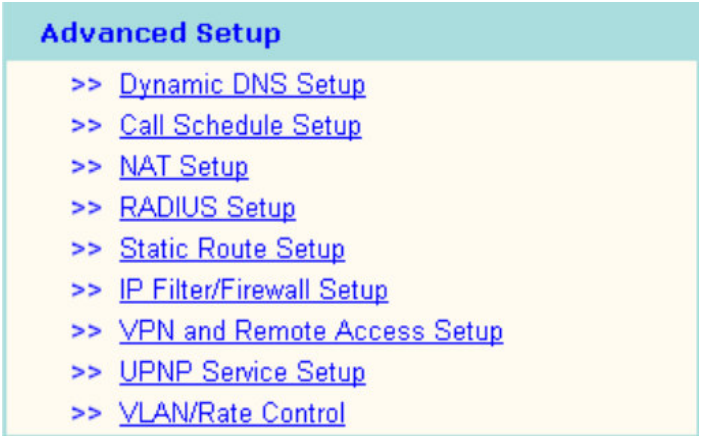
VLAN/Rate Control

Introduction

◆VLAN is **Virtual Local Area Network**, basically a broadcast domain. In the switched network system, a broadcast packet or an unknown destination MAC address packet will broadcast to all the other ports, which will decrease the whole network system performance dramatically. By grouping some ports into one VLAN, broadcast packets will only be sent to the ports within the same VLAN without effecting the traffic of other ports outside the VLAN. Because the broadcast domain is independent during different VLANs, the all packets from any port can't cross different VLANs. Any port can be grouped as one VLAN, and ports can be shared among different VLANs(i.e. One port can belong to different VLANs). In this way, VLAN improve efficiency of network resource usage and network security.

◆Rate Control allows you to set upper port forwarding rate(also called "bandwidth throttling"), allowing you to set a maximum In-bound and/or Out-bound bandwidth available for each LAN port. This is useful to minimize the impact on other users from one user who would otherwise monopolise the ADSL bandwidth (e.g. playing games or downloading large files).



VLAN Configuration

Enable: Tick **Enable** to turn on the VLAN function.

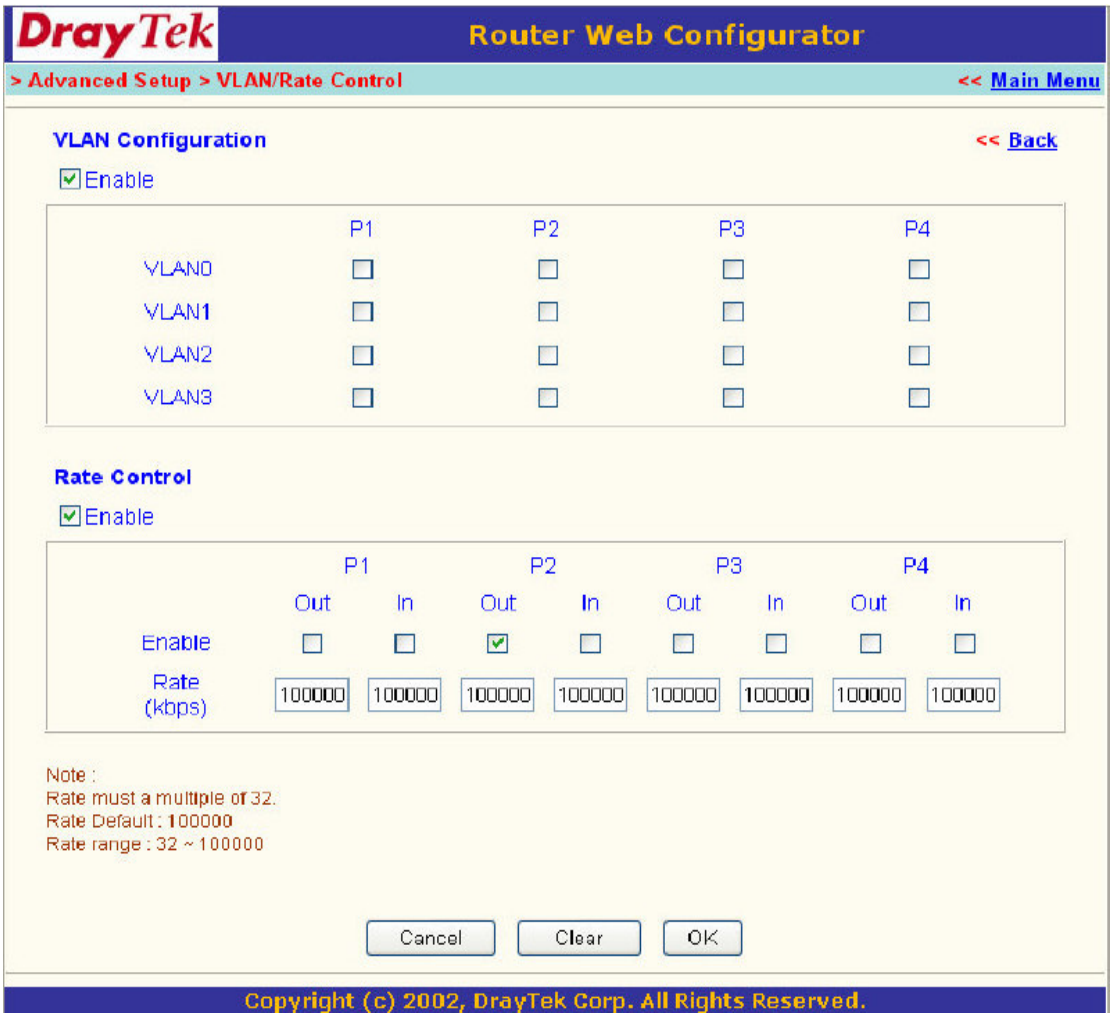
There are 4 VLAN groups: **VLAN0/VLAN1/VLAN2/VLAN3**. Tick the ports you want to group as the same VLAN group. All unchecked ports will be grouped as the same VLAN (non-visible group). If only one port is checked as a VLAN, then this port only can communicate with WAN.

P1: Lan port 1.

P2: Lan port 2.

P3: Lan port 3.

P4: Lan port 4.



Rate Control

Enable: Tick Enable to turn on the Rate Control function.

For each of the LAN ports (**P1**, **P2**, **P3** and **P4**), you can choose to limit the incoming and/or outgoing bandwidth. Simply tick the In or Out box under the LAN port number, and enter the rate under the In or Out tick box. To turn off a Rate Control setting for a port, simply chick on the tick to remove it.

Out: Tick **Out** to enable out-bound (upload) Rate Control for this LAN port.

In: Tick **In** to enable in-bound (download) Rate Control for this LAN port.

Rate: Enter a number that is a multiple of 32 (i.e. 32, 64, 96, 128…) and not more than 100,000. This number is the maximum rate for this port in this direction, in kbps (1000 bits per second).

Note that ADSL connections usually have much lower upload (out-bound) bandwidth than download (in-bound) bandwidth, and hence the ability to limit each individually. For example a “256/64” ADSL connection has 256kbps download (in-bound) bandwidth and 64bps upload (out-bound) bandwidth.