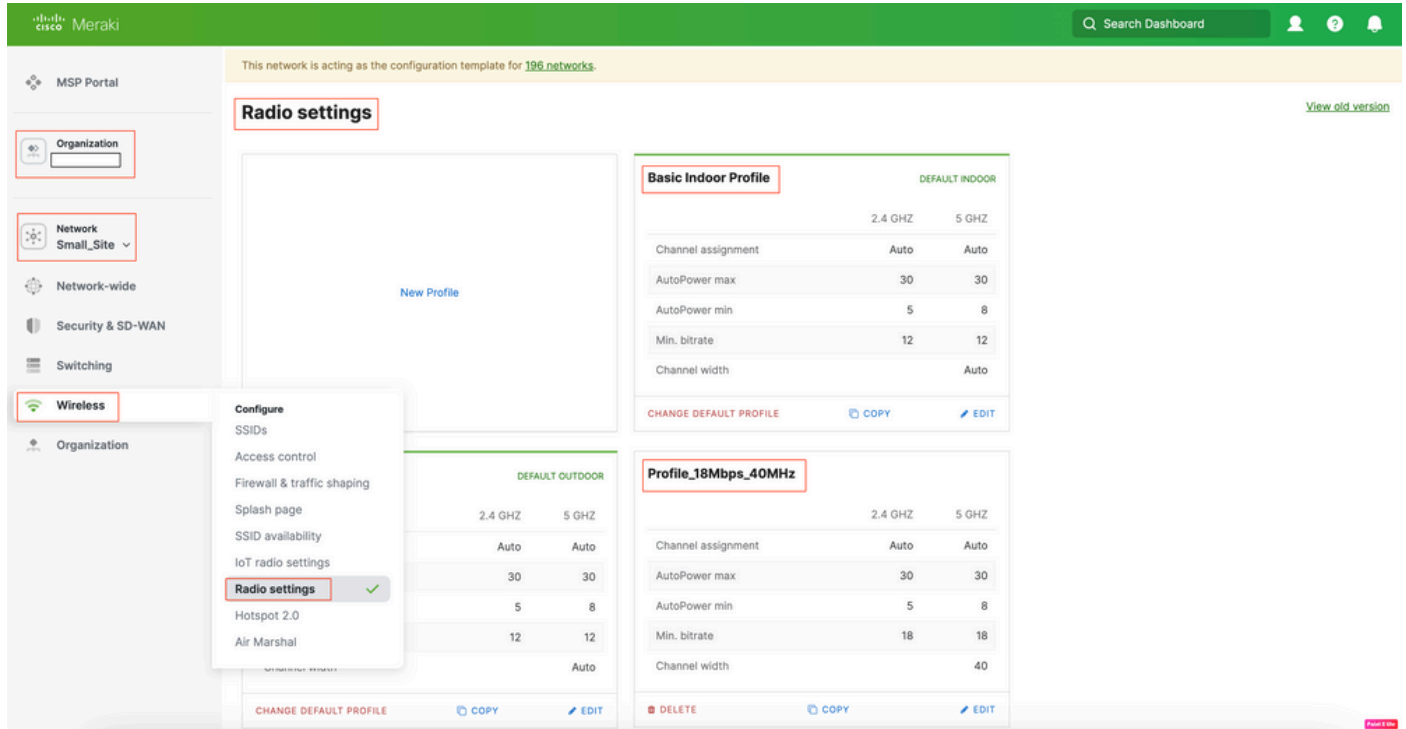
*Network Diagram*

## **Verify and Troubleshoot**

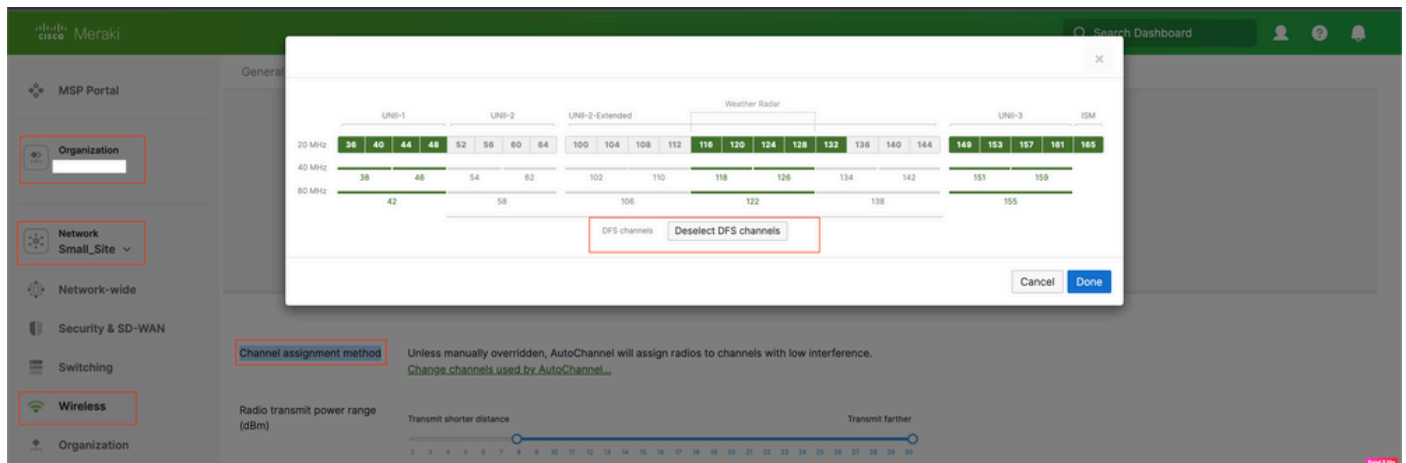
### **1. DFS Channel Setting Verification**

DFS Channel Setting can be verified in the path shown that depends on the Meraki Access point Configuration.

Navigate to **Meraki Dashboard > Meraki** (select any Site Network with Wireless Access Point or Configuration Template in which Wireless access point configuration is done) and then navigate to **Wireless > Radio Setting > RF Profile** (select the profile which is attached to the Wireless access point or Network). Navigate to **5 GHz Radio Setting > Channel Assignment Method** as shown in the image.



Verify DFS Setting 1



Verify DFS Setting 2

## 2. DFS Event Pattern Alert Verification

DFS Event Pattern Alert can be verified in the path shown. Navigate to **Meraki Dashboard > Network** (select any Site Network with Wireless Access Point). Navigate to **Wireless > Access Points**.

| # | Name | Connectivity                                  | Alerts            | Channels | Configuration status | Model | Status                                |
|---|------|---|-------------------|----------|----------------------|-------|---------------------------------------|
| 1 | AP3  | <span style="color: green;">██████████</span> | DFS event pattern | 1, 128   | Up to date           | MRS56 | <span style="color: orange;">●</span> |
| 2 | AP4  | <span style="color: green;">██████████</span> | DFS event pattern | 11, 116  | Up to date           | MRS56 | <span style="color: orange;">●</span> |
| 3 | AP1  | <span style="color: green;">██████████</span> | DFS event pattern | 6, 116   | Up to date           | MRS56 | <span style="color: orange;">●</span> |

DFS Event Pattern Dashboard Alert

### 3. DFS Event Detected Log Verification

DFS Event Detected Log can be verified in the path shown Meraki Dashboard > Network (select any Site Network with Wireless Access Point) and then Network-Wide > Event Log.

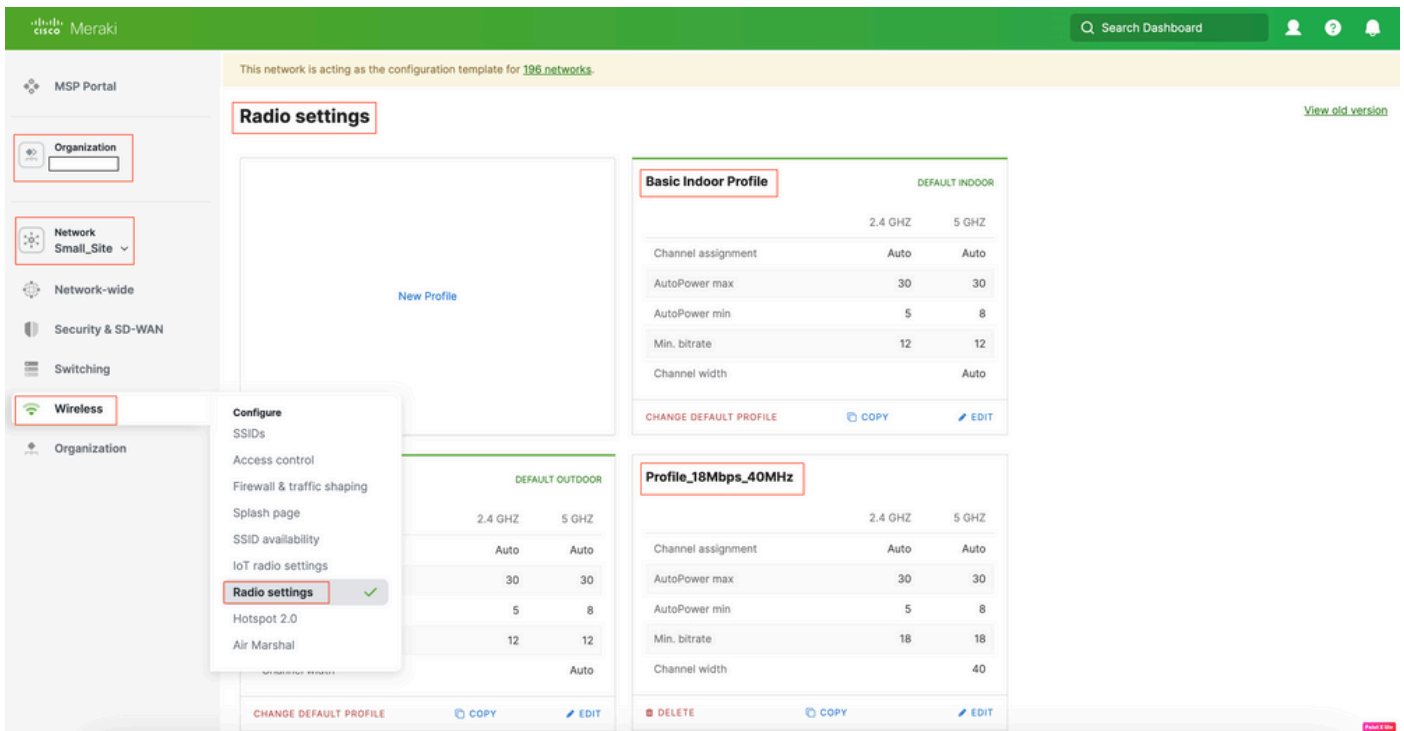
The screenshot shows the Meraki Dashboard interface. The left sidebar has 'Organization', 'Network', and 'Network-wide' sections. The main content area is titled 'Event log for access points'. It includes filters for 'Access point', 'Client', and 'Before' date. The 'Event type include' dropdown is set to 'DFS event detected'. Below the filters is a table of event logs.

| Time (CST)      | Access point | SSID | Client | Event type         | Details                |
|-----------------|--------------|------|--------|--------------------|------------------------|
| Jan 19 01:45:54 | -AP1         |      |        | DFS event detected | channel: 116, radio: 1 |
| Jan 19 01:26:37 | -AP3         |      |        | DFS event detected | channel: 128, radio: 1 |
| Jan 19 01:21:55 | -AP4         |      |        | DFS event detected | channel: 116, radio: 1 |
| Jan 19 01:15:35 | -AP1         |      |        | DFS event detected | channel: 116, radio: 1 |
| Jan 19 00:56:18 | -AP3         |      |        | DFS event detected | channel: 128, radio: 1 |
| Jan 19 00:51:37 | -AP4         |      |        | DFS event detected | channel: 116, radio: 1 |
| Jan 19 00:40:17 | -AP1         |      |        | DFS event detected | channel: 116, radio: 1 |
| Jan 19 00:21:00 | -AP3         |      |        | DFS event detected | channel: 128, radio: 1 |
| Jan 19 00:15:58 | -AP4         |      |        | DFS event detected | channel: 116, radio: 1 |
| Jan 19 00:09:59 | -AP1         |      |        | DFS event detected | channel: 116, radio: 1 |

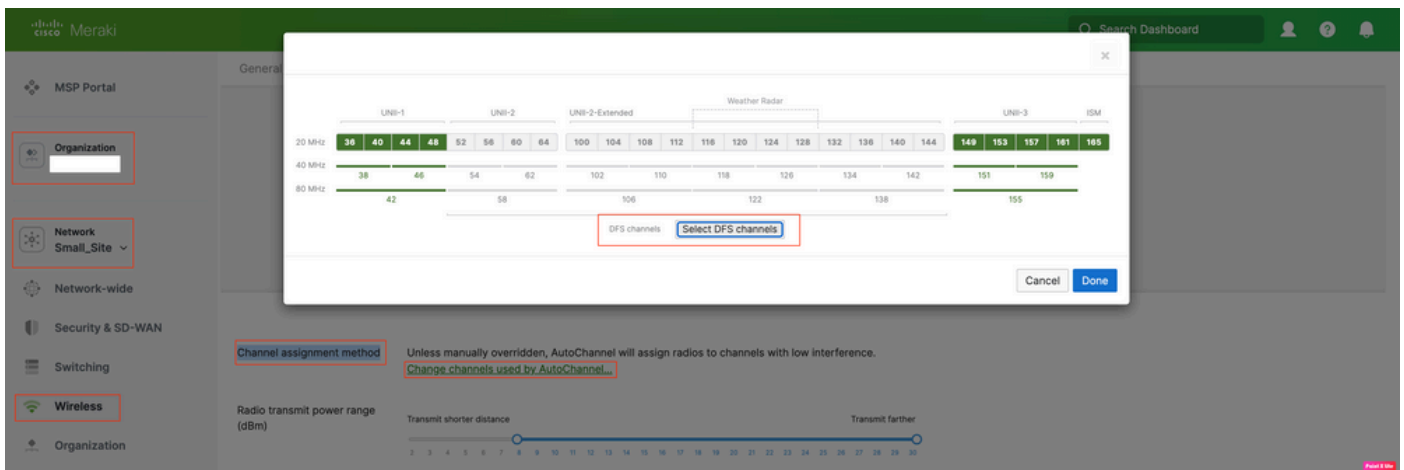
### 4. DFS Event Troubleshoot

DFS Pattern Detected Alert and DFS Event Detected Log is troubleshoot with configuration change in Radio Profile on Wireless Access Point. Refer to the path shown.

Navigate to Meraki Dashboard > Network (select any Site Network with Wireless Access Point or Configuration Template in which Wireless access point configuration is done) and then Wireless > Radio Setting > RF Profile (select profile which is attached to Wireless access point or Network) > 5 GHz Radio Setting > Channel Assignment Method.



DFS DeSelect Setting 1



DFS DeSelect Setting 2

## Related Information

- [Meraki Wireless Dynamic Frequency Selection \(DFS\)](#)
- [Technical Support & Documentation - Cisco Systems](#)