GBSC Configuration

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Chapter 2   Setting Online Behavior Control for Global GBSC and Groups

2.1   Enabling GBSC

Only when GBSC is enabled can GBSC online behavior control take effect. You can run the following command in global configuration mode to enable GBSC:

Command	Purpose
gbsc enable	Enables GBSC.

2.2   Online Behavior Control of Group or Global Configuration

Before the online behavior control is set in GBSC, the system has to enter the GBSC group configuration mode. In GBSC, the default group is regarded as the corresponding group of global configuration, and the intranet hosts that do not belong to a specific group use the default group. You can run the following command in global configuration mode to enter the GBSC group configuration mode.

Comm and	Purpo se
gbsc group *group mame*	Enters the GBSC group configuration mode.

You can run **exit** to exit from the group configuration mode.

In group configuration mode, you mainly run the **anti** command to conduct the online behavior control, and you also can use the "no" form of this command to delete this function.

Parameter

anti { p2p **|** filetrans **|** webvideo **|** game **|** oicq **|** web-oicq **|** oicq-filetrans **|** msn **|** msn-filetrans **|** aliim **|** stocksoft | stock **|** enter **|** dos **|** internet **}**

no anti { p2p **|** filetrans **|** webvideo **|** game **|** oicq **|** web-oicq **|** oicq-filetrans **|** msn **|** msn-filetrans **|** aliim **|** stocksoft | stock **|** enter **|** dos **|** internet **}**

Comm and	Purpo se
p2p	Limits the hosts in a group to use P2P.
filetrans	Limits the hosts in a group to perform file download.
webvideo	Limits the hosts in a group to watch network videos.
game	Limits the hosts in a group to run network

	games.
oicq	Limits the hosts in a group to use OICQ.
web-oicq	Limits the hosts in a group to web QQ.
oicq-filetrans	Limits the hosts in a group to use QQ to transmit files.
msn	Limits the hosts in a group to use MSN.
msn-filetrans	Limits the hosts in a group to use MSN to transmit files.
aliim	Limits the hosts in a group to use Aliwangwang.
stocksoft	Limits the hosts in a group to use the stock exchange software.
stock	Limits the hosts in a group to browse the stock websites.
enter	Limits the hosts in a group to browse the entertainment and shopping websites.
dos	Preventing the hosts in a group from triggering DOS attacks.
internet	Limits the hosts in a group to visit the Internet.

Default value

There is no configuration.

Example

Router_config_gbsc_grp#anti dos

Router_config_gbsc_grp#

Preventing the hosts in a group from triggering DOS attacks

Router_config_gbsc_grp#no anti dos

Router_config_gbsc_grp#

Canceling DOS configuration

Chapter 3   GBSC Bandwidth Distribution

3.1   Dynamic Bandwidth Distribution

Dynamic bandwidth distribution deals with the following parameters: the times of the minimum certified bandwidth (artime), the times of the maximum certified bandwidth (crtimes), the average bandwidth (band0) which is calculated according to the total bandwidth of the current interface and the number of hosts, and the minimum certified bandwidth for each host (band0 * artimes) and the maximum certified bandwidth (band0 * crtimes).

Only when the system enters the interface configuration mode can the dynamic bandwidth distribution be enabled.

Command	Purpose
gbsc qos interfacename	Enters the interface name.
enable band-dynamic	Enables the dynamic bandwidth distribution on this interface.

In default settings, the times of the minimum certified bandwidth is 4 and that of the maximum certified bandwidth is 8; if you want to reset the settings, you need to perform this settings in global configuration mode.

Command	Purpose
gbsc set-ar-times *artimes*	Sets the times of the minimum certified bandwidth (artimes).
gbsc set-cr-times c*rtimes*	Sets the times of the maximum certified bandwidth (crtimes).

Example

Router_config#gbsc set-ar-times 5

// setting the times of the minimum certified bandwidth to 5 (the default value is 4)

Router_config#gbsc set-cr-times 10

// setting the times of the maximum certified bandwidth to 10 (the default value is 8)

Router_config#gbsc qos g0/0

// entering the g0/0 interface to conduct the settings

Router_config_gbsc_qos# enable band-dynamic

//enabling the dynamic bandwidth distribution on interface g0/0

3.2 Static Bandwidth Distribution

3.2.1 Bandwidth distribution for Download and Upload

You can limit the download/upload rate of a host based on groups. You should run the following commands to the certified and maximum bandwidths for the upload and download of the designated interface of all hosts in the configured group.

Command	Purpose
gbsc group *groupname*	Enters the **groupname** group.
set-band download/upload *ar cr interface*	Sets the upload/download certified and maximum bandwidths of the interface of all hosts in the groupname group to **ar(bps)** and **cr(bps)** respectively.

Example

Router_config#gbsc group default

//entering the default group

Router_config_gbsc_grp#set-band download 100000 200000 g0/0

// setting the download certified and maximum bandwidths of interface g0/0 of all hosts in the default group to 100Kbps and 200Kbps respectively.

3.2.2 Large-Traffic Host Limit

The large-traffic host limit mainly punishes those hosts which occupy a lot of bandwidth for a long time. The mainly related parameters include **staticstime**, **limittime**, **limitpercent** and **limitlevel**. When the bandwidth of a host is larger than the **limitpercent** of the certified bandwidth and continues this state for a period of **staticstime**, this host will be punished and its certified bandwidth will be reduced to **limitlevel**, which will last **limittime**.

Command	Purpose
Gbsc qos *interface*	Enters an interface.
enable limit	Enables the large-traffic host limit.

The **statistictime**, **limittime**, **limitpercent** and **limitlevel** of the certified bandwidth should be set in global configuration mode.

Command	Purpose
gbsc statistictime *time*	Sets the statistics time (the default value is 600 seconds).
Gbsc limittime *time*	Sets the limit time (the default value is 600 seconds).
Gbsc limitpercent *level*	Sets the excess level of the certified bandwidth (the default value is 20, that is, it is 20%).

Gbsc limitlevel *level*	Sets the reduction level of the certified bandwidth when a host is limited (the default value is 2).

Example

    Router_config#gbsc qos g0/0

// entering the g0/0 interface to conduct the settings

    Router_config_gbsc_qos#enable limit

    //enabling the large-traffic host limit

    Router_config#gbsc staticstime400

    //setting **staticstime** to 400 seconds

    Router_config#gbsc limittime 300

    //setting **limittime** to 300 seconds

    Router_config#gbsc limitpercent 20

    //setting **limitpercent** of the certified bandwidth to 20%

    Router_config#gbsc limitlevel 3

    //setting **limitlevel** to 30%

According to the above-mentioned settings, when the average bandwidth of a host exceeds 20% of the certified bandwidth and lasts 400 seconds, this host will be limited and the certified bandwidth reduces 30%, which will continue 300 seconds.

Chapter 4   Setting the GBSC While List and Its blacklist

4.1   Configuring the GBSC While List and Its blacklist

If a host is added to a blacklist, the packets from this host will all be dropped; if added to a white list, this host will not be prevented from P2P, QQ and bandwidth limit, that is to say, this host is free from GBSC.

Command	Purpose
gbsc add-to-whitelist *startip endip*	Adds the hosts in an IP address range to the white list.
gbsc add-to-blacklist *startip endip*	Adds the hosts in an IP address range to the blacklist.

Example

Router_config#gbsc add-to-whitelist 192.168.1.5

// adding the host whose IP is 192.168.1.5 to the white list

Router_config#gbsc add-to-blacklist 192.168.1.5   192.168.1.8

// adding the hosts whose IPs range between 192.168.1.5 and 192.168.1.8 to the blacklist

Chapter 5   GBSC Monitor and Query

5.1   Displaying the Statistics Information About Bandwidth Distribution

To display the statistics information about bandwidth distribution, run the following command:

Command	Purpose
Show ip gbsc stat	Displays the statistics information about bandwidth distribution.

5.2   Displaying the GBSC Flow

To display the GBSC flow, run the following command:

Command	Purpose
Show ip gbsc flow	Displays the GBSC flow.

5.3   Displaying the Web-Push Flow

Displaying the Web-push flow, run the following command:

Command	Purpose
Show ip gbsc pushto-flow	Displays the Web-push flow.

5.4   Displaying the Information About a Punished Host

To display the information about a punished host, run the following command:

Command	Purpose
Show ip gbsc punish	Displays the information about a punished host.

5.5   Displaying the Configuration of the GBSC Group

To display the configuration of the GBSC group, run the following command:

Command	Purpose

Show ip gbsc group	Displays the configuration of the GBSC group.

5.6   Displaying the Information About a Degraded Host

To display the information about a degraded host, run the following command:

Command	Purpose
Show ip gbsc degrade	Displays the information about a degraded host.

5.7   Displaying the Blocked Stock or Entertainment Websites

To display the blocked stock or entertainment websites, run the following command:

Command	Purpose
Show ip gbsc website	Displays the blocked stock or entertainment websites.

5.8   Displaying the IP Addresses of Blocked Stock or Entertainment Websites

To display the IP addresses of blocked stock or entertainment websites, run the following command:

Command	Purpose
Show ip gbsc webaddr	Displays the IP addresses of blocked stock or entertainment websites.

5.9   Displaying the Information About Group Website Control

To display the information about group website control, run the following command:

Command	Purpose
Show ip gbsc website-control	Displays the information about group website control.