

CCIE Collaboration (<http://labs.ine.com/workbook/toc/ccie-collaboration>) » Quality of Services (QoS)

QoS Congestion Management Switch Traffic Marking & Policing

« Classification & Mapping Switch Cos to Dscp Mapping (/workbook/view/ccie-collaboration/task/classification-mapping-switch-cos-to-dscp-mapping-MzA4NQ%3D%3D) | Switch Queue and Buffer Assignment (/workbook/view/ccie-collaboration/task/switch-queue-and-buffer-assignment-MzA4OA%3D%3D) »

Last updated: November 13, 2017

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Tasks

Configure the following Voice and Video traffic management policy on voice ports with IP phone attached

- Allow a maximum of 4 G711 calls. Any excess voice media traffic should be dropped
- Allow 32 kbps for voice signaling. Any excessive signal traffic should be mark down to CS1.
- Allow 4 MBPS for Video media, excess video media traffic should be mark down to CS1.
- All data traffic should be re-marked to best effort.

Configuration: [Click to collapse](#)

SW1

```
mls qos map policed-dscp 24 34 to 8
ip access-list extended AUTOQOS-ACL-DEFAULT
  permit ip any any

class-map match-all AUTOQOS_VOIP_DATA_CLASS
  match ip dscp ef

class-map match-all AUTOQOS_DEFAULT_CLASS
  match access-group name AUTOQOS-ACL-DEFAULT

class-map match-any AUTOQOS_VOIP_SIGNAL_CLASS
  match ip dscp cs3
  match ip dscp af31

class-map match-any AUTOQOS_VIDEO_CLASS
  match ip dscp af41
  match ip dscp cs4

policy-map AUTOQOS-SRND4-CISCOPHONE-POLICY
  class AUTOQOS_VOIP_DATA_CLASS
    set dscp ef
    police 320000 8000 exceed-action drop

  class AUTOQOS_VOIP_SIGNAL_CLASS
    set dscp cs3
    police 32000 8000 exceed-action policed-dscp-transmit

  class AUTOQOS_VIDEO_CLASS
    set dscp af41
    police 4000000 8000 exceed-action policed-dscp-transmit

  class AUTOQOS_DEFAULT_CLASS
    set dscp default

interface range GigabitEthernet0/13-14
  service-policy input AUTOQOS-SRND4-CISCOPHONE-POLICY
```

R2

```
class-map match-any SIGNAL match ip dscp cs3
  match ip dscp af31
class-map match-any VIDEO match ip dscp cs4
  match ip dscp af41
class-map match-any VOICE match ip dscp ef
class-map match-any PHONEPORT
  match input-interface GigabitEthernet0/2/0
policy-map VOICE-POLICE
  class PHONEPORT
    police 320000 8000 conform-action transmit exceed-action drop
policy-map VIDEO-POLICE
  class PHONEPORT
    police 400000 8000 conform-action transmit exceed-action set-dscp-transmit cs1
policy-map SIGNAL-POLICE
  class PHONEPORT
    police 32000 8000 conform-action transmit exceed-action set-dscp-transmit cs1
policy-map QOS
  class VOICE
    set ip dscp ef
    service-policy VOICE-POLICE
  class VIDEO
    set ip dscp af41
    service-policy VIDEO-POLICE
  class SIGNAL
    set ip dscp cs3
    service-policy SIGNAL-POLICE
  class class-default
    set ip dscp default
interface vlan 302
  service-policy input QOS
```

R3

```
class-map match-any SIGNAL
  match ip dscp cs3
  match ip dscp af31
class-map match-any VIDEO
  match ip dscp cs4
  match ip dscp af41
class-map match-any VOICE
  match ip dscp ef
class-map match-any PHONEPORT1
  match input-interface GigabitEthernet0/2/0
class-map match-any PHONEPORT2
  match input-interface GigabitEthernet0/2/1
policy-map VOICE-POLICE
  class PHONEPORT1
    police 320000 8000 conform-action transmit exceed-action drop
  class PHONEPORT2
    police 320000 8000 conform-action transmit exceed-action drop
policy-map VIDEO-POLICE
  class PHONEPORT1
    police 4000000 8000 conform-action transmit exceed-action set-dscp-transmit cs1
  class PHONEPORT2
    police 4000000 8000 conform-action transmit exceed-action set-dscp-transmit cs1
policy-map SIGNAL-POLICE
  class PHONEPORT1
    police 32000 8000 conform-action transmit exceed-action set-dscp-transmit cs1
  class PHONEPORT2
    police 32000 8000 conform-action transmit exceed-action set-dscp-transmit cs1
policy-map QOS
  class VOICE
    set ip dscp ef
    service-policy VOICE-POLICE
  class VIDEO
    set ip dscp af41
    service-policy VIDEO-POLICE
  class SIGNAL
    set ip dscp cs3
    service-policy SIGNAL-POLICE
  class class-default
    set ip dscp default
interface vlan 502
  service-policy input QOS
```

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