

No IP
Broadcast
WLC B
AP wired C
AP wired A

mesh\_mapjoin\_wired.pcapng

**DHCP Discover**

Transaction ID	0x000018a6
IP	0.0.0.0
Client MAC address	84:b2:61:21:b7:2c
Client MAC address	84:b2:61:21:b7:2c
Hostname	AP84b2.6121.b72c-map

**DHCP Offer**

Transaction ID	0x000018a6
IP	10.0.40.104
Client MAC address	84:b2:61:21:b7:2c

**DHCP Request**

Transaction ID	0x000018a6
IP	0.0.0.0
Client MAC address	84:b2:61:21:b7:2c
Client MAC address	84:b2:61:21:b7:2c
Hostname	AP84b2.6121.b72c-map

**DHCP ACK**

Transaction ID	0x000018a6
IP	10.0.40.104
Client MAC address	84:b2:61:21:b7:2c

**DNS Query**

Name	CISCO-CAPWAP-CONTROLLER.lab.local
Type	A (1) (Host Address)

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**DNS Query**

Name	CISCO-CAPWAP-CONTROLLER.lab.local
Type	AAAA (28) (IP6 Address)

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Type	AAAA (28) (IP6 Address)

**CAPWAP Discovery Request**

Sequence Number	0
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**CAPWAP Discovery Response**

Sequence Number	0
WLC	WLC2504_A

**CAPWAP Discovery Request**

Sequence Number	0
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**CAPWAP Discovery Response**

Sequence Number	0
WLC	WLC2504_A

**DTLS Handshake (22)**

💡 DHCP – client obtains IP address after 802.11 association and EAPOL key exchange complete; DORA: Discover→Offer→Request→ACK; in WLAN, DHCP may traverse CAPWAP tunnel to WLC

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Frame 5 | 2017-02-12T17:02:49.239874Z

Frame 6 | 2017-02-12T17:02:52.239588Z

Frame 7 | 2017-02-12T17:02:55.239705Z

Frame 8 | 2017-02-12T17:02:58.239764Z

Frame 9 | 2017-02-12T17:03:01.239476Z

Frame 10 | 2017-02-12T17:03:04.239438Z

💡 CAPWAP – controller manages lightweight APs; Discovery finds WLC, Join establishes DTLS tunnel, Config provisions AP (SSID, channel, power)

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💡 DTLS Handshake – establishes encrypted tunnel between AP and





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 Broadcast

 WLC B

 AP wired C

 AP wired A

 Epoch	1
 Length	1440