



Configuring IPv6 Mobility

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Pre-requisites for IPv6 Mobility

The mobility and its related infrastructure must be configured and ready for use.

Information About IPv6 Mobility

Mobility, or roaming, is a wireless LAN client's ability to maintain its association seamlessly from one access point to another securely and with as little latency as possible. This section explains how mobility works when controller are included in a wireless network.

When a wireless client associates and authenticates to an access point, the access point's controller places an entry for that client in its client database. This entry includes the client's MAC and IP addresses, security context and associations, quality of service (QoS) contexts, the WLAN, and the associated access point. The controller uses this information to forward frames and manage traffic to and from the wireless client.

When the wireless client moves its association from one access point to another, the controller simply updates the client database with the newly associated access point. If necessary, new security context and associations are established as well. The process becomes more complicated, however, when a client roams from an access point joined to one controller to an access point joined to a different controller. It also varies based on whether the controller are operating on the same subnet.

Inter Controller Roaming

When the client associates to an access point joined to a new controller, the new controller exchanges mobility messages with the original controller, and the client database entry is moved to the new controller if sticky anchoring is disabled.

Related Topics

[Monitoring IPv6 Mobility, on page 2](#)

Intra Subnet Roaming with Sticky Anchoring, and Inter Subnet Roaming

Inter-subnet roaming is similar to inter-controller roaming in that the controller exchange mobility messages on the client roam. However, instead of moving the client database entry to the new controller, the original controller marks the client with an "Anchor" entry in its own client database. The database entry is copied to the new controller client database and marked with a "Foreign" entry in the new controller. The roam remains transparent to the wireless client, and the client maintains its original IP address.

In inter-subnet roaming, WLANs on both anchor and foreign controller need to have the same network access privileges and no source-based routing or source-based firewalls in place. Otherwise, the clients may have network connectivity issues after the handoff.

For more information on configuring mobility see, the Cisco 5700 Wireless LAN Controller Mobility Configuration Guide, Cisco IOS XE, Release 3.2SE.

Related Topics

[Monitoring IPv6 Mobility, on page 2](#)

How to Configure IPv6 Mobility

Monitoring IPv6 Mobility

This chapter displays the mobility related IPv6 configuration. To see the mobility related configurations refer to the Cisco 5700 Wireless LAN Controller Mobility Configuration Guide, Cisco IOS XE 3.2SE.

SUMMARY STEPS

1. **show ipv6 neighbors binding mac C0C1.C06B.C4E2**

DETAILED STEPS

	Command or Action	Purpose
Step 1	show ipv6 neighbors binding mac C0C1.C06B.C4E2 Example: Controller# show ipv6 neighbors binding mac C0C1.C06B.C4E2	Displays the IPv6 related mobility configurations.

```

Controller# show ipv6 neighbors binding mac C0C1.C06B.C4E2
Binding Table has 45 entries, 37 dynamic (limit 100)
Codes: L - Local, S - Static, ND - Neighbor Discovery, DH - DHCP, PKT - Other Packet, API
- API created
Preflevel flags (prlvl):
0001:MAC and LLA match      0002:Orig trunk          0004:Orig access
0008:Orig trusted trunk    0010:Orig trusted access 0020:DHCP assigned
0040:Cga authenticated     0080:Cert authenticated  0100:Statically assigned

```

IPv6 address	Link-Layer addr	Interface	vlan	prlvl	age
state Time left					
L FE80:20:25::16	2037.064C.BA71	Vl25	25	0100	3137mn
REACHABLE					
L FE80:20:24::16	2037.064C.BA41	Vl24	24	0100	3137mn
REACHABLE					
L FE80:20:23::16	2037.064C.BA44	Vl23	23	0100	3137mn
REACHABLE					
ND FE80:20:23::13	2037.0653.6BC4	Tel1/0/1	23	0005	85s
REACHABLE 223 s try 0					
ND FE80:20:22::17	2037.064D.06F6	Tel1/0/1	22	0005	3mn
REACHABLE 92 s try 0					
L FE80:20:22::16	2037.064C.BA76	Vl22	22	0100	3137mn
REACHABLE					
ND FE80:20:22::13	2037.0653.6BF6	Tel1/0/1	22	0005	165s
REACHABLE 136 s try 0					
ND FE80:20:22::12	2037.064C.94F6	Tel1/0/1	22	0005	23s
REACHABLE 281 s try 0					
ND FE80:20:22::2	0022.550E.8FC3	Tel1/0/1	22	0005	18s
REACHABLE 295 s try 0					
ND FE80:20:21::17	2037.064D.06E8	Tel1/0/1	21	0005	4mn
REACHABLE 60 s try 0					
L FE80:20:21::16	2037.064C.BA68	Vl21	21	0100	3137mn
REACHABLE					
ND FE80:20:21::13	2037.0653.6BE8	Tel1/0/1	21	0005	57s
REACHABLE 252 s try 0					
ND FE80:20:21::12	2037.064C.94E8	Tel1/0/1	21	0005	4s
REACHABLE 297 s					
ND FE80:20:21::2	0022.550E.8FC2	Tel1/0/1	21	0005	2s
REACHABLE 307 s try 0					
ND FE80::F866:8BE0:12E4:39CF	C0C1.C06B.C4E2	Ca4	21	0005	3mn
REACHABLE 89 s try 0					
ND FE80::6D0A:DB33:D69E:91C7	0050.B606.A6CE	Tel1/0/1	22	0005	135s
REACHABLE 171 s try 0					
ND FE80::985:8189:9937:BB05	8CA9.8295.09CC	Ca0	21	0005	15s
REACHABLE 287 s					
ND FE80::20:24:13	2037.0653.6BC1	Tel1/0/1	24	0005	155s
REACHABLE 145 s try 0					
L 2001:20:23::16	2037.064C.BA44	Vl23	23	0100	3137mn
REACHABLE					
DH 2001:20:22:0:C96C:AF29:5DDC:2689	0050.B606.A6CE	Tel1/0/1	22	0024	19s
REACHABLE 286 s try 0(16574					
DH 2001:20:22:0:A46B:90B2:F0DB:F952	0050.B606.A6CE	Tel1/0/1	22	0024	2339mn
STALE 32401 s					
DH 2001:20:22:0:7DFD:14EC:B1E4:1172	0050.B606.A6CE	Tel1/0/1	22	0024	2339mn
STALE 24394 s					
DH 2001:20:22:0:7CB3:D6DD:FD6A:50F	0050.B606.A6CE	Tel1/0/1	22	0024	2333mn
STALE 29195 s					
DH 2001:20:22:0:6D32:AF24:FDE1:2504	0050.B606.A6CE	Tel1/0/1	22	0024	509mn
STALE 118821 s					
DH 2001:20:22:0:5106:5AD:FE98:A2F0	0050.B606.A6CE	Tel1/0/1	22	0024	2328mn
STALE 31362 s					
ND 2001:20:22::201:13	0050.B606.A6CE	Tel1/0/1	22	0005	49s
REACHABLE 264 s try 0					
L 2001:20:22::16	2037.064C.BA76	Vl22	22	0100	3137mn
REACHABLE					
ND 2001:20:22::13	2037.0653.6BF6	Tel1/0/1	22	0005	175s
REACHABLE 131 s try 0					
ND 2001:20:22::2	0022.550E.8FC3	Tel1/0/1	22	0005	28s

```

REACHABLE 274 s try 0
ND 2001:20:21:0:F866:8BE0:12E4:39CF C0C1.C06B.C4E2 Ca4 21 0005 4mn
REACHABLE 21 s try 0
ND 2001:20:21:0:C085:9D4C:4521:B777 0021.CC73.AA17 Te1/0/1 21 0005 11s
REACHABLE 290 s try 0
ND 2001:20:21:0:6233:4BFF:FE1A:744C 6033.4B1A.744C Ca4 21 0005 3mn
REACHABLE 108 s try 0
ND 2001:20:21:0:447E:745D:2F48:1C68 8CA9.8295.09CC Ca0 21 0005 34s
REACHABLE 276 s
ND 2001:20:21:0:3920:DDE8:B29:AD51 C0C1.C06B.C4E2 Ca4 21 0005 3mn
REACHABLE 87 s try 0
ND 2001:20:21:0:1016:A333:FAD5:6E66 0021.CC73.AA17 Te1/0/1 21 0005 4mn
REACHABLE 18 s try 0
ND 2001:20:21:0:C42:E317:BA9B:EB17 6033.4B1A.744C Ca4 21 0005 4mn
REACHABLE 61 s try 0
ND 2001:20:21:0:985:8189:9937:BB05 8CA9.8295.09CC Ca0 21 0005 135s
REACHABLE 173 s try 0
ND 2001:20:21::201:20 0021.CC73.AA17 Te1/0/1 21 0005 4mn
REACHABLE 43 s try 0
ND 2001:20:21::17 2037.064D.06E8 Te1/0/1 21 0005 4mn
REACHABLE 50 s try 0
L 2001:20:21::16 2037.064C.BA68 V121 21 0100 3137mn
REACHABLE
ND 2001:20:21::13 2037.0653.6BE8 Te1/0/1 21 0005 67s
REACHABLE 237 s try 0
ND 2001:20:21::12 2037.064C.94E8 Te1/0/1 21 0005 5mn
REACHABLE 512 ms try 0
ND 2001:20:21::2 0022.550E.8FC2 Te1/0/1 21 0005 12s
REACHABLE 294 s try 0

```

Related Topics

[Inter Controller Roaming](#), on page 2

[Intra Subnet Roaming with Sticky Anchoring](#), and [Inter Subnet Roaming](#), on page 2

Additional References

Related Documents

Related Topic	Document Title
IPv6 command reference	<i>IPv6 Command Reference (Cisco WLC 5700 Series)</i>
Mobility configurations	<i>Mobility Configuration Guide, Cisco IOS XE Release 3SE (Cisco WLC 5700 Series)</i>

Error Message Decoder

Description	Link
To help you research and resolve system error messages in this release, use the Error Message Decoder tool.	https://www.cisco.com/cgi-bin/Support/Errordecoder/index.cgi

MIBs

MIB	MIBs Link
All supported MIBs for this release.	To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL: http://www.cisco.com/go/mibs

Technical Assistance

Description	Link
<p>The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies.</p> <p>To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds.</p> <p>Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.</p>	http://www.cisco.com/support

Feature Information for IPv6 Mobility

This table lists the features in this module and provides links to specific configuration information:

Feature	Release	Modification
IPv6 Mobility Functionality	Cisco IOS XE 3.2SE	This feature was introduced.

