Cisco ASA Security Appliances

- The figure below is the configuration section for the Cisco ASDM v6.4.
- As can be seen, the interfaces are not configured with IPv6 addresses.
To edit an interface, right click on the interface and select Edit. (Or highlight the interface and choose the Edit button on the right).
When the Edit Interface dialog box appears, choose the IPv6 tab to edit the IPv6 settings for the interface. Here we are modifying the ‘inside’ interface GigabitEthernet1.
Cisco ASA - Edit Interfaces – IPv6

- First, check the checkbox for ‘Enable IPv6’
- Next, add both the Interface IPv6 Address and the Interface IPv6 Prefix.
Cisco ASA – Add IPv6 Address

- The dialog box on the left is for adding an IPv6 address to the interface. If you want it to be an EUI-64 compliant.
- The dialog box on the right is to add an IPv6 prefix for the interface. IPv6 prefixes are included in IPv6 router advertisements.
Cisco ASA – Edit Interfaces

- After entering the information for the IPv6 address and prefix, the information is now set on the interface.
Cisco ASA – Routing IPv6

- Now we need a default route. Select Static Routes under Routing from the Device Setup menu on the right.
Cisco ASA - Routing

- From the Static Routes dialog box, select the ‘Add’ button on the right.
In the ‘Add Static Route’ dialog, select the address type as IPv6, then enter ‘any’ for the network and enter the IPv6 address for the ‘Gateway IP’.

![Add Static Route dialog box](image)
Cisco ASA – Routing – Add Default

- Add the IPv6 default route.
Cisco ASA – Firewall – Access Rules

- Allow ICMP6 type/codes as provided in earlier slides.
Cisco ASA – Firewall – Access Rules

- Text
ciscoasa# sh ipv6 interface inside
inside is up, line protocol is up
IPv6 is enabled, link-local address is fe80::2aa:ff:fe3d:3b01
Global unicast address(es):
  2001:abc:80:0761::33, subnet in 2001:4700:8:761::/64
[AUTOCONFIG]
  valid lifetime 2591937 preferred lifetime 604737
Joined group address(es):
  ff02::1
  ff02::2
  ff02::1:ff00:33
  ff02::1:ff3d:3b01
ICMP error messages limited to one every 100 milliseconds
ICMP redirects are enabled
ND DAD is enabled, number of DAD attempts: 1
ND reachable time is 30000 milliseconds
Hosts use stateless autoconfig for addresses.

ciscoasa# sh ipv6 neighbor
IPv6 Address                              Age Link-layer Addr State Interface
fe80::4024:f4b1:d4f4:63e1                  72 0090.2785.2dd8  STALE inside
fe80::208:c7ff:ff3:178f                    227 0008.c7f3.178f STALE inside
fe80::7075:69a0:27ed:fe6b                   30 001f.c609.fb4b STALE inside
fe80::e77:1aff:fe6b:4787                   195 0147.1ba4.f787 STALE inside
fe80::1938:3e40:21a4:5910                  49 000c.29a0.285d STALE inside
fe80::c456:8215:63e7:a41                   72 0090.2785.2dd7 STALE inside
fe80:::9da7:3498:db03:ece0                   72 001f.c60a.06a1 STALE inside
fe80::7021:7002:1c46:6324                   395 000c.297a.68cf STALE inside
fe80::219:e2ff:feal:3c0b                    477 0019.e2a1.3c0b STALE inside
fe80::14c0:1e85:2403:7bc9                   146 000c.2900.99be STALE inside

Ciscoasa# sh ipv6 route
IPv6 Routing Table - 5 entries
Codes: C - Connected, L - Local, S - Static
L 2001:abc:80:761::33/128 [0/0]
  via ::, inside
C 2001:abc:80:761::64 [0/0]
  via ::, inside
L  fe80::/10 [0/0]
  via ::, outside
  via ::, inside
L  ff00::/8 [0/0]
  via ::, outside
  via ::, inside
S  ::/0 [1/0]
  via 2001:abc:80:761::1, inside