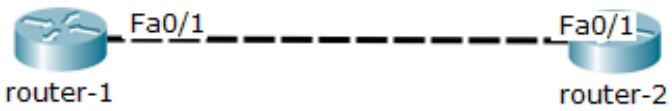
# IPv6 Link Local Address

## Lab Summary

Enable IPv6 packet forwarding and automatic Link-local addressing on router interfaces.

**Figure 1** Lab Topology




## Lab Configuration

Start Packet Tracer File: **IPv6 Link Local**

Click on the *router-1* icon and select the *CLI* folder. Hit the <enter> key for user mode prompt (>).

Step 1: Enter global configuration mode

router-1 > **enable**
Password: **cisconet**
router-1# **configure terminal**

*Router-1*

Step 2: Enable IPv6 packet forwarding

router-1(config)# **ipv6 unicast-routing**

Step 3: Configure interface Fa0/1 to automatically assign an IPv6 link-local address

router-1(config)# **interface fastethernet0/1**
router-1(config-if)# **description link to router-2**
router-1(config-if)# **ipv6 enable**
router-1(config-if)# **no shutdown**
router-1(config-if)# **end**
router-1# **copy running-config startup-config**

*Router-2*

Click on the *router-2* icon and select the *CLI* folder. Hit the <enter> key for user mode prompt (>).

Step 4: Enter global configuration mode

router-2 > **enable**
Password: **cisconet**
router-2# **configure terminal**

Step 5: Enable IPv6 packet forwarding

router-2(config)# **ipv6 unicast-routing**

Step 6: Configure interface Fa0/1 to automatically assign an IPv6 link-local address

router-2(config)# **interface fastethernet0/1**
router-2(config-if)# **description link to router-1**
router-2(config-if)# **ipv6 enable**
router-2(config-if)# **no shutdown**
router-2(config-if)# **end**
router-2# **copy running-config startup-config**

Step 7: Verify Lab

Confirm IPv6 configuration is correct and interfaces are enabled with an IPv6 link local address. The link-local addresses have a prefix of *FE80::* and not installed in the local routing table. All IPv6 interfaces are assigned a link-local address for connectivity purposes. IOS command **show ipv6 interface fastethernet0/1** lists operational status of an interface, IPv6 addressing and configured settings.

router-1# **show running-config**

router-1# **show ipv6 interface brief**

router-1# **show ipv6 interface fastethernet0/1**

router-2# **show running-config**

router-2# **show ipv6 interface brief**

router-2# **show ipv6 interface fastethernet0/1**