

EIGRPv6 concepts:

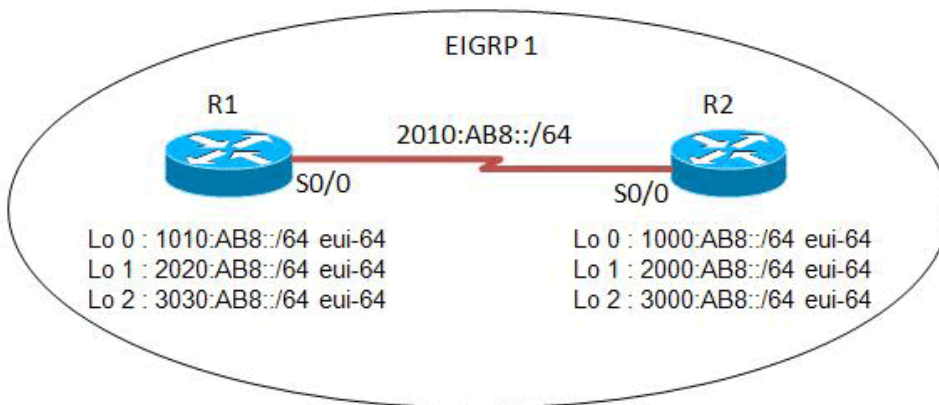
IPv6 EIGRP and IPV4 EIGRP are very similar in concept except for the following differences:

- IPv6 is configured on interface basis (like OSPFv3 and RIPng) and networks are advertised based on interface command
- When configured on interface, IPv6 EIGRP is initially placed in “shutdown” state
- As with OSPFv3, IPv6 EIGRP require a router-id in IPv4 format
- Passive interfaces can only be configured in the routing process mode
- Need for extra memory resources and supported in IOS 12.4(6)T and later
- No split horizon in IPv6 because it is possible to get multiple prefixes per interface
- No concept of classful routing in IPv6 EIGRP consequently no automatic summary
- EIGRPv6 requires a router-id
- EIGRPv6 performs route filtering using only the **distribute-list prefix-list** command.

EIGRPv6 uses the router configuration command “distribute-list prefix-list” to perform route filtering, and when configuring route filtering the “route-map” command is not supported

Virtual Routing and Forwarding (VRF) is also supported in EIGRPv6.

Configuration Example:



R1 Configuration
<pre>hostname R1 ! ipv6 unicast-routing ! interface Loopback0 no ip address ipv6 address 1010:AB8::/64 eui-64 ipv6 enable ipv6 eigrp 1 ! interface Loopback1</pre>

```

no ip address
ipv6 address 2020:AB8::/64 eui-64
ipv6 enable
ipv6 eigrp 1
!
interface Loopback2
no ip address
ipv6 address 3030:AB8::/64 eui-64
ipv6 enable
ipv6 eigrp 1
!
interface Serial0/0
no ip address
ipv6 address FE80::1 link-local
ipv6 address 2010:AB8::1/64
ipv6 enable
ipv6 eigrp 1
clock rate 2000000
!
ipv6 router eigrp 1
router-id 2.2.2.2
no shutdown
!
end

```

R2 Configuration

```

hostname R2
!
ipv6 unicast-routing
!
interface Loopback0
no ip address
ipv6 address 1000:AB8::/64 eui-64
ipv6 enable
ipv6 eigrp 1
!
interface Loopback1
no ip address
ipv6 address 2000:AB8::/64 eui-64
ipv6 enable
ipv6 eigrp 1
!
interface Loopback2
no ip address
ipv6 address 3000:AB8::/64 eui-64
ipv6 enable
ipv6 eigrp 1
!
interface Serial0/0
no ip address
ipv6 address FE80::2 link-local
ipv6 address 2010:AB8::2/64
ipv6 enable
ipv6 eigrp 1
clock rate 2000000
!
ipv6 router eigrp 1
router-id 1.1.1.1
no shutdown
!
end

```

