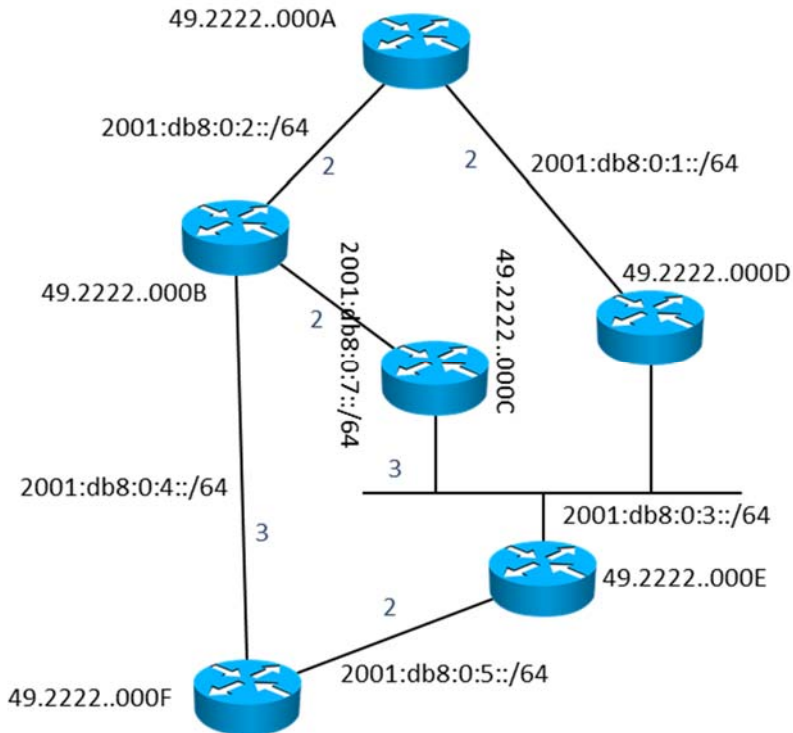


Basic IS-IS Lab



Show Output

```
000A#sho isis topo
```

IS-IS paths to level-1 routers

System Id	Metric	Next-Hop	Interface	SNPA
000F	5	000B	Fa0/0	c405.1158.0000
000A	--			
000B	2	000B	Fa0/0	c405.1158.0000
000C	4	000B	Fa0/0	c405.1158.0000
000D	2	000D	Fa0/1	c406.0ac8.0000
000E	5	000D	Fa0/1	c406.0ac8.0000

```
000A#sho ipv6 route
```

IPv6 Routing Table - 10 entries

Codes: C - Connected, L - Local, S - Static, R - RIP, B - BGP

U - Per-user Static route

I1 - ISIS L1, I2 - ISIS L2, IA - ISIS interarea, IS - ISIS summary

0 - OSPF intra, 0I - OSPF inter, 0E1 - OSPF ext 1, 0E2 - OSPF ext 2

ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2

```
C    2001:DB8:0:1::/64 [0/0]
```

```
via ::, FastEthernet0/1
```

```
L    2001:DB8:0:1::1/128  [0/0]
```

```
via ::, FastEthernet0/1
```

```
C 2001:DB8:0:2::/64 [0/0]
```

```

    via ::, FastEthernet0/0
L   2001:DB8:0:2::1/128 [0/0]
    via ::, FastEthernet0/0
I1  2001:DB8:0:3::/64 [115/5]
    via FE80::C606:AFF:FEC8:0, FastEthernet0/1
I1  2001:DB8:0:4::/64 [115/5]
    via FE80::C605:11FF:FE58:0, FastEthernet0/0
I1  2001:DB8:0:5::/64 [115/7]
    via FE80::C606:AFF:FEC8:0, FastEthernet0/1
    via FE80::C605:11FF:FE58:0, FastEthernet0/0
I1  2001:DB8:0:7::/64 [115/4]
    via FE80::C605:11FF:FE58:0, FastEthernet0/0
L   FE80::/10 [0/0]
    via ::, Null0
L   FF00::/8 [0/0]
    via ::, Null0

```

000A#sho isis database

IS-IS Level-1 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holddtime	ATT/P/OL
000F.00-00	0x000000009	0x933B	1005	0/0/0
000A.00-00	* 0x000000006	0x4B9A	459	0/0/0
000B.00-00	0x000000009	0xAB0F	1009	0/0/0
000C.00-00	0x000000007	0x09CA	1133	0/0/0
000C.01-00	0x000000001	0x4466	0 (439)	0/0/0
000D.00-00	0x000000006	0xAF29	437	0/0/0
000E.00-00	0x000000008	0xE0E9	702	0/0/0
000E.01-00	0x000000001	0x6122	435	0/0/0

IS-IS Level-2 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holddtime	ATT/P/OL
000A.00-00	* 0x000000006	0xD9AE	1003	0/0/0

000A#sho isis database detail

IS-IS Level-1 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holddtime	ATT/P/OL
000F.00-00	0x000000009	0x933B	981	0/0/0
Area Address: 49				
NLPID: 0x8E				
Hostname: 000F				
IPv6 Address: 2001:DB8:0:5::2				
Metric: 3 IPv6 2001:DB8:0:4::/64				
Metric: 2 IPv6 2001:DB8:0:5::/64				
Metric: 3 IS 000B.00				
Metric: 2 IS 000E.00				
000A.00-00	* 0x000000006	0x4B9A	435	0/0/0
Area Address: 49.0000				

```

NLPID:      0x8E
Hostname: 000A
IPv6 Address: 2001:DB8:0:1::1
Metric: 2      IPv6 2001:DB8:0:2::/64
Metric: 2      IPv6 2001:DB8:0:1::/64
Metric: 2      IS 000B.00
Metric: 2      IS 000D.00
000B.00-00      0x000000009      0xAB0F      984      0/0/0
Area Address: 49.0000
NLPID:      0x8E
Hostname: 000B
IPv6 Address: 2001:DB8:0:4::1
Metric: 2      IPv6 2001:DB8:0:2::/64
Metric: 2      IPv6 2001:DB8:0:7::/64
Metric: 3      IPv6 2001:DB8:0:4::/64
Metric: 3      IS 000F.00
Metric: 2      IS 000C.00
Metric: 2      IS 000A.00
000C.00-00      0x000000007      0x09CA      1105      0/0/0
Area Address: 49.0000
NLPID:      0x8E
Hostname: 000C
IPv6 Address: 2001:DB8:0:3::1
Metric: 2      IPv6 2001:DB8:0:7::/64
Metric: 3      IPv6 2001:DB8:0:3::/64
Metric: 3      IS 000E.01
Metric: 2      IS 000B.00
000C.01-00      0x000000001      0x4466      0 (408)      0/0/0
000D.00-00      0x000000007      0xAD2A      1175      0/0/0
Area Address: 49.0000
NLPID:      0x8E
Hostname: 000D
IPv6 Address: 2001:DB8:0:3::2
Metric: 2      IPv6 2001:DB8:0:1::/64
Metric: 3      IPv6 2001:DB8:0:3::/64
Metric: 3      IS 000E.01
Metric: 2      IS 000A.00
000E.00-00      0x000000008      0xE0E9      659      0/0/0
Area Address: 49.0000
NLPID:      0x8E
Hostname: 000E
IPv6 Address: 2001:DB8:0:3::3
Metric: 2      IPv6 2001:DB8:0:5::/64
Metric: 3      IPv6 2001:DB8:0:3::/64
Metric: 3      IS 000E.01
Metric: 2      IS 000F.00
000E.01-00      0x000000002      0x5F23      1151      0/0/0
Metric: 0      IS 000E.00
Metric: 0      IS 000D.00
Metric: 0      IS 000C.00

```

```

000A#sho ipv6 route
IPv6 Routing Table - 10 entries
Codes: C - Connected, L - Local, S - Static, R - RIP, B - BGP
       U - Per-user Static route
       I1 - ISIS L1, I2 - ISIS L2, IA - ISIS interarea, IS - ISIS summary
       O - OSPF intra, OI - OSPF inter, OE1 - OSPF ext 1, OE2 - OSPF ext 2
       ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2
C   2001:DB8:0:1::/64 [0/0]
    via ::, FastEthernet0/1
L   2001:DB8:0:1::1/128 [0/0]
    via ::, FastEthernet0/1
C   2001:DB8:0:2::/64 [0/0]
    via ::, FastEthernet0/0
L   2001:DB8:0:2::1/128 [0/0]
    via ::, FastEthernet0/0
I1  2001:DB8:0:3::/64 [115/5]
    via FE80::C606:AFF:FEC8:0, FastEthernet0/1
I1  2001:DB8:0:4::/64 [115/5]
    via FE80::C605:11FF:FE58:0, FastEthernet0/0
I1  2001:DB8:0:5::/64 [115/7]
    via FE80::C606:AFF:FEC8:0, FastEthernet0/1
    via FE80::C605:11FF:FE58:0, FastEthernet0/0
I1  2001:DB8:0:7::/64 [115/4]
    via FE80::C605:11FF:FE58:0, FastEthernet0/0
L   FE80::/10 [0/0]
    via ::, Null0
L   FF00::/8 [0/0]
    via ::, Null0

```

```

000A#sho isis spf-log

```

```

    level 1 SPF log
    When   Duration  Nodes  Count  First trigger LSP  Triggers
00:26:26      0       1      3      000A.00-00 PERIODIC NEWLSP TLVCODE
00:26:14      0       5     10      000A.00-00 NEWADJ NEWLSP LSPHEADER TLVCONTENT
00:14:38      4       6      5      000C.01-00 NEWLSP TLVCONTENT
00:11:27      8       6      1              PERIODIC
00:10:24      8       7      2      000E.00-00 NEWLSP TLVCONTENT
00:10:16      4       7      4      000E.00-00 TLVCONTENT
00:05:08      4       7      2      000F.00-00 TLVCONTENT

```

Configurations

```

!
hostname 000E
!
interface FastEthernet0/0
description to-000f

```

```
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:5::1/64
ipv6 router isis
isis circuit-type level-1
isis network point-to-point
isis metric 2
isis three-way-handshake ietf
!
interface FastEthernet0/1
description broadcast
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:3::3/64
ipv6 router isis
isis circuit-type level-1
isis metric 3
!
router isis
net 49.2222.0000.0000.000e.00
!
End
```

```
!
hostname 000F
!
interface FastEthernet0/0
description to-000b
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:4::2/64
ipv6 router isis
isis circuit-type level-1
isis network point-to-point
isis metric 3
isis three-way-handshake ietf
!
interface FastEthernet0/1
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:5::2/64
ipv6 router isis
isis circuit-type level-1
isis network point-to-point
isis metric 2
```

```
isis three-way-handshake ietf
!  
router isis  
net 49.2222.0000.0000.000f.00  
!  
End
```

```
!  
hostname 000A  
!  
interface FastEthernet0/0  
description to-000B  
no ip address  
duplex auto  
speed auto  
ipv6 address 2001:DB8:0:2::1/64  
ipv6 router isis  
isis circuit-type level-1  
isis network point-to-point  
isis metric 2  
isis three-way-handshake ietf  
!  
interface FastEthernet0/1  
no ip address  
duplex auto  
speed auto  
ipv6 address 2001:DB8:0:1::1/64  
ipv6 router isis  
isis circuit-type level-1  
isis network point-to-point  
isis metric 2  
isis three-way-handshake ietf  
!  
router isis  
net 49.2222.0000.0000.000a.00  
!  
End
```

```
!  
hostname 000B  
!  
interface FastEthernet0/0  
no ip address  
duplex auto  
speed auto  
ipv6 address 2001:DB8:0:2::2/64  
ipv6 router isis  
isis circuit-type level-1
```

```
isis network point-to-point
isis metric 2
isis three-way-handshake ietf
!
interface FastEthernet0/1
description to-000c
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:7::1/64
ipv6 router isis
isis circuit-type level-1
isis network point-to-point
isis metric 2
isis three-way-handshake ietf
!
interface FastEthernet1/0
description to-000f
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:4::1/64
ipv6 router isis
isis circuit-type level-1
isis network point-to-point
isis metric 3
isis three-way-handshake ietf
!
router isis
net 49.2222.0000.0000.000b.00
!
End
```

```
!
hostname 000C
!
interface FastEthernet0/0
description to-000b
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:7::2/64
ipv6 router isis
isis circuit-type level-1
isis network point-to-point
isis metric 2
isis three-way-handshake ietf
!
interface FastEthernet0/1
no ip address
```

```
duplex auto
speed auto
ipv6 address 2001:DB8:0:3::1/64
ipv6 router isis
isis circuit-type level-1
isis metric 3
!
router isis
net 49.2222.0000.0000.000c.00
!
End
```

```
!
hostname 000D
!
interface FastEthernet0/0
description to-000a
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:1::2/64
ipv6 router isis
isis circuit-type level-1
isis network point-to-point
isis metric 2
isis three-way-handshake ietf
!
interface FastEthernet0/1
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:3::2/64
ipv6 router isis
isis circuit-type level-1
isis metric 3
!
router isis
net 49.2222.0000.0000.000d.00
!
end
```