Test Case-59

Test Name: RJIL-IP-QA-DS-SYS-061

Test Objective: To check Traffic Prioritization based on:

- IP Precedence/TOS mechanism
- 802.1p
- DSCP (Differentiated Services Code Point)

Test Configuration:

For DSCP packet to P –bit conversion

```
policy-map 1
 classify dscp 46
 action queue 2
!
policy-map 2
 classify dscp 60
 action queue 4
!
policy-map 3
 classify dscp 5
 action queue 3
!
policy-map 4
 classify dscp 62
 action queue 5
!
!
```

For P-bit to DSCP packet conversion

```
policy-map 1
```

classify cos 2

action dscp 26

!

policy-map 2

classify cos 3

action dscp 27

!

interface GigaEthernet0/1

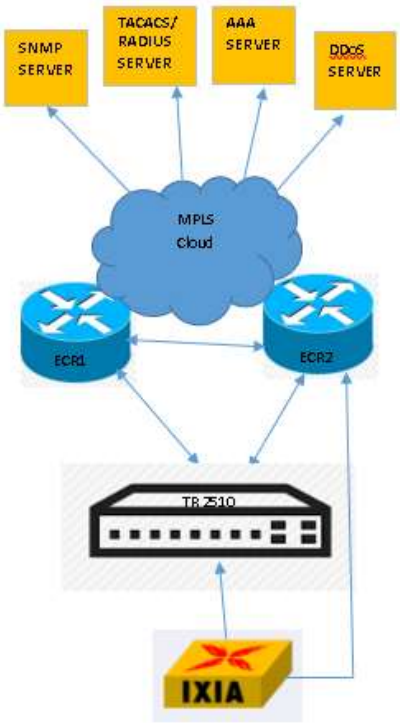
qos policy 1 ingress

!

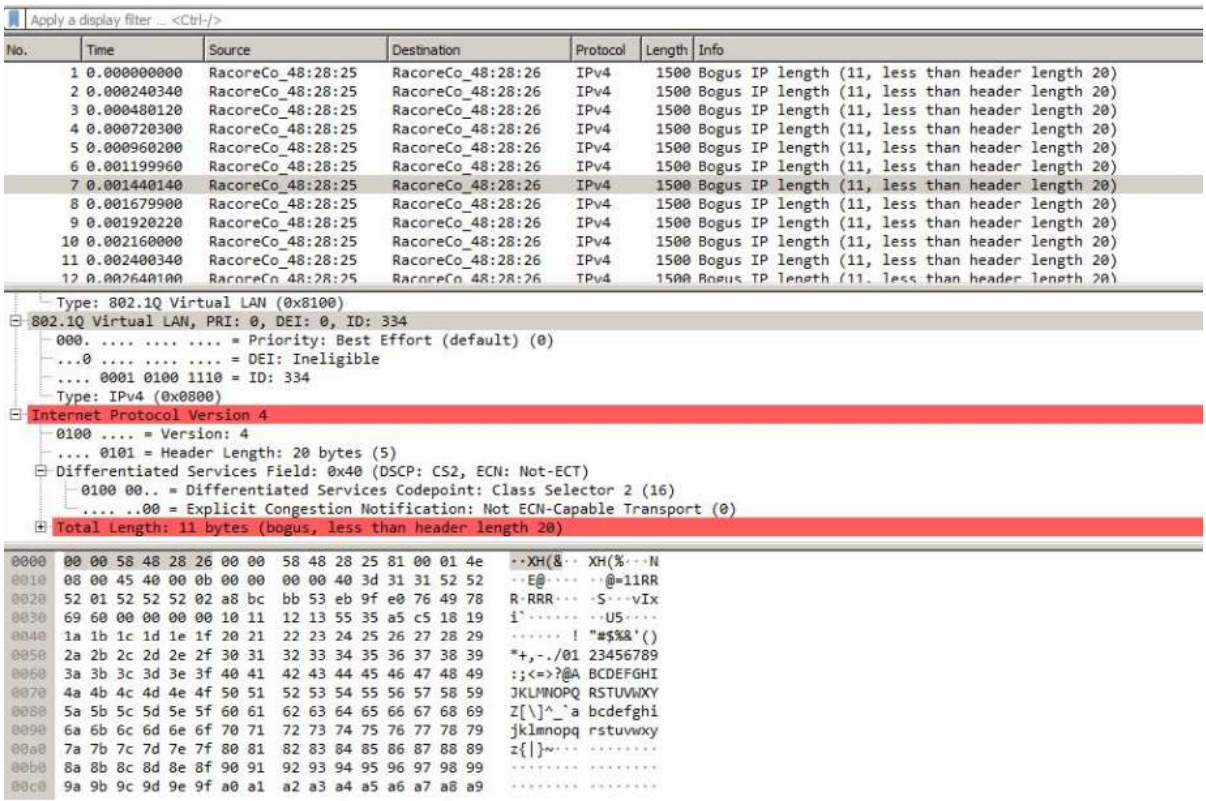
interface GigaEthernet0/2

qos policy 2 ingress

Test Set up (Including Pre requisites): Switch, ECR1,ECR2,IXIA



Procedure: Connect switch to ECR1,ECR2 and IXIA

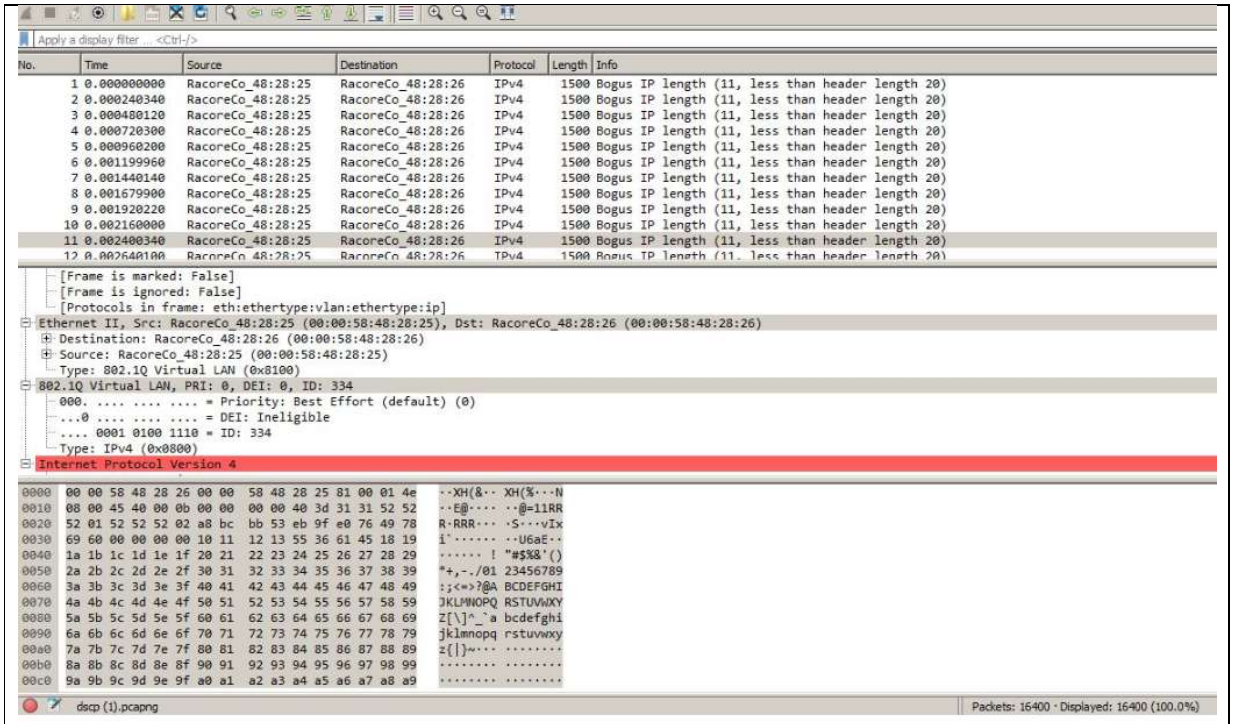
Action: Apply Qos on switch port at ingress Show policy-map interface GigaEthernet 0/1 Show policy-map		**Response:** Traffic will classified as per the Qos applied at the ingress end	
1		**1**	
Expected Result: Traffic will classified as per the Qos applied at the ingress end			
Actual Result: 			

Apply a display filter ... <Ctrl-/>

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000000	RacoreCo_48:28:25	RacoreCo_48:28:26	IPv4	1500	Bogus IP length (11, less than header length 20)
2	0.000240340	RacoreCo_48:28:25	RacoreCo_48:28:26	IPv4	1500	Bogus IP length (11, less than header length 20)
3	0.000480120	RacoreCo_48:28:25	RacoreCo_48:28:26	IPv4	1500	Bogus IP length (11, less than header length 20)
4	0.000720300	RacoreCo_48:28:25	RacoreCo_48:28:26	IPv4	1500	Bogus IP length (11, less than header length 20)
5	0.000960200	RacoreCo_48:28:25	RacoreCo_48:28:26	IPv4	1500	Bogus IP length (11, less than header length 20)
6	0.001199960	RacoreCo_48:28:25	RacoreCo_48:28:26	IPv4	1500	Bogus IP length (11, less than header length 20)
7	0.001440140	RacoreCo_48:28:25	RacoreCo_48:28:26	IPv4	1500	Bogus IP length (11, less than header length 20)
8	0.001679900	RacoreCo_48:28:25	RacoreCo_48:28:26	IPv4	1500	Bogus IP length (11, less than header length 20)
9	0.001920220	RacoreCo_48:28:25	RacoreCo_48:28:26	IPv4	1500	Bogus IP length (11, less than header length 20)
10	0.002160000	RacoreCo_48:28:25	RacoreCo_48:28:26	IPv4	1500	Bogus IP length (11, less than header length 20)
11	0.002400340	RacoreCo_48:28:25	RacoreCo_48:28:26	IPv4	1500	Bogus IP length (11, less than header length 20)
12	0.002640100	RacoreCo_48:28:25	RacoreCo_48:28:26	IPv4	1500	Bogus IP length (11, less than header length 20)

```
Type: 802.1Q Virtual LAN (0x8100)
802.1Q Virtual LAN, PRI: 0, DEI: 0, ID: 334
    000. .... .... .... = Priority: Best Effort (default) (0)
    ...0 .... .... .... = DEI: Ineligible
    .... 0001 0100 1110 = ID: 334
    Type: IPv4 (0x0800)
Internet Protocol Version 4
    0100 .... = Version: 4
    .... 0101 = Header Length: 20 bytes (5)
    Differentiated Services Field: 0x40 (DSCP: CS2, ECN: Not-ECT)
        0100 00.. = Differentiated Services Codepoint: Class Selector 2 (16)
        .... ..00 = Explicit Congestion Notification: Not ECN-Capable Transport (0)
    Total Length: 11 bytes (bogus, less than header length 20)
```

```
0000  00 00 58 48 28 26 00 00  58 48 28 25 81 00 01 4e   ··XH(&·· XH(%···N
0010  08 00 45 40 00 0b 00 00  00 00 40 3d 31 31 52 52   ··E@···· ··@=11RR
0020  52 01 52 52 52 02 a8 bc  bb 53 eb 9f e0 76 49 78   R·RRR··· ·S···vIx
0030  69 60 00 00 00 00 10 11  12 13 55 35 a5 c5 18 19   i`······ ··U5····
0040  1a 1b 1c 1d 1e 1f 20 21  22 23 24 25 26 27 28 29   ······ ! "#$%&'()
0050  2a 2b 2c 2d 2e 2f 30 31  32 33 34 35 36 37 38 39   *+,-./01 23456789
0060  3a 3b 3c 3d 3e 3f 40 41  42 43 44 45 46 47 48 49   :;<=>?@A BCDEFGHI
0070  4a 4b 4c 4d 4e 4f 50 51  52 53 54 55 56 57 58 59   JKLMNOPQ RSTUVWXY
0080  5a 5b 5c 5d 5e 5f 60 61  62 63 64 65 66 67 68 69   Z[\]^_`a bcdefghi
0090  6a 6b 6c 6d 6e 6f 70 71  72 73 74 75 76 77 78 79   jklmnopq rstuvwxy
00a0  7a 7b 7c 7d 7e 7f 80 81  82 83 84 85 86 87 88 89   z{|}~··· ········
00b0  8a 8b 8c 8d 8e 8f 90 91  92 93 94 95 96 97 98 99   ········ ········
00c0  9a 9b 9c 9d 9e 9f a0 a1  a2 a3 a4 a5 a6 a7 a8 a9   ········ ········
```


Apply a display filter ... <Ctrl-/>
No. Time Source Destination Protocol Length Info
1 0.000000000 RacoreCo_48:28:25 RacoreCo_48:28:26 IPv4 1500 Bogus IP length (11, less than header length 20)
2 0.000240340 RacoreCo_48:28:25 RacoreCo_48:28:26 IPv4 1500 Bogus IP length (11, less than header length 20)
3 0.000480120 RacoreCo_48:28:25 RacoreCo_48:28:26 IPv4 1500 Bogus IP length (11, less than header length 20)
4 0.000720300 RacoreCo_48:28:25 RacoreCo_48:28:26 IPv4 1500 Bogus IP length (11, less than header length 20)
5 0.000960200 RacoreCo_48:28:25 RacoreCo_48:28:26 IPv4 1500 Bogus IP length (11, less than header length 20)
6 0.001199960 RacoreCo_48:28:25 RacoreCo_48:28:26 IPv4 1500 Bogus IP length (11, less than header length 20)
7 0.001440140 RacoreCo_48:28:25 RacoreCo_48:28:26 IPv4 1500 Bogus IP length (11, less than header length 20)
8 0.001679900 RacoreCo_48:28:25 RacoreCo_48:28:26 IPv4 1500 Bogus IP length (11, less than header length 20)
9 0.001920220 RacoreCo_48:28:25 RacoreCo_48:28:26 IPv4 1500 Bogus IP length (11, less than header length 20)
10 0.002160000 RacoreCo_48:28:25 RacoreCo_48:28:26 IPv4 1500 Bogus IP length (11, less than header length 20)
11 0.002400340 RacoreCo_48:28:25 RacoreCo_48:28:26 IPv4 1500 Bogus IP length (11, less than header length 20)
12 0.002640100 RacoreCo_48:28:25 RacoreCo_48:28:26 IPv4 1500 Bogus IP length (11, less than header length 20)
[Frame is marked: False]
[Frame is ignored: False]
[Protocols in frame: eth:ethertype:vlan:ethertype:ip]
Ethernet II, Src: RacoreCo_48:28:25 (00:00:58:48:28:25), Dst: RacoreCo_48:28:26 (00:00:58:48:28:26)
Destination: RacoreCo_48:28:26 (00:00:58:48:28:26)
Source: RacoreCo_48:28:25 (00:00:58:48:28:25)
Type: 802.1Q Virtual LAN (0x8100)
802.1Q Virtual LAN, PRI: 0, DEI: 0, ID: 334
000. .... = Priority: Best Effort (default) (0)
...0 .... = DEI: Ineligible
.... 0001 0100 1110 = ID: 334
Type: IPv4 (0x0800)
Internet Protocol Version 4
0000 00 00 58 48 28 26 00 00 58 48 28 25 81 00 01 4e ··XH(&·· XH(%···N
0010 08 00 45 40 00 0b 00 00 00 00 40 3d 31 31 52 52 ··E@···· ··@=11RR
0020 52 01 52 52 52 02 a8 bc bb 53 eb 9f e0 76 49 78 R·RRR··· ·S···vIx
0030 69 60 00 00 00 00 10 11 12 13 55 36 61 45 18 19 i`···· ··U6aE··
0040 1a 1b 1c 1d 1e 1f 20 21 22 23 24 25 26 27 28 29 ····· ! "#$%&'()
0050 2a 2b 2c 2d 2e 2f 30 31 32 33 34 35 36 37 38 39 *+,-./01 23456789
0060 3a 3b 3c 3d 3e 3f 40 41 42 43 44 45 46 47 48 49 :;<=>?@A BCDEFGHI
0070 4a 4b 4c 4d 4e 4f 50 51 52 53 54 55 56 57 58 59 JKLMNOPQ RSTUVWXY
0080 5a 5b 5c 5d 5e 5f 60 61 62 63 64 65 66 67 68 69 Z[\]^_`a bcdefghi
0090 6a 6b 6c 6d 6e 6f 70 71 72 73 74 75 76 77 78 79 jklmnopq rstuvwxy
00a0 7a 7b 7c 7d 7e 7f 80 81 82 83 84 85 86 87 88 89 z{|}~···· ····
00b0 8a 8b 8c 8d 8e 8f 90 91 92 93 94 95 96 97 98 99 ····· ····
00c0 9a 9b 9c 9d 9e 9f a0 a1 a2 a3 a4 a5 a6 a7 a8 a9 ····· ····
dscp (1).pcapng
Packets: 16400 · Displayed: 16400 (100.0%)

Test Case-60

Test Name: RJIL-IP-QA-DS-SYS-062

Test Objective: To check the MDS/ EDS shall support relay agent functionality (RFC 3315, RFC 3319) and DHCP option 82,option 77 should be supported.

Test Configuration:

Test Set up (Including Pre requisites):

Procedure:

Action:		**Response:**	
1		**1**	

Problem – Issues: DHCP Option 77 is not supported

Notes:

Expected Result: Switch supports DHCP Option 82 , it can obtained IP from the DHCP server

Actual Result:

TR2510PoE_Test_Report_relay agent fur