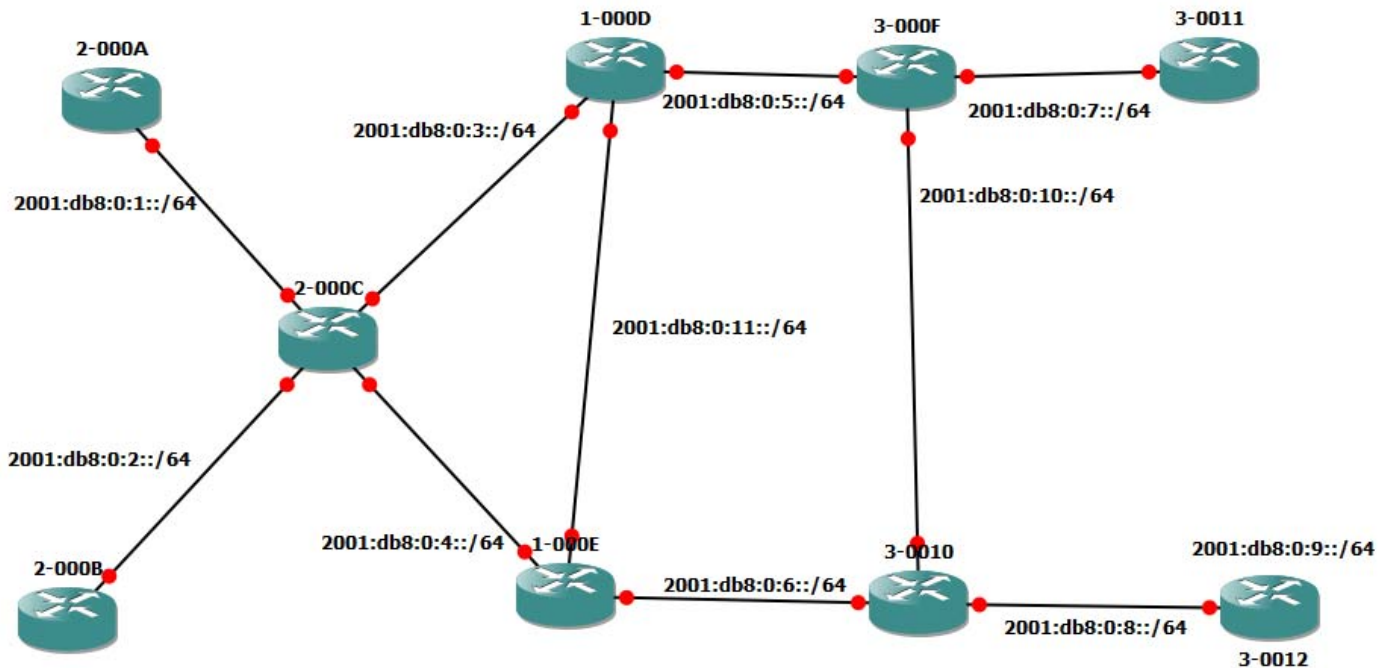


IS-IS Flooding Domains Lab



All Intermediate Systems Configured for Level 1 and Level 2

Show Output

```
2-000A#show isis neighbor
```

System Id	Type	Interface	IP Address	State	Holdtime	Circuit Id
2-000C	L1L2	Fa0/0		UP	26	00

```
2-000A#sho isis database detail
```

IS-IS Level-1 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holdtime	ATT/P/OL
2-000A.00-00	* 0x00000004	0x17B3	779	1/0/0
Area Address: 49.2222				
NLPID: 0x8E				
Hostname: 2-000A				
IPv6 Address: 2001:DB8:0:1::1				
Metric: 10 IPv6 2001:DB8:0:1::/64				
Metric: 10 IS 2-000C.00				
2-000B.00-00	0x00000004	0x7155	775	1/0/0
Area Address: 49.2222				
NLPID: 0x8E				
Hostname: 2-000B				
IPv6 Address: 2001:DB8:0:2::1				
Metric: 10 IPv6 2001:DB8:0:2::/64				
Metric: 10 IS 2-000C.00				

2-000C.00-00	0x000000005	0x77E4	773	1/0/0
--------------	-------------	--------	-----	-------

Area Address: 49.2222
 NLPID: 0x8E
 Hostname: 2-000C
 IPv6 Address: 2001:DB8:0:4::1
 Metric: 10 IPv6 2001:DB8:0:1::/64
 Metric: 10 IPv6 2001:DB8:0:2::/64
 Metric: 10 IPv6 2001:DB8:0:3::/64
 Metric: 10 IPv6 2001:DB8:0:4::/64
 Metric: 10 IS 2-000A.00
 Metric: 10 IS 2-000B.00

IS-IS Level-2 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holddtime	ATT/P/OL
2-000A.00-00	* 0x000000004	0xE805	771	0/0/0

Area Address: 49.2222
 NLPID: 0x8E
 Hostname: 2-000A
 IPv6 Address: 2001:DB8:0:1::1
 Metric: 10 IS 2-000C.00
 Metric: 10 IPv6 2001:DB8:0:1::/64
 Metric: 20 IPv6 2001:DB8:0:2::/64
 Metric: 20 IPv6 2001:DB8:0:3::/64
 Metric: 20 IPv6 2001:DB8:0:4::/64

2-000B.00-00	0x000000004	0x8268	767	0/0/0
--------------	-------------	--------	-----	-------

Area Address: 49.2222
 NLPID: 0x8E
 Hostname: 2-000B
 IPv6 Address: 2001:DB8:0:2::1
 Metric: 10 IS 2-000C.00
 Metric: 20 IPv6 2001:DB8:0:1::/64
 Metric: 10 IPv6 2001:DB8:0:2::/64
 Metric: 20 IPv6 2001:DB8:0:3::/64
 Metric: 20 IPv6 2001:DB8:0:4::/64

2-000C.00-00	0x000000005	0x7F9C	765	0/0/0
--------------	-------------	--------	-----	-------

Area Address: 49.2222
 NLPID: 0x8E
 Hostname: 2-000C
 IPv6 Address: 2001:DB8:0:4::1
 Metric: 10 IS 2-000A.00
 Metric: 10 IS 2-000B.00
 Metric: 10 IS 1-000E.00
 Metric: 10 IS 1-000D.00
 Metric: 10 IPv6 2001:DB8:0:1::/64
 Metric: 10 IPv6 2001:DB8:0:2::/64
 Metric: 10 IPv6 2001:DB8:0:3::/64
 Metric: 10 IPv6 2001:DB8:0:4::/64

1-000D.00-00	0x000000004	0xE57C	749	0/0/0
--------------	-------------	--------	-----	-------

Area Address: 49.1111
 NLPID: 0x8E
 Hostname: 1-000D

```

IPv6 Address: 2001:DB8:0:11::1
Metric: 10      IS 2-000C.00
Metric: 10      IS 3-000F.00
Metric: 10      IS 1-000E.00
Metric: 10      IPv6 2001:DB8:0:3::/64
Metric: 20      IPv6 2001:DB8:0:4::/64
Metric: 10      IPv6 2001:DB8:0:5::/64
Metric: 20      IPv6 2001:DB8:0:6::/64
Metric: 10      IPv6 2001:DB8:0:11::/64
1-000E.00-00    0x000000005    0xAABF    755    0/0/0
Area Address: 49.1111
NLPID:          0x8E
Hostname: 1-000E
IPv6 Address: 2001:DB8:0:6::1
Metric: 10      IS 1-000D.00
Metric: 10      IS 2-000C.00
Metric: 10      IS 3-0010.00
Metric: 20      IPv6 2001:DB8:0:3::/64
Metric: 10      IPv6 2001:DB8:0:4::/64
Metric: 20      IPv6 2001:DB8:0:5::/64
Metric: 10      IPv6 2001:DB8:0:6::/64
Metric: 10      IPv6 2001:DB8:0:11::/64
3-000F.00-00    0x000000004    0x11A8    740    0/0/0
Area Address: 49.3333
NLPID:          0x8E
Hostname: 3-000F
IPv6 Address: 2001:DB8:0:7::1
Metric: 10      IS 3-0011.00
Metric: 10      IS 1-000D.00
Metric: 10      IS 3-0010.00
Metric: 10      IPv6 2001:DB8:0:5::/64
Metric: 20      IPv6 2001:DB8:0:6::/64
Metric: 10      IPv6 2001:DB8:0:7::/64
Metric: 20      IPv6 2001:DB8:0:8::/64
Metric: 30      IPv6 2001:DB8:0:9::/64
Metric: 10      IPv6 2001:DB8:0:10::/64
3-0010.00-00    0x000000004    0x8D47    730    0/0/0
Area Address: 49.3333
NLPID:          0x8E
Hostname: 3-0010
IPv6 Address: 2001:DB8:0:8::2
Metric: 10      IS 3-0012.00
Metric: 10      IS 3-000F.00
Metric: 10      IS 1-000E.00
Metric: 20      IPv6 2001:DB8:0:5::/64
Metric: 10      IPv6 2001:DB8:0:6::/64
Metric: 20      IPv6 2001:DB8:0:7::/64
Metric: 10      IPv6 2001:DB8:0:8::/64
Metric: 20      IPv6 2001:DB8:0:9::/64
Metric: 10      IPv6 2001:DB8:0:10::/64

```

3-0011.00-00 0x00000004 0x3AAA 729 0/0/0

Area Address: 49.3333

NLPID: 0x8E

Hostname: 3-0011

IPv6 Address: 2001:DB8:0:7::2

Metric: 10 IS 3-000F.00

Metric: 20 IPv6 2001:DB8:0:5::/64

Metric: 30 IPv6 2001:DB8:0:6::/64

Metric: 10 IPv6 2001:DB8:0:7::/64

Metric: 30 IPv6 2001:DB8:0:8::/64

Metric: 40 IPv6 2001:DB8:0:9::/64

Metric: 20 IPv6 2001:DB8:0:10::/64

3-0012.00-00 0x00000004 0xDA23 719 0/0/0

Area Address: 49.3333

NLPID: 0x8E

Hostname: 3-0012

IPv6 Address: 2001:DB8:0:9::2

Metric: 10 IS 3-0010.00

Metric: 30 IPv6 2001:DB8:0:5::/64

Metric: 20 IPv6 2001:DB8:0:6::/64

Metric: 30 IPv6 2001:DB8:0:7::/64

Metric: 10 IPv6 2001:DB8:0:8::/64

Metric: 10 IPv6 2001:DB8:0:9::/64

Metric: 20 IPv6 2001:DB8:0:10::/64

2-000A#

2-000A#

2-000A#show ipv6 route

IPv6 Routing Table - 14 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 ::, FastEthernet0/0

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

via ::, FastEthernet0/0

I1 2001:DB8:0:2::/64 [115/20]

via FE80::C603:16FF:FEF8:0, FastEthernet0/0

I1 2001:DB8:0:3::/64 [115/20]

via FE80::C603:16FF:FEF8:0, FastEthernet0/0

I1 2001:DB8:0:4::/64 [115/20]

via FE80::C603:16FF:FEF8:0, FastEthernet0/0

I2 2001:DB8:0:5::/64 [115/30]

via FE80::C603:16FF:FEF8:0, FastEthernet0/0

I2 2001:DB8:0:6::/64 [115/30]

via FE80::C603:16FF:FEF8:0, FastEthernet0/0

I2 2001:DB8:0:7::/64 [115/40]

via FE80::C603:16FF:FEF8:0, FastEthernet0/0

I2 2001:DB8:0:8::/64 [115/40]

```

    via FE80::C603:16FF:FEF8:0, FastEthernet0/0
I2  2001:DB8:0:9::/64 [115/50]
    via FE80::C603:16FF:FEF8:0, FastEthernet0/0
I2  2001:DB8:0:10::/64 [115/40]
    via FE80::C603:16FF:FEF8:0, FastEthernet0/0
I2  2001:DB8:0:11::/64 [115/30]
    via FE80::C603:16FF:FEF8:0, FastEthernet0/0
L   FE80::/10 [0/0]
    via ::, Null0
L   FF00::/8 [0/0]
    via ::, Null0

```

2-000A#

2-000A#

2-000A#sho isis topo

IS-IS paths to level-1 routers

System Id	Metric	Next-Hop	Interface	SNPA
2-000A	--			
2-000B	20	2-000C	Fa0/0	c403.16f8.0000
2-000C	10	2-000C	Fa0/0	c403.16f8.0000

IS-IS paths to level-2 routers

System Id	Metric	Next-Hop	Interface	SNPA
2-000A	--			
2-000B	20	2-000C	Fa0/0	c403.16f8.0000
2-000C	10	2-000C	Fa0/0	c403.16f8.0000
1-000D	20	2-000C	Fa0/0	c403.16f8.0000
1-000E	20	2-000C	Fa0/0	c403.16f8.0000
3-000F	30	2-000C	Fa0/0	c403.16f8.0000
3-0010	30	2-000C	Fa0/0	c403.16f8.0000
3-0011	40	2-000C	Fa0/0	c403.16f8.0000
3-0012	40	2-000C	Fa0/0	c403.16f8.0000

2-000C#show isis neigh

System Id	Type	Interface	IP Address	State	Holdtime	Circuit Id
2-000A	L1L2	Fa0/0		UP	27	00
2-000B	L1L2	Fa0/1		UP	22	00
1-000E	L2	Fa2/0		UP	28	00
1-000D	L2	Fa1/0		UP	21	00

2-000C#

2-000C#

2-000C#

2-000C#show isis data det

IS-IS Level-1 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holdtime	ATT/P/OL
2-000A.00-00	0x00000004	0x17B3	412	1/0/0
Area Address: 49.2222				
NLPID:	0x8E			

```

Hostname: 2-000A
IPv6 Address: 2001:DB8:0:1::1
Metric: 10      IPv6 2001:DB8:0:1::/64
Metric: 10      IS 2-000C.00
2-000B.00-00      0x000000005    0x6F56      1089      1/0/0
Area Address: 49.2222
NLPID:          0x8E
Hostname: 2-000B
IPv6 Address: 2001:DB8:0:2::1
Metric: 10      IPv6 2001:DB8:0:2::/64
Metric: 10      IS 2-000C.00
2-000C.00-00      * 0x000000006    0x75E5      1196      1/0/0
Area Address: 49.2222
NLPID:          0x8E
Hostname: 2-000C
IPv6 Address: 2001:DB8:0:4::1
Metric: 10      IPv6 2001:DB8:0:1::/64
Metric: 10      IPv6 2001:DB8:0:2::/64
Metric: 10      IPv6 2001:DB8:0:3::/64
Metric: 10      IPv6 2001:DB8:0:4::/64
Metric: 10      IS 2-000A.00
Metric: 10      IS 2-000B.00
IS-IS Level-2 Link State Database:
LSPID          LSP Seq Num  LSP Checksum  LSP Holddtime  ATT/P/OL
2-000A.00-00      0x000000004    0xE805      404            0/0/0
Area Address: 49.2222
NLPID:          0x8E
Hostname: 2-000A
IPv6 Address: 2001:DB8:0:1::1
Metric: 10      IS 2-000C.00
Metric: 10      IPv6 2001:DB8:0:1::/64
Metric: 20      IPv6 2001:DB8:0:2::/64
Metric: 20      IPv6 2001:DB8:0:3::/64
Metric: 20      IPv6 2001:DB8:0:4::/64
2-000B.00-00      0x000000005    0x8069      1194            0/0/0
Area Address: 49.2222
NLPID:          0x8E
Hostname: 2-000B
IPv6 Address: 2001:DB8:0:2::1
Metric: 10      IS 2-000C.00
Metric: 20      IPv6 2001:DB8:0:1::/64
Metric: 10      IPv6 2001:DB8:0:2::/64
Metric: 20      IPv6 2001:DB8:0:3::/64
Metric: 20      IPv6 2001:DB8:0:4::/64
2-000C.00-00      * 0x000000006    0x7D9D      1098            0/0/0
Area Address: 49.2222
NLPID:          0x8E
Hostname: 2-000C
IPv6 Address: 2001:DB8:0:4::1
Metric: 10      IS 2-000A.00

```

Metric: 10	IS 2-000B.00		
Metric: 10	IS 1-000E.00		
Metric: 10	IS 1-000D.00		
Metric: 10	IPv6 2001:DB8:0:1::/64		
Metric: 10	IPv6 2001:DB8:0:2::/64		
Metric: 10	IPv6 2001:DB8:0:3::/64		
Metric: 10	IPv6 2001:DB8:0:4::/64		
1-000D.00-00	0x00000004 0xE57C	384	0/0/0
Area Address: 49.1111			
NLPID: 0x8E			
Hostname: 1-000D			
IPv6 Address: 2001:DB8:0:11::1			
Metric: 10	IS 2-000C.00		
Metric: 10	IS 3-000F.00		
Metric: 10	IS 1-000E.00		
Metric: 10	IPv6 2001:DB8:0:3::/64		
Metric: 20	IPv6 2001:DB8:0:4::/64		
Metric: 10	IPv6 2001:DB8:0:5::/64		
Metric: 20	IPv6 2001:DB8:0:6::/64		
Metric: 10	IPv6 2001:DB8:0:11::/64		
1-000E.00-00	0x00000006 0xA8C0	1152	0/0/0
Area Address: 49.1111			
NLPID: 0x8E			
Hostname: 1-000E			
IPv6 Address: 2001:DB8:0:6::1			
Metric: 10	IS 1-000D.00		
Metric: 10	IS 2-000C.00		
Metric: 10	IS 3-0010.00		
Metric: 20	IPv6 2001:DB8:0:3::/64		
Metric: 10	IPv6 2001:DB8:0:4::/64		
Metric: 20	IPv6 2001:DB8:0:5::/64		
Metric: 10	IPv6 2001:DB8:0:6::/64		
Metric: 10	IPv6 2001:DB8:0:11::/64		
3-000F.00-00	0x00000004 0x11A8	374	0/0/0
Area Address: 49.3333			
NLPID: 0x8E			
Hostname: 3-000F			
IPv6 Address: 2001:DB8:0:7::1			
Metric: 10	IS 3-0011.00		
Metric: 10	IS 1-000D.00		
Metric: 10	IS 3-0010.00		
Metric: 10	IPv6 2001:DB8:0:5::/64		
Metric: 20	IPv6 2001:DB8:0:6::/64		
Metric: 10	IPv6 2001:DB8:0:7::/64		
Metric: 20	IPv6 2001:DB8:0:8::/64		
Metric: 30	IPv6 2001:DB8:0:9::/64		
Metric: 10	IPv6 2001:DB8:0:10::/64		
3-0010.00-00	0x00000005 0x8B48	1180	0/0/0
Area Address: 49.3333			
NLPID: 0x8E			

```

Hostname: 3-0010
IPv6 Address: 2001:DB8:0:8::2
Metric: 10      IS 3-0012.00
Metric: 10      IS 3-000F.00
Metric: 10      IS 1-000E.00
Metric: 20      IPv6 2001:DB8:0:5::/64
Metric: 10      IPv6 2001:DB8:0:6::/64
Metric: 20      IPv6 2001:DB8:0:7::/64
Metric: 10      IPv6 2001:DB8:0:8::/64
Metric: 20      IPv6 2001:DB8:0:9::/64
Metric: 10      IPv6 2001:DB8:0:10::/64
3-0011.00-00      0x000000005    0x38AB      1094      0/0/0
Area Address: 49.3333
NLPID:      0x8E
Hostname: 3-0011
IPv6 Address: 2001:DB8:0:7::2
Metric: 10      IS 3-000F.00
Metric: 20      IPv6 2001:DB8:0:5::/64
Metric: 30      IPv6 2001:DB8:0:6::/64
Metric: 10      IPv6 2001:DB8:0:7::/64
Metric: 30      IPv6 2001:DB8:0:8::/64
Metric: 40      IPv6 2001:DB8:0:9::/64
Metric: 20      IPv6 2001:DB8:0:10::/64
3-0012.00-00      0x000000005    0xD824      1037      0/0/0
Area Address: 49.3333
NLPID:      0x8E
Hostname: 3-0012
IPv6 Address: 2001:DB8:0:9::2
Metric: 10      IS 3-0010.00
Metric: 30      IPv6 2001:DB8:0:5::/64
Metric: 20      IPv6 2001:DB8:0:6::/64
Metric: 30      IPv6 2001:DB8:0:7::/64
Metric: 10      IPv6 2001:DB8:0:8::/64
Metric: 10      IPv6 2001:DB8:0:9::/64
Metric: 20      IPv6 2001:DB8:0:10::/64
2-000C#
2-000C#
2-000C#sho ipv6 route
IPv6 Routing Table - 17 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 ::, FastEthernet0/0
L  2001:DB8:0:1::2/128 [0/0]
    via ::, FastEthernet0/0
C  2001:DB8:0:2::/64 [0/0]
    via ::, FastEthernet0/1

```



```

L   2001:DB8:0:2::2/128 [0/0]
    via ::, FastEthernet0/1
C   2001:DB8:0:3::/64 [0/0]
    via ::, FastEthernet1/0
L   2001:DB8:0:3::1/128 [0/0]
    via ::, FastEthernet1/0
C   2001:DB8:0:4::/64 [0/0]
    via ::, FastEthernet2/0
L   2001:DB8:0:4::1/128 [0/0]
    via ::, FastEthernet2/0
I2  2001:DB8:0:5::/64 [115/20]
    via FE80::C604:29FF:FEA8:0, FastEthernet1/0
I2  2001:DB8:0:6::/64 [115/20]
    via FE80::C605:20FF:FE5C:0, FastEthernet2/0
I2  2001:DB8:0:7::/64 [115/30]
    via FE80::C604:29FF:FEA8:0, FastEthernet1/0
I2  2001:DB8:0:8::/64 [115/30]
    via FE80::C605:20FF:FE5C:0, FastEthernet2/0
I2  2001:DB8:0:9::/64 [115/40]
    via FE80::C605:20FF:FE5C:0, FastEthernet2/0
I2  2001:DB8:0:10::/64 [115/30]
    via FE80::C604:29FF:FEA8:0, FastEthernet1/0
    via FE80::C605:20FF:FE5C:0, FastEthernet2/0
I2  2001:DB8:0:11::/64 [115/20]
    via FE80::C604:29FF:FEA8:0, FastEthernet1/0
    via FE80::C605:20FF:FE5C:0, FastEthernet2/0
L   FE80::/10 [0/0]
    via ::, Null0
L   FF00::/8 [0/0]
    via ::, Null0

```

2-000C#

2-000C#

2-000C#sho isis topo

IS-IS paths to level-1 routers

System Id	Metric	Next-Hop	Interface	SNPA
2-000A	10	2-000A	Fa0/0	c401.22f8.0000
2-000B	10	2-000B	Fa0/1	c402.2f40.0000
2-000C	--			

IS-IS paths to level-2 routers

System Id	Metric	Next-Hop	Interface	SNPA
2-000A	10	2-000A	Fa0/0	c401.22f8.0000
2-000B	10	2-000B	Fa0/1	c402.2f40.0000
2-000C	--			
1-000D	10	1-000D	Fa1/0	c404.29a8.0000
1-000E	10	1-000E	Fa2/0	c405.205c.0000
3-000F	20	1-000D	Fa1/0	c404.29a8.0000
3-0010	20	1-000E	Fa2/0	c405.205c.0000
3-0011	30	1-000D	Fa1/0	c404.29a8.0000

3-0012 30 1-000E Fa2/0 c405.205c.0000
2-000C#
2-000C#
2-000C#

2-000C#sho isis database

IS-IS Level-1 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holddtime	ATT/P/OL
2-000C.00-00	* 0x00000002	0xC5B4	1048	1/0/0

IS-IS Level-2 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holddtime	ATT/P/OL
2-000A.00-00	0x00000003	0x11C2	1041	0/0/0
2-000B.00-00	0x00000003	0x6B64	1040	0/0/0
2-000C.00-00	* 0x00000005	0x908B	1044	0/0/0
1-000D.00-00	0x00000005	0x9865	1041	0/0/0
1-000E.00-00	0x00000005	0x3EC6	1041	0/0/0
3-000F.00-00	0x00000004	0xA90D	1022	0/0/0
3-0010.00-00	0x00000004	0x3194	1023	0/0/0
3-0011.00-00	0x00000003	0x7D2B	1012	0/0/0
3-0012.00-00	0x00000003	0x2436	1014	0/0/0

3-000F#show isis neigh

System Id	Type	Interface	IP Address	State	Holddtime	Circuit Id
3-0011	L1L2	Fa1/0		UP	28	00
1-000D	L2	Fa0/0		UP	26	01
3-0010	L1L2	Fa0/1		UP	28	01

3-000F#

3-000F#show isis data det

IS-IS Level-1 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holddtime	ATT/P/OL
3-000F.00-00	* 0x00000005	0x262B	926	1/0/0

Area Address: 49.3333

NLPID: 0x8E

Hostname: 3-000F

IPv6 Address: 2001:DB8:0:7::1

Metric: 10 IPv6 2001:DB8:0:5::/64

Metric: 10 IPv6 2001:DB8:0:10::/64

Metric: 10 IPv6 2001:DB8:0:7::/64

Metric: 10 IS 3-0011.00

Metric: 10 IS 3-0010.00

3-0010.00-00	0x00000004	0x5D05	795	1/0/0
--------------	------------	--------	-----	-------

Area Address: 49.3333

NLPID: 0x8E

Hostname: 3-0010

IPv6 Address: 2001:DB8:0:8::2

```

Metric: 10      IPv6 2001:DB8:0:6::/64
Metric: 10      IPv6 2001:DB8:0:10::/64
Metric: 10      IPv6 2001:DB8:0:8::/64
Metric: 10      IS 3-0012.00
Metric: 10      IS 3-000F.00
3-0011.00-00    0x000000005    0x811D      781      1/0/0
Area Address: 49.3333
NLPID:         0x8E
Hostname: 3-0011
IPv6 Address: 2001:DB8:0:7::2
Metric: 10      IPv6 2001:DB8:0:7::/64
Metric: 10      IS 3-000F.00
3-0012.00-00    0x000000005    0x2828      807      1/0/0
Area Address: 49.3333
NLPID:         0x8E
Hostname: 3-0012
IPv6 Address: 2001:DB8:0:9::2
Metric: 10      IPv6 2001:DB8:0:8::/64
Metric: 10      IPv6 2001:DB8:0:9::/64
Metric: 10      IS 3-0010.00
IS-IS Level-2 Link State Database:
LSPID          LSP Seq Num  LSP Checksum  LSP Holddtime  ATT/P/OL
2-000A.00-00    0x000000005  0xE606        992            0/0/0
Area Address: 49.2222
NLPID:         0x8E
Hostname: 2-000A
IPv6 Address: 2001:DB8:0:1::1
Metric: 10      IS 2-000C.00
Metric: 10      IPv6 2001:DB8:0:1::/64
Metric: 20      IPv6 2001:DB8:0:2::/64
Metric: 20      IPv6 2001:DB8:0:3::/64
Metric: 20      IPv6 2001:DB8:0:4::/64
2-000B.00-00    0x000000005  0x8069        884            0/0/0
Area Address: 49.2222
NLPID:         0x8E
Hostname: 2-000B
IPv6 Address: 2001:DB8:0:2::1
Metric: 10      IS 2-000C.00
Metric: 20      IPv6 2001:DB8:0:1::/64
Metric: 10      IPv6 2001:DB8:0:2::/64
Metric: 20      IPv6 2001:DB8:0:3::/64
Metric: 20      IPv6 2001:DB8:0:4::/64
2-000C.00-00    0x000000006  0x7D9D        782            0/0/0
Area Address: 49.2222
NLPID:         0x8E
Hostname: 2-000C
IPv6 Address: 2001:DB8:0:4::1
Metric: 10      IS 2-000A.00
Metric: 10      IS 2-000B.00
Metric: 10      IS 1-000E.00

```

Metric: 10	IS 1-000D.00		
Metric: 10	IPv6 2001:DB8:0:1::/64		
Metric: 10	IPv6 2001:DB8:0:2::/64		
Metric: 10	IPv6 2001:DB8:0:3::/64		
Metric: 10	IPv6 2001:DB8:0:4::/64		
1-000D.00-00	0x000000005 0xE37D	964	0/0/0
Area Address: 49.1111			
NLPID: 0x8E			
Hostname: 1-000D			
IPv6 Address: 2001:DB8:0:11::1			
Metric: 10	IS 2-000C.00		
Metric: 10	IS 3-000F.00		
Metric: 10	IS 1-000E.00		
Metric: 10	IPv6 2001:DB8:0:3::/64		
Metric: 20	IPv6 2001:DB8:0:4::/64		
Metric: 10	IPv6 2001:DB8:0:5::/64		
Metric: 20	IPv6 2001:DB8:0:6::/64		
Metric: 10	IPv6 2001:DB8:0:11::/64		
1-000E.00-00	0x000000006 0xA8C0	844	0/0/0
Area Address: 49.1111			
NLPID: 0x8E			
Hostname: 1-000E			
IPv6 Address: 2001:DB8:0:6::1			
Metric: 10	IS 1-000D.00		
Metric: 10	IS 2-000C.00		
Metric: 10	IS 3-0010.00		
Metric: 20	IPv6 2001:DB8:0:3::/64		
Metric: 10	IPv6 2001:DB8:0:4::/64		
Metric: 20	IPv6 2001:DB8:0:5::/64		
Metric: 10	IPv6 2001:DB8:0:6::/64		
Metric: 10	IPv6 2001:DB8:0:11::/64		
3-000F.00-00	* 0x000000005 0x0FA9	922	0/0/0
Area Address: 49.3333			
NLPID: 0x8E			
Hostname: 3-000F			
IPv6 Address: 2001:DB8:0:7::1			
Metric: 10	IS 3-0011.00		
Metric: 10	IS 1-000D.00		
Metric: 10	IS 3-0010.00		
Metric: 10	IPv6 2001:DB8:0:5::/64		
Metric: 20	IPv6 2001:DB8:0:6::/64		
Metric: 10	IPv6 2001:DB8:0:7::/64		
Metric: 20	IPv6 2001:DB8:0:8::/64		
Metric: 30	IPv6 2001:DB8:0:9::/64		
Metric: 10	IPv6 2001:DB8:0:10::/64		
3-0010.00-00	0x000000005 0x8B48	890	0/0/0
Area Address: 49.3333			
NLPID: 0x8E			
Hostname: 3-0010			
IPv6 Address: 2001:DB8:0:8::2			

```

Metric: 10      IS 3-0012.00
Metric: 10      IS 3-000F.00
Metric: 10      IS 1-000E.00
Metric: 20      IPv6 2001:DB8:0:5::/64
Metric: 10      IPv6 2001:DB8:0:6::/64
Metric: 20      IPv6 2001:DB8:0:7::/64
Metric: 10      IPv6 2001:DB8:0:8::/64
Metric: 20      IPv6 2001:DB8:0:9::/64
Metric: 10      IPv6 2001:DB8:0:10::/64
3-0011.00-00    0x00000005    0x38AB      806      0/0/0
Area Address: 49.3333
NLPID:         0x8E
Hostname: 3-0011
IPv6 Address: 2001:DB8:0:7::2
Metric: 10      IS 3-000F.00
Metric: 20      IPv6 2001:DB8:0:5::/64
Metric: 30      IPv6 2001:DB8:0:6::/64
Metric: 10      IPv6 2001:DB8:0:7::/64
Metric: 30      IPv6 2001:DB8:0:8::/64
Metric: 40      IPv6 2001:DB8:0:9::/64
Metric: 20      IPv6 2001:DB8:0:10::/64
3-0012.00-00    0x00000005    0xD824      753      0/0/0
Area Address: 49.3333
NLPID:         0x8E
Hostname: 3-0012
IPv6 Address: 2001:DB8:0:9::2
Metric: 10      IS 3-0010.00
Metric: 30      IPv6 2001:DB8:0:5::/64
Metric: 20      IPv6 2001:DB8:0:6::/64
Metric: 30      IPv6 2001:DB8:0:7::/64
Metric: 10      IPv6 2001:DB8:0:8::/64
Metric: 10      IPv6 2001:DB8:0:9::/64
Metric: 20      IPv6 2001:DB8:0:10::/64
3-000F#
3-000F#show ipv6 route
IPv6 Routing Table - 16 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
I2 2001:DB8:0:1::/64 [115/30]
    via FE80::C604:29FF:FEA8:1, FastEthernet0/0
I2 2001:DB8:0:2::/64 [115/30]
    via FE80::C604:29FF:FEA8:1, FastEthernet0/0
I2 2001:DB8:0:3::/64 [115/20]
    via FE80::C604:29FF:FEA8:1, FastEthernet0/0
I2 2001:DB8:0:4::/64 [115/30]
    via FE80::C604:29FF:FEA8:1, FastEthernet0/0
    via FE80::C607:2CFF:FEB8:1, FastEthernet0/1

```

```

C 2001:DB8:0:5::/64 [0/0]
  via ::, FastEthernet0/0
L 2001:DB8:0:5::2/128 [0/0]
  via ::, FastEthernet0/0
I1 2001:DB8:0:6::/64 [115/20]
  via FE80::C607:2CFF:FEB8:1, FastEthernet0/1
C 2001:DB8:0:7::/64 [0/0]
  via ::, FastEthernet1/0
L 2001:DB8:0:7::1/128 [0/0]
  via ::, FastEthernet1/0
I1 2001:DB8:0:8::/64 [115/20]
  via FE80::C607:2CFF:FEB8:1, FastEthernet0/1
I1 2001:DB8:0:9::/64 [115/30]
  via FE80::C607:2CFF:FEB8:1, FastEthernet0/1
C 2001:DB8:0:10::/64 [0/0]
  via ::, FastEthernet0/1
L 2001:DB8:0:10::1/128 [0/0]
  via ::, FastEthernet0/1
I2 2001:DB8:0:11::/64 [115/20]
  via FE80::C604:29FF:FEA8:1, FastEthernet0/0
L FE80::/10 [0/0]
  via ::, Null0
L FF00::/8 [0/0]
  via ::, Null0

```

3-000F#

3-000F#show isis topo

IS-IS paths to level-1 routers

System Id	Metric	Next-Hop	Interface	SNPA
3-000F	--			
3-0010	10	3-0010	Fa0/1	c407.2cb8.0001
3-0011	10	3-0011	Fa1/0	c408.03f4.0000
3-0012	20	3-0010	Fa0/1	c407.2cb8.0001

IS-IS paths to level-2 routers

System Id	Metric	Next-Hop	Interface	SNPA
2-000A	30	1-000D	Fa0/0	c404.29a8.0001
2-000B	30	1-000D	Fa0/0	c404.29a8.0001
2-000C	20	1-000D	Fa0/0	c404.29a8.0001
1-000D	10	1-000D	Fa0/0	c404.29a8.0001
1-000E	20	1-000D	Fa0/0	c404.29a8.0001
		3-0010	Fa0/1	c407.2cb8.0001
3-000F	--			
3-0010	10	3-0010	Fa0/1	c407.2cb8.0001
3-0011	10	3-0011	Fa1/0	c408.03f4.0000
3-0012	20	3-0010	Fa0/1	c407.2cb8.0001

3-0011#term len 0

3-0011#

3-0011#show isis neigh

System Id	Type Interface	IP Address	State	Holdtime	Circuit Id
3-000F	L1L2 Fa0/0		UP	22	02

3-0011#

3-0011#show isis data detail

IS-IS Level-1 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holdtime	ATT/P/OL
3-000F.00-00	0x00000005	0x262B	818	1/0/0

Area Address: 49.3333

NLPID: 0x8E

Hostname: 3-000F

IPv6 Address: 2001:DB8:0:7::1

Metric: 10 IPv6 2001:DB8:0:5::/64

Metric: 10 IPv6 2001:DB8:0:10::/64

Metric: 10 IPv6 2001:DB8:0:7::/64

Metric: 10 IS 3-0011.00

Metric: 10 IS 3-0010.00

3-0010.00-00	0x00000004	0x5D05	687	1/0/0
--------------	------------	--------	-----	-------

Area Address: 49.3333

NLPID: 0x8E

Hostname: 3-0010

IPv6 Address: 2001:DB8:0:8::2

Metric: 10 IPv6 2001:DB8:0:6::/64

Metric: 10 IPv6 2001:DB8:0:10::/64

Metric: 10 IPv6 2001:DB8:0:8::/64

Metric: 10 IS 3-0012.00

Metric: 10 IS 3-000F.00

3-0011.00-00	* 0x00000005	0x811D	676	1/0/0
--------------	--------------	--------	-----	-------

Area Address: 49.3333

NLPID: 0x8E

Hostname: 3-0011

IPv6 Address: 2001:DB8:0:7::2

Metric: 10 IPv6 2001:DB8:0:7::/64

Metric: 10 IS 3-000F.00

3-0012.00-00	0x00000005	0x2828	698	1/0/0
--------------	------------	--------	-----	-------

Area Address: 49.3333

NLPID: 0x8E

Hostname: 3-0012

IPv6 Address: 2001:DB8:0:9::2

Metric: 10 IPv6 2001:DB8:0:8::/64

Metric: 10 IPv6 2001:DB8:0:9::/64

Metric: 10 IS 3-0010.00

IS-IS Level-2 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holdtime	ATT/P/OL
2-000A.00-00	0x00000005	0xE606	884	0/0/0

Area Address: 49.2222

NLPID: 0x8E

Hostname: 2-000A

```

IPv6 Address: 2001:DB8:0:1::1
Metric: 10      IS 2-000C.00
Metric: 10      IPv6 2001:DB8:0:1::/64
Metric: 20      IPv6 2001:DB8:0:2::/64
Metric: 20      IPv6 2001:DB8:0:3::/64
Metric: 20      IPv6 2001:DB8:0:4::/64
2-000B.00-00    0x000000005    0x8069    775    0/0/0
Area Address: 49.2222
NLPID:          0x8E
Hostname: 2-000B
IPv6 Address: 2001:DB8:0:2::1
Metric: 10      IS 2-000C.00
Metric: 20      IPv6 2001:DB8:0:1::/64
Metric: 10      IPv6 2001:DB8:0:2::/64
Metric: 20      IPv6 2001:DB8:0:3::/64
Metric: 20      IPv6 2001:DB8:0:4::/64
2-000C.00-00    0x000000006    0x7D9D    671    0/0/0
Area Address: 49.2222
NLPID:          0x8E
Hostname: 2-000C
IPv6 Address: 2001:DB8:0:4::1
Metric: 10      IS 2-000A.00
Metric: 10      IS 2-000B.00
Metric: 10      IS 1-000E.00
Metric: 10      IS 1-000D.00
Metric: 10      IPv6 2001:DB8:0:1::/64
Metric: 10      IPv6 2001:DB8:0:2::/64
Metric: 10      IPv6 2001:DB8:0:3::/64
Metric: 10      IPv6 2001:DB8:0:4::/64
1-000D.00-00    0x000000005    0xE37D    852    0/0/0
Area Address: 49.1111
NLPID:          0x8E
Hostname: 1-000D
IPv6 Address: 2001:DB8:0:11::1
Metric: 10      IS 2-000C.00
Metric: 10      IS 3-000F.00
Metric: 10      IS 1-000E.00
Metric: 10      IPv6 2001:DB8:0:3::/64
Metric: 20      IPv6 2001:DB8:0:4::/64
Metric: 10      IPv6 2001:DB8:0:5::/64
Metric: 20      IPv6 2001:DB8:0:6::/64
Metric: 10      IPv6 2001:DB8:0:11::/64
1-000E.00-00    0x000000006    0xA8C0    727    0/0/0
Area Address: 49.1111
NLPID:          0x8E
Hostname: 1-000E
IPv6 Address: 2001:DB8:0:6::1
Metric: 10      IS 1-000D.00
Metric: 10      IS 2-000C.00
Metric: 10      IS 3-0010.00

```


Metric: 20	IPv6 2001:DB8:0:3::/64		
Metric: 10	IPv6 2001:DB8:0:4::/64		
Metric: 20	IPv6 2001:DB8:0:5::/64		
Metric: 10	IPv6 2001:DB8:0:6::/64		
Metric: 10	IPv6 2001:DB8:0:11::/64		
3-000F.00-00	0x00000005 0x0FA9	805	0/0/0
Area Address: 49.3333			
NLPID: 0x8E			
Hostname: 3-000F			
IPv6 Address: 2001:DB8:0:7::1			
Metric: 10	IS 3-0011.00		
Metric: 10	IS 1-000D.00		
Metric: 10	IS 3-0010.00		
Metric: 10	IPv6 2001:DB8:0:5::/64		
Metric: 20	IPv6 2001:DB8:0:6::/64		
Metric: 10	IPv6 2001:DB8:0:7::/64		
Metric: 20	IPv6 2001:DB8:0:8::/64		
Metric: 30	IPv6 2001:DB8:0:9::/64		
Metric: 10	IPv6 2001:DB8:0:10::/64		
3-0010.00-00	0x00000005 0x8B48	767	0/0/0
Area Address: 49.3333			
NLPID: 0x8E			
Hostname: 3-0010			
IPv6 Address: 2001:DB8:0:8::2			
Metric: 10	IS 3-0012.00		
Metric: 10	IS 3-000F.00		
Metric: 10	IS 1-000E.00		
Metric: 20	IPv6 2001:DB8:0:5::/64		
Metric: 10	IPv6 2001:DB8:0:6::/64		
Metric: 20	IPv6 2001:DB8:0:7::/64		
Metric: 10	IPv6 2001:DB8:0:8::/64		
Metric: 20	IPv6 2001:DB8:0:9::/64		
Metric: 10	IPv6 2001:DB8:0:10::/64		
3-0011.00-00	* 0x00000005 0x38AB	687	0/0/0
Area Address: 49.3333			
NLPID: 0x8E			
Hostname: 3-0011			
IPv6 Address: 2001:DB8:0:7::2			
Metric: 10	IS 3-000F.00		
Metric: 20	IPv6 2001:DB8:0:5::/64		
Metric: 30	IPv6 2001:DB8:0:6::/64		
Metric: 10	IPv6 2001:DB8:0:7::/64		
Metric: 30	IPv6 2001:DB8:0:8::/64		
Metric: 40	IPv6 2001:DB8:0:9::/64		
Metric: 20	IPv6 2001:DB8:0:10::/64		
3-0012.00-00	0x00000005 0xD824	624	0/0/0
Area Address: 49.3333			
NLPID: 0x8E			
Hostname: 3-0012			
IPv6 Address: 2001:DB8:0:9::2			

```

Metric: 10      IS 3-0010.00
Metric: 30      IPv6 2001:DB8:0:5::/64
Metric: 20      IPv6 2001:DB8:0:6::/64
Metric: 30      IPv6 2001:DB8:0:7::/64
Metric: 10      IPv6 2001:DB8:0:8::/64
Metric: 10      IPv6 2001:DB8:0:9::/64
Metric: 20      IPv6 2001:DB8:0:10::/64

```

3-0011#

3-0011#show ipv6 route

IPv6 Routing Table - 14 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

```

I2 2001:DB8:0:1::/64 [115/40]
    via FE80::C606:FF:FEA0:10, FastEthernet0/0
I2 2001:DB8:0:2::/64 [115/40]
    via FE80::C606:FF:FEA0:10, FastEthernet0/0
I2 2001:DB8:0:3::/64 [115/30]
    via FE80::C606:FF:FEA0:10, FastEthernet0/0
I2 2001:DB8:0:4::/64 [115/40]
    via FE80::C606:FF:FEA0:10, FastEthernet0/0
I1 2001:DB8:0:5::/64 [115/20]
    via FE80::C606:FF:FEA0:10, FastEthernet0/0
I1 2001:DB8:0:6::/64 [115/30]
    via FE80::C606:FF:FEA0:10, FastEthernet0/0
C 2001:DB8:0:7::/64 [0/0]
    via ::, FastEthernet0/0
L 2001:DB8:0:7::2/128 [0/0]
    via ::, FastEthernet0/0
I1 2001:DB8:0:8::/64 [115/30]
    via FE80::C606:FF:FEA0:10, FastEthernet0/0
I1 2001:DB8:0:9::/64 [115/40]
    via FE80::C606:FF:FEA0:10, FastEthernet0/0
I1 2001:DB8:0:10::/64 [115/20]
    via FE80::C606:FF:FEA0:10, FastEthernet0/0
I2 2001:DB8:0:11::/64 [115/30]
    via FE80::C606:FF:FEA0:10, FastEthernet0/0
L FE80::/10 [0/0]
    via ::, Null0
L FF00::/8 [0/0]
    via ::, Null0

```

3-0011#

3-0011#show isis topo

IS-IS paths to level-1 routers

System Id	Metric	Next-Hop	Interface	SNPA
3-000F	10	3-000F	Fa0/0	c406.00a0.0010
3-0010	20	3-000F	Fa0/0	c406.00a0.0010

3-0011	--			
3-0012	30	3-000F	Fa0/0	c406.00a0.0010

IS-IS paths to level-2 routers

System Id	Metric	Next-Hop	Interface	SNPA
2-000A	40	3-000F	Fa0/0	c406.00a0.0010
2-000B	40	3-000F	Fa0/0	c406.00a0.0010
2-000C	30	3-000F	Fa0/0	c406.00a0.0010
1-000D	20	3-000F	Fa0/0	c406.00a0.0010
1-000E	30	3-000F	Fa0/0	c406.00a0.0010
3-000F	10	3-000F	Fa0/0	c406.00a0.0010
3-0010	20	3-000F	Fa0/0	c406.00a0.0010
3-0011	--			
3-0012	30	3-000F	Fa0/0	c406.00a0.0010

1-000D#sho isis neigh

System Id	Type	Interface	IP Address	State	Holdtime	Circuit Id
2-000C	L2	Fa0/0		UP	24	02
3-000F	L2	Fa0/1		UP	28	00
1-000E	L1L2	Fa1/0		UP	23	01

1-000D#

1-000D#

1-000D#show isis data det

IS-IS Level-1 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holdtime	ATT/P/OL
1-000D.00-00	* 0x00000004	0x45F9	1113	1/0/0

Area Address: 49.1111

NLPID: 0x8E

Hostname: 1-000D

IPv6 Address: 2001:DB8:0:11::1

Metric: 10 IPv6 2001:DB8:0:3::/64

Metric: 10 IPv6 2001:DB8:0:5::/64

Metric: 10 IPv6 2001:DB8:0:11::/64

Metric: 10 IS 1-000E.00

1-000E.00-00	0x00000005	0x96AF	1007	1/0/0
--------------	------------	--------	------	-------

Area Address: 49.1111

NLPID: 0x8E

Hostname: 1-000E

IPv6 Address: 2001:DB8:0:6::1

Metric: 10 IPv6 2001:DB8:0:4::/64

Metric: 10 IPv6 2001:DB8:0:11::/64

Metric: 10 IPv6 2001:DB8:0:6::/64

Metric: 10 IS 1-000D.00

IS-IS Level-2 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holdtime	ATT/P/OL
2-000A.00-00	0x00000005	0xE606	1155	0/0/0

Area Address: 49.2222

```

NLPID:      0x8E
Hostname: 2-000A
IPv6 Address: 2001:DB8:0:1::1
Metric: 10      IS 2-000C.00
Metric: 10      IPv6 2001:DB8:0:1::/64
Metric: 20      IPv6 2001:DB8:0:2::/64
Metric: 20      IPv6 2001:DB8:0:3::/64
Metric: 20      IPv6 2001:DB8:0:4::/64
2-000B.00-00      0x000000005      0x8069      1039      0/0/0
Area Address: 49.2222
NLPID:      0x8E
Hostname: 2-000B
IPv6 Address: 2001:DB8:0:2::1
Metric: 10      IS 2-000C.00
Metric: 20      IPv6 2001:DB8:0:1::/64
Metric: 10      IPv6 2001:DB8:0:2::/64
Metric: 20      IPv6 2001:DB8:0:3::/64
Metric: 20      IPv6 2001:DB8:0:4::/64
2-000C.00-00      0x000000006      0x7D9D      943      0/0/0
Area Address: 49.2222
NLPID:      0x8E
Hostname: 2-000C
IPv6 Address: 2001:DB8:0:4::1
Metric: 10      IS 2-000A.00
Metric: 10      IS 2-000B.00
Metric: 10      IS 1-000E.00
Metric: 10      IS 1-000D.00
Metric: 10      IPv6 2001:DB8:0:1::/64
Metric: 10      IPv6 2001:DB8:0:2::/64
Metric: 10      IPv6 2001:DB8:0:3::/64
Metric: 10      IPv6 2001:DB8:0:4::/64
1-000D.00-00      * 0x000000005      0xE37D      1116      0/0/0
Area Address: 49.1111
NLPID:      0x8E
Hostname: 1-000D
IPv6 Address: 2001:DB8:0:11::1
Metric: 10      IS 2-000C.00
Metric: 10      IS 3-000F.00
Metric: 10      IS 1-000E.00
Metric: 10      IPv6 2001:DB8:0:3::/64
Metric: 20      IPv6 2001:DB8:0:4::/64
Metric: 10      IPv6 2001:DB8:0:5::/64
Metric: 20      IPv6 2001:DB8:0:6::/64
Metric: 10      IPv6 2001:DB8:0:11::/64
1-000E.00-00      0x000000006      0xA8C0      998      0/0/0
Area Address: 49.1111
NLPID:      0x8E
Hostname: 1-000E
IPv6 Address: 2001:DB8:0:6::1
Metric: 10      IS 1-000D.00

```

```

Metric: 10      IS 2-000C.00
Metric: 10      IS 3-0010.00
Metric: 20      IPv6 2001:DB8:0:3::/64
Metric: 10      IPv6 2001:DB8:0:4::/64
Metric: 20      IPv6 2001:DB8:0:5::/64
Metric: 10      IPv6 2001:DB8:0:6::/64
Metric: 10      IPv6 2001:DB8:0:11::/64
3-000F.00-00    0x000000005    0x0FA9    1065    0/0/0
Area Address: 49.3333
NLPID:          0x8E
Hostname: 3-000F
IPv6 Address: 2001:DB8:0:7::1
Metric: 10      IS 3-0011.00
Metric: 10      IS 1-000D.00
Metric: 10      IS 3-0010.00
Metric: 10      IPv6 2001:DB8:0:5::/64
Metric: 20      IPv6 2001:DB8:0:6::/64
Metric: 10      IPv6 2001:DB8:0:7::/64
Metric: 20      IPv6 2001:DB8:0:8::/64
Metric: 30      IPv6 2001:DB8:0:9::/64
Metric: 10      IPv6 2001:DB8:0:10::/64
3-0010.00-00    0x000000005    0x8B48    1034    0/0/0
Area Address: 49.3333
NLPID:          0x8E
Hostname: 3-0010
IPv6 Address: 2001:DB8:0:8::2
Metric: 10      IS 3-0012.00
Metric: 10      IS 3-000F.00
Metric: 10      IS 1-000E.00
Metric: 20      IPv6 2001:DB8:0:5::/64
Metric: 10      IPv6 2001:DB8:0:6::/64
Metric: 20      IPv6 2001:DB8:0:7::/64
Metric: 10      IPv6 2001:DB8:0:8::/64
Metric: 20      IPv6 2001:DB8:0:9::/64
Metric: 10      IPv6 2001:DB8:0:10::/64
3-0011.00-00    0x000000005    0x38AB    942     0/0/0
Area Address: 49.3333
NLPID:          0x8E
Hostname: 3-0011
IPv6 Address: 2001:DB8:0:7::2
Metric: 10      IS 3-000F.00
Metric: 20      IPv6 2001:DB8:0:5::/64
Metric: 30      IPv6 2001:DB8:0:6::/64
Metric: 10      IPv6 2001:DB8:0:7::/64
Metric: 30      IPv6 2001:DB8:0:8::/64
Metric: 40      IPv6 2001:DB8:0:9::/64
Metric: 20      IPv6 2001:DB8:0:10::/64
3-0012.00-00    0x000000005    0xD824    891     0/0/0
Area Address: 49.3333
NLPID:          0x8E

```

```

Hostname: 3-0012
IPv6 Address: 2001:DB8:0:9::2
Metric: 10          IS 3-0010.00
Metric: 30          IPv6 2001:DB8:0:5::/64
Metric: 20          IPv6 2001:DB8:0:6::/64
Metric: 30          IPv6 2001:DB8:0:7::/64
Metric: 10          IPv6 2001:DB8:0:8::/64
Metric: 10          IPv6 2001:DB8:0:9::/64
Metric: 20          IPv6 2001:DB8:0:10::/64
1-000D#
1-000D#
1-000D#show ipv6 route
IPv6 Routing Table - 16 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
I2  2001:DB8:0:1::/64 [115/20]
    via FE80::C603:16FF:FEF8:10, FastEthernet0/0
I2  2001:DB8:0:2::/64 [115/20]
    via FE80::C603:16FF:FEF8:10, FastEthernet0/0
C   2001:DB8:0:3::/64 [0/0]
    via ::, FastEthernet0/0
L   2001:DB8:0:3::2/128 [0/0]
    via ::, FastEthernet0/0
I1  2001:DB8:0:4::/64 [115/20]
    via FE80::C605:20FF:FE5C:1, FastEthernet1/0
C   2001:DB8:0:5::/64 [0/0]
    via ::, FastEthernet0/1
L   2001:DB8:0:5::1/128 [0/0]
    via ::, FastEthernet0/1
I1  2001:DB8:0:6::/64 [115/20]
    via FE80::C605:20FF:FE5C:1, FastEthernet1/0
I2  2001:DB8:0:7::/64 [115/20]
    via FE80::C606:FF:FEA0:0, FastEthernet0/1
I2  2001:DB8:0:8::/64 [115/30]
    via FE80::C605:20FF:FE5C:1, FastEthernet1/0
    via FE80::C606:FF:FEA0:0, FastEthernet0/1
I2  2001:DB8:0:9::/64 [115/40]
    via FE80::C605:20FF:FE5C:1, FastEthernet1/0
    via FE80::C606:FF:FEA0:0, FastEthernet0/1
I2  2001:DB8:0:10::/64 [115/20]
    via FE80::C606:FF:FEA0:0, FastEthernet0/1
C   2001:DB8:0:11::/64 [0/0]
    via ::, FastEthernet1/0
L   2001:DB8:0:11::1/128 [0/0]
    via ::, FastEthernet1/0
L   FE80::/10 [0/0]
    via ::, Null0

```

```

L   FF00::/8 [0/0]
    via ::, Null0
1-000D#
1-000D#
1-000D#show isis topo

```

IS-IS paths to level-1 routers

System Id	Metric	Next-Hop	Interface	SNPA
1-000D	--			
1-000E	10	1-000E	Fa1/0	c405.205c.0001

IS-IS paths to level-2 routers

System Id	Metric	Next-Hop	Interface	SNPA
2-000A	20	2-000C	Fa0/0	c403.16f8.0010
2-000B	20	2-000C	Fa0/0	c403.16f8.0010
2-000C	10	2-000C	Fa0/0	c403.16f8.0010
1-000D	--			
1-000E	10	1-000E	Fa1/0	c405.205c.0001
3-000F	10	3-000F	Fa0/1	c406.00a0.0000
3-0010	20	1-000E	Fa1/0	c405.205c.0001
		3-000F	Fa0/1	c406.00a0.0000
3-0011	20	3-000F	Fa0/1	c406.00a0.0000
3-0012	30	1-000E	Fa1/0	c405.205c.0001
		3-000F	Fa0/1	c406.00a0.0000

Configurations

```

!
hostname 2-000A
!
interface FastEthernet0/0
 no ip address
 duplex auto
 speed auto
 ipv6 address 2001:DB8:0:1::1/64
 ipv6 router isis
 isis network point-to-point
 isis three-way-handshake ietf
 isis csnp-interval 10
!
End

```

```

!
hostname 2-000B
!
interface FastEthernet0/0
 no ip address
 duplex auto
 speed auto
 ipv6 address 2001:DB8:0:2::1/64

```

```
ipv6 router isis
isis network point-to-point
isis three-way-handshake ietf
!
router isis
net 49.2222.0000.0000.000b.00
!
End

!
hostname 2-000C
!
interface FastEthernet0/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:1::2/64
ipv6 router isis
isis network point-to-point
isis three-way-handshake ietf
!
interface FastEthernet0/1
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:2::2/64
ipv6 router isis
isis network point-to-point
isis three-way-handshake ietf
!
interface FastEthernet1/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:3::1/64
ipv6 router isis
isis network point-to-point
isis three-way-handshake ietf
!
interface FastEthernet2/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:4::1/64
ipv6 router isis
isis network point-to-point
isis three-way-handshake ietf
!
router isis
net 49.2222.0000.0000.000c.00
```


!
End

!
hostname 3-0012

!
interface FastEthernet0/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:8::1/64
ipv6 router isis
isis network point-to-point
isis three-way-handshake ietf

!
interface FastEthernet0/1
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:9::2/64
ipv6 router isis
isis network point-to-point
isis three-way-handshake ietf

!
router isis
net 49.3333.0000.0000.0012.00

!
End

!
interface FastEthernet0/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:3::2/64
ipv6 router isis
isis network point-to-point
isis three-way-handshake ietf

!
interface FastEthernet0/1
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:5::1/64
ipv6 router isis
isis network point-to-point
isis three-way-handshake ietf

!
interface FastEthernet1/0
no ip address

```
duplex auto
speed auto
ipv6 address 2001:DB8:0:11::1/64
ipv6 router isis
isis network point-to-point
isis three-way-handshake ietf
!
router isis
net 49.1111.0000.0000.000d.00
!
End
```

```
!
hostname 1-000E
!
interface FastEthernet0/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:4::2/64
ipv6 router isis
isis network point-to-point
isis three-way-handshake ietf
!
interface FastEthernet0/1
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:11::2/64
ipv6 router isis
isis network point-to-point
isis three-way-handshake ietf
!
interface FastEthernet1/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:6::1/64
ipv6 router isis
isis network point-to-point
isis three-way-handshake ietf
!
router isis
net 49.1111.0000.0000.000e.00
!
End
```

```
!
hostname 3-000F
!
```

```
interface FastEthernet0/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:5::2/64
ipv6 router isis
isis network point-to-point
isis three-way-handshake ietf
```

!

```
interface FastEthernet0/1
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:10::1/64
ipv6 router isis
isis network point-to-point
isis three-way-handshake ietf
```

!

```
interface FastEthernet1/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:7::1/64
ipv6 router isis
isis network point-to-point
isis three-way-handshake ietf
```

!

```
router isis
net 49.3333.0000.0000.000f.00
```

!

```
End
```

!

```
hostname 3-0010
```

!

```
interface FastEthernet0/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:6::2/64
ipv6 router isis
isis network point-to-point
isis three-way-handshake ietf
```

!

```
interface FastEthernet0/1
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:10::2/64
ipv6 router isis
```

```

isis network point-to-point
isis three-way-handshake ietf
!
interface FastEthernet1/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:8::2/64
ipv6 router isis
isis network point-to-point
isis three-way-handshake ietf
!
router isis
net 49.3333.0000.0000.0010.00
!
End

```

```

!
hostname 3-0011
!
interface FastEthernet0/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:7::2/64
ipv6 router isis
isis network point-to-point
isis three-way-handshake ietf
!
router isis
net 49.3333.0000.0000.0011.00
!
End

```

Three Level One Flooding Domains

Show Output

3-000F#show isis neighbors

System Id	Type	Interface	IP Address	State	Holdtime	Circuit Id
1-000D	L2	Fa0/0		UP	24	01
3-0011	L1	Fa1/0		UP	22	00
3-0010	L1	Fa0/1		UP	23	01

3-000F#

3-000F#show isis database detail

IS-IS Level-1 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holdtime	ATT/P/OL
-------	-------------	--------------	--------------	----------

3-000F.00-00 * 0x000000005 0x672E 873 1/0/0

Area Address: 49.3333

NLPID: 0x8E

Hostname: 3-000F

IPv6 Address: 2001:DB8:0:7::1

Metric: 10 IPv6 2001:DB8:0:10::/64

Metric: 10 IPv6 2001:DB8:0:7::/64

Metric: 10 IS 3-0011.00

Metric: 10 IS 3-0010.00

3-0010.00-00 0x000000005 0x5A4C 878 1/0/0

Area Address: 49.3333

NLPID: 0x8E

Hostname: 3-0010

IPv6 Address: 2001:DB8:0:8::2

Metric: 10 IPv6 2001:DB8:0:10::/64

Metric: 10 IPv6 2001:DB8:0:8::/64

Metric: 10 IS 3-0012.00

Metric: 10 IS 3-000F.00

3-0011.00-00 0x000000003 0x7D2B 866 0/0/0

Area Address: 49.3333

NLPID: 0x8E

Hostname: 3-0011

IPv6 Address: 2001:DB8:0:7::2

Metric: 10 IPv6 2001:DB8:0:7::/64

Metric: 10 IS 3-000F.00

3-0012.00-00 0x000000003 0x2436 856 0/0/0

Area Address: 49.3333

NLPID: 0x8E

Hostname: 3-0012

IPv6 Address: 2001:DB8:0:9::2

Metric: 10 IPv6 2001:DB8:0:8::/64

Metric: 10 IPv6 2001:DB8:0:9::/64

Metric: 10 IS 3-0010.00

IS-IS Level-2 Link State Database:

LSPID LSP Seq Num LSP Checksum LSP Holddtime ATT/P/OL

2-000C.00-00 0x000000003 0x4231 880 0/0/0

Area Address: 49.2222

NLPID: 0x8E

Hostname: 2-000C

IPv6 Address: 2001:DB8:0:4::1

Metric: 10 IPv6 2001:DB8:0:3::/64

Metric: 10 IPv6 2001:DB8:0:4::/64

Metric: 10 IS 1-000E.00

Metric: 10 IS 1-000D.00

Metric: 10 IPv6 2001:DB8:0:1::/64

Metric: 10 IPv6 2001:DB8:0:2::/64

1-000D.00-00 0x000000004 0xAD15 881 0/0/0

Area Address: 49.1111

NLPID: 0x8E

Hostname: 1-000D

```

IPv6 Address: 2001:DB8:0:5::1
Metric: 10      IPv6 2001:DB8:0:3::/64
Metric: 10      IPv6 2001:DB8:0:5::/64
Metric: 10      IS 2-000C.00
Metric: 10      IS 3-000F.00
Metric: 10      IPv6 2001:DB8:0:11::/64
1-000E.00-00    0x000000004    0xA418      870      0/0/0
Area Address: 49.1111
NLPID:          0x8E
Hostname: 1-000E
IPv6 Address: 2001:DB8:0:6::1
Metric: 10      IPv6 2001:DB8:0:4::/64
Metric: 10      IPv6 2001:DB8:0:6::/64
Metric: 10      IS 2-000C.00
Metric: 10      IS 3-0010.00
Metric: 10      IPv6 2001:DB8:0:11::/64
3-000F.00-00    * 0x000000005    0x4B1F      857      0/0/0
Area Address: 49.3333
NLPID:          0x8E
Hostname: 3-000F
IPv6 Address: 2001:DB8:0:5::2
Metric: 10      IPv6 2001:DB8:0:5::/64
Metric: 10      IS 1-000D.00
Metric: 10      IPv6 2001:DB8:0:7::/64
Metric: 20      IPv6 2001:DB8:0:8::/64
Metric: 30      IPv6 2001:DB8:0:9::/64
Metric: 10      IPv6 2001:DB8:0:10::/64
3-0010.00-00    0x000000005    0xDFA5      847      0/0/0
Area Address: 49.3333
NLPID:          0x8E
Hostname: 3-0010
IPv6 Address: 2001:DB8:0:6::2
Metric: 10      IPv6 2001:DB8:0:6::/64
Metric: 10      IS 1-000E.00
Metric: 20      IPv6 2001:DB8:0:7::/64
Metric: 10      IPv6 2001:DB8:0:8::/64
Metric: 20      IPv6 2001:DB8:0:9::/64
Metric: 10      IPv6 2001:DB8:0:10::/64
3-000F#
3-000F#show ipv6 route
IPv6 Routing Table - 16 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
I2  2001:DB8:0:1::/64 [115/30]
    via FE80::C604:29FF:FEA8:1, FastEthernet0/0
I2  2001:DB8:0:2::/64 [115/30]
    via FE80::C604:29FF:FEA8:1, FastEthernet0/0

```

```

I2  2001:DB8:0:3::/64 [115/20]
    via FE80::C604:29FF:FEA8:1, FastEthernet0/0
I2  2001:DB8:0:4::/64 [115/30]
    via FE80::C604:29FF:FEA8:1, FastEthernet0/0
C   2001:DB8:0:5::/64 [0/0]
    via ::, FastEthernet0/0
L   2001:DB8:0:5::2/128 [0/0]
    via ::, FastEthernet0/0
I2  2001:DB8:0:6::/64 [115/40]
    via FE80::C604:29FF:FEA8:1, FastEthernet0/0
C   2001:DB8:0:7::/64 [0/0]
    via ::, FastEthernet1/0
L   2001:DB8:0:7::1/128 [0/0]
    via ::, FastEthernet1/0
I1  2001:DB8:0:8::/64 [115/20]
    via FE80::C607:2CFF:FEB8:1, FastEthernet0/1
I1  2001:DB8:0:9::/64 [115/30]
    via FE80::C607:2CFF:FEB8:1, FastEthernet0/1
C   2001:DB8:0:10::/64 [0/0]
    via ::, FastEthernet0/1
L   2001:DB8:0:10::1/128 [0/0]
    via ::, FastEthernet0/1
I2  2001:DB8:0:11::/64 [115/20]
    via FE80::C604:29FF:FEA8:1, FastEthernet0/0
L   FE80::/10 [0/0]
    via ::, Null0
L   FF00::/8 [0/0]
    via ::, Null0

```

3-000F#

3-000F#show isis topo

IS-IS paths to level-1 routers

System Id	Metric	Next-Hop	Interface	SNPA
3-000F	--			
3-0010	10	3-0010	Fa0/1	c407.2cb8.0001
3-0011	10	3-0011	Fa1/0	c408.03f4.0000
3-0012	20	3-0010	Fa0/1	c407.2cb8.0001

IS-IS paths to level-2 routers

System Id	Metric	Next-Hop	Interface	SNPA
2-000C	20	1-000D	Fa0/0	c404.29a8.0001
1-000D	10	1-000D	Fa0/0	c404.29a8.0001
1-000E	30	1-000D	Fa0/0	c404.29a8.0001
3-000F	--			
3-0010	40	1-000D	Fa0/0	c404.29a8.0001

3-000F#

3-000F#show isis database

IS-IS Level-1 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holddtime	ATT/P/OL
-------	-------------	--------------	---------------	----------

3-000F.00-00	* 0x00000005	0x672E	810	1/0/0
3-0010.00-00	0x00000005	0x5A4C	815	1/0/0
3-0011.00-00	0x00000003	0x7D2B	803	0/0/0
3-0012.00-00	0x00000003	0x2436	801	0/0/0

IS-IS Level-2 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holdtime	ATT/P/OL
2-000C.00-00	0x00000003	0x4231	824	0/0/0
1-000D.00-00	0x00000004	0xAD15	825	0/0/0
1-000E.00-00	0x00000004	0xA418	822	0/0/0
3-000F.00-00	* 0x00000005	0x4B1F	809	0/0/0
3-0010.00-00	0x00000005	0xDFA5	807	0/0/0

3-000F#

1-000D#show isis neighbors

System Id	Type	Interface	IP Address	State	Holdtime	Circuit Id
2-000C	L2	Fa0/0		UP	26	02
3-000F	L2	Fa0/1		UP	22	00
1-000E	L1	Fa1/0		UP	29	01

1-000D#

1-000D#show isis database detail

IS-IS Level-1 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holdtime	ATT/P/OL
1-000D.00-00	* 0x00000004	0xD1F3	1025	1/0/0

Area Address: 49.1111

NLPID: 0x8E

Hostname: 1-000D

IPv6 Address: 2001:DB8:0:11::1

Metric: 10 IPv6 2001:DB8:0:11::/64

Metric: 10 IS 1-000E.00

1-000E.00-00	0x00000004	0xBE05	1028	1/0/0
--------------	------------	--------	------	-------

Area Address: 49.1111

NLPID: 0x8E

Hostname: 1-000E

IPv6 Address: 2001:DB8:0:11::2

Metric: 10 IPv6 2001:DB8:0:11::/64

Metric: 10 IS 1-000D.00

IS-IS Level-2 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holdtime	ATT/P/OL
2-000C.00-00	0x00000003	0x4231	1038	0/0/0

Area Address: 49.2222

NLPID: 0x8E

Hostname: 2-000C

IPv6 Address: 2001:DB8:0:4::1

Metric: 10 IPv6 2001:DB8:0:3::/64

Metric: 10 IPv6 2001:DB8:0:4::/64

Metric: 10 IS 1-000E.00

Metric: 10 IS 1-000D.00


```

Metric: 10          IPv6 2001:DB8:0:1::/64
Metric: 10          IPv6 2001:DB8:0:2::/64
1-000D.00-00      * 0x000000004    0xAD15          1031          0/0/0
Area Address: 49.1111
NLPID:           0x8E
Hostname: 1-000D
IPv6 Address: 2001:DB8:0:5::1
Metric: 10          IPv6 2001:DB8:0:3::/64
Metric: 10          IPv6 2001:DB8:0:5::/64
Metric: 10          IS 2-000C.00
Metric: 10          IS 3-000F.00
Metric: 10          IPv6 2001:DB8:0:11::/64
1-000E.00-00      0x000000004    0xA418          1028          0/0/0
Area Address: 49.1111
NLPID:           0x8E
Hostname: 1-000E
IPv6 Address: 2001:DB8:0:6::1
Metric: 10          IPv6 2001:DB8:0:4::/64
Metric: 10          IPv6 2001:DB8:0:6::/64
Metric: 10          IS 2-000C.00
Metric: 10          IS 3-0010.00
Metric: 10          IPv6 2001:DB8:0:11::/64
3-000F.00-00      0x000000005    0x4B1F          1011          0/0/0
Area Address: 49.3333
NLPID:           0x8E
Hostname: 3-000F
IPv6 Address: 2001:DB8:0:5::2
Metric: 10          IPv6 2001:DB8:0:5::/64
Metric: 10          IS 1-000D.00
Metric: 10          IPv6 2001:DB8:0:7::/64
Metric: 20          IPv6 2001:DB8:0:8::/64
Metric: 30          IPv6 2001:DB8:0:9::/64
Metric: 10          IPv6 2001:DB8:0:10::/64
3-0010.00-00      0x000000005    0xDFA5          1005          0/0/0
Area Address: 49.3333
NLPID:           0x8E
Hostname: 3-0010
IPv6 Address: 2001:DB8:0:6::2
Metric: 10          IPv6 2001:DB8:0:6::/64
Metric: 10          IS 1-000E.00
Metric: 20          IPv6 2001:DB8:0:7::/64
Metric: 10          IPv6 2001:DB8:0:8::/64
Metric: 20          IPv6 2001:DB8:0:9::/64
Metric: 10          IPv6 2001:DB8:0:10::/64
1-000D#
1-000D#show ipv6 route
IPv6 Routing Table - 16 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, OI - OSPF inter, OE1 - OSPF ext 1, OE2 - OSPF ext 2

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

```
I2 2001:DB8:0:1::/64 [115/20]
    via FE80::C603:16FF:FEF8:10, FastEthernet0/0
I2 2001:DB8:0:2::/64 [115/20]
    via FE80::C603:16FF:FEF8:10, FastEthernet0/0
C 2001:DB8:0:3::/64 [0/0]
    via ::, FastEthernet0/0
L 2001:DB8:0:3::2/128 [0/0]
    via ::, FastEthernet0/0
I2 2001:DB8:0:4::/64 [115/20]
    via FE80::C603:16FF:FEF8:10, FastEthernet0/0
C 2001:DB8:0:5::/64 [0/0]
    via ::, FastEthernet0/1
L 2001:DB8:0:5::1/128 [0/0]
    via ::, FastEthernet0/1
I2 2001:DB8:0:6::/64 [115/30]
    via FE80::C603:16FF:FEF8:10, FastEthernet0/0
I2 2001:DB8:0:7::/64 [115/20]
    via FE80::C606:FF:FEA0:0, FastEthernet0/1
I2 2001:DB8:0:8::/64 [115/30]
    via FE80::C606:FF:FEA0:0, FastEthernet0/1
I2 2001:DB8:0:9::/64 [115/40]
    via FE80::C606:FF:FEA0:0, FastEthernet0/1
I2 2001:DB8:0:10::/64 [115/20]
    via FE80::C606:FF:FEA0:0, FastEthernet0/1
C 2001:DB8:0:11::/64 [0/0]
    via ::, FastEthernet1/0
L 2001:DB8:0:11::1/128 [0/0]
    via ::, FastEthernet1/0
L FE80::/10 [0/0]
    via ::, Null0
L FF00::/8 [0/0]
    via ::, Null0
```

1-000D#

1-000D#show isis topo

1-000D#show isis topology

IS-IS paths to level-1 routers

System Id	Metric	Next-Hop	Interface	SNPA
1-000D	--			
1-000E	10	1-000E	Fa1/0	c405.205c.0001

IS-IS paths to level-2 routers

System Id	Metric	Next-Hop	Interface	SNPA
2-000C	10	2-000C	Fa0/0	c403.16f8.0010
1-000D	--			
1-000E	20	2-000C	Fa0/0	c403.16f8.0010
3-000F	10	3-000F	Fa0/1	c406.00a0.0000
3-0010	30	2-000C	Fa0/0	c403.16f8.0010

1-000D#

1-000D#show isis database

IS-IS Level-1 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holddtime	ATT/P/OL
1-000D.00-00	* 0x000000004	0xD1F3	973	1/0/0
1-000E.00-00	0x000000004	0xBE05	976	1/0/0

IS-IS Level-2 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holddtime	ATT/P/OL
2-000C.00-00	0x000000003	0x4231	986	0/0/0
1-000D.00-00	* 0x000000004	0xAD15	987	0/0/0
1-000E.00-00	0x000000004	0xA418	984	0/0/0
3-000F.00-00	0x000000005	0x4B1F	967	0/0/0
3-0010.00-00	0x000000005	0xDFA5	969	0/0/0

2-000A#show isis neighbors

System Id	Type	Interface	IP Address	State	Holddtime	Circuit Id
2-000C	L1	Fa0/0		UP	22	00

2-000A#

2-000A#sho isis data det

IS-IS Level-1 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holddtime	ATT/P/OL
2-000A.00-00	* 0x000000003	0x11C2	1131	0/0/0

Area Address: 49.2222

NLPID: 0x8E

Hostname: 2-000A

IPv6 Address: 2001:DB8:0:1::1

Metric: 10 IPv6 2001:DB8:0:1::/64

Metric: 10 IS 2-000C.00

2-000B.00-00	0x000000003	0x6B64	1125	0/0/0
--------------	-------------	--------	------	-------

Area Address: 49.2222

NLPID: 0x8E

Hostname: 2-000B

IPv6 Address: 2001:DB8:0:2::1

Metric: 10 IPv6 2001:DB8:0:2::/64

Metric: 10 IS 2-000C.00

2-000C.00-00	0x000000006	0xAA37	1135	1/0/0
--------------	-------------	--------	------	-------

Area Address: 49.2222

NLPID: 0x8E

Hostname: 2-000C

IPv6 Address: 2001:DB8:0:2::2

Metric: 10 IPv6 2001:DB8:0:1::/64

Metric: 10 IPv6 2001:DB8:0:2::/64

Metric: 10 IS 2-000A.00

Metric: 10 IS 2-000B.00

IS-IS Level-2 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holddtime	ATT/P/OL
-------	-------------	--------------	---------------	----------

2-000A.00-00 * 0x00000002 0xB954 1130 0/0/0

Area Address: 49.2222

NLPID: 0x8E

Hostname: 2-000A

Metric: 10 IPv6 2001:DB8:0:1::/64

Metric: 20 IPv6 2001:DB8:0:2::/64

2-000A#

2-000A#show ipv6 route

IPv6 Routing Table - 6 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

I1 ::/0 [115/10]

via FE80::C603:16FF:FEF8:0, FastEthernet0/0

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

via ::, FastEthernet0/0

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

via ::, FastEthernet0/0

I1 2001:DB8:0:2::/64 [115/20]

via FE80::C603:16FF:FEF8:0, FastEthernet0/0

L FE80::/10 [0/0]

via ::, Null0

L FF00::/8 [0/0]

via ::, Null0

2-000A#

2-000A#show isis topo

2-000A#show isis topology

IS-IS paths to level-1 routers

System Id	Metric	Next-Hop	Interface	SNPA
2-000A	--			
2-000B	20	2-000C	Fa0/0	c403.16f8.0000
2-000C	10	2-000C	Fa0/0	c403.16f8.0000

IS-IS paths to level-2 routers

System Id	Metric	Next-Hop	Interface	SNPA
2-000A	--			

2-000A#

2-000A#show isis data

2-000A#show isis database

IS-IS Level-1 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holddtime	ATT/P/OL
2-000A.00-00	* 0x00000003	0x11C2	1093	0/0/0
2-000B.00-00	0x00000003	0x6B64	1087	0/0/0
2-000C.00-00	0x00000006	0xAA37	1097	1/0/0

IS-IS Level-2 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holddtime	ATT/P/OL
-------	-------------	--------------	---------------	----------

2-000A.00-00 * 0x00000002 0xB954 1101 0/0/0
2-000A#

Configurations

```
!  
hostname 1-000D  
interface FastEthernet0/0  
  no ip address  
  duplex auto  
  speed auto  
  ipv6 address 2001:DB8:0:3::2/64  
  ipv6 router isis  
  isis circuit-type level-2-only  
  isis network point-to-point  
  isis three-way-handshake ietf  
!  
interface FastEthernet0/1  
  no ip address  
  duplex auto  
  speed auto  
  ipv6 address 2001:DB8:0:5::1/64  
  ipv6 router isis  
  isis circuit-type level-2-only  
  isis network point-to-point  
  isis three-way-handshake ietf  
!  
interface FastEthernet1/0  
  no ip address  
  duplex auto  
  speed auto  
  ipv6 address 2001:DB8:0:11::1/64  
  ipv6 router isis  
  isis circuit-type level-1  
  isis network point-to-point  
  isis three-way-handshake ietf  
!  
router isis  
  net 49.1111.0000.0000.000d.00  
!  
End  
  
!  
hostname 1-000E  
!  
interface FastEthernet0/0  
  no ip address  
  duplex auto  
  speed auto
```

```
ipv6 address 2001:DB8:0:4::2/64
ipv6 router isis
isis circuit-type level-2-only
isis network point-to-point
isis three-way-handshake ietf
!
interface FastEthernet0/1
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:11::2/64
ipv6 router isis
isis circuit-type level-1
isis network point-to-point
isis three-way-handshake ietf
!
interface FastEthernet1/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:6::1/64
ipv6 router isis
isis circuit-type level-2-only
isis network point-to-point
isis three-way-handshake ietf
!
router isis
net 49.1111.0000.0000.000e.00
!
End
```

```
!
hostname 3-0011
interface FastEthernet0/0
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 three-way-handshake ietf
!
router isis
net 49.3333.0000.0000.0011.00
!
End
```

```
!  
hostname 3-0012  
interface FastEthernet0/0  
  no ip address  
  duplex auto  
  speed auto  
  ipv6 address 2001:DB8:0:8::1/64  
  ipv6 router isis  
  isis circuit-type level-1  
  isis network point-to-point  
  isis three-way-handshake ietf  
!  
interface FastEthernet0/1  
  no ip address  
  duplex auto  
  speed auto  
  ipv6 address 2001:DB8:0:9::2/64  
  ipv6 router isis  
  isis circuit-type level-1  
  isis network point-to-point  
  isis three-way-handshake ietf  
!  
router isis  
  net 49.3333.0000.0000.0012.00  
!  
End
```

```
!  
hostname 2-000A  
!  
interface FastEthernet0/0  
  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 three-way-handshake ietf  
  isis csnp-interval 10  
!  
router isis  
  net 49.2222.0000.0000.000a.00  
!  
End
```

```
!  
hostname 2-000B  
!
```

```
boot-start-marker
boot-end-marker
!
interface FastEthernet0/0
  no ip address
  duplex auto
  speed auto
  ipv6 address 2001:DB8:0:2::1/64
  ipv6 router isis
  isis network point-to-point
  isis three-way-handshake ietf
!
router isis
  net 49.2222.0000.0000.000b.00
!
End
```

```
!
hostname 2-000C
!
interface FastEthernet0/0
  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 three-way-handshake ietf
!
interface FastEthernet0/1
  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 three-way-handshake ietf
!
interface FastEthernet1/0
  no ip address
  duplex auto
  speed auto
  ipv6 address 2001:DB8:0:3::1/64
  ipv6 router isis
  isis circuit-type level-2-only
  isis network point-to-point
  isis three-way-handshake ietf
```



```
!  
interface FastEthernet2/0  
  no ip address  
  duplex auto  
  speed auto  
  ipv6 address 2001:DB8:0:4::1/64  
  ipv6 router isis  
  isis circuit-type level-2-only  
  isis network point-to-point  
  isis three-way-handshake ietf  
!  
router isis  
  net 49.2222.0000.0000.000c.00  
!  
End
```

```
!  
hostname 3-000F  
!  
interface FastEthernet0/0  
  no ip address  
  duplex auto  
  speed auto  
  ipv6 address 2001:DB8:0:5::2/64  
  ipv6 router isis  
  isis circuit-type level-2-only  
  isis network point-to-point  
  isis three-way-handshake ietf  
!  
interface FastEthernet0/1  
  no ip address  
  duplex auto  
  speed auto  
  ipv6 address 2001:DB8:0:10::1/64  
  ipv6 router isis  
  isis circuit-type level-1  
  isis network point-to-point  
  isis three-way-handshake ietf  
!  
interface FastEthernet1/0  
  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 three-way-handshake ietf  
!
```

```

router isis
 net 49.3333.0000.0000.000f.00
!
End

!
hostname 3-0010
!
interface FastEthernet0/0
 no ip address
 duplex auto
 speed auto
 ipv6 address 2001:DB8:0:6::2/64
 ipv6 router isis
 isis circuit-type level-2-only
 isis network point-to-point
 isis three-way-handshake ietf
!
interface FastEthernet0/1
 no ip address
 duplex auto
 speed auto
 ipv6 address 2001:DB8:0:10::2/64
 ipv6 router isis
 isis circuit-type level-1
 isis network point-to-point
 isis three-way-handshake ietf
!
interface FastEthernet1/0
 no ip address
 duplex auto
 speed auto
 ipv6 address 2001:DB8:0:8::2/64
 ipv6 router isis
 isis circuit-type level-1
 isis network point-to-point
 isis three-way-handshake ietf
!
router isis
 net 49.3333.0000.0000.0010.00
!
End

```

Level 2 Only Core

Show Output

```
1-000D#show isis nei
```

System Id	Type	Interface	IP Address	State	Holdtime	Circuit Id
2-000C	L2	Fa0/0		UP	26	02
3-000F	L2	Fa0/1		UP	28	00

1-000D#

1-000D#show isis data detail

IS-IS Level-1 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holdtime	ATT/P/OL
1-000D.00-00	* 0x00000002	0xE4B6	859	1/0/0

Area Address: 49.1111

NLPID: 0x8E

Hostname: 1-000D

IS-IS Level-2 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holdtime	ATT/P/OL
2-000C.00-00	0x00000004	0x4B27	875	0/0/0

Area Address: 49.2222

NLPID: 0x8E

Hostname: 2-000C

IPv6 Address: 2001:DB8:0:4::1

Metric: 10 IPv6 2001:DB8:0:3::/64

Metric: 10 IPv6 2001:DB8:0:4::/64

Metric: 10 IS 1-000D.00

Metric: 10 IS 1-000E.00

Metric: 10 IPv6 2001:DB8:0:1::/64

Metric: 10 IPv6 2001:DB8:0:2::/64

1-000D.00-00	* 0x00000005	0xF3AE	872	0/0/0
--------------	--------------	--------	-----	-------

Area Address: 49.1111

NLPID: 0x8E

Hostname: 1-000D

IPv6 Address: 2001:DB8:0:11::1

Metric: 10 IPv6 2001:DB8:0:3::/64

Metric: 10 IPv6 2001:DB8:0:5::/64

Metric: 10 IPv6 2001:DB8:0:11::/64

Metric: 10 IS 2-000C.00

Metric: 10 IS 3-000F.00

1-000E.00-00	0x00000004	0xA418	862	0/0/0
--------------	------------	--------	-----	-------

Area Address: 49.1111

NLPID: 0x8E

Hostname: 1-000E

IPv6 Address: 2001:DB8:0:6::1

Metric: 10 IPv6 2001:DB8:0:4::/64

Metric: 10 IPv6 2001:DB8:0:6::/64

Metric: 10 IS 2-000C.00

Metric: 10 IS 3-0010.00

Metric: 10 IPv6 2001:DB8:0:11::/64

3-000F.00-00	0x00000005	0x4B1F	850	0/0/0
--------------	------------	--------	-----	-------

Area Address: 49.3333

NLPID: 0x8E

Hostname: 3-000F

```

IPv6 Address: 2001:DB8:0:5::2
Metric: 10      IPv6 2001:DB8:0:5::/64
Metric: 10      IS 1-000D.00
Metric: 10      IPv6 2001:DB8:0:7::/64
Metric: 20      IPv6 2001:DB8:0:8::/64
Metric: 30      IPv6 2001:DB8:0:9::/64
Metric: 10      IPv6 2001:DB8:0:10::/64
3-0010.00-00    0x000000005    0xDFA5    847    0/0/0
Area Address: 49.3333
NLPID:         0x8E
Hostname: 3-0010
IPv6 Address: 2001:DB8:0:6::2
Metric: 10      IPv6 2001:DB8:0:6::/64
Metric: 10      IS 1-000E.00
Metric: 20      IPv6 2001:DB8:0:7::/64
Metric: 10      IPv6 2001:DB8:0:8::/64
Metric: 20      IPv6 2001:DB8:0:9::/64
Metric: 10      IPv6 2001:DB8:0:10::/64
1-000D#
1-000D#sho ipv6 route
IPv6 Routing Table - 16 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
I2  2001:DB8:0:1::/64 [115/20]
    via FE80::C603:16FF:FEF8:10, FastEthernet0/0
I2  2001:DB8:0:2::/64 [115/20]
    via FE80::C603:16FF:FEF8:10, FastEthernet0/0
C   2001:DB8:0:3::/64 [0/0]
    via ::, FastEthernet0/0
L   2001:DB8:0:3::2/128 [0/0]
    via ::, FastEthernet0/0
I2  2001:DB8:0:4::/64 [115/20]
    via FE80::C603:16FF:FEF8:10, FastEthernet0/0
C   2001:DB8:0:5::/64 [0/0]
    via ::, FastEthernet0/1
L   2001:DB8:0:5::1/128 [0/0]
    via ::, FastEthernet0/1
I2  2001:DB8:0:6::/64 [115/30]
    via FE80::C603:16FF:FEF8:10, FastEthernet0/0
I2  2001:DB8:0:7::/64 [115/20]
    via FE80::C606:FF:FEA0:0, FastEthernet0/1
I2  2001:DB8:0:8::/64 [115/30]
    via FE80::C606:FF:FEA0:0, FastEthernet0/1
I2  2001:DB8:0:9::/64 [115/40]
    via FE80::C606:FF:FEA0:0, FastEthernet0/1
I2  2001:DB8:0:10::/64 [115/20]
    via FE80::C606:FF:FEA0:0, FastEthernet0/1

```

```

C 2001:DB8:0:11::/64 [0/0]
  via ::, FastEthernet1/0
L 2001:DB8:0:11::1/128 [0/0]
  via ::, FastEthernet1/0
L FE80::/10 [0/0]
  via ::, Null0
L FF00::/8 [0/0]
  via ::, Null0

```

```

1-000D#
1-000D#sho isis topo

```

IS-IS paths to level-1 routers

System Id	Metric	Next-Hop	Interface	SNPA
1-000D	--			

IS-IS paths to level-2 routers

System Id	Metric	Next-Hop	Interface	SNPA
2-000C	10	2-000C	Fa0/0	c403.16f8.0010
1-000D	--			
1-000E	20	2-000C	Fa0/0	c403.16f8.0010
3-000F	10	3-000F	Fa0/1	c406.00a0.0000
3-0010	30	2-000C	Fa0/0	c403.16f8.0010

```

2-000A#show isis nei

```

System Id	Type	Interface	IP Address	State	Holdtime	Circuit Id
2-000C	L1	Fa0/0		UP	29	00

```

2-000A#

```

```

2-000A#sho isis data detail

```

IS-IS Level-1 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holdtime	ATT/P/OL
2-000A.00-00	* 0x00000003	0x11C2	791	0/0/0
Area Address: 49.2222				
NLPID: 0x8E				
Hostname: 2-000A				
IPv6 Address: 2001:DB8:0:1::1				
Metric: 10 IPv6 2001:DB8:0:1::/64				
Metric: 10 IS 2-000C.00				
2-000B.00-00	0x00000003	0x6B64	789	0/0/0
Area Address: 49.2222				
NLPID: 0x8E				
Hostname: 2-000B				
IPv6 Address: 2001:DB8:0:2::1				
Metric: 10 IPv6 2001:DB8:0:2::/64				
Metric: 10 IS 2-000C.00				
2-000C.00-00	0x00000006	0xAA37	797	1/0/0
Area Address: 49.2222				

```

NLPID:          0x8E
Hostname: 2-000C
IPv6 Address: 2001:DB8:0:2::2
Metric: 10      IPv6 2001:DB8:0:1::/64
Metric: 10      IPv6 2001:DB8:0:2::/64
Metric: 10      IS 2-000A.00
Metric: 10      IS 2-000B.00
IS-IS Level-2 Link State Database:
LSPID           LSP Seq Num  LSP Checksum  LSP Holddtime  ATT/P/OL
2-000A.00-00    * 0x00000002  0xB954        789            0/0/0
Area Address: 49.2222
NLPID:          0x8E
Hostname: 2-000A
Metric: 10      IPv6 2001:DB8:0:1::/64
Metric: 20      IPv6 2001:DB8:0:2::/64
2-000A#
2-000A#sho ipv6 rou
      ^
% Invalid input detected at '^' marker.

2-000A#sho ipv6 route
IPv6 Routing Table - 6 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
I1  ::/0 [115/10]
    via FE80::C603:16FF:FEF8:0, FastEthernet0/0
C   2001:DB8:0:1::/64 [0/0]
    via ::, FastEthernet0/0
L   2001:DB8:0:1::1/128 [0/0]
    via ::, FastEthernet0/0
I1  2001:DB8:0:2::/64 [115/20]
    via FE80::C603:16FF:FEF8:0, FastEthernet0/0
L   FE80::/10 [0/0]
    via ::, Null0
L   FF00::/8 [0/0]
    via ::, Null0
2-000A#
2-000A#sho isis top

IS-IS paths to level-1 routers
System Id      Metric      Next-Hop      Interface      SNPA
2-000A         --
2-000B         20          2-000C        Fa0/0          c403.16f8.0000
2-000C         10          2-000C        Fa0/0          c403.16f8.0000

IS-IS paths to level-2 routers
System Id      Metric      Next-Hop      Interface      SNPA

```

2-000A --

2-000A#

3-000F#show isis nei

System Id	Type	Interface	IP Address	State	Holdtime	Circuit Id
3-0011	L1	Fa1/0		UP	21	00
1-000D	L2	Fa0/0		UP	24	01
3-0010	L1	Fa0/1		UP	26	01

3-000F#

3-000F#sho isis data det

IS-IS Level-1 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holdtime	ATT/P/OL
3-000F.00-00	* 0x000000005	0x672E	615	1/0/0

Area Address: 49.3333

NLPID: 0x8E

Hostname: 3-000F

IPv6 Address: 2001:DB8:0:7::1

Metric: 10 IPv6 2001:DB8:0:10::/64

Metric: 10 IPv6 2001:DB8:0:7::/64

Metric: 10 IS 3-0011.00

Metric: 10 IS 3-0010.00

3-0010.00-00	0x000000005	0x5A4C	605	1/0/0
--------------	-------------	--------	-----	-------

Area Address: 49.3333

NLPID: 0x8E

Hostname: 3-0010

IPv6 Address: 2001:DB8:0:8::2

Metric: 10 IPv6 2001:DB8:0:10::/64

Metric: 10 IPv6 2001:DB8:0:8::/64

Metric: 10 IS 3-0012.00

Metric: 10 IS 3-000F.00

3-0011.00-00	0x000000003	0x7D2B	606	0/0/0
--------------	-------------	--------	-----	-------

Area Address: 49.3333

NLPID: 0x8E

Hostname: 3-0011

IPv6 Address: 2001:DB8:0:7::2

Metric: 10 IPv6 2001:DB8:0:7::/64

Metric: 10 IS 3-000F.00

3-0012.00-00	0x000000003	0x2436	596	0/0/0
--------------	-------------	--------	-----	-------

Area Address: 49.3333

NLPID: 0x8E

Hostname: 3-0012

IPv6 Address: 2001:DB8:0:9::2

Metric: 10 IPv6 2001:DB8:0:8::/64

Metric: 10 IPv6 2001:DB8:0:9::/64

Metric: 10 IS 3-0010.00

IS-IS Level-2 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holdtime	ATT/P/OL
-------	-------------	--------------	--------------	----------

2-000C.00-00	0x00000004	0x4B27	621	0/0/0
Area Address: 49.2222				
NLPID: 0x8E				
Hostname: 2-000C				
IPv6 Address: 2001:DB8:0:4::1				
Metric: 10 IPv6 2001:DB8:0:3::/64				
Metric: 10 IPv6 2001:DB8:0:4::/64				
Metric: 10 IS 1-000D.00				
Metric: 10 IS 1-000E.00				
Metric: 10 IPv6 2001:DB8:0:1::/64				
Metric: 10 IPv6 2001:DB8:0:2::/64				
1-000D.00-00	0x00000005	0xF3AE	618	0/0/0
Area Address: 49.1111				
NLPID: 0x8E				
Hostname: 1-000D				
IPv6 Address: 2001:DB8:0:11::1				
Metric: 10 IPv6 2001:DB8:0:3::/64				
Metric: 10 IPv6 2001:DB8:0:5::/64				
Metric: 10 IPv6 2001:DB8:0:11::/64				
Metric: 10 IS 2-000C.00				
Metric: 10 IS 3-000F.00				
1-000E.00-00	0x00000004	0xA418	608	0/0/0
Area Address: 49.1111				
NLPID: 0x8E				
Hostname: 1-000E				
IPv6 Address: 2001:DB8:0:6::1				
Metric: 10 IPv6 2001:DB8:0:4::/64				
Metric: 10 IPv6 2001:DB8:0:6::/64				
Metric: 10 IS 2-000C.00				
Metric: 10 IS 3-0010.00				
Metric: 10 IPv6 2001:DB8:0:11::/64				
3-000F.00-00	* 0x00000005	0x4B1F	601	0/0/0
Area Address: 49.3333				
NLPID: 0x8E				
Hostname: 3-000F				
IPv6 Address: 2001:DB8:0:5::2				
Metric: 10 IPv6 2001:DB8:0:5::/64				
Metric: 10 IS 1-000D.00				
Metric: 10 IPv6 2001:DB8:0:7::/64				
Metric: 20 IPv6 2001:DB8:0:8::/64				
Metric: 30 IPv6 2001:DB8:0:9::/64				
Metric: 10 IPv6 2001:DB8:0:10::/64				
3-0010.00-00	0x00000005	0xDFA5	585	0/0/0
Area Address: 49.3333				
NLPID: 0x8E				
Hostname: 3-0010				
IPv6 Address: 2001:DB8:0:6::2				
Metric: 10 IPv6 2001:DB8:0:6::/64				
Metric: 10 IS 1-000E.00				
Metric: 20 IPv6 2001:DB8:0:7::/64				


```

Metric: 10      IPv6 2001:DB8:0:8::/64
Metric: 20      IPv6 2001:DB8:0:9::/64
Metric: 10      IPv6 2001:DB8:0:10::/64

```

3-000F#

3-000F#sho ipv6 route

IPv6 Routing Table - 16 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

```

I2 2001:DB8:0:1::/64 [115/30]
    via FE80::C604:29FF:FEA8:1, FastEthernet0/0
I2 2001:DB8:0:2::/64 [115/30]
    via FE80::C604:29FF:FEA8:1, FastEthernet0/0
I2 2001:DB8:0:3::/64 [115/20]
    via FE80::C604:29FF:FEA8:1, FastEthernet0/0
I2 2001:DB8:0:4::/64 [115/30]
    via FE80::C604:29FF:FEA8:1, FastEthernet0/0
C 2001:DB8:0:5::/64 [0/0]
    via ::, FastEthernet0/0
L 2001:DB8:0:5::2/128 [0/0]
    via ::, FastEthernet0/0
I2 2001:DB8:0:6::/64 [115/40]
    via FE80::C604:29FF:FEA8:1, FastEthernet0/0
C 2001:DB8:0:7::/64 [0/0]
    via ::, FastEthernet1/0
L 2001:DB8:0:7::1/128 [0/0]
    via ::, FastEthernet1/0
I1 2001:DB8:0:8::/64 [115/20]
    via FE80::C607:2CFF:FEB8:1, FastEthernet0/1
I1 2001:DB8:0:9::/64 [115/30]
    via FE80::C607:2CFF:FEB8:1, FastEthernet0/1
C 2001:DB8:0:10::/64 [0/0]
    via ::, FastEthernet0/1
L 2001:DB8:0:10::1/128 [0/0]
    via ::, FastEthernet0/1
I2 2001:DB8:0:11::/64 [115/20]
    via FE80::C604:29FF:FEA8:1, FastEthernet0/0
L FE80::/10 [0/0]
    via ::, Null0
L FF00::/8 [0/0]
    via ::, Null0

```

3-000F#

3-000F#sho isis topo

IS-IS paths to level-1 routers

System Id	Metric	Next-Hop	Interface	SNPA
3-000F	--			
3-0010	10	3-0010	Fa0/1	c407.2cb8.0001

3-0011	10	3-0011	Fa1/0	c408.03f4.0000
3-0012	20	3-0010	Fa0/1	c407.2cb8.0001

IS-IS paths to level-2 routers

System Id	Metric	Next-Hop	Interface	SNPA
2-000C	20	1-000D	Fa0/0	c404.29a8.0001
1-000D	10	1-000D	Fa0/0	c404.29a8.0001
1-000E	30	1-000D	Fa0/0	c404.29a8.0001
3-000F	--			
3-0010	40	1-000D	Fa0/0	c404.29a8.0001
3-000F#				

Configurations

```

!
hostname 3-0010
!
interface FastEthernet0/0
  no ip address
  duplex auto
  speed auto
  ipv6 address 2001:DB8:0:6::2/64
  ipv6 router isis
  isis circuit-type level-2-only
  isis network point-to-point
  isis three-way-handshake ietf
!
interface FastEthernet0/1
  no ip address
  duplex auto
  speed auto
  ipv6 address 2001:DB8:0:10::2/64
  ipv6 router isis
  isis circuit-type level-1
  isis network point-to-point
  isis three-way-handshake ietf
!
interface FastEthernet1/0
  no ip address
  duplex auto
  speed auto
  ipv6 address 2001:DB8:0:8::2/64
  ipv6 router isis
  isis circuit-type level-1
  isis network point-to-point
  isis three-way-handshake ietf
!
router isis
  net 49.3333.0000.0000.0010.00
!

```

End

```
!  
hostname 3-000F  
!  
interface FastEthernet0/0  
  no ip address  
  duplex auto  
  speed auto  
  ipv6 address 2001:DB8:0:5::2/64  
  ipv6 router isis  
  isis circuit-type level-2-only  
  isis network point-to-point  
  isis three-way-handshake ietf  
!  
interface FastEthernet0/1  
  no ip address  
  duplex auto  
  speed auto  
  ipv6 address 2001:DB8:0:10::1/64  
  ipv6 router isis  
  isis circuit-type level-1  
  isis network point-to-point  
  isis three-way-handshake ietf  
!  
interface FastEthernet1/0  
  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 three-way-handshake ietf  
!  
router isis  
  net 49.3333.0000.0000.000f.00  
!  
End
```

```
!  
hostname 2-000C  
!  
interface FastEthernet0/0  
  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 three-way-handshake ietf
!
interface FastEthernet0/1
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 three-way-handshake ietf
!
interface FastEthernet1/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:3::1/64
ipv6 router isis
isis circuit-type level-2-only
isis network point-to-point
isis three-way-handshake ietf
!
interface FastEthernet2/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:4::1/64
ipv6 router isis
isis circuit-type level-2-only
isis network point-to-point
isis three-way-handshake ietf
!
router isis
net 49.2222.0000.0000.000c.00
!
End

!
hostname 2-000B
!
interface FastEthernet0/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:2::1/64
ipv6 router isis
isis network point-to-point
isis three-way-handshake ietf
!
```

```
interface FastEthernet0/1
  no ip address
  shutdown
  duplex auto
  speed auto
!
router isis
  net 49.2222.0000.0000.000b.00
!
End

!
hostname 2-000A
!
interface FastEthernet0/0
  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 three-way-handshake ietf
  isis csnp-interval 10
!
router isis
  net 49.2222.0000.0000.000a.00
!
End

!
hostname 1-000E
!
interface FastEthernet0/0
  no ip address
  duplex auto
  speed auto
  ipv6 address 2001:DB8:0:4::2/64
  ipv6 router isis
  isis circuit-type level-2-only
  isis network point-to-point
  isis three-way-handshake ietf
!
interface FastEthernet0/1
  no ip address
  duplex auto
  speed auto
  ipv6 address 2001:DB8:0:11::2/64
  ipv6 router isis
  isis circuit-type level-1
```

```
isis network point-to-point
isis three-way-handshake ietf
!
interface FastEthernet1/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:6::1/64
ipv6 router isis
isis circuit-type level-2-only
isis network point-to-point
isis three-way-handshake ietf
!
router isis
net 49.1111.0000.0000.000e.00
!
End
```

```
!
hostname 1-000D
!
interface FastEthernet0/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:3::2/64
ipv6 router isis
isis circuit-type level-2-only
isis network point-to-point
isis three-way-handshake ietf
!
interface FastEthernet0/1
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:5::1/64
ipv6 router isis
isis circuit-type level-2-only
isis network point-to-point
isis three-way-handshake ietf
!
interface FastEthernet1/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:11::1/64
ipv6 router isis
isis circuit-type level-2-only
isis network point-to-point
isis three-way-handshake ietf
```

```
!  
router isis  
  net 49.1111.0000.0000.000d.00  
!  
End  
  
!  
hostname 3-0012  
!  
interface FastEthernet0/0  
  no ip address  
  duplex auto  
  speed auto  
  ipv6 address 2001:DB8:0:8::1/64  
  ipv6 router isis  
  isis circuit-type level-1  
  isis network point-to-point  
  isis three-way-handshake ietf  
!  
interface FastEthernet0/1  
  no ip address  
  duplex auto  
  speed auto  
  ipv6 address 2001:DB8:0:9::2/64  
  ipv6 router isis  
  isis circuit-type level-1  
  isis network point-to-point  
  isis three-way-handshake ietf  
!  
router isis  
  net 49.3333.0000.0000.0012.00  
!  
End  
  
!  
hostname 3-0011  
!  
interface FastEthernet0/0  
  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 three-way-handshake ietf  
!  
router isis  
  net 49.3333.0000.0000.0011.00  
!
```

End

Level 2 Only Network

Show Output

```
1-000D#show isis nei
```

System Id	Type	Interface	IP Address	State	Holdtime	Circuit Id
2-000C	L2	Fa0/0		UP	22	02
3-000F	L2	Fa0/1		UP	28	00
1-000E	L2	Fa1/0		UP	21	01

```
1-000D#
```

```
1-000D#show isis da det
```

IS-IS Level-1 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holdtime	ATT/P/OL
1-000D.00-00	* 0x000000002	0xE4B6	904	1/0/0

Area Address: 49.1111
NLPID: 0x8E
Hostname: 1-000D

IS-IS Level-2 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holdtime	ATT/P/OL
2-000A.00-00	0x000000003	0x11C2	913	0/0/0

Area Address: 49.2222
NLPID: 0x8E
Hostname: 2-000A
IPv6 Address: 2001:DB8:0:1::1
Metric: 10 IPv6 2001:DB8:0:1::/64
Metric: 10 IS 2-000C.00

2-000B.00-00	0x000000003	0x6B64	907	0/0/0
--------------	-------------	--------	-----	-------

Area Address: 49.2222
NLPID: 0x8E
Hostname: 2-000B
IPv6 Address: 2001:DB8:0:2::1
Metric: 10 IPv6 2001:DB8:0:2::/64
Metric: 10 IS 2-000C.00

2-000C.00-00	0x000000007	0xC356	915	0/0/0
--------------	-------------	--------	-----	-------

Area Address: 49.2222
NLPID: 0x8E
Hostname: 2-000C
IPv6 Address: 2001:DB8:0:4::1
Metric: 10 IPv6 2001:DB8:0:1::/64
Metric: 10 IPv6 2001:DB8:0:2::/64
Metric: 10 IPv6 2001:DB8:0:3::/64
Metric: 10 IPv6 2001:DB8:0:4::/64
Metric: 10 IS 2-000A.00
Metric: 10 IS 2-000B.00
Metric: 10 IS 1-000E.00

Metric: 10	IS 1-000D.00			
1-000D.00-00	* 0x000000005	0x9865	902	0/0/0
Area Address: 49.1111				
NLPID: 0x8E				
Hostname: 1-000D				
IPv6 Address: 2001:DB8:0:11::1				
Metric: 10	IPv6 2001:DB8:0:3::/64			
Metric: 10	IPv6 2001:DB8:0:5::/64			
Metric: 10	IPv6 2001:DB8:0:11::/64			
Metric: 10	IS 2-000C.00			
Metric: 10	IS 3-000F.00			
Metric: 10	IS 1-000E.00			
1-000E.00-00	0x000000005	0x5FA5	902	0/0/0
Area Address: 49.1111				
NLPID: 0x8E				
Hostname: 1-000E				
IPv6 Address: 2001:DB8:0:6::1				
Metric: 10	IPv6 2001:DB8:0:4::/64			
Metric: 10	IPv6 2001:DB8:0:11::/64			
Metric: 10	IPv6 2001:DB8:0:6::/64			
Metric: 10	IS 2-000C.00			
Metric: 10	IS 1-000D.00			
Metric: 10	IS 3-0010.00			
3-000F.00-00	0x000000005	0x9C19	891	0/0/0
Area Address: 49.3333				
NLPID: 0x8E				
Hostname: 3-000F				
IPv6 Address: 2001:DB8:0:7::1				
Metric: 10	IPv6 2001:DB8:0:5::/64			
Metric: 10	IPv6 2001:DB8:0:10::/64			
Metric: 10	IPv6 2001:DB8:0:7::/64			
Metric: 10	IS 1-000D.00			
Metric: 10	IS 3-0011.00			
Metric: 10	IS 3-0010.00			
3-0010.00-00	0x000000005	0x2F95	884	0/0/0
Area Address: 49.3333				
NLPID: 0x8E				
Hostname: 3-0010				
IPv6 Address: 2001:DB8:0:8::2				
Metric: 10	IPv6 2001:DB8:0:6::/64			
Metric: 10	IPv6 2001:DB8:0:10::/64			
Metric: 10	IPv6 2001:DB8:0:8::/64			
Metric: 10	IS 1-000E.00			
Metric: 10	IS 3-0012.00			
Metric: 10	IS 3-000F.00			
3-0011.00-00	0x000000003	0x7D2B	878	0/0/0
Area Address: 49.3333				
NLPID: 0x8E				
Hostname: 3-0011				
IPv6 Address: 2001:DB8:0:7::2				

```

Metric: 10          IPv6 2001:DB8:0:7::/64
Metric: 10          IS 3-000F.00
3-0012.00-00        0x000000004    0x2237          866          0/0/0
Area Address: 49.3333
NLPID:             0x8E
Hostname: 3-0012
IPv6 Address: 2001:DB8:0:9::2
Metric: 10          IPv6 2001:DB8:0:8::/64
Metric: 10          IPv6 2001:DB8:0:9::/64
Metric: 10          IS 3-0010.00
1-000D#
1-000D#show ipv6 route
IPv6 Routing Table - 16 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
I2  2001:DB8:0:1::/64 [115/20]
    via FE80::C603:16FF:FEF8:10, FastEthernet0/0
I2  2001:DB8:0:2::/64 [115/20]
    via FE80::C603:16FF:FEF8:10, FastEthernet0/0
C   2001:DB8:0:3::/64 [0/0]
    via ::, FastEthernet0/0
L   2001:DB8:0:3::2/128 [0/0]
    via ::, FastEthernet0/0
I2  2001:DB8:0:4::/64 [115/20]
    via FE80::C605:20FF:FE5C:1, FastEthernet1/0
    via FE80::C603:16FF:FEF8:10, FastEthernet0/0
C   2001:DB8:0:5::/64 [0/0]
    via ::, FastEthernet0/1
L   2001:DB8:0:5::1/128 [0/0]
    via ::, FastEthernet0/1
I2  2001:DB8:0:6::/64 [115/20]
    via FE80::C605:20FF:FE5C:1, FastEthernet1/0
I2  2001:DB8:0:7::/64 [115/20]
    via FE80::C606:FF:FEA0:0, FastEthernet0/1
I2  2001:DB8:0:8::/64 [115/30]
    via FE80::C605:20FF:FE5C:1, FastEthernet1/0
    via FE80::C606:FF:FEA0:0, FastEthernet0/1
I2  2001:DB8:0:9::/64 [115/40]
    via FE80::C605:20FF:FE5C:1, FastEthernet1/0
    via FE80::C606:FF:FEA0:0, FastEthernet0/1
I2  2001:DB8:0:10::/64 [115/20]
    via FE80::C606:FF:FEA0:0, FastEthernet0/1
C   2001:DB8:0:11::/64 [0/0]
    via ::, FastEthernet1/0
L   2001:DB8:0:11::1/128 [0/0]
    via ::, FastEthernet1/0
L   FE80::/10 [0/0]

```

```

    via ::, Null0
L   FF00::/8 [0/0]
    via ::, Null0
1-000D#
1-000D#show isis topo

```

IS-IS paths to level-1 routers

System Id	Metric	Next-Hop	Interface	SNPA
1-000D	--			

IS-IS paths to level-2 routers

System Id	Metric	Next-Hop	Interface	SNPA
2-000A	20	2-000C	Fa0/0	c403.16f8.0010
2-000B	20	2-000C	Fa0/0	c403.16f8.0010
2-000C	10	2-000C	Fa0/0	c403.16f8.0010
1-000D	--			
1-000E	10	1-000E	Fa1/0	c405.205c.0001
3-000F	10	3-000F	Fa0/1	c406.00a0.0000
3-0010	20	1-000E	Fa1/0	c405.205c.0001
		3-000F	Fa0/1	c406.00a0.0000
3-0011	20	3-000F	Fa0/1	c406.00a0.0000
3-0012	30	1-000E	Fa1/0	c405.205c.0001
		3-000F	Fa0/1	c406.00a0.0000

```
1-000D#
```

```
2-000A#show isis nei
```

System Id	Type	Interface	IP Address	State	Holdtime	Circuit Id
2-000C	L2	Fa0/0		UP	28	00

```
2-000A#
```

```
2-000A#show isis data det
```

IS-IS Level-1 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holdtime	ATT/P/OL
2-000A.00-00	* 0x000000002	0xB1CC	852	1/0/0
Area Address: 49.2222				
NLPID: 0x8E				
Hostname: 2-000A				

IS-IS Level-2 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holdtime	ATT/P/OL
2-000A.00-00	* 0x000000003	0x11C2	845	0/0/0
Area Address: 49.2222				
NLPID: 0x8E				
Hostname: 2-000A				
IPv6 Address: 2001:DB8:0:1::1				
Metric: 10 IPv6 2001:DB8:0:1::/64				
Metric: 10 IS 2-000C.00				
2-000B.00-00	0x000000003	0x6B64	837	0/0/0
Area Address: 49.2222				

```

NLPID:      0x8E
Hostname: 2-000B
IPv6 Address: 2001:DB8:0:2::1
Metric: 10      IPv6 2001:DB8:0:2::/64
Metric: 10      IS 2-000C.00
2-000C.00-00      0x000000007      0xC356      845      0/0/0
Area Address: 49.2222
NLPID:      0x8E
Hostname: 2-000C
IPv6 Address: 2001:DB8:0:4::1
Metric: 10      IPv6 2001:DB8:0:1::/64
Metric: 10      IPv6 2001:DB8:0:2::/64
Metric: 10      IPv6 2001:DB8:0:3::/64
Metric: 10      IPv6 2001:DB8:0:4::/64
Metric: 10      IS 2-000A.00
Metric: 10      IS 2-000B.00
Metric: 10      IS 1-000E.00
Metric: 10      IS 1-000D.00
1-000D.00-00      0x000000005      0x9865      823      0/0/0
Area Address: 49.1111
NLPID:      0x8E
Hostname: 1-000D
IPv6 Address: 2001:DB8:0:11::1
Metric: 10      IPv6 2001:DB8:0:3::/64
Metric: 10      IPv6 2001:DB8:0:5::/64
Metric: 10      IPv6 2001:DB8:0:11::/64
Metric: 10      IS 2-000C.00
Metric: 10      IS 3-000F.00
Metric: 10      IS 1-000E.00
1-000E.00-00      0x000000005      0x5FA5      822      0/0/0
Area Address: 49.1111
NLPID:      0x8E
Hostname: 1-000E
IPv6 Address: 2001:DB8:0:6::1
Metric: 10      IPv6 2001:DB8:0:4::/64
Metric: 10      IPv6 2001:DB8:0:11::/64
Metric: 10      IPv6 2001:DB8:0:6::/64
Metric: 10      IS 2-000C.00
Metric: 10      IS 1-000D.00
Metric: 10      IS 3-0010.00
3-000F.00-00      0x000000005      0x9C19      812      0/0/0
Area Address: 49.3333
NLPID:      0x8E
Hostname: 3-000F
IPv6 Address: 2001:DB8:0:7::1
Metric: 10      IPv6 2001:DB8:0:5::/64
Metric: 10      IPv6 2001:DB8:0:10::/64
Metric: 10      IPv6 2001:DB8:0:7::/64
Metric: 10      IS 1-000D.00
Metric: 10      IS 3-0011.00

```

```

Metric: 10          IS 3-0010.00
3-0010.00-00        0x000000005    0x2F95          805          0/0/0
Area Address: 49.3333
NLPID:             0x8E
Hostname: 3-0010
IPv6 Address: 2001:DB8:0:8::2
Metric: 10          IPv6 2001:DB8:0:6::/64
Metric: 10          IPv6 2001:DB8:0:10::/64
Metric: 10          IPv6 2001:DB8:0:8::/64
Metric: 10          IS 1-000E.00
Metric: 10          IS 3-0012.00
Metric: 10          IS 3-000F.00
3-0011.00-00        0x000000003    0x7D2B          798          0/0/0
Area Address: 49.3333
NLPID:             0x8E
Hostname: 3-0011
IPv6 Address: 2001:DB8:0:7::2
Metric: 10          IPv6 2001:DB8:0:7::/64
Metric: 10          IS 3-000F.00
3-0012.00-00        0x000000004    0x2237          787          0/0/0
Area Address: 49.3333
NLPID:             0x8E
Hostname: 3-0012
IPv6 Address: 2001:DB8:0:9::2
Metric: 10          IPv6 2001:DB8:0:8::/64
Metric: 10          IPv6 2001:DB8:0:9::/64
Metric: 10          IS 3-0010.00

```

2-000A#

2-000A#show ipv6 route

IPv6 Routing Table - 14 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 ::, FastEthernet0/0
L 2001:DB8:0:1::1/128 [0/0]
  via ::, FastEthernet0/0
I2 2001:DB8:0:2::/64 [115/20]
  via FE80::C603:16FF:FEF8:0, FastEthernet0/0
I2 2001:DB8:0:3::/64 [115/20]
  via FE80::C603:16FF:FEF8:0, FastEthernet0/0
I2 2001:DB8:0:4::/64 [115/20]
  via FE80::C603:16FF:FEF8:0, FastEthernet0/0
I2 2001:DB8:0:5::/64 [115/30]
  via FE80::C603:16FF:FEF8:0, FastEthernet0/0
I2 2001:DB8:0:6::/64 [115/30]
  via FE80::C603:16FF:FEF8:0, FastEthernet0/0
I2 2001:DB8:0:7::/64 [115/40]

```

```

    via FE80::C603:16FF:FEF8:0, FastEthernet0/0
I2  2001:DB8:0:8::/64 [115/40]
    via FE80::C603:16FF:FEF8:0, FastEthernet0/0
I2  2001:DB8:0:9::/64 [115/50]
    via FE80::C603:16FF:FEF8:0, FastEthernet0/0
I2  2001:DB8:0:10::/64 [115/40]
    via FE80::C603:16FF:FEF8:0, FastEthernet0/0
I2  2001:DB8:0:11::/64 [115/30]
    via FE80::C603:16FF:FEF8:0, FastEthernet0/0
L   FE80::/10 [0/0]
    via ::, Null0
L   FF00::/8 [0/0]
    via ::, Null0

```

2-000A#

2-000A#show isis topo

IS-IS paths to level-1 routers

System Id	Metric	Next-Hop	Interface	SNPA
2-000A	--			

IS-IS paths to level-2 routers

System Id	Metric	Next-Hop	Interface	SNPA
2-000A	--			
2-000B	20	2-000C	Fa0/0	c403.16f8.0000
2-000C	10	2-000C	Fa0/0	c403.16f8.0000
1-000D	20	2-000C	Fa0/0	c403.16f8.0000
1-000E	20	2-000C	Fa0/0	c403.16f8.0000
3-000F	30	2-000C	Fa0/0	c403.16f8.0000
3-0010	30	2-000C	Fa0/0	c403.16f8.0000
3-0011	40	2-000C	Fa0/0	c403.16f8.0000
3-0012	40	2-000C	Fa0/0	c403.16f8.0000

2-000A#

2-000A#

3-000F#show isis nei

System Id	Type	Interface	IP Address	State	Holdtime	Circuit Id
1-000D	L2	Fa0/0		UP	24	01
3-0011	L2	Fa1/0		UP	23	00
3-0010	L2	Fa0/1		UP	24	01

3-000F#

3-000F#show isis data detail

IS-IS Level-1 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holdtime	ATT/P/OL
3-000F.00-00	* 0x00000002	0xCE82	1072	1/0/0

Area Address: 49.3333

NLPID: 0x8E

Hostname: 3-000F

IS-IS Level-2 Link State Database:

LSPID	LSP Seq Num	LSP Checksum	LSP Holddtime	ATT/P/OL
2-000A.00-00	0x00000003	0x11C2	1079	0/0/0
Area Address: 49.2222				
NLPID: 0x8E				
Hostname: 2-000A				
IPv6 Address: 2001:DB8:0:1::1				
Metric: 10 IPv6 2001:DB8:0:1::/64				
Metric: 10 IS 2-000C.00				
2-000B.00-00	0x00000003	0x6B64	1074	0/0/0
Area Address: 49.2222				
NLPID: 0x8E				
Hostname: 2-000B				
IPv6 Address: 2001:DB8:0:2::1				
Metric: 10 IPv6 2001:DB8:0:2::/64				
Metric: 10 IS 2-000C.00				
2-000C.00-00	0x00000007	0xC356	1082	0/0/0
Area Address: 49.2222				
NLPID: 0x8E				
Hostname: 2-000C				
IPv6 Address: 2001:DB8:0:4::1				
Metric: 10 IPv6 2001:DB8:0:1::/64				
Metric: 10 IPv6 2001:DB8:0:2::/64				
Metric: 10 IPv6 2001:DB8:0:3::/64				
Metric: 10 IPv6 2001:DB8:0:4::/64				
Metric: 10 IS 2-000A.00				
Metric: 10 IS 2-000B.00				
Metric: 10 IS 1-000E.00				
Metric: 10 IS 1-000D.00				
1-000D.00-00	0x00000005	0x9865	1063	0/0/0
Area Address: 49.1111				
NLPID: 0x8E				
Hostname: 1-000D				
IPv6 Address: 2001:DB8:0:11::1				
Metric: 10 IPv6 2001:DB8:0:3::/64				
Metric: 10 IPv6 2001:DB8:0:5::/64				
Metric: 10 IPv6 2001:DB8:0:11::/64				
Metric: 10 IS 2-000C.00				
Metric: 10 IS 3-000F.00				
Metric: 10 IS 1-000E.00				
1-000E.00-00	0x00000005	0x5FA5	1063	0/0/0
Area Address: 49.1111				
NLPID: 0x8E				
Hostname: 1-000E				
IPv6 Address: 2001:DB8:0:6::1				
Metric: 10 IPv6 2001:DB8:0:4::/64				
Metric: 10 IPv6 2001:DB8:0:11::/64				
Metric: 10 IPv6 2001:DB8:0:6::/64				
Metric: 10 IS 2-000C.00				
Metric: 10 IS 1-000D.00				

```

Metric: 10          IS 3-0010.00
3-000F.00-00        * 0x000000005   0x9C19          1056          0/0/0
Area Address: 49.3333
NLPID:              0x8E
Hostname: 3-000F
IPv6 Address: 2001:DB8:0:7::1
Metric: 10          IPv6 2001:DB8:0:5::/64
Metric: 10          IPv6 2001:DB8:0:10::/64
Metric: 10          IPv6 2001:DB8:0:7::/64
Metric: 10          IS 1-000D.00
Metric: 10          IS 3-0011.00
Metric: 10          IS 3-0010.00
3-0010.00-00        0x000000005   0x2F95          1049          0/0/0
Area Address: 49.3333
NLPID:              0x8E
Hostname: 3-0010
IPv6 Address: 2001:DB8:0:8::2
Metric: 10          IPv6 2001:DB8:0:6::/64
Metric: 10          IPv6 2001:DB8:0:10::/64
Metric: 10          IPv6 2001:DB8:0:8::/64
Metric: 10          IS 1-000E.00
Metric: 10          IS 3-0012.00
Metric: 10          IS 3-000F.00
3-0011.00-00        0x000000003   0x7D2B          1042          0/0/0
Area Address: 49.3333
NLPID:              0x8E
Hostname: 3-0011
IPv6 Address: 2001:DB8:0:7::2
Metric: 10          IPv6 2001:DB8:0:7::/64
Metric: 10          IS 3-000F.00
3-0012.00-00        0x000000004   0x2237          1029          0/0/0
Area Address: 49.3333
NLPID:              0x8E
Hostname: 3-0012
IPv6 Address: 2001:DB8:0:9::2
Metric: 10          IPv6 2001:DB8:0:8::/64
Metric: 10          IPv6 2001:DB8:0:9::/64
Metric: 10          IS 3-0010.00
3-000F#
3-000F#show ipv6 route
IPv6 Routing Table - 16 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
I2  2001:DB8:0:1::/64 [115/30]
    via FE80::C604:29FF:FEA8:1, FastEthernet0/0
I2  2001:DB8:0:2::/64 [115/30]
    via FE80::C604:29FF:FEA8:1, FastEthernet0/0

```



```

I2  2001:DB8:0:3::/64 [115/20]
    via FE80::C604:29FF:FEA8:1, FastEthernet0/0
I2  2001:DB8:0:4::/64 [115/30]
    via FE80::C604:29FF:FEA8:1, FastEthernet0/0
    via FE80::C607:2CFF:FEB8:1, FastEthernet0/1
C   2001:DB8:0:5::/64 [0/0]
    via ::, FastEthernet0/0
L   2001:DB8:0:5::2/128 [0/0]
    via ::, FastEthernet0/0
I2  2001:DB8:0:6::/64 [115/20]
    via FE80::C607:2CFF:FEB8:1, FastEthernet0/1
C   2001:DB8:0:7::/64 [0/0]
    via ::, FastEthernet1/0
L   2001:DB8:0:7::1/128 [0/0]
    via ::, FastEthernet1/0
I2  2001:DB8:0:8::/64 [115/20]
    via FE80::C607:2CFF:FEB8:1, FastEthernet0/1
I2  2001:DB8:0:9::/64 [115/30]
    via FE80::C607:2CFF:FEB8:1, FastEthernet0/1
C   2001:DB8:0:10::/64 [0/0]
    via ::, FastEthernet0/1
L   2001:DB8:0:10::1/128 [0/0]
    via ::, FastEthernet0/1
I2  2001:DB8:0:11::/64 [115/20]
    via FE80::C604:29FF:FEA8:1, FastEthernet0/0
L   FE80::/10 [0/0]
    via ::, Null0
L   FF00::/8 [0/0]
    via ::, Null0
3-000F#
3-000F#sho isis topo

```

IS-IS paths to level-1 routers

System Id	Metric	Next-Hop	Interface	SNPA
3-000F	--			

IS-IS paths to level-2 routers

System Id	Metric	Next-Hop	Interface	SNPA
2-000A	30	1-000D	Fa0/0	c404.29a8.0001
2-000B	30	1-000D	Fa0/0	c404.29a8.0001
2-000C	20	1-000D	Fa0/0	c404.29a8.0001
1-000D	10	1-000D	Fa0/0	c404.29a8.0001
1-000E	20	1-000D	Fa0/0	c404.29a8.0001
		3-0010	Fa0/1	c407.2cb8.0001
3-000F	--			
3-0010	10	3-0010	Fa0/1	c407.2cb8.0001
3-0011	10	3-0011	Fa1/0	c408.03f4.0000
3-0012	20	3-0010	Fa0/1	c407.2cb8.0001
3-000F#				

Configurations

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

```
!  
hostname 2-000A  
interface FastEthernet0/0  
  no ip address  
  duplex auto  
  speed auto  
  ipv6 address 2001:DB8:0:1::1/64  
  ipv6 router isis  
  isis circuit-type level-2-only  
  isis network point-to-point  
  isis three-way-handshake ietf  
  isis csnp-interval 10  
!  
router isis  
  net 49.2222.0000.0000.000a.00  
!  
End
```

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

```
!  
interface FastEthernet0/1  
  no ip address  
  duplex auto  
  speed auto  
  ipv6 address 2001:DB8:0:11::2/64  
  ipv6 router isis  
  isis circuit-type level-2-only  
  isis network point-to-point  
  isis three-way-handshake ietf
```

```
!  
interface FastEthernet1/0  
  no ip address  
  duplex auto  
  speed auto  
  ipv6 address 2001:DB8:0:6::1/64  
  ipv6 router isis  
  isis circuit-type level-2-only  
  isis network point-to-point  
  isis three-way-handshake ietf
```

```
!  
router isis  
  net 49.1111.0000.0000.000e.00
```

```
!  
End
```

```
!  
hostname 1-000D
```

```
!  
interface FastEthernet0/0  
  no ip address  
  duplex auto  
  speed auto  
  ipv6 address 2001:DB8:0:3::2/64  
  ipv6 router isis  
  isis circuit-type level-2-only  
  isis network point-to-point  
  isis three-way-handshake ietf
```

```
!  
interface FastEthernet0/1  
  no ip address  
  duplex auto  
  speed auto  
  ipv6 address 2001:DB8:0:5::1/64  
  ipv6 router isis  
  isis circuit-type level-2-only  
  isis network point-to-point  
  isis three-way-handshake ietf
```

```
!  
interface FastEthernet1/0
```

```
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:11::1/64
ipv6 router isis
isis circuit-type level-2-only
isis network point-to-point
isis three-way-handshake ietf
!
router isis
net 49.1111.0000.0000.000d.00
!
End
```

```
!
hostname 3-0012
!
interface FastEthernet0/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:8::1/64
ipv6 router isis
isis circuit-type level-2-only
isis network point-to-point
isis three-way-handshake ietf
!
interface FastEthernet0/1
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:9::2/64
ipv6 router isis
isis circuit-type level-2-only
isis network point-to-point
isis three-way-handshake ietf
!
router isis
net 49.3333.0000.0000.0012.00
!
End
```

```
!
hostname 3-0011
!
interface FastEthernet0/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:7::2/64
```

```
ipv6 router isis
isis circuit-type level-2-only
isis network point-to-point
isis three-way-handshake ietf
!
router isis
net 49.3333.0000.0000.0011.00
!
End

!
hostname 3-0010
!
interface FastEthernet0/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:6::2/64
ipv6 router isis
isis circuit-type level-2-only
isis network point-to-point
isis three-way-handshake ietf
!
interface FastEthernet0/1
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:10::2/64
ipv6 router isis
isis circuit-type level-2-only
isis network point-to-point
isis three-way-handshake ietf
!
interface FastEthernet1/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:8::2/64
ipv6 router isis
isis circuit-type level-2-only
isis network point-to-point
isis three-way-handshake ietf
!
router isis
net 49.3333.0000.0000.0010.00
!
End

!
hostname 3-000F
```

```
!  
interface FastEthernet0/0  
  no ip address  
  duplex auto  
  speed auto  
  ipv6 address 2001:DB8:0:5::2/64  
  ipv6 router isis  
  isis circuit-type level-2-only  
  isis network point-to-point  
  isis three-way-handshake ietf  
!  
interface FastEthernet0/1  
  no ip address  
  duplex auto  
  speed auto  
  ipv6 address 2001:DB8:0:10::1/64  
  ipv6 router isis  
  isis circuit-type level-2-only  
  isis network point-to-point  
  isis three-way-handshake ietf  
!  
interface FastEthernet1/0  
  no ip address  
  duplex auto  
  speed auto  
  ipv6 address 2001:DB8:0:7::1/64  
  ipv6 router isis  
  isis circuit-type level-2-only  
  isis network point-to-point  
  isis three-way-handshake ietf  
!  
router isis  
  net 49.3333.0000.0000.000f.00  
!  
End
```

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

```
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:2::2/64
ipv6 router isis
isis circuit-type level-2-only
isis network point-to-point
isis three-way-handshake ietf
!
interface FastEthernet1/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:3::1/64
ipv6 router isis
isis circuit-type level-2-only
isis network point-to-point
isis three-way-handshake ietf
!
interface FastEthernet2/0
no ip address
duplex auto
speed auto
ipv6 address 2001:DB8:0:4::1/64
ipv6 router isis
isis circuit-type level-2-only
isis network point-to-point
isis three-way-handshake ietf
!
router isis
net 49.2222.0000.0000.000c.00
!
end
```