

### SR8800 CBQ功能的配置

#### 一.组网需求:

有4条流量,源IP分别为172.16.1.3、172.16.1.4、172.16.1.5、172.16.1.6,IP优先级都为1,设定这4条流分别为A流、B流、C流和D流,从同一个端口出,具体QoS调度要求如下:

A流为语音视频业务,要求入EF队列,保证2M带宽(用户预估流量小于2M,特殊情况可能超过2M)

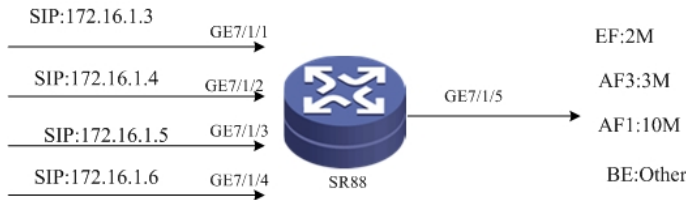
B流为关键业务流,要求入AF3队列,保证3M带宽(用户预估流量小于3M,特殊情况可能超过3M)。

C流为生产流,要求入AF1队列,保证10M带宽(用户预估流量小于10M,特殊情况可能超过10M)。

D流为办公流,要求入BE队列,不保证带宽,尽力转发。

对于当前4条流量,IP优先级是一样的,无法通过优先级映射表或者自动信任模式或者端口优先级去划入不同的队列,SR8800通过MQC中匹配流量指定进入到本地队列的动作来实现,并通过在出端口EF和AF队列启用带宽保证来满足该用户需求。

#### 二.组网图:



#### 三.配置步骤:

##### 配置步骤一: 利用ACL匹配指定流量:

```

[SR88]acl number 3000
[SR88-acl-adv-3000] rule 0 permit ip source 172.16.1.3 0
[SR88-acl-adv-3000] quit
[SR88] acl number 3001
[SR88-acl-adv-3001] rule 0 permit ip source 172.16.1.4 0
[SR88-acl-adv-3001] quit
[SR88] acl number 3002
[SR88-acl-adv-3002] rule 0 permit ip source 172.16.1.5 0
[SR88-acl-adv-3002] quit
[SR88] acl number 3003
[SR88-acl-adv-3003] rule 0 permit ip source 172.16.1.6 0
[SR88-acl-adv-3003] quit
  
```

##### 配置步骤二: 配置MQC策略,使4条流进入到各自对应的业务流队列:

```

[SR88]traffic classifier t
[SR88-classifier-t] if-match acl 3000
[SR88-classifier-t]quit
[SR88] traffic behavior t
[SR88-behavior-t] remark local-precedence 6
[SR88-behavior-t] quit

[SR88]traffic classifier t2
[SR88-classifier-t2] if-match acl 3001
[SR88-classifier-t2] quit
[SR88]traffic behavior t2
[SR88-behavior-t2] remark local-precedence 4
[SR88-behavior-t2]quit

[SR88]traffic classifier t3
[SR88-classifier-t3] if-match acl 3002
[SR88-classifier-t3] quit
[SR88]traffic behavior t3
[SR88-behavior-t3] remark local-precedence 2
  
```

```
[SR88-behavior-t3]quit
```

```
[SR88]traffic classifier t4
```

```
[SR88-classifier-t4] if-match acl 3003
```

```
[SR88-classifier-t4] quit
```

```
[SR88]traffic behavior t4
```

```
[SR88-behavior-t4] remark local-precedence 0
```

```
[SR88-behavior-t4] quit
```

```
[SR88] qos policy t
```

```
[SR88-qospolicy-t] classifier t behavior t
```

```
[SR88-qospolicy-t] classifier t2 behavior t2
```

```
[SR88-qospolicy-t] classifier t3 behavior t3
```

```
[SR88-qospolicy-t] classifier t4 behavior t4
```

```
[SR88-qospolicy-t] quit
```

配置步骤三：在出端口下发MQC策略：

```
[SR88]interface GigabitEthernet 7/1/5
```

```
[SR88-GigabitEthernet7/1/5]qos apply policy t outbound
```

配置步骤四：在出端口配置EF和AF队列的带宽保证：

```
[SR88]interface GigabitEthernet 7/1/5
```

```
[SR88-GigabitEthernet7/1/5] qos bandwidth queue 6 min 2000
```

```
[SR88-GigabitEthernet7/1/5] qos bandwidth queue 4 min 3000
```

```
[SR88-GigabitEthernet7/1/5] qos bandwidth queue 2 min 10000
```

验证配置信息：

```
[SR88]display qos policy interface g7/1/5
```

Interface:

GigabitEthernet7/1/5

Direction:

Outbound

Policy:

t

Classifier: t1

Operator: AND

Rule(s) : -none-

Behavior: t1

-none-

Classifier: t2

Operator: AND

Rule(s) : If-match acl 3001

Behavior: t2

Marking:

Remark local precedence 4

Classifier: t3

Operator: AND

Rule(s) : If-match acl 3002

Behavior: t3

Marking:

Remark local precedence 2

Classifier: t4

Operator: AND

Rule(s) : If-match acl 3003

Behavior: t4

Marking:

Remark local precedence 0

#### 四. 配置关键点：

CBQ的核心思想就是以一定的方式将指定的流量划入到指定的队列进行调度，并对当前的一定优先级的流量进行带宽保证，对于当前4条流量，IP优先级是一样的，无法通过优先级映射表或者自动信任模式或者端口优先级去划入不同的队列，SR8800通过MQC中匹配流量指定进入到本地队列的动作来实现，并通过在出端口EF和AF队列启用带宽保证来满足该用户需求。

EF和AF带宽保证之外的流量拥塞时，将降低到BE级业务的优先级，即最低调度优先级和BE队列的业务按照WFQ的方式进行调度，如果拥塞没有发生，则此时超过带宽保证的EF和AF流量仍然都将得到低时延的转发。

