

The sample configuration below shows most of the commands needed for configuring IPv6 on specified interfaces. There are alternatives to the IPv6 unicast-routing command, such as

```
    ipv6 enable
```

Or

```
    mls cef maximum-routes ipv6 64
```

If you decide to use these, please consult more detailed Cisco documentation. There are consequences and you should be aware of those consequences beforehand.

```
!
version 12.4
!
hostname ENT
!
boot-start-marker
boot system flash:c2600-ik9o3s3-mz.123-3.bin
boot-end-marker
!
ipv6 unicast-routing
ipv6 cef
!
interface FastEthernet0/0
ip address 129.0.2.3 255.255.255.0
ipv6 address 3FFE:C15:C002:46::2/64
ipv6 traffic-filter inbound in
ipv6 rip v6 enable
ipv6 cef
!
interface FastEthernet0/1
ip address 192.0.2.3 255.255.255.0
ipv6 address 3FFE:C15:C002:47::1/64
ipv6 traffic-filter outbound in
ipv6 rip v6 enable
ipv6 cef
!
ipv6 router rip v6
!
!
ipv6 access-list inbound
! deny all traffic with a routing header or undetermined
! transport
deny ipv6 any any routing
deny ipv6 any any undetermined-transport
! permit link local traffic between routers
permit ipv6 FE80::/10 FE80::/10
! permit rip traffic
permit ipv6 FE80::/10 host FF02::9
! permit assigned TLAs to talk to our subnets, note that this is a
! significant departure from v4 bogon filtering in that since
! only 3 TLAs have actually been assigned, it is easier to expressly
! permit these TLAs then deny all other traffic than it is to block
! any of the special use, multicast, or other traffic normally
! associated with bogon filtering
permit ipv6 2001::/16 host 3FFE:C15:C002:46::2
permit ipv6 2001::/16 3FFE:C15:C002:47::/64
permit ipv6 2001::/16 3FFE:C15:C002:48::/64
permit ipv6 2001::/16 3FFE:C15:C002:49::/64
permit ipv6 2002::/16 host 3FFE:C15:C002:46::2
permit ipv6 2002::/16 3FFE:C15:C002:47::/64
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permit ipv6 2002::/16 3FFE:C15:C002:48::/64
permit ipv6 2002::/16 3FFE:C15:C002:49::/64
permit ipv6 3FFE::/16 host 3FFE:C15:C002:46::2
```

```
permit ipv6 3FFE::/16 3FFE:C15:C002:47::/64
permit ipv6 3FFE::/16 3FFE:C15:C002:48::/64
permit ipv6 3FFE::/16 3FFE:C15:C002:49::/64
! permit ND messages
permit icmp any any nd-na
permit icmp any any nd-ns
! deny all other traffic
sequence 210 deny ipv6 any any log
!
ipv6 access-list outbound
! deny all traffic with a routing header or undetermined
! transport
deny ipv6 any any routing
deny ipv6 any any undetermined-transport
! permit link local traffic between routers
permit ipv6 FE80::/10 FE80::/10
! permit rip traffic
permit ipv6 FE80::/10 host FF02::9
! permit our subnets to talk to the TLAs (and the local router)
permit ipv6 3FFE:C15:C002:47::/64 host 3FFE:C15:C002:47::1
permit ipv6 3FFE:C15:C002:47::/64 2001::/16
permit ipv6 3FFE:C15:C002:47::/64 2002::/16
permit ipv6 3FFE:C15:C002:47::/64 3FFE::/16
permit ipv6 3FFE:C15:C002:48::/64 host 3FFE:C15:C002:47::1
permit ipv6 3FFE:C15:C002:48::/64 2001::/16
permit ipv6 3FFE:C15:C002:48::/64 2002::/16
permit ipv6 3FFE:C15:C002:48::/64 3FFE::/16
permit ipv6 3FFE:C15:C002:49::/64 host 3FFE:C15:C002:47::1
permit ipv6 3FFE:C15:C002:49::/64 2001::/16
permit ipv6 3FFE:C15:C002:49::/64 2002::/16
permit ipv6 3FFE:C15:C002:49::/64 3FFE::/16
! permit ND messages
permit icmp any any nd-na
permit icmp any any nd-ns
! deny all other traffic
deny ipv6 any any log
!
end
```