

排除Catalyst 9130 AP加入問題

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簡介

本檔案說明在控制器加入程式期間，存取點在「程式碼」升級時卡住的特定使用案例。

必要條件

需求

思科建議您瞭解以下主題：

- Cisco WLC 9800的基本知識
- Cisco Wave2和/或11AX AP的基本知識
- 對Catalyst 9800 WLC的AP加入過程有很好的少報。

採用元件

本文中的資訊係根據以下軟體和硬體版本：

- Catalyst 9800-L WLC、Cisco IOS® XE Cupertino 17.9.3
- Catalyst C9130AXI-E存取點

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。

拓撲

此故障排除流程適用於以本地模式連線的AP或分支機構站點中以Flex Connect模式連線的AP。



拓撲故障排除

使用案例

本文檔討論的是一種特定的使用情形，在這種情形中，存取點完成其發現和加入階段，但在影像資料檢查階段被滯留。此問題是由無線LAN控制器和存取點之間的代碼升級推送引起的，導致顯示錯誤資訊「裝置上沒有剩餘空間」。

A. 存取點已完成發現階段：

```
Feb 13 11:11:21 kernel: [*02/13/2024 11:11:21.4662] CAPWAP State: Discovery Feb 13 11:11:21 kernel: [*0
```

B. DTLS設定啟動和加入過程完成日誌：

```
Feb 13 11:11:31 kernel: [*02/13/2024 11:11:31.0002] CAPWAP State: DTLS Setup Feb 13 11:11:31 kernel:
[*02/13/2024 11:11:31.6405] Feb 13 11:11:31 kernel: [*02/13/2024 11:11:31.6405] CAPWAP State: Join Feb
kernel: [*02/13/2024 11:11:31.6422] Sending Join request to 10.228.104.4 through port 5248 Feb 13 11:11:
[*02/13/2024 11:11:31.6454] Join Response from 10.228.104.4 Feb 13 11:11:31 kernel: [*02/13/2024 11:11:
AC accepted join request with result code: 0 Feb 13 11:11:31 kernel: [*02/13/2024 11:11:31.6489] Receiv
timer 30 Feb 13 11:11:31 kernel: [*02/13/2024 11:11:31.6489] TLV ID 2216 not found Feb 13 11:11:31 ker
[*02/13/2024 11:11:31.6489] TLV-DEC-ERR-1: No proc for 2216
```

C. 加入過程完成後，存取點進入影像資料階段。在此階段中，您可以觀察從控制器到AP的映像傳輸，該傳輸失敗，並伴有錯誤消息「No space left on device」（裝置上沒有剩餘空間）。

```
Feb 13 11:11:31 kernel: [*02/13/2024 11:11:31.6709] CAPWAP State: Image Data
Feb 13 11:11:31 kernel: [*02/13/2024 11:11:31.6712] AP image version 8.10.112.0 backup 0.0.0.0, Control
Feb 13 11:11:31 kernel: [*02/13/2024 11:11:31.6712] Version does not match.
Feb 13 11:11:31 kernel: [*02/13/2024 11:11:31.7111] do PRECHECK, part1 is active part
Feb 13 11:11:31 upgrade: /tmp space: OK available 80268, required 40000
```

Feb 13 11:11:31 kernel: [*02/13/2024 11:11:31.7322] upgrade.sh: /tmp space: OK available 80268, require
Feb 13 11:11:31 kernel: [*02/13/2024 11:11:31.7326] wtpImgFileReadRequest: request ap1g6a, local /tmp/p
Feb 13 11:11:31 kernel: [*02/13/2024 11:11:31.7337] Image Data Request sent to 10.228.104.4, fileName [br/>Feb 13 11:11:31 kernel: [*02/13/2024 11:11:31.7351] Image Data Response from 10.228.104.4
Feb 13 11:11:31 kernel: [*02/13/2024 11:11:31.7351] AC accepted join request with result code: 0
Feb 13 11:11:31 LED: State received is Dis_join_completed
Feb 13 11:11:31 LED: State received is Software_upgrade_progress
Feb 13 11:11:31 LED: LED state Changed from LED_CYCLIC_GRO_LED to LED_BLINKING_BLUE
Feb 13 11:11:45 kernel: [*02/13/2024 11:11:31.7393] <.....
Feb 13 11:11:53 kernel: [*02/13/2024 11:11:45.3443]
Feb 13 11:12:07 kernel: [*02/13/2024 11:11:53.9200]
Feb 13 11:12:16 kernel: [*02/13/2024 11:12:07.5228]Discarding msg CAPWAP_WTP.
Feb 13 11:12:25 kernel: [*02/13/2024 11:12:18.7413]
Feb 13 11:12:43 kernel: [*02/13/2024 11:12:25.5137]
Feb 13 11:13:06 kernel: [*02/13/2024 11:12:43.6235]Discarding msg C
Feb 13 11:13:07 kernel: [*02/13/2024 11:13:07.0982] ...Discarding msg CAPWAP_WTP_EVENT_REQUEST(type 9)
Feb 13 11:13:07 kernel: [*02/13/2024 11:13:07.5458] Discarding msg CAPWAP_WTP_EVENT_REQUEST(type 9) in
Feb 13 11:13:07 kernel: [*02/13/2024 11:13:07.5965] Discarding msg CAPWAP_WTP_EVENT_REQUEST(type 9) in
Feb 13 11:13:09 kernel: [*02/13/2024 11:13:07.6044]
Feb 13 11:13:21 kernel: [*02/13/2024 11:13:09.9353]> 84387840 bytes, 62742 msgs, 1195 las
Feb 13 11:13:21 kernel: [*02/13/2024 11:13:21.0817] Last block stored, IsPre 0, WriteTaskId 0
Feb 13 11:13:21 kernel: [*02/13/2024 11:13:21.0847] wtpProcessImageDataRequest(10): fileName ap1g6a, pr
Feb 13 11:13:21 upgrade: Start doing upgrade arg1=PREDOWNLOAD arg2= arg3= ...
Feb 13 11:13:21 kernel: [*02/13/2024 11:13:21.1278] do PREDOWNLOAD, part1 is active part
Feb 13 11:13:21 kernel: [*02/13/2024 11:13:21.1419] upgrade.sh: Start doing upgrade arg1=PREDOWNLOAD ar
Feb 13 11:13:21 upgrade: Using image /tmp/part.tar on axel-qca ...
Feb 13 11:13:21 kernel: [*02/13/2024 11:13:21.1945] upgrade.sh: Using image /tmp/part.tar on axel-qca .
Feb 13 11:13:21 kernel: [*02/13/2024 11:13:21.1947] sh: write error: No space left on device
Feb 13 11:13:21 kernel: [*02/13/2024 11:13:21.1997] tar: write error: No space left on device
Feb 13 11:13:21 upgrade: ERROR: Image type mismatch. Expected:ap1g6a Got:
Feb 13 11:13:21 kernel: [*02/13/2024 11:13:21.2247] upgrade.sh: ERROR: Image type mismatch. Expected:ap
Feb 13 11:13:21 upgrade: Cleanup for do_upgrade...
Feb 13 11:13:21 upgrade: /tmp/upgrade_in_progress cleaned
Feb 13 11:13:21 kernel: [*02/13/2024 11:13:21.2411] upgrade.sh: Cleanup for do_upgrade...
Feb 13 11:13:21 upgrade: Cleanup tmp files ...
Feb 13 11:13:21 kernel: [*02/13/2024 11:13:21.2581] upgrade.sh: /tmp/upgrade_in_progress cleaned
FebFeb 13 11:13:21 kernel: [*02/13/2024 11:13:21.3072] capwap-upgrade script returned failure when call
Feb 13 11:13:21 kernel: [*02/13/2024 11:13:21.3073] Discarding msg CAPWAP_WTP_EVENT_REQUEST(type 9) in
Feb 13 11:13:21 kernel: [*02/13/2024 11:13:21.3074] CAPWAP SM handler: Failed to process message type 1
Feb 13 11:13:21 kernel: [*02/13/2024 11:13:21.3074] Failed to handle capwap control message from contro
Feb 13 11:13:21 kernel: [*02/13/2024 11:13:21.3074] Failed to process encrypted capwap packet 0x55aaaa2
Feb 13 11:13:21 kernel: [*02/13/2024 11:13:21.3074] Failed to send capwap message 0 to the state machin
Feb 13 11:13:22 LED: State received is Software_upgrade_fail
Feb 13 11:13:22 LED: LED state Changed from LED_BLINKING_BLUE to LED_GREEN
Feb 13 11:13:25 kernel: [*02/13/2024 11:13:25.6121] Invalid event 56 & state 10 combination.
Feb 13 11:13:25 kernel: [*02/13/2024 11:13:25.6121] Failed to handle timer message.
Feb 13 11:13:28 kernel: [*02/13/2024 11:13:28.4629] Re-Tx Count=1, Max Re-Tx Value=5, SendSeqNum=5, Num
Feb 13 11:13:28 kernel: [*02/13/2024 11:13:28.4629]
Feb 13 11:13:31 kernel: [*02/13/2024 11:13:31.3139] Re-Tx Count=2, Max Re-Tx Value=5, SendSeqNum=5, Num
Feb 13 11:13:31 kernel: [*02/13/2024 11:13:31.3139]
Feb 13 11:13:34 kernel: [*02/13/2024 11:13:34.1648] Re-Tx Count=3, Max Re-Tx Value=5, SendSeqNum=5, Num
Feb 13 11:13:34 kernel: [*02/13/2024 11:13:34.1648]
Feb 13 11:13:37 kernel: [*02/13/2024 11:13:37.0157] Re-Tx Count=4, Max Re-Tx Value=5, SendSeqNum=5, Num
Feb 13 11:13:37 kernel: [*02/13/2024 11:13:37.0157]
Feb 13 11:13:39 kernel: [*02/13/2024 11:13:39.8666] Re-Tx Count=5, Max Re-Tx Value=5, SendSeqNum=5, Num
Feb 13 11:13:39 kernel: [*02/13/2024 11:13:39.8666]
Feb 13 11:13:42 kernel: [*02/13/2024 11:13:42.7175] Max retransmission count exceeded, going back to DI
Feb 13 11:13:42 kernel: [*02/13/2024 11:13:42.7175] Dropping msg CAPWAP_ECHO_REQUEST, type = 1, len = 0
Feb 13 11:13:42 kernel: [*02/13/2024 11:13:42.7185]
Feb 13 11:13:42 kernel: [*02/13/2024 11:13:42.7185] CAPWAP State: DTLS Teardown
Feb 13 11:13:42 kernel: [*02/13/2024 11:13:42.7303] Aborting image download(0x0): Dtls cleanup, ap1g6a
Feb 13 11:13:42 kernel: [*02/13/2024 11:13:42.7952] do ABORT, part1 is active part

Feb 13 11:13:42 upgrade: Cleanup tmp files ...

Feb 13 11:13:42 kernel: [*02/13/2024 11:13:42.8145] upgrade.sh: Cleanup tmp files ...

解決方案

有多種解決方案可以解決此問題：

選項 1. 首先，請先升級至具有修復程式的中間映像，再升級到17.7+。 1。升級到17.3.5 2.繼續升級到17.7+。

選項 2. 手動DE解決方法：mount -o remount, size=100M /tmp/這需要開發人員訪問。

這些選項中的任何一個都起作用，使用選項2時，您可能需要有關TAC的幫助。

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）。