

ISIS Redistribute Connected

Purpose	Redistribute Connected networks via ISIS to neighbor.
Test setup	<p>The diagram illustrates a network topology with three routers: R1, R2, and R3. R1 is connected to R2 via interface G0/1 with IP 192.168.2.1/24. R2 is connected to R3 via interface G0/2 with IP 192.168.1.1/24. R2 has a loopback interface Loopback 10 (10.10.10.10). R1 has a loopback interface Loopback 0 (1.1.1.1/32). R3 has two loopback interfaces: Loopback 1 (2.2.2.1/32) and Loopback 5 (5.5.5.5). R1 and R2 are in OSPF Area 1. R2 and R3 are in ISIS Area 1.</p>
Test configuration	<pre> Router 2 interface Loopback0 ip address 10.10.10.10 255.255.255.255 no ip directed-broadcast ip router isis 1 ! Interface GigaEthernet0/0 Ip add 172.16.254.234 255.255.255.0 no ip directed-broadcast ip http firewall type 0 ! Interface GigaEthernet0/1 Ip add 192.168.2.10 255.255.255.0 no ip directed-broadcast ip http firewall type 0 ! interface GigaEthernet0/2 ip address 192.168.1.1 255.255.255.0 no ip directed-broadcast ip router isis 1 ip http firewalltype 0 ! router isis 1 net 00.0001.0000.0000.0001.00 redistribute connected level-1-2 Router 3 interface Loopback5 ip address 5.5.5.5 255.255.255.255 no ip directed-broadcast ip router isis 1 ! interface GigaEthernet0/2 ip address 192.168.1.2 255.255.255.0 no ip directed-broadcast </pre>

	<pre>ip router isis 1 ip http firewalltype 0 ! router isis 1 net 00.0001.0000.0000.0002.00</pre>
Procedure	<p>Connect two routers on ethernet port, configure Router ISIS protocol, enable isis routing on interested interfaces, define NET ID on each router under ISIS process.</p> <p>R2 has few connected networks.</p> <p>Redistribute connected networks on R2 via ISIS for R3.</p> <p>Verify ISIS routing table on R3 receives connected networks advertised by R2.</p>
Test result	<p>R3 ISIS routing table discovered connected networks on R2.</p> <pre>Router_3_62#sh isi route Codes: C - connected, E - external, L1 - IS-IS level-1, L2 - IS-IS level-2 ia - IS-IS inter area, D - discard, e - external metric INSTANCE 1 :: Destination Metric Next-Hop Interface L2 1.1.1.1 12 192.168.1.1 GigaEthernet0/2 C 5.5.5.5 10 -- -- L1 10.10.10.10 20 192.168.1.1 GigaEthernet0/2 L2 10.10.10.10 20 192.168.1.1 GigaEthernet0/2 C 192.168.1.0 10 -- -- Router_3_62#ping 10.10.10.10 PING 10.10.10.10 (10.10.10.10): 56 data bytes !!!! --- 10.10.10.10 ping statistics --- 5 packets transmitted, 5 packets received, 0% packet loss round-trip min/avg/max = 0/0/0 ms</pre> <p>R2 Show isis route –</p> <pre>Router_2_20#sh isis route Codes: C - connected, E - external, L1 - IS-IS level-1, L2 - IS-IS level-2 ia - IS-IS inter area, D - discard, e - external metric INSTANCE 1 :: Destination Metric Next-Hop Interface E 1.1.1.1 2 -- -- L1 5.5.5.5 20 192.168.1.2 GigaEthernet0/2 L2 5.5.5.5 20 192.168.1.2 GigaEthernet0/2 C 10.10.10.10 10 -- -- C 192.168.1.0 10 -- --</pre>
Status	<p>If configured correctly, Router 2 to redistribute connected networks via ISIS, neighbor R3 will learn connected networks configured on R2.</p>