

Lab 9: IPv6

1. OSPFv3

- a. global conf
 - i. ipv6 unicast-routing
 - ii. ipv6 router ospf ____ (process number)
 - iii. router-id ____ (ip address format x.x.x.x)
- b. interface conf
 - i. ipv6 address ____ (ipv6)
 - ii. ip address ____ (ipv4)
 - iii. ipv6 ospf ____ (process number) area ____ (number)
- c. troubleshoot
 - i. sh ipv6 route ospf
 - ii. sh ipv6 ospf neighbor

2. RIPng

- a. global conf
 - i. ipv6 unicast-routing
- b. interface conf
 - i. ipv6 address ____
 - ii. ip address ____
 - iii. ipv6 rip ____ (name) enable
- c. troubleshoot
 - i. sh ipv6 rip next-hops

3. Redistribute OSPFv3 and RIPng

a. global conf

- i. ipv6 router ospf ____ (process number)
 - 1. redistribute rip ____ (name)
 - 2. redistribute connected
- ii. ipv6 router rip ____ (name)
 - 1. redistribute ospf ____ (process number)
 - 2. redistribute connected

4. DHCPv6

a. On DHCPv6 server

- i. global conf
 - 1. ipv6 unicast-routing
 - 2. ipv6 dhcp pool ____ (name)
 - a. prefix-delegation pool ____ (name)
 - 3. ipv6 local pool ____ (created pool name) ____ (ip subnet)____
(prefix to be assigned to interfaces)
- ii. interface conf
 - 1. ipv6 address _____
 - 2. ipv6 dhcp server ____ (pool name)

b. On DHCPv6 client

- i. interface conf on interface facing server
 - 1. ipv6 address autoconfig default
 - 2. ipv6 enable
 - 3. ipv6 dhcp client pd ____ (name)
- ii. interface conf on interface where ip address should be assigned

1. ipv6 address ____ (client pd name) ____ (host address)

iii. troubleshoot

1. sh ipv6 interface ____

2. sh ipv6 dhcp binding (on server)

3. sh ipv6 general-prefix (on dhcp client)

5. ISATAP tunneling

a. assign ipv4 address to interfaces on r1, r2, r3, r4

b. configure ripv2

i. global conf

1. router rip

a. version 2

b. network ____

c. configure isatap tunnel

i. global conf

1. interface tunnel ____ (number)

a. tunnel mode ipv6ip isatap

b. ipv6 address ____ (/64 network) eui-64

c. tunnel source ____ (interface)

d. ipv6 ospf ____ (process) ____ (area)

e. ipv6 ospf network non-broadcast

f. ipv6 ospf neighbor ____ (link local address)

g. no ipv6 nd ra suppress