

Nexo 5500 classes de CoPP

Índice

[Introdução](#)

[Informações de Apoio](#)

[Nexo 5500 classes de CoPP e seus tipos de tráfego](#)

[Classes de CoPP](#)

Introdução

Este documento descreve o nexos 5500 classes planas da proteção do controle (CoPP) e que o tipo de tráfego é combinado a cada classe.

Informações de Apoio

CoPP foi introduzido no nexos 5500 através da liberação NX-OS 5.1(3). CoPP é executado no nexos 55xx somente. Não está disponível no nexos 50x0.

Nexo 5500 classes de CoPP e seus tipos de tráfego

O nexos 5500 fornece controle muito limitado sobre CoPP comparado ao nexos 7000. A política de CoPP do nexos 5500 não pode completamente ser removida. Um usuário pode escolher entre três políticas predefinidas, ou pode criar uma política personalizada dada que as classes de CoPP não podem ser removidas do mapa de política. Somente a taxa/tamanho de intermitência da taxa de informação comprometida (CIR) pode ser editada. Igualmente nenhum mapas de classe novo de CoPP pode ser definido.

Os política-mapas possíveis de CoPP são:

- copp-sistema-política-padrão
- copp-system-policy-scaled-I2
- copp-system-policy-scaled-I3
- copp-sistema-política-personalize

Os nomes do mapa de política são evidentes. Somente uma das quatro políticas pode ser aplicada em uma única estadia. A remoção de toda a política aplica automaticamente a política padrão.

Copp-sistema-política-personalizado somente pode ser editado. Se você tenta editar as primeiras três políticas, um erro está retornado:

```
Switch(config)# policy-map type control-plane copp-system-policy-scaled-12
ERROR: Only copp-system-policy-customized can be modified
Switch(config)#
```

Classes de CoPP

Todos os mapas de classe usam as declarações de protocolo do fósforo.

Os mapas de classe não aparecem na configuração running. A única configuração CoPP-relacionada que mostra na executar-configuração é a configuração personalizada não-padrão do mapa de política. Por exemplo:

```
Switch# sh run copp
!Command: show running-config copp
!Time: Tue Apr 30 20:20:00 2013

version 5.2(1)N1(2)
logging level copp 4
policy-map type control-plane copp-system-policy-customized
  class copp-system-class-arp
    police cir 5000 kbps bc 3600000 bytes
  class copp-system-class-default
    police cir 2048 kbps bc 6400000 bytes
control-plane
  service-policy input copp-system-policy-customized
```

Switch#

Os mapas de classe de CoPP podem ser verificados com o **tipo controle plano do mapa de classe da mostra** ou o **controle plano da relação do mapa de política da mostra**. Uma descrição é fornecida ao lado de cada instrução compatível:

```
Switch# show policy-map interface control-plane | i class-map|match      class-map copp-system-
class-igmp (match-any)
  match protocol igmp --> Matches on IGMP IP protocol number (2)
class-map copp-system-class-pim-hello (match-any)
  match protocol pim --> Matches on PIM IP protocol number (103)
class-map copp-system-class-bridging (match-any)
  match protocol bridging --> Matches on STP BPDUs
class-map copp-system-class-arp (match-any)
  match protocol arp --> Matches on ARP Ethertype (0x806)
class-map copp-system-class-dhcp (match-any)
  match protocol dhcp --> Matches on DHCP UDP port number (67, 68)
class-map copp-system-class-mgmt (match-any)
  match protocol mgmt. --> Matches on Telnet, SSH, HTTP, SNMP, FTP,
  NTP using their well-known ports
class-map copp-system-class-lacp (match-any)
  match protocol lacp --> Matches LACP BPDUs address and Ethertype
  (01-80-C2-00-00-02, 0?8809)
class-map copp-system-class-lldp (match-any)
  match protocol lldp_dcx --> Matches on LLDP ethertype (0x88CC)
class-map copp-system-class-udld (match-any)
  match protocol udld --> Matches on UDLD destination address
class-map copp-system-class-isis (match-any)
  match protocol isis_dce --> Matches on ISIS Ethertype
class-map copp-system-class-msdp (match-any)
  match protocol msdp --> Matches on MSDP TCP port (639)
class-map copp-system-class-cdp (match-any)
```

```

    match protocol cdp --> Matches on CDP destination address 0100.0ccc.cccc
class-map copp-system-class-fip (match-any)
    match protocol fip --> Matches on FIP ethertype (0x8914)
class-map copp-system-class-bgp (match-any)
    match protocol bgp --> Matches on BGP TCP port number (179)
class-map copp-system-class-eigrp (match-any)
    match protocol eigrp --> Matches on EIGRP IP Protocol number (88)
class-map copp-system-class-exception (match-any)
    match protocol exception --> IP options, Martian packets (same src and dst addresses)
class-map copp-system-class-glean (match-any)
    match protocol glean --> Matches on Adjacency lookup miss
class-map copp-system-class-hsrp-vrrp (match-any)
    match protocol hsrp_vrrp --> Matches on HSRP & VRRP Destination IP
class-map copp-system-class-icmp-echo (match-any)
    match protocol icmp_echo --> Matches on ICMP type for echo
class-map copp-system-class-ospf (match-any)
    match protocol ospf --> Matches on OSPF IP Protocol number (89)
class-map copp-system-class-pim-register (match-any)
    match protocol reg --> Matches on PIM register packets
class-map copp-system-class-rip (match-any)
    match protocol rip --> Matches on RIP UDP Port (520)
class-map copp-system-class-l3dest-miss (match-any)
    match protocol unicast --> Miss in UFIB Lookup
class-map copp-system-class-mcast-miss (match-any)
    match protocol multicast --> Miss in MFIB Lookup
class-map copp-system-class-excp-ip-frag (match-any)
    match protocol ip_frag --> Matches on MTU-exceeded traffic
class-map copp-system-class-excp-same-if (match-any)
    match protocol same-if --> Matches traffic to be sent via same ingress interface
class-map copp-system-class-excp-ttl (match-any)
    match protocol ttl --> Matches on TTL=0/1
class-map copp-system-class-default (match-any)
    match protocol default --> Matches packets not matched by previous classes

```

Switch#

Os mapas de classe de CoPP foram aumentados na liberação 5.2 para combinar nas contrapartes dos pacotes de controle do IPv6:

```

Switch# show policy-map interface control-plane | i class-map|match      class-map copp-system-
class-igmp (match-any)
    match protocol igmp --> Matches on IGMP IP protocol number (2)
class-map copp-system-class-pim-hello (match-any)
    match protocol pim --> Matches on PIM IP protocol number (103)
class-map copp-system-class-bridging (match-any)
    match protocol bridging --> Matches on STP BPDUs
class-map copp-system-class-arp (match-any)
    match protocol arp --> Matches on ARP Ethertype (0x806)
class-map copp-system-class-dhcp (match-any)
    match protocol dhcp --> Matches on DHCP UDP port number (67, 68)
class-map copp-system-class-mgmt (match-any)
    match protocol mgmt. --> Matches on Telnet, SSH, HTTP, SNMP, FTP,
    NTP using their well-known ports
class-map copp-system-class-lacp (match-any)
    match protocol lacp --> Matches LACP BPDU address and Ethertype
    (01-80-C2-00-00-02, 0?8809)
class-map copp-system-class-lldp (match-any)
    match protocol lldp_dcx --> Matches on LLDP ethertype (0x88CC)
class-map copp-system-class-udld (match-any)
    match protocol udld --> Matches on UDLD destination address
class-map copp-system-class-isis (match-any)
    match protocol isis_dce --> Matches on ISIS Ethertype
class-map copp-system-class-msdp (match-any)
    match protocol msdp --> Matches on MSDP TCP port (639)

```

```
class-map copp-system-class-cdp (match-any)
  match protocol cdp --> Matches on CDP destination address 0100.0ccc.cccc
class-map copp-system-class-fip (match-any)
  match protocol fip --> Matches on FIP ethertype (0x8914)
class-map copp-system-class-bgp (match-any)
  match protocol bgp --> Matches on BGP TCP port number (179)
class-map copp-system-class-eigrp (match-any)
  match protocol eigrp --> Matches on EIGRP IP Protocol number (88)
class-map copp-system-class-exception (match-any)
  match protocol exception --> IP options, Martian packets (same src and dst addresses)
class-map copp-system-class-glean (match-any)
  match protocol glean --> Matches on Adjacency lookup miss
class-map copp-system-class-hsrp-vrrp (match-any)
  match protocol hsrp_vrrp --> Matches on HSRP & VRRP Destination IP
class-map copp-system-class-icmp-echo (match-any)
  match protocol icmp_echo --> Matches on ICMP type for echo
class-map copp-system-class-ospf (match-any)
  match protocol ospf --> Matches on OSPF IP Protocol number (89)
class-map copp-system-class-pim-register (match-any)
  match protocol reg --> Matches on PIM register packets
class-map copp-system-class-rip (match-any)
  match protocol rip --> Matches on RIP UDP Port (520)
class-map copp-system-class-l3dest-miss (match-any)
  match protocol unicast --> Miss in UFIB Lookup
class-map copp-system-class-mcast-miss (match-any)
  match protocol multicast --> Miss in MFIB Lookup
class-map copp-system-class-excp-ip-frag (match-any)
  match protocol ip_frag --> Matches on MTU-exceeded traffic
class-map copp-system-class-excp-same-if (match-any)
  match protocol same-if --> Matches traffic to be sent via same ingress interface
class-map copp-system-class-excp-ttl (match-any)
  match protocol ttl --> Matches on TTL=0/1
class-map copp-system-class-default (match-any)
  match protocol default --> Matches packets not matched by previous classes
Switch#
```