



Configuring IPv6 Mobility

- [Pre-requisites for IPv6 Mobility, on page 1](#)
- [Information About IPv6 Mobility, on page 1](#)
- [How to Configure IPv6 Mobility, on page 2](#)
- [Monitoring IPv6 Mobility, on page 2](#)
- [Additional References, on page 4](#)
- [Feature Information for IPv6 Mobility, on page 5](#)

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 devices are included in a wireless network.

When a wireless client associates and authenticates to an access point, the access point's device 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 device 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 device 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 device to an access point joined to a different device. It also varies based on whether the devices are operating on the same subnet.

Inter Controller Roaming

When the client associates to an access point joined to a new device, the new device exchanges mobility messages with the original device, and the client database entry is moved to the new device 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 device exchange mobility messages on the client roam. However, instead of moving the client database entry to the new device, the original device marks the client with an "Anchor" entry in its own client database. The database entry is copied to the new device client database and marked with a "Foreign" entry in the new device. 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 device 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: Device# show ipv6 neighbors binding mac C0C1.C06B.C4E2	Displays the IPv6 related mobility configurations.

Example

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

Related Topics

[Inter Controller Roaming](#), on page 1

[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 (Catalyst 3850 Switches)</i>
Mobility configurations	<i>Mobility Configuration Guide, Cisco IOS XE Release 3SE (Catalyst 3850 Switches)</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.

