

ISIS Authentication

Purpose	Set authentication password to validate ISIS neighbour.
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 10 with IP 10.10.10.10. R3 has two loopback interfaces: Loopback 1 with IP 2.2.2.1/32 and Loopback 5 with IP 5.5.5.5. OSPF Area 1 is defined between R1 and R2, and ISIS Area 1 is defined between R2 and R3.</p>
Test configuration	<p>Router 2</p> <pre>interface GigaEthernet0/2 ip address 192.168.1.1 255.255.255.0 no ip directed-broadcast ip router isis 1 isis password test ip http firewalltype 0 !</pre> <p>Router 3</p> <pre>interface GigaEthernet0/2 ip address 192.168.1.2 255.255.255.0 no ip directed-broadcast ip router isis 1 isis password test ip http firewalltype 0 !</pre>
Procedure	Configure ISIS authentication for neighbors using interface mode command - isis password <pwd> level-1 / level-2
Test result	<p>If both routers are configured for matching password then neighborship will be formed. If password mismatched then neighborship will fail.</p> <pre>Router_3_62#sh isis neighbors INSTANCE 1 :: System Id Interface State Type Priority Circuit Id 0000.0000.0001 GigaEthernet0/2 Up L1 64 0000.0000.0001.01 GigaEthernet0/2 Up L2 64 0000.0000.0001.01 Router_3_62# Router_3_62# Router_3_62#</pre>

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Router_3_62#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
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

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R2 Show isis route –

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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          --            --

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Status

If configured correctly, Router 2 to redistribute connected networks via ISIS, neighbor R3 will learn connected networks configured on R2.