QoSM用于针对网络各种应用不同需求,平衡各种服务流量占用的矛盾,从而为不同的服务提供不同的 服务质量,例如:提供专用带宽、降低报文丢失率、降低报文传送时延及延时抖动等。QoSM预置了常 用的业务定义,用户可快速针对不同业务指定所需的流控动作,简化了管理员对设备的配置操作,同 时屏蔽了不同设备之间的配置差异,使得管理端到端的网络差分服务变得简单快捷,用户可以更有效 和经济地规划使用现有网络资源。

某企业的三个部分,测试部、市场部、研发部通过边缘设备接入外网。三个部门通过一台交换机接入 边缘网络。为了使企业业务能够正常运营,必须控制每个部门访问外网的流量,不能够超过2M,不能 让一个部门的流量太大而影响其他部门的使用。基于上面的需求,我们可以在外网接入端口上配置Qo S来限制每个部门的流量。因此,可以通过iMC部署ACL,在QoS流分类中使用已创建的ACL,然后对 该分类对应的流行为设置阈值,限制其流量。



一、通过ACL组件配置ACL规则,并部署到设备上(此案例不对ACL配置进行详细说明,具体可以参考ACL配置手册)

(1) 部署ACL完成后, 如下图所示:

🛃 Service > ACL Resource	*	✦Add to My Favorites ⑦ Help				
✓ Add Delete Refr	esh					
ACL Identifier 🗘	ACL Resource Name $ \diamond $	ACL Type 🗘	Modify			
2001	a11	Basic	2			
2004	A3100	Advanced	P			
2111	a12	Advanced	P			
2112	A3200	Advanced	<b>P</b>			
2556	a1	Basic	B			
1-5 of 5. Page 1 of 1.	14 <4	1 >> >=	50 💌			

二、增加QoSM流分类、配置规则:

(1)选择"业务"页签,单击导航树中的【QoS管理/QoS资源】菜单项,选择"流分类",进入"流分类"页面,如下图所示:

🤮 Servi	ce ≻ QoS Resource ≻	Classifier			the Add 1	o My Flavori	ites 🕐 Help
Add	Import Delete	Refresh					Add Folder
	Name ≎	Description	Device Model	Modify	Сору	Export	Delete
	System Predefined	System predefined Folder of QoS					
	CallBignaling	Call signaling traffic, such as			Ē.	E	
	DelaySensitiveTraffic	Delay-sensitive packets, such as			Ē,	E	
	HighThroughpufTraffic	High throughput traffic, such as			Ē.	₩E	
	LowPriorityTraffic	Low priority traffic, such as ba			E,	ι.	
	NetworkProtocomraffic	Network protocol packets, such a			Ē.	•2	
	OAMTraffic	OAM packets, such as ICMP, SNMP,			Ē		
	VideoTraffic	Video packets, such as broadcast			Ē.	•2	
	VolPTraffic	VoIP packets, such as surveillan			Ē.	1	
1-9 of	9. Page 1 of 1.			14 - 44	1	65 FT	50 💌

(2) 单击<增加>按钮,进入增加流分类页面,配置相关策略,如下图所示:

🤮 Add QoS Classifi	er						(?)He
Add QpS Classifier							
Basic Information	ı						-
Name *	FilterInbau	undiPAddres	88	(?	)		
Rule Relationshi	p or 💌	]					
Select Behavior					Clear		
IP Type	IPv4	-					
Description					)		
Select Model					Select	t Model • Model	
Add Delet	e All						
Name Char	acteristics	Туре	Relation	Value	State	Modify	Delete
No match found	J.						
		0	OK Ca	incel			

根据需要参数配置如下:

a.名称: 输入"FilterboundIPAddress"

b.规则逻辑:选择"or"

c.IP类型:选择"IPv4"

其他参数保持缺省即可。

(3) 配置流分类规则,单击<增加>按钮,设置流分类特征,如下图所示:

Configure Parameters		
Name *	aaa 🔊	
State	Enabled -	
Relation		
Select Matching Type	IPv4ACL *	
Input ACL Number *	2112	
InputACL Name *	A3200	

创建流分类特征的"名称",输入所要匹配的ACL number和ACL name,其他参数保持缺省即可。单击<确认>按钮,增加流分类完成。

(4) 配置流行为与流策略

a.选择"业务"页签,单击导航树中的[QoS管理/QoS设备]菜单项,进入QoS设备页面,如下图所示:

iery C	ondition				Bearch d	evice IP	Q	
Depic	y Synchr	onize Refresh						
	Status	System Label 🗢	Device Model 🗘	IP Address 🗘	Polling Result	Audit Status	Operation	
	Major	VMCE(172.10.8.76)	H3C S361 8-62P	172.10.0.76	Success	No baseline	Ð	
	Normal	Bwitch.AL.HZ(192.168.5.31)	Cisco Catalyst 37xxStack	192.168.5.31	Buccess	No baseline	Ð	
	Major	Switch(192.168.5.32)	Cisco Catalyst 37xcStack	192.168.5.32	Success	No baseline	Ð	
	Major	SR88_New(172.10.0.88)	H3C SR8905-V5	172.10.0.88	Success	No baseline	Ð	
	Major	BR68-11(172.10.0.80)	H3C SR6608	172.10.0.60	Buttess	No baseline	Ð	
	Normal	SR68(172.10.0.68)	HP 6804	172.10.0.68	Success	No baseline	Ð	
	Major	spoke1-pe(172.10.0.63)	HP MSR3040	172.10.0.63	Buccess	No baseline	Ð	
	Major	S5800CE(172.10.0.78)	H3C S5800-32C	172.10.0.78	Success	No baseline	Ð	
	Major	\$5800(172.10.0.77)	H3C S5800-32C	172.10.0.77	Success	No baseline	Ð	
	Major	810504(172.10.0.105)	H3C 810504	172.10.0.105	Buccess	No baseline	Ð	
	Major	NY-H3C-S5500(172.10.0.1)	H3C S5500-52C-EI	172.10.0.1	Buccess	No baseline	Ð	
	Major	MBR3040(172.10.0.82)	H3C MSR30-40	172.10.0.62	Buccess	No baseline	Ð	
	Intajor	MCE(172.10.0.74)	HP 5500-240-SFP-EI-2SLOT	172.10.0.74	Success	No baseline	Ð	
	Major	hjw_server_acs2(192.168.5.80)	H3C S5800-32C	192.188.5.80	Buccess	No baseline	Ð	
	Major	H3C-172.10.0.91 (172.10.0.91)	H3C 87508E	172.10.0.91	Buttess	No baseline	Ð	
	Major	H3C(172.18.0.82)	H3C S951 2E	172.10.0.82	Buccess	No baseline	Ð	
	Normal	H3C(172.10.0.70)	H3C 87602-8	172.10.0.70	Buttess	No baseline	Ð	
	Normal	75e-olt12(172.10.0.30)	H3C S7502E	172.10.0.30	Success	No baseline	Ð	

b.在设备列表中,点击所要配置设备的"操作"链接,在弹出的菜单中选择"QoS配置信息",进入配置页面,如下图所示:

, Si Inte	ervice rface	e > GoS De Policy App	Nice > QoS Co lication VL	anfiguration AN Policy A	InfoSR88_N plication	lew(172.10.0 Classifier	Behavior Flow	v Policy					⊘не
	Add Refresh								_Show in	terfaces without CB	0 deployed		
		Interface	Inbound				Outbound					Ehre	
1			CBQ Policy	Operate	Line Rate	Operate	Hardware Queue	CBQ Policy	Operate	Line Rate	Operate	Hardware Queue	- 144
	No m	atch found.											
	0-0 of	f0.Page 1 o	f1.								141	<4 >> >4	50 🔻

c.单击<增加>按钮,进入设备配置向导页。在接口应用策略中,点击选择的入方向的接口数的"设备接口选择"图标,选择入方向的接口,如下图所示:

5 Single-device configuration - Goog	ple Chrome						
🗋 192.108.1.109/imc/gos/autofind/gos_	dev_intePolicy_add.jsf						
🔧 Deploy Guide				(?) Help			
1 Setting Deploy Ap Object	ply 2 Setting	QoS Policy 3 Basic 1	olicy 3 Basic Information 4 Summary				
Apply Policy to Interface				-			
Select Device Delete All		_					
Device Name © Device	Model 0 Interface Count 0	Number of interfaces (inbound direction	n) 0 Number of interfaces (outbound dir	ection) © Delete			
SR88_New H3C SR	SR88_New H3C SR8805-V5 58		R	Ť			
Apply Policy to VLAN				-			
Select Device Delete All							
Device Name ©	Device Model 🗢	VLAN (inbound) 🗘	VLAN (outbound) ©	Delete			
		Next Cancel					

d.单击<下一步>按钮,设置QoS策略。单击<增加>按钮,选择已创建的流分类,确定后,设置流行为信息,如下图所示:

ngle-device configuration - Google Chrome				
92, 166, 1, 109, imc, iqus, leutorind (qos_dev_intePolicy;	_add_two.jsf			
beploy Oulde				e
1 Setting Deploy Apply Object	2 Setting QoS Policy	3 Basic Informatio	an <b>4</b> summary	
Select service custom 🔻				
Setting GoS Policy				
<ul> <li>Prompt</li> <li>When setting the QoS policy, the parameter</li> </ul>	rs that are not supported by the selected device.	s are filtered out.		
Add Delete All				
Policy Name * P_1380164247292			Bandwic	th Charl: Pie Bar
No. Classifier	Behavior			Delete
1 FilterInboundIPAddress 🖻	CIR = 2048	2		Û
	Provious	Next Cancel		

e.点击<FilterInboundIPAddress>流行为的修改按钮,进入配置流行为的页面,如下图所示:

🤝 Config Behavior -	Google Chrome			L	
192.168.1.109/imc/	qos/cbpair/configBe	havior.jsf			
Config Behavior					
CAR					Config
CIR	2048	kops 🕐	CBS 20000	oyte 🕐	
Remark					Config
IP-Precedence	Not Set	•	DSCP Not Set	-	
Mirror					
Mirror	Not Set	*			
Redirect					
Redirect	Not Set	*			
Account					
Account	Not Set	Ŧ			
Firewall					
Firewall	Not Set	-			
		Previous	OK Cancel		

输入承诺信息速率CIR值为2048,承诺突发尺寸CBS值为20000,单击确定按钮,配置流行为完毕。 f.单击<下一步>按钮,设置基本信息,基本信息可以根据用户需求定制任务部署信息(本例选择默认),如下图所示:

5 Single-device configuration - Go	ogle Chrome		
192.106.1.109/imc/cps/subs/ind/gos	_dev_intePolicy_add_three.jsf		
🔧 Deploy Ouide			() Help
1 Setting Deploy A Object	pply 2 Setting QoS Policy	3 Basic Information	4 Summary
Basic Information			
TaskName *	Go S Deploy Task 2013-09-25 20:10:00		
For the policy deployed	$\bigcirc$ increment (for the classifier, behavior, or $\mbox{QoS}$ policy with the same name)	Overwrite      Ignore (The newly deployed policy is a applied to the specified direction of an	pplied only if the existing policy is not interface or VLAN)
Predefined Execution Time 7	Immediately     Bcheduled		
TaskDescription			
	Previous	Next Cancel	

g.点击<下一步>,进入摘要页面。点击<完成>按钮,完成配置,如下图所示:

eplay Guide			C						
1 Setting Deploy Ap Object	pply 2 Setting QoS Policy	3 Basic Information	4 Summary						
Basic Information									
Task Name	QoS Deploy Task 2013-09-25 20:10:00								
For the policy deployed Overwrite									
Predefined Execution Immediately Time									
Task Description									
Flow Policy	P_1380164695804								
Deplay Object									
SR88_New			-						
Apply Object	Туре	Direction							
GigabitEthernet2/0/2	Interface	Inbound							
	Provines Fi	nish Cancel							

接口出方向配置方式同上,此处不再进行——详述。

h.接口策略配置完成后,在QoS配置信息页面,可查看该设备的接口策略信息,如下图所示:

Q	Bervice	> GoS Device > GoS	5 Configuration InfoSR	BB_New(17	2.10.0.88)								(7) Help
	interface	Policy Application	VLAN Policy Applicati	n Clas	sifier Beh	avior Fi	ow Policy						
	Add	Refresh									Show int	erfaces without CBQ	deployed
		Interface	Inhound					Outbound					Dev
		Indiaco	CBQ Policy	Operate	Line Rate	Operate	Hardware Queue	CBQ Policy Operate Line Rate	Operate	Hardware Queue			
		GigabitEthernet2/0/2	P_1380164895994	Fo					÷.		<b>±</b>	HH3CFG	ш,
	1-1 0	f1.Page1 of1.									14 -44	1 PP PI 5	- 1
1													
							Back						

1、QoSM配置需要与ACL管理配套使用,此案例不对ACL管理配置进行详细介绍。