Distribute Lists

IP Distribute Lists

- Can filter routing updates exiting / leaving the router
- Can filter routing updates incoming / entering the router
- Distribute Lists can work with the following
  - ACL
  - IP Prefix List
  - Route Map
- Using a link state routing protocol and a distribute list offers many challenges
- Use the following to filter using a distribute list
  1. Define what routes to filter
  2. Create an ACL or Prefix list
  3. Apply the distribute list and reference the ACL or IP Prefix List or Route-Map and specify a direction
     1. Optional: Specify an incoming or outgoing interface

Distribute Lists and Standard ACLs

```
router eigrp 1
  network 10.0.0.0
  distribute-list 99 in
  no auto-summary

access-list 99 permit 10.10.128.0 0.0.31.255
access-list 99 permit 10.10.224.0 0.0.7.255
access-list 99 deny any
```

- Permits routes from 10.10.128.0 /19 network
- Permits routes from 10.10.224.0 /21 network

Distribute Lists and Extended ACLs

```
access-list 100 permit ip <source> <route-update>
```

- Extended named ACLs are not supported <at this time>

```
router eigrp 1
  network 10.0.0.0
  distribute-list 100 in
  no auto-summary

access-list 100 deny ip host 192.168.12.2 host 192.168.2.0
access-list 100 permit ip any any
```

- The host 192.168.12.2 is the source / gateway
- The **any** keyword can be used as the Gateway
- Denies the 192.168.2.0 network and does not consider the bitmask

Distribute Lists and Extended ACLs

```
router eigrp 1
  network 10.0.0.0
  distribute-list 150 in
  no auto-summary

access-list 150 permit ip host 1.1.1.1 10.0.4.0 0.0.3.255
access-list 150 deny ip any any
```

- Only Permits routes
  - 10.0.4.0 - 255
  - 10.0.5.0 - 255
  - 10.0.6.0 - 255
  - 10.0.7.0 - 255