Bandwidth management on WL500g/gx

"Bandwidth Management" provides a mechanism to setup bandwidths according to different IP address and/or port on WL500g/gx. Users can assign a bandwidth, including minimum bandwidth and maximum bandwidth, to a fixed IP address or a fixed port for download streams. Users also can assign upload bandwidth according to a particular port. We'll take an example to tell more clear when setting bandwidth management.

Example:

*Download:

John wants to allocation the download bandwidths for each user in the office. User A(192.168.1.2) can use minimum 100Kbps(Kilo byte per second) and maximum 500Kbps. User B(192.168.1.3) needs minimum 150Kbps and maximum 500Kbps when he receives something through port 3900. The other users can use the network with minimum 50Kbps and maximum 100Kbps. And all the traffic through port 80 which the http protocol used are limited in minimum 20Kbps and maximum 50Kbps. John can set these rules as follow:

	IP	port	max-BW	min-BW
rule 1	192.168.1.2		500	100
rule 2	192.168.1.3	3900	500	150
rule 3			100	50
rule 4		80	50	20

Rule 1 limits user A uses 100K~500Kbps. Rule 2 let user B can use 150K~500Kbps when download something through port 3900. Rule 3 assign the other users can use 50K~100Kbps when download. Rule 4 makes HTTP protocol download with rate 20K~50Kbps.

*Upload:

If users want to set upload bandwidths for FTP server on WL500g/gx through visual server with maximum 30Kbps, they can set visual server first. Then, set rules as rule 1. Rule 2 can limit all the services from WL500g/gx to WAN in 20Kbps.

	port	max-BW	min-BW
rule 1	20	30	
rule 2		20	10

*Other settings:

If users didn't fill the maximum when setting rules, the maximum bandwidth will be assigned as the maximum bandwidth the net can use. If the minimum is null, it will be assigned as the maximum bandwidth users set. If the minimum bandwidth is greater than maximum bandwidth, the maximum bandwidth will be useless. With null bandwidth limited and fill ip address only, the rule will do nothing to that ip.

*Some of the particular services and port numbers are follow:

port	services
21	FTP(File Transfer Protocol)
22	SSH
23	Telnet
25	SMTP(Simple Mail Transfer Protocol)
53	DNS(Domain Name System)
80	HTTP(Hyper Text Transfer Protocol or WWW, Web)
109	POP2
110	POP3(Post Office Protocol)
119	NNTP(Network News Transport Protocol)
161	SNMP(Simple Network Managemant Protocol)
1723	PPTP(Point-to-Point Tunneling Protocol)

In general, if you want to have a good speed when you browse WWW website, 15~20Kbps (byte per second, about 120~160K bit per second) for download stream is recommended for one user.