



## Mobility Domain ID - Dot11i Roaming

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### Information about Mobility Domain ID - 802.11i Roaming

A mobility domain is a cluster of APs forming a continuous radio frequency space, where the Pairwise Master Key (PMK) can be synchronized, and fast roaming can be enabled for 802.11r (Fast Transition) or 802.11i (WPA).

In the releases prior to Cisco IOS XE 17.2.1, the PMK cache was shared across the FlexConnect APs using the AP site tag. All the APs that are a part of a site tag share the PMK cache. This is applicable only for central authentication.

From Cisco IOS XE 17.2.1, you can create a Mobility Domain ID (MDID) for each of the APs. All the APs with the same MDID share the PMK cache keys even if they are in different site tags. When MDID is configured for APs, the PMK cache keys are not shared with the APs that are not a part of the same MDID, even if they are a part of the same site tag. MDID supports PMK cache distribution for both central authentication and local authentication.



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**Note**

- The Mobility Domain ID - 802.11i Roaming feature does not work when the Flex APs are in standalone mode because the feature depends on the controller to share the keys.
  - MDID is configured only through the open configuration model. There is no CLI or GUI support.
  - In Cisco IOS XE Amsterdam 17.2.1, 100 APs per site-tag or per MDID are supported, and 1000 PMK entries are supported per AP.
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The mobility domain can either be defined as a static configuration of clustered APs, all under a commonly configured MDID, or dynamically computed. You can implement a spatial clustering algorithm based on neighbor associations of APs. Each AP can only be a part of one roaming domain.

An MDID is used by 802.11r to define a network in which an 802.11r fast roam is supported. PMKs should be shared within mobility domains, allowing clients to support fast roaming. If defined, MDID takes precedence over a site tag.

MDID configurations are exercised only from open configuration models. For more information about open configuration models, see the [https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/prog/configuration/172/b\\_172\\_programmability\\_cg.html](https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/prog/configuration/172/b_172_programmability_cg.html).

## Verifying Mobility Domain ID - 802.11i Roaming

The following examples shows how to view and verify the 802.11i Roaming configuration:

```
Device# show running-config | section specific-config
ap specific-config 58ac.70dc.xxxx hostname AP58AC.70DC.XXXX
   roaming-domain roaming_domain_2
ap specific-config 78xc.f09d.xxxx hostname AP78XC.F09D.XXXX
   roaming-domain roaming_domain_3
```