



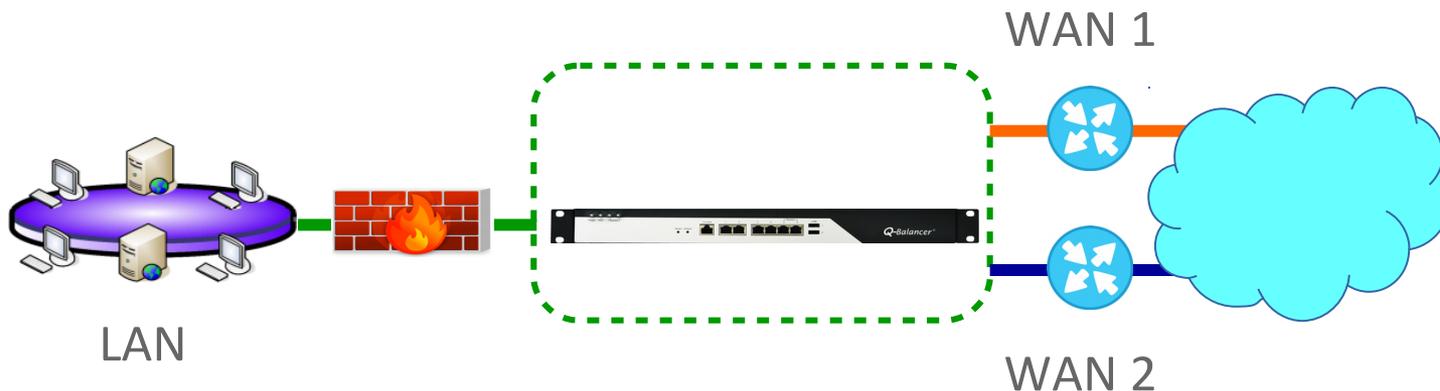
How To Guide: *Policy-based QoS Configuration*

Introduction

This article outlines the configuration of policy-based QoS. In the following diagram, a company with two WAN links wants users to experience high-quality internet access. Assuming the readers have already known the configuration about WAN load balancing on the appliance, we would mainly focus on the setting of QoS in this case.

Diagram

- > Port 1, WAN 1: example_1, IP: 203.67.222.40, Subnet: 203.67.222.40/30, GW:203.67.222.1, Downlink: 100Mbps/Uplink: 40Mbps
- > Port 2, WAN 2: example_2, IP: 100.100.100.6, Subnet:100.100.100.0/29, GW:100.100.100.1, Downlink: 16Mbps/Uplink: 3Mbps.
- > Port 4, LAN Subnet: 10.168.1.0/24, Interface IP: 10.168.1.254



Requirement

- > Each of LAN users is allocated with bandwidth for D:10M/ U:1M when their requests go through WAN 1, and D:2M/ U:0.5M when the requests go through WAN 2.
- > The maximum bandwidth for **Dropbox** application will be D:20M/ U:10M when it goes through WAN 1, and D:5M/ U:1M when it goes through WAN 2.

Follow the steps below to complete the configuration of Policy-based QoS on the appliance with the IP details given:

1. WAN > ADD
2. LAN > ADD
3. Object > DPS > ADD
4. Policy Routing > ADD
5. Policy QoS

WAN > ADD > Static

WAN

ADD ▾

DELETE

Status	Type	↑↓ Name	↑↓ Port	↑↓ Interface	Subnet	↑↓ IP	↑↓ Gateway
✓	Static	example_1	Port 1	eth0_6	203.67.222.40/30	203.67.222.40	203.67.222.1
✓	Static	example_2	Port 2	eth1_2	100.100.100.0/29	100.100.100.6	100.100.100.1

LAN > ADD

LAN

ADD

DELETE

Name	↑↓	Port	↑↓	Interface	↑↓	Subnet	↑↓	Route	↑↓	IP	↑↓
LAN_10.168.1.0		Port 4		eth3_3		10.168.1.0/24		Interface		10.168.1.254	

Objects > DPS > ADD

Dynamic Path Selection

ADD

DELETE

Name	↑↓ Backup Pool	↑↓ Algorithm	Information	
BSWLT_DPS	-	BSWLT	example_1	example_2
WRRbyConn_DPS	-	WRRC	example_1 1	example_2 1

Policy Routing > ADD

Policy Routing

Search

Priority	Source	Destination	Services	Schedules	Pool	NAT
6	LAN_10.168.1.0/24	Any	dropbox	Always	BSWLT_DPS	Smart
7	LAN_10.168.1.0/24	Any	Any	Always	WRRbyConn_DPS	Smart

Policy-based QoS

Follow the steps below to complete the policy-based QoS:
Click on **Policy Routing** > **Edit**

Policy Routing

<input type="checkbox"/>	Edit	Enabled	Priority	↑↓	Source	↑↓	Destination	↑↓	Services	↑↓
<input type="checkbox"/>		<input checked="" type="checkbox"/>	6		LAN_10.168.1.0/24	→	Any		dropbox	
<input type="checkbox"/>		<input checked="" type="checkbox"/>	7		LAN_10.168.1.0/24	↔	Any		Any	

Policy Routing > Edit > QoS > Enable (for all LAN users)

QoS

Enabled

Shared Individual

example_1

Priority

7

Highest Lowest

Download

- Mbps

Upload

- Mbps

example_2

Priority

7

Highest Lowest

Download

- Mbps

Upload

- Mbps

Comments

traffic from all LAN users

Click on *Policy Routing > Edit > QoS > Enable*, and then edit QoS (for Dropbox)

QoS

Enabled

Shared Individual

example_1

Priority

6

Highest Lowest

Download

0.1 - 20.0 Mbps

Upload

0.1 - 10.0 Mbps

example_2

Priority

6

Highest Lowest

Download

0.1 - 5.0 Mbps

Upload

0.1 - 1.0 Mbps

Comments
for dropbox

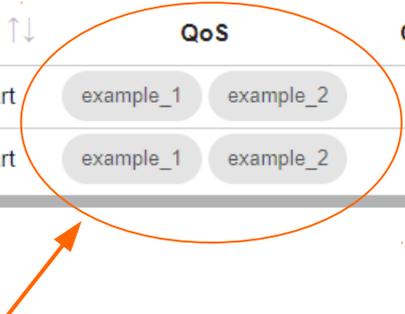
Configuration for *Policy-Based QoS* is done as follows:

Policy Routing

ADD DELETE Q Search

Priority ↑↓	Source ↑↓	Destination ↑↓	Services ↑↓	Schedules ↑↓	Pool ↑↓	NAT ↑↓	QoS	Other
6	LAN_10.168.1.0/24	↔ Any	dropbox	Always	BSWLT_DPS	Smart	example_1 example_2	▼
7	LAN_10.168.1.0/24	↔ Any	Any	Always	WRRbyConn_DPS	Smart	example_1 example_2	▼

Done!



To view the **QoS** detail...

Click on here

Policy Routing

ADD DELETE

Search

Priority ↑↓	Source ↑↓	Destination ↑↓	Services ↑↓	Schedules ↑↓	Pool ↑↓	NAT ↑↓	QoS	Other
6	LAN_10.168.1.0/24	↔ Any	dropbox	Always	BSWLT_DPS	Smart	example_1 example_2	▼
7	LAN_10.168.1.0/24	↔ Any	Any	Always	WRRbyConn_DPS	Smart	example_1 example_2	▼

QoS Other

example_1 examp

example_1 examp

Duplicate

Detail

Status

And click on **Detail** when the dropdown menu expands.

The QoS Detail (for all LAN users) is as follows:

QoS

Enabled		✓
Type	Individual	
example_1	Priority	7
	Download	1.0 - 10.0 Mbps
	Upload	0.5 - 1.0 Mbps
example_2	Priority	7
	Download	0.5 - 2.0 Mbps
	Upload	0.1 - 0.5 Mbps

The QoS Detail (for Dropbox) is as follows:

QoS

Enabled		✓
Type	Shared	
example_1	Priority	6
	Download	0.1 - 20.0 Mbps
	Upload	0.1 - 10.0 Mbps
example_2	Priority	6
	Download	0.1 - 5.0 Mbps
	Upload	0.1 - 1.0 Mbps

Take the **QoS** policy “**for all LAN users**” as an example. On the LAN host, we started 2 download sessions at the same time. The sessions would be distributed across both WAN links based on the algorithm **Weight Round Robin by Connection** at ratio 1 to 1. The **QoS Status** is working accordingly as follows:

Download

