GBSC Configuration Commands

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Chapter 1 GBSC Configuration Commands

Group Based Service Control (GBSC) is a group based service control module to realize the bandwidth allocation of a host, prevent MSN, OICQ, P2P and intranet DOS attacks.

1.1 gbsc app-ctrl priority onlinegames

To set the game priority in the flow control of a router, run **gbsc app-ctrl priority onlinegames**. To resume the default settings, run **no gbsc app-ctrl priority onlinegames**.

gbsc app-ctrl priority onlinegames

gbsc app-ctrl priority onlinegames

Parameter

Parameter	Description
onlinecs	CS game protocol
menghuanxy	Protocol of the Menghuanxy game
tianlongbb2	Protocol of Tianlongbb2 game
qq3guo	Protocol of the QQ3guo game
ppkading	Protocol of the ppkading game
pptang	Protocol of the pptang game
guichuideng	Protocol of the Guichuiding game
qqgame	Protocol of QQ games
wangyipp	Protocol of wangyipp games
lianzhong	Protocol of the lianzhong games
haofang	Protocol of Haofang games
wow	Protocol of the Wow game
qqxuan5	Protocol of QQxuan5 game
jingwt	Protocol of the Jingwt game
qqyinsu	Protocol of QQyinsu games
yhzhita	Protocol of the yhzhita game
moyu	Protocol of the moyu game
zhandizw	Protocol of the Zhandizw game
chuanyuehx	Protocol of the Chuanyuehx game
qqfeiche	Protocol of the QQfeiche game
dxcyys	Protocol of the Dxcyys game
wendao	Protocol of the Wendao game
zhuxian	Protocol of the Zhuxian game
dahuaxy	Protocol of the Dahuaxy game

streetbasket	Protocol of the Streetbasket game
all	Protocol characters of all supported network games

Default value

The game priority function is disabled by default.

Command mode

Global configuration mode

Instruction

After this function is enabled, a router will first forward the designated game packet in heavy network traffic, guaranteeing the smooth function of intranet games.

Example

The following example shows how to forward all supported games in priority:

Router_config# gbsc app-ctrl priority onlinegames all

1.2 gbsc app-ctrl drop

To forbid the service type through the flow control of a router, run **gbsc app-ctrl drop xxxxxx yyyyyy**. To resume the default settings, run **no gbsc app-ctrl drop xxxxxx yyyyyy**.

gbsc app-ctrl drop xxxxxx yyyyyy

no gbsc app-ctrl drop xxxxxx yyyyyy

Parameter

Level-1 parameters

Parameter	Description
p2p	P2P application protocol
networkTV	Protocol of network TV
onlinegames	Protocol of network games
webvideo	Protocol of network video
commonapp	Common application protocol
im	Protocol of instant communication
stock	Protocol of the stock software
filetrans	File transmission protocol

Level-2 parameters of P2P:

Parameter	Description
bittorrent	BT protocol

edonkey	Electronic donkey protocol
xunlei	Xunlei protocol
qq-xuanf	Protocol of QQ-xuanf
kugou	Kugou protocol
ttplayer	Ttplayer protocol
flashget	Flashget protocol
maze	MAZE protocol
namirobot	Namirobot protocol
raysource	Raysource protocol
115udan	115udan protocol
kuwo	Kuwo protocol
vagaa	Vagaa protocol
all	All supported P2P protocol

Level-2 parameters of network TV parameters:

Parameter	Description
pplive	PPLIVE protocol
ppstream	Ppstream protocol
uusee	Uusee protocol
qvod	QVOD protocol
storm	Storm protocol
sinatv	Sinatv live protocol
sohutv	Sohutv live protocol
iku	Iku accelerator protocol
jisuku6	Jisuku6 accelerator protocol
jisutudou	Jisutudou accelerator protocol
itudou	iTudou video download protocol
sopcast	Sopcast network TV protocol
pipi	Pipi player protocol
funshion	funshion player protocol
all	all supported network TV protocols

Level-2 parameters of onlinegames parameters:

Parameter	Description
onlinecs	CS game protocol
menghuanxy	Protocol for the Menghuanxy game
tianlongbb2	Protocol of Tianlongbb2 game
qq3guo	Protocol of the QQ3guo game
ppkading	Protocol of the ppkading game
pptang	Protocol of the pptang game
guichuideng	Protocol of the Guichuiding game

qqgame	Protocol of QQ games
wangyipp	Protocol of wangyipp games
lianzhong	Protocol of the lianzhong games
haofang	Protocol of Haofang games
wow	Protocol of the Wow game
qqxuan5	Protocol of QQxuan5 games
jingwt	Protocol of the Jingwt game
qqyinsu	Protocol of QQyinsu games
yhzhita	Protocol of the yhzhita game
moyu	Protocol of the moyu game
zhandizw	Protocol of the Zhandizw game
chuanyuehx	Protocol of the Chuanyuehx game
qqfeiche	Protocol of the QQfeiche game
dxcyys	Protocol of the Dxcyys game
wendao	Protocol of the Wendao game
zhuxian	Protocol of the Zhuxian game
dahuaxy	Protocol of the Dahuaxy game
streetbasket	Protocol of the Streetbasket game
all	Protocols of all supported network games

Level-2 parameters of webvideo parameters:

Parameter	Description
youku	Youku video protocol
ku6	Ku6 video protocol
6.cn	6.cn video protocol
tudou	tudou video protocol
sohuvideo	Sohuvideo protocol
sinavideo	Sinavideo protocol
56.com	56.com video protocol
qqvideo	qqvideo protocol
ifeng	Ifeng video protocol
ctvvideo	Cctv video protocol
imgo	Imgo video protocol
joy	Joy video protocol
qiyi	Qiyi video protocol
m1905	m1905 video protocol
v.163	v.163 video protocol
cntv	CNTV video protocol
othervideo	Othervideo protocol
unknovideo	unknovideo protocol
all	all supported network TV protocols

Level-2 parameters of commonapp parameters:

Parameter	Description
Dns	DNS protocol
http	http website access protocol
telnet	Telnet protocol
360update	360update protocol
https	HTTPS protocol
http- upload	HTTP upload protocol
onlinemusic	Online music protocol
rtsp	RTSP protocol
rtp	RTP protocol
flash	Flash protocol
all	All supported common protocols

Level-2 parameters of IM:

Parameter	Description
qq	QQ protocol
fetion	Fetion protocol
msn	MSN protocol
qqfiletrans	QQ file transmission protocol (including remote QQ control and QQ video chat)
webqq	Web QQ protocol
msnfiletrans	MSN file transmission protocol (including MSN video chat)
qqharddrive	QQ hard-drive protocol
aliwangwang	Aliwangwang protocol
all	All supported immediate communication protocols

Level-2 parameters of stock:

Parameter	Description
tonghuashun	Tonghuashun protocol
qianlong	Qianlong protocol
dazhihui	Dazhihui protocol
dayouqihuo	Dayouqihuo protocol
all	All supported stock exchange protocols

Level-2 parameters of the **filetrans** parameter:

Parameter	Description
http-download	Http download protocol

http-block	HTTP block transmission protocol
fake-ie	Fake-IE download protocol
ftp	File transmission protocol
all	All supported Email protocols

Default value

Service disablement is not opened.

Command mode

Global configuration mode

Instruction

After this function is enabled, a router can block a designated network application. The level-2 parameters may vary with different versions. For a specific command line, refer to a detailed command prompt.

Example

The following example shows how to disable P2P in a network:

Router_config# gbsc app-ctrl drop p2p all

1.3 gbsc pushto mode

To set the type of the push web that the router sends to the intranet host, run **gbsc pushto mode**. To resume the default settings, run **no gbsc pushto mode**.

gbsc pushto mode

no gbsc pushto mode

Parameter

Parameter	Description
text	Pushes the website which contains texts.
url	Pushes the website with a designated URL.

Default value

The website which contains texts will be pushed.

Command mode

Global configuration mode

Instruction

You can choose according to your requirements to push to the intranet hosts the website with designated texts or designated URL.

Example

The following example shows how to push a website which contains designated texts.

Router_config#gbsc pushto mode text

1.4 gbsc filter-url

To set the URL filtration on a router, run **gbsc filter-url**. To resume the default settings, run **no gbsc filter-url**.

gbsc filter-url

no gbsc filter-url

Parameter

Parameter	Description
enable	Enables URL filtration.
mode	Sets the URL filtration mode.

The **mode** parameter has its sub parameters:

Parameter	Description
forbid	Forbids to access the URL matched website.
allow	Allows to access the URL matched website.

Default value

The URL filtration function is closed and the URL filtration mode is **forbid**.

Command mode

Global configuration mode

Instruction

You can enable or disable website filtration to access the website with specific URL.

Example

The following example shows how to enable URL filtration.

Router_config#gbsc filter-url enable

The following example shows how to set the URL filtration mode to **allow**.

Router_config#gbsc filter-url mode allow

1.5 gbsc filter-key

To set the page content filtration on a router, run **gbsc filter-key**. To resume the default settings, run **no gbsc filter-key**.

gbsc filter-key

no gbsc filter-key

Parameter

Parameter	Description
enable	Enables the webpage content filtration.

Default value

The webpage content filtration is disabled.

Command mode

Global configuration mode

Instruction

You can enable or disable webpage content filtration, which is only valid for the webpage of external website.

Example

The following example shows how to enable webpage content filtration.

Router_config#gbsc filter-key enable

1.6 gbsc group

To set the group of network behavior management and QoS flow control on a router, run **gbsc group**. To delete a group, run **no gbsc group**.

gbsc group

no gbsc group

Parameter

Parameter	Description
WORD	Stands for the name of a group.

Default value

There is no default settings.

Command mode

Global configuration mode

Instruction

You can use this command to create a group or enter an existing group and set its relevant parameters. The newly created group's initial parameters come from the default system group. If a group name that you enter do not exists in the system, the system will automatically create this group.

Example

The following example shows how to enter the default group settings of the system:

Router_config#gbsc group default

1.7 gbsc filter url

To set the keyword of website filtration on a router, run **gbsc filter url**. To delete a relevant keyword, run **no gbsc filter url**.

gbsc filter url

no gbsc filter url

Parameter

Parameter	Description
WORD	Stands for the keyword of URL.

Default value

There is no default settings.

Command mode

Global configuration mode

Instruction

You can conduct this pure command multiple times to add multiple URL keyword rules. The keyword can only be added and deleted but not be modified.

Example

The following example shows how to filter the website whose URL contains the keyword “bbs”:

Router_config#gbsc filter url bbs

1.8 gbsc filter key

To set the keyword of website filtration on a router, run **gbsc filter key**. To delete a relevant keyword, run **no gbsc filter key**.

gbsc filter key

no gbsc filter key

Parameter

Parameter	Description
WORD	Stands for the keyword in webpage content.

Default value

There is no default settings.

Command mode

Global configuration mode

Instruction

You can conduct this command with different keywords to add multiple content keyword rules. The keyword can only be added and deleted but not be modified.

Example

The following example shows how to filter the content containing the keyword “hacker”:

Router_config#gbsc filter key hacker

1.9 gbsc fast-filter-key

To set the fast filtration keyword on a router during URL filtration and content filtration, run **gbsc fast-filter-key**. To resume the default settings, run **no gbsc fast-filter-key**.

gbsc fast-filter-key

no gbsc fast-filter-key

Parameter

Parameter	Description
Enable	Enables the fast filtration keyword.

Default value

The fast filtration function is disabled.

Command mode

Global configuration mode

Instruction

This command can be used to speed up URL filtration and keyword filtration. If you use this function, some websites may be filtered wrongly.

Example

The following example shows how to enable fast filtration.

Router_config#gbsc fast-filter-key enable

1.10 gbsc record-filter-url

To record the URLs that an intranet host accesses, run **gbsc record-filter-url**. To resume the default settings, run **no gbsc record-filter-url**.

gbsc record-filter-url

no gbsc record-filter-url

Parameter

Parameter	Description
Enable	Enables the URL record function.

Default value

The URL record function is disabled.

Command mode

Global configuration mode

Instruction

If this function is enabled, a lot of memory will be occupied, so please be careful not to use it in a system without the support of database.

Example

The following example shows how to enable URL record.

Router_config#gbsc record-filter-url enable

1.11 gbsc key-filter-discard

To discard the webpage containing the filtration keyword, run **gbsc key-filter-discard.** To resume the default settings, run **no gbsc key-filter-discard**.

gbsc key-filter-discard

no gbsc key-filter-discard

Parameter

Parameter	Description
Enable	Discards the packet containing the filtered keyword.

Default value

This function is disabled.

Command mode

Global configuration mode

Instruction

This command is used to discard the webpage containing the filtration keyword. If this function is not enabled, the keyword on the filtered webpage will be replaced by the asterisk but this webpage can be accessed.

Example

The following example shows how to discard the webpage which contains the filtration keyword:

Router_config#gbsc key-filter-discard enable

1.12 gbsc record-count

To record the number of links that are saved on a single intranet host, run **gbsc record-count**. To resume the default settings, run **no gbsc record-count**.

gbsc record-count

no gbsc record-count

Parameter

Parameter	Description
Number	Means the number of recorded links.

Default value

The default value varies with different device models. Please refer to the command line prompt on the terminal.

Command mode

Global configuration mode

Instruction

After this command is set, the device allows to record the number of links that are saved on an intranet host. The number of links is set according to actual requirements. A big number will consume too much memory. These records will be saved according to the time. After the saved links reaches the configured number, the new online records of the intranet host will automatically replace those old online records.

Example

The following example shows how to set the number of saved links to 100:

Router_config#gbsc record-count 100

1.13 gbsc hot-record-count

To set the total number of links which are recorded on a single intranet host recently, run **gbsc hot-record-count**. To resume the default settings, run **no gbsc hot-record-count**.

gbsc hot-record-count

no gbsc hot-record-count

Parameter

Parameter	Description
Number	Means the number of recently saved links.

Default value

The default value varies with different device models. Please refer to the command line prompt on the terminal.

Command mode

Global configuration mode

Instruction

After this command is set, the device allows to set the total number of links which are recorded on a single intranet host recently. The total number of links is set according to actual requirements. A big number will consume too much memory. These records will be saved according to the time. After the saved links reaches the configured number, the newly saved links on the intranet host will automatically replace those previous links.

Example

The following example shows how to set the total number of links saved on an intranet host recently to 500:

Router_config#gbsc hot-record-count 500

1.14 gbsc sys-peak-interval

To set the interval of detecting the occupancy of the memory and CPU, run **gbsc sys-peak-interval**. To resume the default settings, run **no gbsc sys-peak-interval**.

gbsc sys-peak-interval

no gbsc sys-peak-interval

Parameter

Parameter	Description
INTERVAL	Stands for the detection interval, which ranges between 1 and 60 seconds.

Default value

1 second

Command mode

Global configuration mode

Instruction

This command is used to set the interval of detecting the occupancy of the memory and CPU. The interval is set according to actual requirements, but if the interval is too short the performance will be affected.

Example

The following example shows how to set the detection interval to 5 seconds:

Router_config#gbsc sys-peak-interval 5

1.15 gbsc push-filter-notify

To send the filtered notification page to the intranet host that sends URL request during URL filtration, run **gbsc push-filter-notify**. To resume the default settings, run **no gbsc push-filter-notify**.

gbsc push-filter-notify

no gbsc push-filter-notify

Parameter

Parameter	Description
enable	Enables the notification push functionality after filtration.

Default value

The notification push functionality is disabled by default.

Command mode

Global configuration mode

Instruction

This function takes effect only when URL filtration is enabled and the filtration mode is **forbid**.

Example

The following example shows how to enable the notification push:

Router_config#gbsc push-filter-notify enable

1.16 gbsc smart-ctrl

To set the intelligent flow control and other relevant parameters, run **gbsc smart-ctrl**. To resume the default settings, run **no gbsc smart-ctrl**.

gbsc smart-ctrl

no gbsc smart-ctrl

Parameter

Parameter	Description
enable	Enables the intelligent flow control.
priority	Sets the service priority control in the intelligent flow control.
burst	Sets the burst factor of the intelligent flow control.
videoresv-percent	Sets the video reservation percent of the intelligent flow control.

Default value

The intelligent flow control is disabled by default.

Command mode

Global configuration mode

Instruction

This command can be used to set the intelligent flow control and relevant parameters. For details, refer to each sub-parameters.

Example

The following example shows how to enable the intelligent flow control.

Router_config#gbsc smart-ctrl enable

1.17 gbsc smart-ctrl videoresv-percent

To set the video reservation percent of the intelligent flow control, run **gbsc smart-ctrl videoresv-percent**. To resume the default settings, run **no gbsc smart-ctrl videoresv-percent**.

gbsc smart-ctrl videoresv-percent

no gbsc smart-ctrl videoresv-percent

Parameter

Parameter	Description
<10 - 70>	Stands for the video reservation percent.

Default value

The default vlaue is 35.

Command mode

Global configuration mode

Instruction

After the intelligent flow control and a proper video reservation percent are set, the video files can be played smoothly in case of bandwidth emergency.

Example

The following example shows how to set the video reservation percent of intelligent flow control to 50:

Router_config#gbsc smart-ctrl videoresv-percent 50

1.18 gbsc smart-ctrl burst

To set the flow burst factor of the intelligent flow control, run **gbsc smart-ctrl burst**. To resume the default settings, run **no gbsc smart-ctrl burst**.

gbsc smart-ctrl burst

no gbsc smart-ctrl burst

Parameter

Parameter	Description
<10 - 70>	Stands for the flow burst factor.

Default value

The default value is 5.

Command mode

Global configuration mode

Instruction

After a proper flow burst factor percent is set, the bandwidth can be automatically and flexibly distributed in case of bandwidth shortage.

Example

The following example shows how to set the flow burst factor of intelligent flow control to 4:

Router_config#gbsc smart-ctrl burst 4

1.19 gbsc smart-ctrl priority

To set the service priority function in the intelligent flow control, run **gbsc smart-ctrl priority**. To resume the default settings, run **no gbsc smart-ctrl priority**.

gbsc smart-ctrl priority

no gbsc smart-ctrl priority

Parameter

Parameter	Description
game	Means that the games will be first provided with enough bandwidth.
web	Means that the bandwidth will be first distributed for webpage access.
mail	Means that the bandwidth will be first distributed for Email delivery.

Default value

The service priority function is disabled by default.

Command mode

Global configuration mode

Instruction

The service priority means that services will be first forwarded. The services mainly include the game, webpage and Email. After the service priority function is set, the system will automatically reserve some bandwidth for the prior service and first forward the packets of the prior service in case of bandwidth shortage.

Example

The following example shows how to set Email priority in the intelligent flow control.

Router_config#gbsc smart-ctrl priority mail

1.20 gbsc qos

To set the QoS of the sub-interface, run **gbsc qos**. To resume the default settings, run **no gbsc qos**.

gbsc qos

no gbsc qos

Parameter

Parameter	Description
FastEthernet	Means the 100M-Ethernet interface.
GigaEthernet	Means the 1000M-Ethernet interface.
Virtual-template	Means the virtual interface template.
Virtual-tunnel	Means the virtual tunnel interface.

Default value

The QoS of the sub-interface is disabled by default.

Command mode

Global configuration mode

Instruction

This command is used to set the interface on which QoS will be enabled. After the settings, you can set the QoS parameters.

Example

The following example shows how to set the QoS of fastEthernet 0/0.

Router_config#gbsc qos fastethernet0/0

1.21 enable limit

To set the big traffic limit in the QoS on the sub interface, run **enable limit**. To resume the default settings, run **no enable limit**.

enable limit

no enable limit

Parameter

None

Default value

The big traffic limit is disabled by default.

Command mode

This command can be run only after the **gbsc qos** command is run, so this command must be run in QoS command mode.

Instruction

If some intranet host occupies too much bandwidth, it will be limited and punished.

Example

The following example shows how to set the big-traffic limit on fastEthernet 0/0:

Router_config#gbsc qos fastethernet0/0

Router_config_gbsc_qos#enable limit

1.22 enable deepenlimit

To strengthen the big traffic limit in the QoS on the sub interface, run **enable deepenlimit**. To resume the default settings, run **no enable deepenlimit**.

enable deepenlimit

no enable deepenlimit

Parameter

None

Default value

This function is disabled by default.

Command mode

This command can be run only after the **gbsc qos** command is run.

Instruction

The severe punishment policy will be carried out when an intranet host applies for bandwidth if it occupies too much bandwidth.

Example

The following example shows how to strengthen the big-traffic limit on fastEthernet 0/0:

Router_config#gbsc qos fastethernet0/0

Router_config_gbsc_qos#enable deepenlimit

1.23 enable band-dynamic

To set the dynamic bandwidth distribution in the QoS on a sub-interface, run **enable band-dynamic**. To resume the default settings, run **no enable band-dynamic**.

enable band-dynamic

no enable band-dynamic

Parameter

None

Default value

This function is disabled by default.

Command mode

This command can be run only after the **gbsc qos** command is run.

Instruction

After this function is enabled, the bandwidth of an intranet host will be automatically calculated and dynamically adjusted according to the number of online intranet hosts.

Example

The following example shows how to set dynamic bandwidth distribution on fastEthernet 0/0:

Router_config#gbsc qos fastethernet0/0

Router_config_gbsc_qos#enable band-dynamic

1.24 set-isp-bw

To set the uplink/downlink bandwidth of an interface in QoS, run **set-isp-bw**. To resume the default settings, run **no set-isp-bw**.

set-isp-bw

no set-isp-bw

Parameter

Parameter	Description
<100000 - 4000000000bps>	Stands for the uplink bandwidth.
<100000 - 4000000000bps>	Stands for the downlink bandwidth.

Default value

The default bandwidth is 100Mbps.

Command mode

This command can be run only after the **gbsc qos** command is run.

Instruction

The service to change the bandwidth is usually provided by ISP. If these parameters about the distributable bandwidth of the intranet host are correctly entered, it would be good to the smooth running of the network.

Example

The following example shows how to set uplink/downlink bandwidth on fastEthernet 0/0:

Router_config#gbsc qos fastethernet0/0

Router_config_gbsc_qos#set-isp-bw 400000 400000

1.25 set-smtctrl-percent

To set the traffic occupancy percent of a bandwidth-consumed application, run **set-smtctrl-percent**. To resume the default settings, run **no set-smtctrl-percent**.

set-smtctrl-percent

no set-smtctrl-percent

Parameter

Parameter	Description
<20 - 80>	*Stands for the traffic occupancy percent of an application.*

Default value

The default traffic occupancy percent is 70.

Command mode

This command can be run only after the **gbsc qos** command is run.

Instruction

This function is mainly for P2P and online video. Once the configured occupancy percent is exceeded, the system will limit these applications.

Example

The following example shows how to set the traffic occupancy percent of a bandwidth-consumed application to 50:

Router_config#gbsc qos fastethernet0/0

Router_config_gbsc_qos#set-smtctrl-percent 50

1.26 set-band upload

To set the uplink bandwidth of all hosts in a group, which are applied on a specific interface, run **set-band upload**. To delete the uplink bandwidth of all hosts in a group, run **no set-band upload**.

set-band upload

no set-band upload

Parameter

Parameter	Description
<8000-50000000 bps>	*Stands for the minimum certified rate (bps).*
<8000-50000000 bps>	*Stands for the maximum certified rate (bps).*
FastEthernet	*Stands for the bandwidth which is applied on the 100M-Ethernet interface.*
GigaEthernet	*Stands for the bandwidth which is applied on the 1000M-Ethernet interface.*
Virtual-template	*Stands for the bandwidth which is applied on the virtual interface module.*
Virtual-tunnel	*Stands for the bandwidth which is applied on the virtual tunnel interface.*

Default value

The speed is not limited by default.

Command mode

This command can be run only after the **gbsc group** command is run.

Instruction

This command is used to set the maximum and minimum uplink bandwidths for a host group which is applied on a specific interface.

Example

The following example shows how to set the minimum uplink bandwidth of group **test** on the FastEthernet0/0 interface to 400000 and the maximum uplink bandwidth to 500000:

Router_config#gbsc group test

Router_config_gbsc_grp#set-band upload 400000 500000 f0/0

1.27 set-band download

To set the downlink bandwidth of all hosts in a group, which are applied on a specific interface, run **set-band download**. To delete the downlink bandwidth of all hosts in a group, run **no set-band download**.

set-band download

no set-band download

Parameter

Parameter	Description
<8000-50000000 bps>	*Stands for the minimum certified rate (bps).*
<8000-50000000 bps>	*Stands for the maximum certified rate (bps).*
FastEthernet	*Stands for the bandwidth which is applied on the 100M-Ethernet interface.*
GigaEthernet	*Stands for the bandwidth which is applied on the 1000M-Ethernet interface.*
Virtual-template	*Stands for the bandwidth which is applied on the virtual interface module.*
Virtual-tunnel	*Stands for the bandwidth which is applied on the virtual tunnel interface.*

Default value

The speed is not limited by default.

Command mode

This command can be run only after the **gbsc group** command is run.

Instruction

This command is used to set the maximum and minimum downlink bandwidths for a host group which is applied on a specific interface.

Example

The following example shows how to set the minimum downlink bandwidth of group **test** on the FastEthernet0/0 interface to 400000 and the maximum downlink bandwidth to 500000:

Router_config#gbsc group test

Router_config_gbsc_grp#set-band upload 400000 500000 f0/0

1.28 defaultgrp-qoslimit

To set the QoS policy of a group to be the QoS policy of a default global group, run **defaultgrp-qoslimit**. To not use the QoS policy of a default group, run **no defaultgrp-qoslimit**.

defaultgrp-qoslimit

no defaultgrp-qoslimit

Parameter

None

Default value

The QoS policy of the default group will be used by default.

Command mode

This command can be run only after the **gbsc group** command is run.

Instruction

The command is used to set a group to use the QoS policy of the default group.

Example

The following example shows how to set group **test** to use the default QoS rate limit.

Router_config#gbsc group test

Router_config_gbsc_grp#defaultgrp-qoslimit

1.29 disable-speed-limit

To disable the rate limit of a group, run **disable-speed-limit**. To enable a default group to use the default rate limit, run **no disable-speed-limit**.

disable-speed-limit

no disable-speed-limit

Parameter

None

Default value

This function is disabled.

Command mode

This command can be run only after the **gbsc group** command is run.

Instruction

This command is used to disable the rate limit of a group.

Example

The following example shows how to set group **test** not to use the rate limit.

Router_config#gbsc group test

Router_config_gbsc_grp#disable-speed-limit

1.30 range

To set the range of the addresses contained in a group, run **range A.B.C.D E.F.G.H**. To resume the default settings, run **no range A.B.C.D E.F.G.H**.

range A.B.C.D E.F.G.H

no range A.B.C.D E.F.G.H

Parameter

Parameter	Description
A.B.C.D	Means the start IP address.
E.F.G.H	Means the end IP address.

Default value

None

Command mode

This command can be run only after the **gbsc group** command is run.

Instruction

The start address of the group's address must be less than or equal to the end address.

Example

The following example shows how to set the address range of group **test** to be from 200.0.0.51 to 200.0.0.59.

Router_config#gbsc group test

Router_config_gbsc_grp# range 200.0.0.51 200.0.0.59

1.31 service-priority enable

To enable the service priority of a group, run **service-priority enable**. To disable the service priority of a group, run **no service-priority enable**.

service-priority enable

no service-priority enable

Parameter

None

Default value

None

Command mode

This command can be run only after the **gbsc group** command is run.

Instruction

This command is used to enable the service priority of a group.

Example

The following example shows how to set the service priority of group **test**.

Router_config#gbsc group test

Router_config_gbsc_grp# range service-priority enabe

1.32 service-priority add

To set a port of the group's service priority, run **service-priority add xxx yyy**. To delete the port of the group service priority run **no service-priority add xxx yyy**.

service-priority add xxx yyy

no service-priority xxx yyy

Parameter

Parameter	Description
Xxx	Means the service beginning port.
yyy	Means the service ending port.

Default value

None

Command mode

This command can be run only after the **gbsc group** command is run.

Instruction

This command is used to set the group service priority port.

Example

The following command is used to set the service priority port of group **test** to be between 25 and 80.

Router_config#gbsc group test

Router_config_gbsc_grp# range service-priority add 25 80

1.33 set-p2p-percent

To set the bandwidth occupancy percent of P2P application on a designated port, run **set-p2p-percent xxx yyy**. To resume the default settings, run **no set-p2p-percent xxx yyy**.

set-p2p-percent xxx yyy

no service-priority xxx yyy

Parameter

Parameter	Description
Xxx	Means the bandwidth occupancy percent of P2P application.
yyy	Stands for the port of this application.

Default value

The default value is 70.

Command mode

This command can be run only after the **gbsc group** command is run.

Instruction

This command is used to set the bandwidth occupancy percent of P2P application on a designated port.

Example

The following example shows how to set the maximum P2P bandwidth occupancy of group **test** on port FastEthernet0/0 to 50:

Router_config#gbsc group test

Router_config_gbsc_grp# set-p2p-percent 50 fastethernet 0/0

1.34 game-priority

To enable the game priority of a group, run **game-priority**. To disable the game priority of a group, run **no game-priority**.

game-priority

no game-priority

Parameter

None

Default value

None

Command mode

This command can be run only after the **gbsc group** command is run.

Instruction

This command is used to enable the game priority of a group.

Example

The following example shows how to set the game priority of group **test**.

Router_config#gbsc group test

Router_config_gbsc_grp# game-priority

1.35 bandwidth

To set the bandwidth of an interface, run **bandwidth**. To resume the default bandwidth of an interface, run **no bandwidth**.

bandwidth

no bandwidth

Parameter

Parameter	Description
<100000-100000>	bandwidth(unit: kbps)

Default value

100Mbps

Command mode

Interface command mode

Instruction

This command is used to set the default bandwidth of an interface.

Example

The following example shows how to set the bandwidth of port fastethernet 0/0 to 10Mbps:

Router_config#interface fastethernet 0/0

Router_config_f0/0# bandwidth 10000

1.36 gbsc serviceadd

To set a port of a global service priority, run **Gbsc serviceadd xxx yyy**. To delete the port of a global service priority, run **no Gbsc serviceadd xxx yyy**.

Gbsc serviceadd xxx yyy

no gbsc serviceadd xxx yyy

Parameter

Parameter	Description
Xxx	Means the service beginning port.
yyy	Means the service ending port.

Default value

None

Command mode

Global command mode

Instruction

This command is used to set the port of global service priority.

Example

The following example shows how to set the port of global service priority to be between 25 and 80.

Router_config# gbsc serviceadd 25 80

1.37 gbsc serviceenable

To enable the global service priority, run **gbsc serviceenable**. To disable the global service priority, run **no gbsc serviceenable**.

gbsc serviceenable

no gbsc serviceenable

Parameter

None

Default value

None

Command mode

Global command mode

Instruction

This command is used to enable the global service priority.

Example

The following example shows how to set the global service priority.

Router_config# gbsc serviceenable

1.38 gbsc set-insidehost-count

To set the number of intranet hosts, run **gbsc set-insidehost-count**. To resume the default settings, run **no gbsc set-insidehost-count**.

gbsc set-insidehost-count

no gbsc set-insidehost-count

Parameter

Parameter	Description
<1-300>	Stands for the default number of intranet hosts.

Default value

The default value is 1.

Command mode

Global command mode

Instruction

This command is used to set the number of intranet hosts.

Example

The following example shows how to set the number of intranet hosts to 200:

Router_config# gbsc set-insidehost-count 200

1.39 gbsc chokelevel

To set the choke level, run **gbsc chokelevel**. To resume the default settings, run **no gbsc chokelevel**.

gbsc chokelevel

no gbsc chokelevel

Parameter

Parameter	Description
<0-5>	Sets the choke level.

Default value

The default value is 1.

Command mode

Global command mode

Instruction

This command is mainly used to set the chock level of large-traffic limit. If the large-traffic limit is not enabled, you shall judge whether the network is choked. If the network is choked, the choke level is referred as to control the bandwidth of each host (currently the bandwidth control is conducted during download choke. The control time is 10 minutes and after 10 minutes the system resumes normal functions). The choke threshold percent means in what bandwidth occupancy the network is called as being choked. The default value is 75%. The choke level is used to control the bandwidth during choke, which can be classified into 6 levels:

0 ： Means the lent bandwidth is 0 and the certified bandwidth is unchanged.

1: Means the lent bandwidth is 0 and the certified bandwidth reduces 10%.

2: Means the lent bandwidth is 0 and the certified bandwidth reduces 20%.

3: Means the lent bandwidth is 0 and the certified bandwidth reduces 30%.

4: Means the lent bandwidth is 0 and the certified bandwidth reduces 40%.

5: Means the lent bandwidth is 0 and the certified bandwidth reduces 50%.

Example

The following example shows how to set the choke level to 3:

Router_config# gbsc chokelevel 3

1.40 gbsc chokepercent

To the choke percent, run **gbsc chokepercent**. To resume the default settings, run **no gbsc chokepercent**.

gbsc chokepercent

no gbsc chokepercent

Parameter

Parameter	Description

<60-100>	Sets the bandwidth choke percent.

Default value

The default bandwidth choke percent is 75%.

Command mode

Global command mode

Instruction

This command is mainly used to set the choke percent of large-traffic limit. If the large-traffic limit is not enabled, you shall judge whether the network is choked. If the network is choked, the choke level is referred as to control the bandwidth of each host (currently the bandwidth control is conducted during download choke. The control time is 10 minutes and after 10 minutes the system resumes normal functions) The choke percent means in what bandwidth occupancy the network is called as being choked. The default value is 75%. The choke percent is used to control the bandwidth during choke, which can be classified into 6 levels:

0: Means the lent bandwidth is 0 and the certified bandwidth is unchanged.

1: Means the lent bandwidth is 0 and the certified bandwidth reduces 10%.

2: Means the lent bandwidth is 0 and the certified bandwidth reduces 20%.

3: Means the lent bandwidth is 0 and the certified bandwidth reduces 30%.

4: Means the lent bandwidth is 0 and the certified bandwidth reduces 40%.

5: Means the lent bandwidth is 0 and the certified bandwidth reduces 50%.

Example

The following example shows how to set the choke percent to 80:

Router_config# gbsc chokepercent 80

1.41 gbsc limitlevel

To set the limit level, run **gbsc limitlevel**. To resume the default settings, run **no gbsc limitlevel**.

gbsc limitlevel

no gbsc limitlevel

Parameter

Parameter	Description
<0-5>	Sets the limit level.

Default value

The default value is 2.

Command mode

Global command mode

Instruction

This command is used to set the limit level when the system detects the large traffic of intranet hosts.

Example

The following example shows how to set the limit level to 3:

Router_config# gbsc limitlevel 3

1.42 gbsc changenum

To set the number of changed hosts, run **gbsc changenum**. To resume the default settings, run **no gbsc changenum**.

gbsc changenum

no gbsc changenum

Parameter

Parameter	Description
<1-20>	Sets the number of changed hosts.

Default value

The default value is 6.

Command mode

Global command mode

Instruction

This command is mainly used in the function of dynamic bandwidth calculation. When the host number changes, you should predict the changed quantity in a single time so that the more exact dynamic bandwidth can be calculated, avoiding the bandwidth waste.

Example

The following example shows how to set the number of changed intranet hosts to 10:

Router_config# gbsc changenum 10

1.43 gbsc set-limitup-fact

To limit the uplink factors, run **gbsc set-limitup-fact**. To resume the default settings, run **no gbsc set-limitup-fact**.

gbsc set-limitup-fact

no gbsc set-limitup-fact

Parameter

Parameter	Description
<0-30>	Means the factor.

Default value

The default value is 6.

Command mode

Global command mode

Instruction

This command is always used in bandwidth-consumed applications such as P2P and network videos. To limit these applications, you can limit the uplink packets to reduce the discarding of downlink packets.

Example

The following example shows how to set the uplink factor limitation to 10:

Router_config# gbsc set-limitup-fact 10

1.44 gbsc set-cr-times

To set the multiple of maximum usable bandwidth, run **gbsc set-cr-times**. To resume the default settings, run **no gbsc set-cr-times**.

gbsc set-cr-times

no gbsc set-cr-times

Parameter

Parameter	Description
<1-50>	Means the multiple of maximum usable bandwidth.

Default value

The default value is 8.

Command mode

Global command mode

Instruction

This command is used for flexible bandwidth settings in dynamic bandwidth distribution. Only when the dynamic bandwidth is enabled, this settings takes effect.

On how to calculate the dynamic bandwidth and how to use the maximum or minimum bandwidth multiple, refer to the following formulas:

Minimum uplink certified bandwidth = total uplink bandwidth * minimum certified bandwidth multiple/host number
Maximum uplink allowable bandwidth = total uplink bandwidth * maximum bandwidth multiple/host number
Minimum downlink certified bandwidth = total downlink bandwidth * minimum certified bandwidth multiple/host number
Maximum downlink allowable bandwidth = total downlink bandwidth * maximum bandwidth multiple/host number

Example

The following example shows how to set the maximum certified bandwidth multiple to 16:

Router_config# gbsc set-cr-times 16

1.45 gbsc set-ar-times

To set the multiple of minimum certified bandwidth, run **gbsc set-ar-times**. To resume the default settings, run **no gbsc set-ar-times**.

gbsc set-ar-times

no gbsc set-ar-times

Parameter

Parameter	Description
<1-50>	Sets the multiple of minimum certified bandwidth.

Default value

The default value is 4.

Command mode

Global command mode

Instruction

This command is used for flexible bandwidth settings in dynamic bandwidth distribution. Only when the dynamic bandwidth is enabled, this settings takes effect. On how to calculate the dynamic bandwidth and how to use the maximum or minimum bandwidth multiple, refer to the following formulas:

Minimum uplink certified bandwidth = total uplink bandwidth * minimum certified bandwidth multiple/host number
Maximum uplink allowable bandwidth = total uplink bandwidth * maximum bandwidth multiple/host number
Minimum downlink certified bandwidth = total downlink bandwidth * minimum certified bandwidth multiple/host number
Maximum downlink allowable bandwidth = total downlink bandwidth * maximum bandwidth multiple/host number

Example

The following example shows how to set the minimum certified bandwidth multiple to 10:

Router_config# gbsc set-ar-times 10

1.46 gbsc set-rcache-threshold

To set the threshold of the increasing route cache, run **gbsc set-rcache-threshold**. To resume the default settings, run **no gbsc set-rcache-threshold**.

gbsc set-rcache-threshold

no gbsc set-rcache-threshold

Parameter

Parameter	Description
<0 - 100 count/second>	Frequency

Default value

The default value is 2.

Command mode

Global command mode

Instruction

This command is used to set the increased remaining route cache per second, which ranges between 0 and 100. Each time a route is added, the value of remaining route cache will decrease 1. If the value decreases to zero, the host will be punished.

Example

The following example shows how to set the threshold of increasing route cache to 50:

Router_config# gbsc set-rcache-threshold 50