


How to use QoS function in Vigor2130?

Like other Vigor Routers, Vigor2130 provides 4 traffic classes: **High, Medium, Normal** and **Low**. The non-matching packets will be categorized to the default class (default is **Normal**).

Bandwidth Management >> Ports Priority

Port QoS Configuration



Port	Default Class	QCL #	Queuing Mode
WAN	<div>Normal Low Normal Medium High</div>	1	Weighted

OK Cancel

1. The first step to enable QoS is to set the correct **WAN TX/RX Rate** in **Port Rate Control** page.

Bandwidth Management >> Port Rate Control

Rate Limit Configuration

Port	Policer Enabled	Policer Rate(Rx)	Policer Unit	Shaper Enabled	Shaper Rate(Tx)	Shaper Unit
WAN	<input checked="" type="checkbox"/>	10	Mbps	<input checked="" type="checkbox"/>	2000	kbps

Note: Shaper must be enabled for Weighted Queuing Mode QoS!!

Policer Enabled option means to enable QoS for the RX/ Incoming direction.

Shaper Enabled option means to enable QoS for the TX/ Outgoing direction.




2. Then, configure the ports or protocols with specific traffic class value. Open **Bandwidth Management >>QoS Control List**. The default QoS configuration is like below.

QoS Control List Configuration

QCL #	1
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QCE Type	Type Value	Traffic Class	
TCP/UDP Port	22 - 23	High	<div>+ e ↓ x</div>
TCP/UDP Port	5060	High	<div>+ ↑ e ↓ x</div>
TCP/UDP Port	25	Medium	<div>+ ↑ e ↓ x</div>
TCP/UDP Port	80	Medium	<div>+ ↑ e ↓ x</div>
TCP/UDP Port	110	Medium	<div>+ ↑ e ↓ x</div>
TCP/UDP Port	443	Medium	<div>+ ↑ e ↓ x</div>
DSCP	0	Low	<div>+ ↑ e ↓ x</div>

From the above page, we can see TCP/UDP Ports 22, 23 and 5060 are under High **Traffic Class**.

We can add new rule by clicking the  button; delete rules by clicking  button and modifying rules by clicking  button.

All the Ports mentioned mean the destination ports.

3. Vigor2130 provides 5 QoS configuration profiles. Users can use different QoS profiles at different time.

For example, we can use default QoS profile in working hours but use another profile (e.g. UDP port 6881 for BT with medium priority) in non-working hours.

QoS Control List Configuration

QCL #	1
	1
	2
	3
	4
	5
QCE Type	Typ

4. The last step is to select the QoS profile and configure the Queuing Weighted mode and rate.

Bandwidth Management >> Ports Priority

Port QoS Configuration

Port	Default Class	QCL #	User Priority	Queuing Mode	Low	Normal	Medium	High
WAN	Normal	1	1	Weighted	1	2	4	8

OK

Strict Priority

Weighted

Round Robin

Weighted mode means Vigor will process the packets from different classes according to the setting rate. For example, process 8 packets from **High** class, 4 packets from **Medium** class, 2 packets from **Normal** class and 1 packet from **Low** class at the same time.

Strict Priority mode means Vigor will always process the packets from High Class at first, then the packets from Medium class, then the normal class.

The application of High priority class may run out all the bandwidth and it may cause the traffics from lower class stopping work.

5. After setting up above configurations, we can see the packet counters in **QoS Statistics** page.

Bandwidth Management >> QoS Statistics

Queuing Counters

Auto-refresh ☐

Port	Low Queue		Normal Queue		Medium Queue		High Queue	
	Receive	Transmit	Receive	Transmit	Receive	Transmit	Receive	Transmit
WAN	8043	5500	115	0	10677	6038	3642	2430
LAN1	0	0	0	0	0	0	0	0
LAN2	5442	8017	0	0	229	0	2469	3470
LAN3	16	46	5	0	6055	10338	0	0
LAN4	0	0	0	0	0	0	0	0