LISP ESM Multihop Mobility

The LISP ESM Multihop Mobility feature separates the Locator/ID Separation Protocol (LISP) dynamic host detection function from the LISP encapsulation/decapsulation function within a LISP topology.

Finding Feature Information

Your software release may not support all the features documented in this module. For the latest caveats and feature information, see Bug Search Tool and the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the feature information table.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to www.cisco.com/go/cfn. An account on Cisco.com is not required.

## Restrictions for LISP ESM Multihop Mobility

- Supports Locator/ID Separation Protocol (LISP) multihop mobility only in Extended Subnet Mode (ESM) with Overlay Transport Virtualization (OTV).

- Requires OTV First Hop Redundancy Protocol (FHRP) isolation to avoid hair-pinning of traffic across the OTV Data Center Interconnect (DCI) framework.

- Does not support Network Address Translated (NAT'd) endpoint identifiers (EIDs).

Information About LISP ESM Multihop Mobility

LISP ESM Multihop Mobility Overview

A first-hop router (FHR) detects the presence of a dynamic host endpoint identifier (EID) and notifies the site gateway xTR. A device configured as both an ingress tunnel router (ITR) and an egress tunnel router (ETR) is known as an xTR. The site gateway xTR registers the dynamic EID with a map server. The Site Gateway xTR performs Locator/ID Separation Protocol (LISP) encapsulation/decapsulation of the traffic from or to the dynamic EID to or from remote sites.

Figure 1: LISP ESM Multihop Mobility Sample Topology
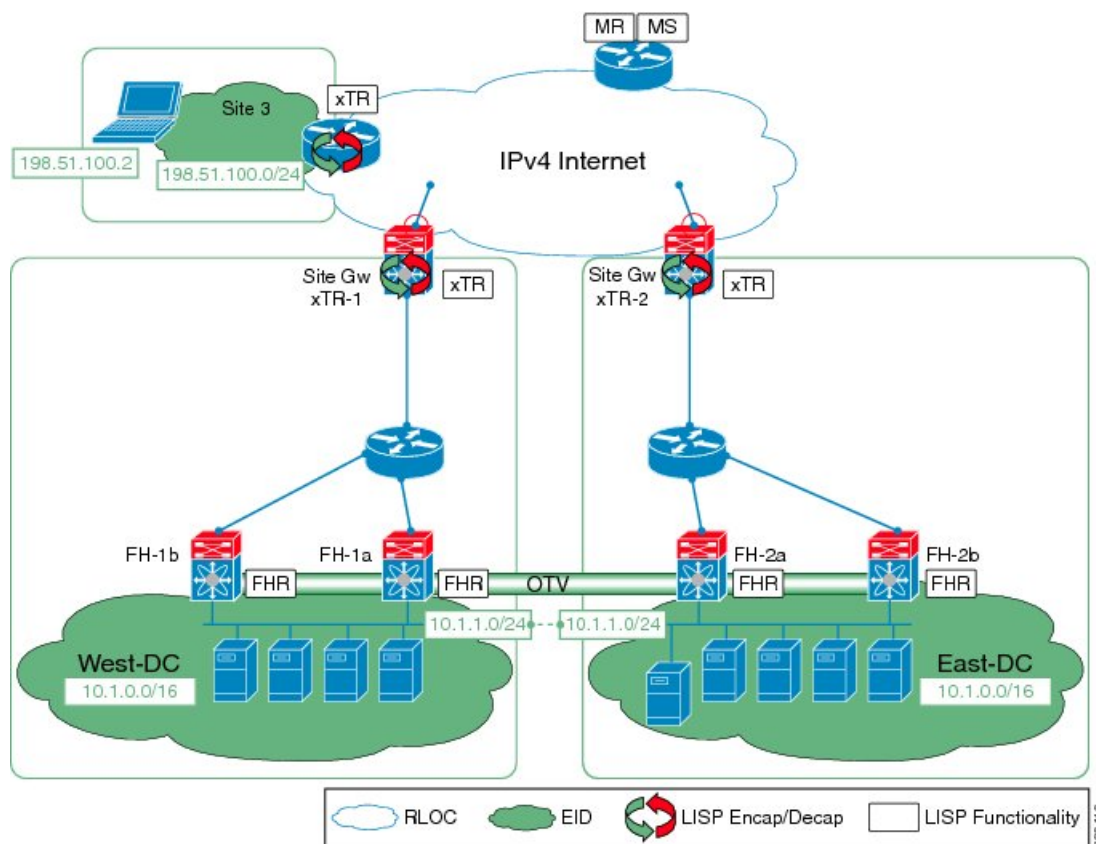
Multiple Layer 3 hops can exist between the FHR and the site gateway xTR when deploying the LISP ESM Multihop Mobility feature. You can insert non-LISP devices like firewalls and load-balancers into the data center.

Note LISP supports silent host moves from the 15.4(1)T release.

✎

Note LISP supports redistributing host routes for servers discovered by LISP into Interior Gateway Protocol (IGP) via Open Shortest Path First (OSPF) protocol/ Intermediate System-to-Intermediate System (IS-IS) protocol/ Routing Information Protocol (RIP)/ Border Gateway Protocol (BGP).

Perform the tasks shown below to configure LISP ESM multihop mobility on a Locator ID/Separation Protocol (LISP) site with three IPv4 routing locators (RLOCs). In these tasks, a LISP site uses a single edge router configured as both an ITR and an ETR (known as an xTR) with two connections to the upstream provider. Both the RLOCs and the endpoint identifier (EID) prefix are IPv4. The LISP site registers to a map resolver map server (MRMS) device in the network core. The topology used in this LISP configuration is shown in the figure below.

Figure 2: Topology for LISP ESM Multihop Mobility
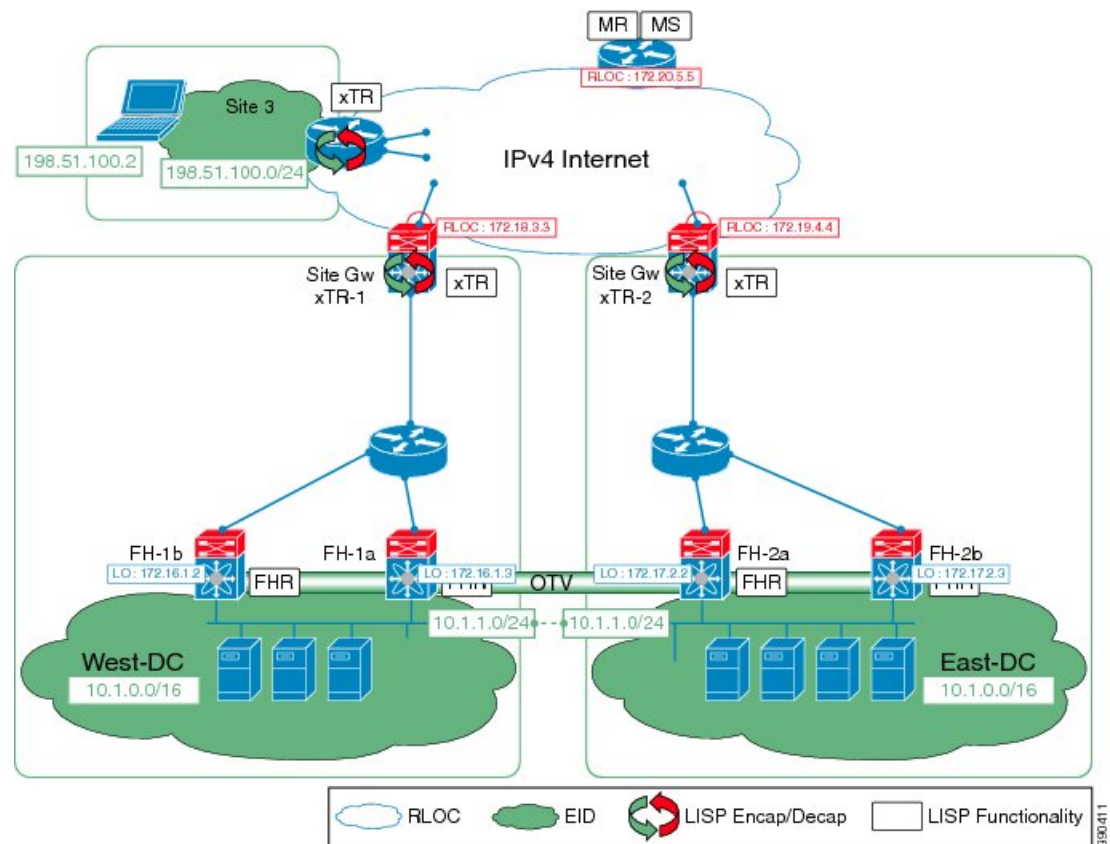
The components illustrated in the topology shown in the above figure are described below:

LISP Site

- The customer premises equipment (CPE) functions as a LISP ITR and ETR (xTR).
- The LISP xTR is authoritative for the IPv4 EID prefix of 10.1.0.0/16.
- The LISP xTR has two RLOC connections to the core. The RLOC connection to xTR-1 is 172.18.3.3; the RLOC connection to xTR-2 is 172.19.4.4.

Mapping System

- An MRMS system is assumed to be available for the LISP xTRs to configure. The MRMS has IPv4 RLOCs 10.1.1.0 and 10.1.1.9.
- Mapping services are assumed to be provided as part of this LISP solution via a private mapping system or as a public LISP mapping system.

How to Configure LISP ESM Multihop Mobility

Configuring First-Hop Router

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **router lisp**
4. **locator-set** *locator-set-name*
5. *ipv4-address* **priority** *priority-locator* **weight** *locator-weight*
6. Repeat Step 5 to configure another locator entry.
7. **exit**
8. **eid-table default instance-id** *id*
9. **dynamic-eid** *dynamic-eid-name*
10. **database-mapping** *dynamic-eid-prefix*/`prefix-length` **locator-set** *name*
11. **eid-notify** *ipv4-address* **key** *password*
12. **map-notify-group** *ipv4-group-address*
13. **exit**
14. **exit**
15. **exit**
16. **interface** *type* *number*
17. **lisp mobility** *dynamic-eid-name*
18. **lisp extended-subnet-mode**
19. **ip address** *ip-address mask*
20. **standby** *group-number* **ip** *virtual-ip-address*
21. **end**

DETAILED STEPS

	Command or Action	Purpose
Step 1	**enable** **Example:** `Device> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**configure terminal** **Example:** `Device# configure terminal`	Enters global configuration mode.

	Command or Action	**Purpose**
Step 3	**router lisp** **Example:** `Device(config)# router lisp`	Enters LISP configuration mode.
Step 4	**locator-set** *locator-set-name* **Example:** `Device(config-router-lisp)# locator-set WestDC`	Specifies a locator set and enters LISP locator-set configuration mode.
Step 5	*ipv4-address* **priority** *priority-locator* **weight** *locator-weight* **Example:** `Device(config-router-lisp-locator-set)# 172.16.1.2 priority 10 weight 50`	Configures the LISP locator set. The LISP locator set is the set of addresses that the first-hop router (FHR) uses while communicating with the gateway xTR. You can configure each locator address by creating a locator entry with an assigned priority and weight.
Step 6	Repeat Step 5 to configure another locator entry.	—
Step 7	**exit** **Example:** `Device(config-router-lisp-locator-set)# exit`	Exits LISP locator-set configuration mode and returns to LISP configuration mode.
Step 8	**eid-table default instance-id** *id* **Example:** `Device(config-router-lisp)# eid-table default instance-id 0`	Configures an association between the default virtual routing and forwarding (VRF) table and a LISP instance ID, and enters EID table configuration mode.
Step 9	**dynamic-eid** *dynamic-eid-name* **Example:** `Device(config-router-lisp-eid-table)# dynamic-eid VMs`	Specifies a LISP virtual machine (VM)-mobility (dynamic EID roaming) policy and enters dynamic EID configuration mode.
Step 10	**database-mapping** *dynamic-eid-prefix*/prefix-length **locator-set** *name* **Example:** `Device(config-router-lisp-eid-table-dynamic-eid)# database-mapping 10.1.1.0/24 locator-set WestDC`	Configures an IPv4 mapping relationship and an associated traffic policy for the LISP VM-mobility (dynamic EID) policy. **Note** You can enter the **limit dynamic** *value* keyword to limit the number of discoverable dynamic EIDs. However, if you have enabled debug mode (using the **service internal** command), then the number of discoverable dynamic EIDs will be increased to a fixed value of 65535.
Step 11	**eid-notify** *ipv4-address* **key** *password* **Example:** `Device(config-router-lisp-eid-table-dynamic-eid)# eid-notify 192.0.2.21 key k`	Enables sending of dynamic endpoint identifier (EID) presence notifications to a gateway xTR with the specified IPv4 address along with the authentication key used with the gateway xTR.

	Command or Action	Purpose
Step 12	**map-notify-group** *ipv4-group-address* **Example:** Device(config-router-lisp-eid-table-dynamic-eid)# map-notify-group 224.0.0.0	Specifies the IPv4 multicast group address used for sending and receiving site-based map-notify multicast messages.
Step 13	**exit** **Example:** Device(config-router-lisp-eid-table-dynamic-eid)# exit	Exits dynamic EID configuration mode and returns to EID table configuration mode.
Step 14	**exit** **Example:** Device(config-router-lisp-eid-table)# exit	Exits EID table configuration mode and returns to LISP configuration mode.
Step 15	**exit** **Example:** Device(config-router-lisp)# exit	Exits LISP configuration mode and returns to global configuration mode.
Step 16	**interface** *type number* **Example:** Device(config)# interface Vlan 11	Specifies the interface type and number and enters interface configuration mode.
Step 17	**lisp mobility** *dynamic-eid-name* **Example:** Device(config-if)# lisp mobility VMs	Allows EID mobility on the interface and specifies the name of the dynamic EID.
Step 18	**lisp extended-subnet-mode** **Example:** Device(config-if)# lisp extended-subnet-mode	Enables extended subnet mode on the interface.
Step 19	**ip address** *ip-address mask* **Example:** Device(config-if)# ip address 10.1.1.2 255.255.255.0	Configures an IPv4 address for a specific interface.
Step 20	**standby** *group-number* **ip** *virtual-ip-address* **Example:** Device(config-if)# standby 1 ip 10.1.1.1	Enables IPv4 Hot Standby Router Protocol (HSRP) and sets the virtual IP address.
Step 21	**end** **Example:** Device(config-if)# end	Returns to privileged EXEC mode.

Configuring Site Gateway xTR

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **router lisp**
4. **locator-set** *locator-set-name*
5. *ipv4-address* **priority** *priority-locator* **weight** *locator-weight*
6. **exit**
7. **eid-table default instance-id** *id*
8. **database-mapping** *dynamic-eid-prefix/prefix-length* **locator-set** *name*
9. **dynamic-eid** *dynamic-eid-name*
10. **database-mapping** *dynamic-eid-prefix/prefix-length* **locator-set** *name*
11. **eid-notify authentication-key** *password*
12. **exit**
13. **exit**
14. **ipv4 itr map-resolver** *map-resolver-address*
15. **ipv4 itr**
16. **ipv4 etr map-server** *map-server-address* **key** *authentication-key*
17. **ipv4 etr**
18. **exit**
19. **interface** *type* *number*
20. **ip address** *ip-address mask*
21. **lisp mobility** *dynamic-eid-name*
22. **lisp extended-subnet-mode**
23. **end**

DETAILED STEPS

	Command or Action	Purpose
Step 1	**enable** **Example:** `Device> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**configure terminal** **Example:** `Device# configure terminal`	Enters global configuration mode.
Step 3	**router lisp** **Example:** `Device(config)# router lisp`	Enters LISP configuration mode.
Step 4	**locator-set** *locator-set-name* **Example:**	Specifies a locator set and enters LISP locator-set configuration mode.

	Command or Action	Purpose
	Device(config-router-lisp)# locator-set WestDC	
Step 5	*ipv4-address* **priority** *priority-locator* **weight** *locator-weight* **Example:** Device(config-router-lisp-locator-set)# 172.18.3.3 priority 10 weight 50	Configures the LISP locator set. The LISP locator set is the set of addresses used by the gateway xTR while encapsulating/decapsulating LISP traffic from and to the endpoint identifier (EID).
Step 6	**exit** **Example:** Device(config-router-lisp-locator-set)# exit	Exits LISP locator-set configuration mode and returns to LISP configuration mode.
Step 7	**eid-table default instance-id** *id* **Example:** Device(config-router-lisp)# eid-table default instance-id 0	Configures an association between the default virtual routing and forwarding (VRF) table and a LISP instance ID, and enters EID table configuration mode.
Step 8	**database-mapping** *dynamic-eid-prefix/prefix-length* **locator-set** *name* **Example:** Device(config-router-lisp-eid-table)# database-mapping 10.1.0.0/16 locator-set WestDC	Configures an IPv4 mapping relationship and an associated traffic policy for LISP virtual machine (VM)-mobility (dynamic EID) policy. **Note** You can enter the **limit dynamic** *value* keyword to limit the number of discoverable dynamic EIDs. However, if you have enabled debug mode (using the **service internal** command), then the number of discoverable dynamic EIDs will be increased to a fixed value of 65535.
Step 9	**dynamic-eid** *dynamic-eid-name* **Example:** Device(config-router-lisp-eid-table)# dynamic-eid VMs	Specifies a LISP VM-mobility (dynamic EID roaming) policy and enters dynamic EID configuration mode.
Step 10	**database-mapping** *dynamic-eid-prefix/prefix-length* **locator-set** *name* **Example:** Device(config-router-lisp-eid-table-dynamic-eid)# database-mapping 10.1.1.0/24 locator-set WestDC	Configures an IPv4 mapping relationship and an associated traffic policy for LISP VM-mobility (dynamic EID) policy.
Step 11	**eid-notify authentication-key** *password* **Example:** Device(config-router-lisp-eid-table-dynamic-eid)# eid-notify authentication-key k	Specifies the authentication key to validate the EID-notify sent from a first-hop router (FHR).
Step 12	**exit** **Example:**	Exits dynamic EID configuration mode and returns to EID table configuration mode.

	Command or Action	Purpose
	`Device(config-router-lisp-eid-table-dynamic-eid)# exit`	
Step 13	**exit** **Example:** `Device(config-router-lisp-eid-table)# exit`	Exits EID table configuration mode and returns to LISP configuration mode.
Step 14	**ipv4 itr map-resolver** *map-resolver-address* **Example:** `Device(config-router-lisp)# ipv4 itr map-resolver 172.20.5.5`	Configures a locator address for the LISP map resolver to which this device will send map request messages for IPv4 EID-to-RLOC mapping resolutions. • The locator address of the map resolver may be an IPv4 or IPv6 address. **Note** You can configure up to 8 map resolvers if multiple map resolvers are available.
Step 15	**ipv4 itr** **Example:** `Device(config-router-lisp)# ipv4 itr`	Enables LISP ingress tunnel router (ITR) functionality for the IPv4 address family.
Step 16	**ipv4 etr map-server** *map-server-address* **key** *authentication-key* **Example:** `Device(config-router-lisp)# ipv4 etr map-server 172.20.5.5 key mskey`	Configures the IPv4 or IPv6 locator address of the LISP map server to be used by the egress tunnel router (ETR) when registering IPv4 endpoint identifiers (EIDs).
Step 17	**ipv4 etr** **Example:** `Device(config-router-lisp)# ipv4 etr`	Enables LISP ETR functionality for the IPv4 address family.
Step 18	**exit** **Example:** `Device(config-router-lisp)# exit`	Exits LISP configuration mode and returns to global configuration mode.
Step 19	**interface** *type number* **Example:** `Device(config)# interface FastEthernet 1/4`	Specifies the interface type and number and enters interface configuration mode.
Step 20	**ip address** *ip-address mask* **Example:** `Device(config-if)# ip address 192.0.2.21 255.255.255.0`	Configures an IPv4 address for the interface.
Step 21	**lisp mobility** *dynamic-eid-name* **Example:** `Device(config-if)# lisp mobility VMs`	Allows EID mobility on the interface and specifies the name of the dynamic EID.

	Command or Action	Purpose
Step 22	**lisp extended-subnet-mode** **Example:** Device(config-if)# lisp extended-subnet-mode	Enables extended subnet mode on the interface.
Step 23	**end** **Example:** Device(config-if)# end	Returns to privileged EXEC mode.

Configuring xTR

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **router lisp**
4. **locator-set** *locator-set-name*
5. *ipv4-address* **priority** *priority-locator* **weight** *locator-weight*
6. Repeat Step 5 to configure another locator entry.
7. **exit**
8. **eid-table default instance-id** *id*
9. **database-mapping** *dynamic-eid-prefix/prefix-length* **locator-set** *name*
10. **exit**
11. **ipv4 itr map-resolver** *map-resolver-address*
12. **ipv4 itr**
13. **ipv4 etr map-server** *map-server-address* **key** *authentication-key*
14. **ipv4 etr**
15. **end**

DETAILED STEPS

	Command or Action	Purpose
Step 1	**enable** **Example:** Device> enable	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**configure terminal** **Example:** Device# configure terminal	Enters global configuration mode.
Step 3	**router lisp** **Example:** Device(config)# router lisp	Enters LISP configuration mode.

	Command or Action	**Purpose**
Step 4	**locator-set** *locator-set-name* **Example:** Device(config-router-lisp)# locator-set Site3RLOCS	Specifies a locator set and enters LISP locator-set configuration mode.
Step 5	*ipv4-address* **priority** *priority-locator* **weight** *locator-weight* **Example:** Device(config-router-lisp-locator-set)# 203.0.113.2 priority 10 weight 50	Configures the LISP locator set. The LISP locator set is the set of addresses used by the gateway xTR while encapsulating/decapsulating LISP traffic from and to the endpoint identifier (EID).
Step 6	Repeat Step 5 to configure another locator entry.	—
Step 7	**exit** **Example:** Device(config-router-lisp-locator-set)# exit	Exits LISP locator set configuration mode and returns to LISP configuration mode.
Step 8	**eid-table default instance-id** *id* **Example:** Device(config-router-lisp)# eid-table default instance-id 0	Configures an association between the default VRF table and a LISP instance ID, and enters EID table configuration mode.
Step 9	**database-mapping** *dynamic-eid-prefix/prefix-length* **locator-set** *name* **Example:** Device(config-router-lisp-eid-table)# database-mapping 198.51.100.0/24 locator-set Site3RLOCS	Configures an IPv4 mapping relationship and an associated traffic policy for the LISP Virtual Machine (VM)-mobility (dynamic EID) policy. **Note** You can enter the **limit dynamic** *value* keyword to limit the number of discoverable dynamic EIDs. However, if you have enabled debug mode (using the **service internal** command), then the number of discoverable dynamic EIDs will be increased to a fixed value of 65535.
Step 10	**exit** **Example:** Device(config-router-lisp-eid-table)# exit	Exits EID table configuration mode and returns to LISP configuration mode.
Step 11	**ipv4 itr map-resolver** *map-resolver-address* **Example:** Device(config-router-lisp)# ipv4 itr map-resolver 172.20.5.5	Configures a locator address for the LISP map resolver to which this router will send map request messages for IPv4 EID-to-RLOC mapping resolutions. • The locator address of the map resolver may be an IPv4 or IPv6 address. **Note** You can configure up to 8 map resolvers if multiple map resolvers are available.

	Command or Action	Purpose
Step 12	**ipv4 itr** **Example:** Device(config-router-lisp)# ipv4 itr	Enables LISP ITR functionality for an IPv4 address family.
Step 13	**ipv4 etr map-server** *map-server-address* **key** *authentication-key* **Example:** Device(config-router-lisp)# ipv4 etr map-server 172.20.5.5 key k3	Configures IPv4 locator address of the LISP map server to be used by the egress tunnel router (ETR) when registering for IPv4 endpoint identifiers (EIDs).
Step 14	**ipv4 etr** **Example:** Device(config-router-lisp)# ipv4 etr	Enables LISP ETR functionality for an IPv4 address family.
Step 15	**end** **Example:** Device(config-if)# end	Returns to privileged EXEC mode.

Configuring Map Server Map Resolver

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **router lisp**
4. **site** *site-name*
5. **authentication-key** *password*
6. **eid-prefix** *eid-prefix* **accept-more-specifics**
7. **exit**
8. Repeat Step 4 to Step 7 to configure another LISP site.
9. **ipv4 map-server**
10. **ipv4 map-resolver**
11. **end**

DETAILED STEPS

	Command or Action	Purpose
Step 1	**enable** **Example:** Device> enable	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**configure terminal** **Example:**	Enters global configuration mode.

	Command or Action	**Purpose**
	`Device# configure terminal`	
Step 3	**router lisp** **Example:** `Device(config)# router lisp`	Enters Locator ID/Separation Protocol (LISP) configuration mode.
Step 4	**site** *site-name* **Example:** `Device(config-router-lisp)# site EastWestDC`	Configures a LISP site and enters LISP site configuration mode on a LISP map server.

Step 5	**authentication-key** *password*
	
	Example:
	`Device(config-router-lisp-site)#`
	`authentication-key k`
		Configures the password used to create the Hash-based Message Authentication Code (HMAC) Secure Hash Algorithm (SHA-1) hash for authenticating the map-register message sent by an egress tunnel router (ETR) when registering with the map server.

Step 6	**eid-prefix** *eid-prefix* **accept-more-specifics**
	
	Example:
	`Device(config-router-lisp-site)# eid-prefix`
	`10.1.0.0/16 accept-more-specifics`
		Configures a list of endpoint identifier (EID) prefixes that are allowed in a map-register message sent by an ETR when registering with the map server. Specifies that any EID prefix that is more specific than the EID prefix configured is accepted and tracked.

Step 7	**exit** **Example:** `Device(config-router-lisp-site)# exit`	Exits LISP site configuration mode and returns to LISP configuration mode.
Step 8	Repeat Step 4 to Step 7 to configure another LISP site.	—
Step 9	**ipv4 map-server** **Example:** `Device(config-router-lisp)# ipv4 map-server`	Configures a device to act as an IPv4 LISP map server.
Step 10	**ipv4 map-resolver** **Example:** `Device(config-router-lisp)# ipv4 map-resolver`	Configures a device to act as an IPv4 LISP map resolver.
Step 11	**end** **Example:** `Device(config-router-lisp)# end`	Exits LISP configuration mode and returns to privileged EXEC mode.

Configuration Examples for LISP ESM Multihop Mobility

Figure 3: LISP ESM Multihop Topology
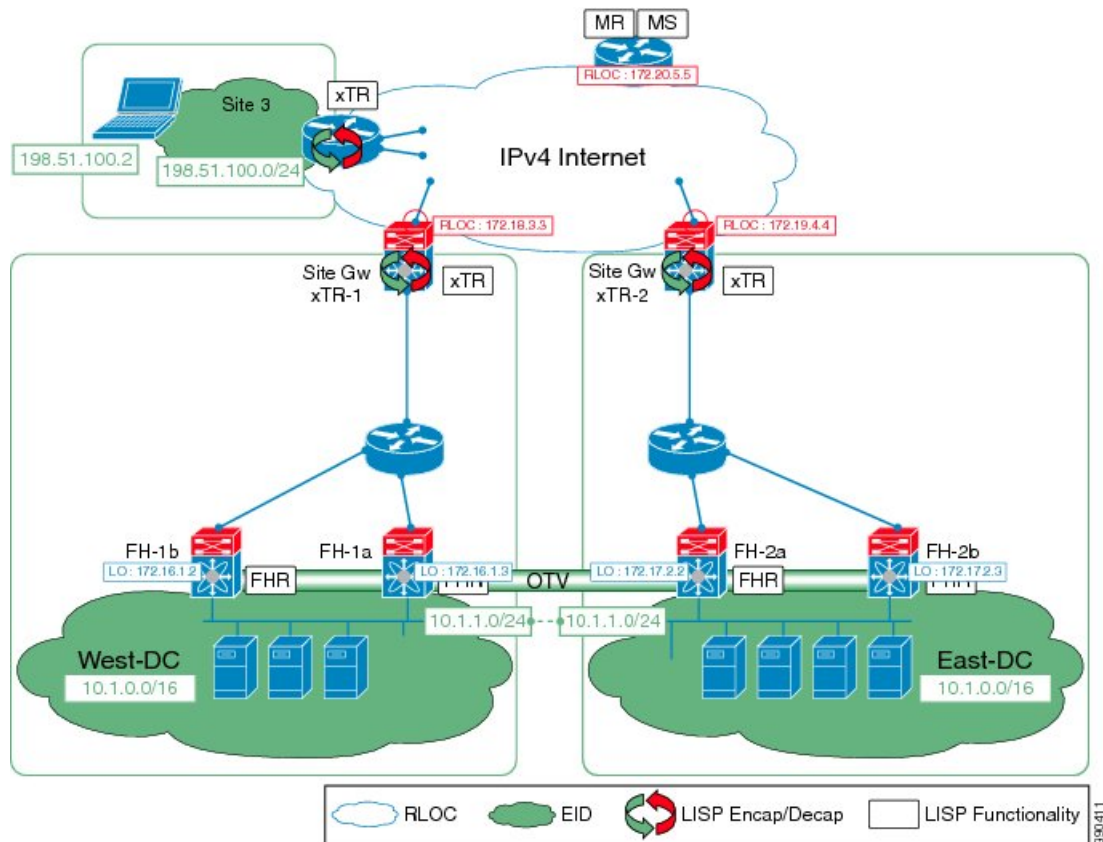
The examples below show the complete configuration for the LISP topology illustrated in the figure above.

Example: First-Hop Router Configuration

```
Device# configure terminal
Device(config)# router lisp
Device(config-router-lisp)# locator-set WestDC
Device(config-router-lisp-locator-set)# 172.16.1.2 priority 10 weight 50
Device(config-router-lisp-locator-set)# 172.17.2.3 priority 10 weight 50
Device(config-router-lisp-locator-set)# exit
Device(config-router-lisp)# eid-table default instance-id 0
Device(config-router-lisp-eid-table)# dynamic-eid VMs
Device(config-router-lisp-eid-table-dynamic-eid)# database-mapping 10.1.1.0/24 locator-set
 WestDC
Device(config-router-lisp-eid-table-dynamic-eid)# eid-notify 192.0.2.21 key k
Device(config-router-lisp-eid-table-dynamic-eid)# map-notify-group 224.0.0.0
Device(config-router-lisp-eid-table-dynamic-eid)# exit
Device(config-router-lisp-eid-table)# exit
Device(config-router-lisp)# exit
Device(config)# interface Vlan11
Device(config-if)# lisp mobility VMs
```

```
Device(config-if)# lisp extended-subnet-mode
Device(config-if)# ip address 10.1.1.2 255.255.255.0
Device(config-if)# standby 1 ip 10.1.1.1
```

Example: Site Gateway xTR Configuration

```
Device> enable
Device# configure terminal
Device (config)# router lisp
Device(config-router-lisp)# locator-set WestDC
Device(config-router-lisp-locator-set) # 172.18.3.3 priority 10 weight 50
Device(config-router-lisp-locator-set)# exit
Device(config-router-lisp)# eid-table default instance-id 0
Device(config-router-lisp-eid-table)# database-mapping 10.1.0.0/16 locator-set WestDC
Device(config-router-lisp-eid-table)# dynamic-eid VMs
Device(config-router-lisp-eid-table-dynamic-eid)# database-mapping 10.1.1.0/24 locator-set
 WestDC
Device(config-router-lisp-eid-table-dynamic-eid)# eid-notify authentication-key k
Device(config-router-lisp-eid-table-dynamic-eid)# exit
Device(config-router-lisp-eid-table)# exit
Device(config-router-lisp)# ipv4 itr map-resolver 172.20.5.5
Device(config-router-lisp)# ipv4 itr
Device(config-router-lisp)# ipv4 etr map-server 172.20.5.5 key k
Device(config-router-lisp)# ipv4 etr
Device(config-router-lisp)# exit
Device(config)# interface FastEthernet1/4
Device(config-if)# ip address 192.0.2.21 255.255.255.0
Device(config-if)# lisp mobility VMs
Device(config-if)# lisp extended-subnet-mode
```

Example: xTR Configuration

```
Device> enable
Device# configure terminal
Device (config)# router lisp
Device(config-router-lisp)# locator-set Site3RLOCS
Device(config-router-lisp-locator-set)# 203.0.113.2 priority 10 weight 50
Device(config-router-lisp-locator-set)# exit
Device(config-router-lisp)# eid-table default instance-id 0
Device(config-router-lisp-eid-table)# database-mapping 198.51.100.0/24 locator-set Site3RLOCS
Device(config-router-lisp-eid-table)# exit
Device(config-router-lisp)# ipv4 itr map-resolver 172.20.5.5
Device(config-router-lisp)# ipv4 itr
Device(config-router-lisp)# ipv4 etr map-server 172.20.5.5 key k3
Device(config-router-lisp)# ipv4 etr
```

Example: Map Server Map Resolver Configuration

```
Device> enable
Device# configure terminal
Device (config)# router lisp
Device(config-router-lisp)# site EastWestDC
Device(config-router-lisp-site)# authentication-key k
Device(config-router-lisp-site)# eid-prefix 10.1.0.0/16 accept-more-specifics
Device(config-router-lisp-site)# exit
```

```
Device(config-router-lisp)# ipv4 map-server
Device(config-router-lisp)# ipv4 map-resolver
```

Additional References for LISP ESM Multihop Mobility

Related Documents

Related Topic	Document Title
Cisco IOS commands	Cisco IOS Master Command List, All Releases
Locator/ID Separation Protocol (LISP) commands	Cisco IOS IP Routing: LISP Command Reference

Technical Assistance

Description	Link
The Cisco Support and Documentation website provides online resources to download documentation, software, and tools. Use these resources to install and configure the software and to troubleshoot and resolve technical issues with Cisco products and technologies. Access to most tools on the Cisco Support and Documentation website requires a Cisco.com user ID and password.	http://www.cisco.com/cisco/web/support/index.html

Feature Information for LISP ESM Multihop Mobility

The following table provides release information about the feature or features described in this module. This table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to www.cisco.com/go/cfn. An account on Cisco.com is not required.

Feature Name	Release	Feature Information
LISP ESM Multihop Mobility		The LISP ESM Multihop Mobility feature separates the Locator/ID Separation Protocol (LISP) dynamic host detection function from the LISP encapsulation/decapsulation function within a LISP topology.