

OfficeServ NMS User Guide

PART III. Data Function Management



- CHAPTER 1.** System Configuration Management (Data Part)
- CHAPTER 2.** Switch Management
- CHAPTER 3.** Router Management



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TABLE OF CONTENTS

CHAPTER 1. System Configuration Management (Data Part) 1

Port Config	3
Data Port Management Function (GPLIM/GSIM/WIM Only)	3
Filter Address	7
PoE Management (GPLIM Only)	9
PoE Conf. Management (GPLIM Only)	11
Mac Forward Management Function (GSIM Only)	13
Data Config	14
Community Management	14
Trap Server Management	17

CHAPTER 2. Switch Management 21

IGMP Snooping	23
IGMP Snooping Management (GPLIM/GSIM/WIM Only)	23
Authentication	25
Pae System Management (GPLIM/GSIM/WIM Only)	25
Pae Port Management (GPLIM/GSIM/WIM)	26
Auth Config Management (GPLIM/GSIM/WIM Only)	28
Radius Server Management (GPLIM/GSIM/WIM Only)	30
QoS	32
QoS Management (GPLIM/WIM Only)	32
QoS Class Management (GSIM/WIM Only)	34
QoS Class Entry Management (GSIM/WIM Only)	36
QoS Policy Management (GSIM/WIM Only)	39
QoS Policy Entry Management (GSIM/WIM Only)	41
QoS IF Management (GSIM/WIM Only)	44
VoIP	47
VoIP Management (GPLIM/GSIM/GWIM/WIM Only)	47
Misc.	48

Misc. Management (GPLIM/WIM Only)	48
Mirror Port Management (GSIM Only)	51
NI Info Management (GSIM Only)	54
Bridging	56
Stp Port Management (GPLIM/GSIM/WIM Only)	56
Stp Ext Port Management (GPLIM/GSIM/WIM Only)	58
Trunking	61
Agg. Management (GPLIM/GSIM/WIM Only)	61
Agg Port Management (GPLIM/GSIM/WIM Only)	63
VLAN	66
VLAN Base Management (GPLIM/GSIM/WIM Only).....	66
Static VLAN Management (GPLIM/GSIM/WIM Only).....	68
VLAN Port Management (GPLIM/GSIM/WIM Only)	69
Classification Management (GPLIM/WIM Only)	71

CHAPTER 3. Router Management	73
-------------------------------------	-----------

Static Routing	74
IP Cidr Route Management (GWIM/GSIM/WIM Only)	74
RIP	76
RIP Global Management (GWIM/GSIM/WIM Only)	76
RIP Interface Stat Management (GWIM/GSIM/WIM Only)	77
RIP Interface Conf Management (GWIM/GSIM/WIM Only)	78
RIP Peer Management (GWIM/GSIM/WIM Only).....	80
OSPF	81
General Group Management (GWIM/GSIM/WIM Only).....	81
Area Management (GWIM/GSIM/WIM Only).....	84
Stub Area Management (GWIM/GSIM/WIM Only).....	86
Link State DB Management (GWIM/GSIM/WIM Only)	87
Area Range Management (GWIM/GSIM/WIM Only)	89
Host Management (GWIM/GSIM/WIM Only).....	90
Interface Management (GWIM/GSIM/WIM Only)	91
Interface Metric Management (GWIM/GSIM/WIM Only).....	94
Neighbor Management (GWIM/GSIM/WIM Only).....	96
Virtual Neighbor Management (GWIM/GSIM/WIM Only).....	98
Ext Link State DB (GWIM/GSIM/WIM Only)	100
Area Aggregate Management (GWIM/GSIM/WIM Only)	101
BGP	102
BGP Peer Management (GWIM/GSIM/WIM Only)	102

BGP-4 Path Attribute Management (GWIM/GSIM/WIM Only)	105
DVMRP	107
DVMRP General Management (GWIM/GSIM/WIM Only)	107
DVMRP Interface Management (GWIM/GSIM/WIM Only)	108
DVMRP Neighbor Management (GWIM/GSIM/WIM Only)	110
DVMRP Route Management (GWIM/GSIM/WIM Only)	112
DVMRP Route Next Hop Management (GWIM/GSIM/WIM Only)	114
DVMRP Prune Management (GWIM/GSIM/WIM Only)	116
PIM	117
PIM Interface Management (GWIM/GSIM/WIM Only)	117
PIM Neighbor Management (GWIM/GSIM/WIM Only)	119
PIM IP Multicast Route Management (GWIM/GSIM/WIM Only)	121
PIM RP Set Management (GWIM/GSIM/WIM Only)	123
PIM Multicast Route Next Hop Management (GWIM/GSIM/WIM Only)	125
PIM Component Management (GWIM/GSIM/WIM Only)	126
Frame Relay	128
DLC Management Interface Management (GWIM/WIM Only)	128
DLC/Virtual Circuit Management (GWIM/WIM Only)	130

LIST OF FIGURES

Figure 1.1	Configuration Management Window.....	1
Figure 1.2	Configuration Management Set Window.....	2
Figure 1.3	Data Port Management Window (GPLIM/WIM)	3
Figure 1.4	Data Port Management Window (GSIM).....	4
Figure 1.5	Data Port Management Set Window (GPLIM/WIM)	4
Figure 1.6	Data Port Management Set Window (GSIM)	4
Figure 1.7	Filter Address Management Window	7
Figure 1.8	Filter Address Management Set Window	7
Figure 1.9	PoE Management Window	9
Figure 1.10	PoE Management Set Window	9
Figure 1.11	PoE Conf. Management Window	11
Figure 1.12	PoE Conf. Management Set Window.....	11
Figure 1.13	Mac Forward Management Window	13
Figure 1.14	Community Management Window	14
Figure 1.15	Community Management Add Window	14
Figure 1.16	Community Management Add Window	14
Figure 1.17	Trap Server Management Window	17
Figure 1.18	Trap Server Management Add Window	17
Figure 1.19	Trap Server Management Delete Window	18
Figure 2.1	Switch Management Window.....	21
Figure 2.2	Switch Management Set Window	22
Figure 2.3	IGMP Snooping Management Window	23
Figure 2.4	Pae System Management Window	25
Figure 2.5	Pae Port Management Window	26
Figure 2.6	Auth Config Management Window	28
Figure 2.7	Radius Server Management Window.....	30
Figure 2.8	QoS Management Window	32
Figure 2.9	QoS Management Set Window.....	32
Figure 2.10	QoS Class Management Window	34
Figure 2.11	QoS Class Management Set Window	34
Figure 2.12	QoS Class Management Add Window	34
Figure 2.13	QoS Class EntryManagement Window.....	36
Figure 2.14	QoS Class EntryManagement Set Window	36
Figure 2.15	QoS Class EntryManagement Add Window.....	36
Figure 2.16	QoS Policy Management Window.....	39
Figure 2.17	QoS Policy Management Set Window	39
Figure 2.18	QoS Policy Management Add Window	39
Figure 2.19	QoS Policy Entry Management Window	41

Figure 2.20	QoS Policy Entry Management Set Window.....	41
Figure 2.21	QoS Policy Entry Management Add Window.....	41
Figure 2.22	QoS IF Management Window.....	44
Figure 2.23	QoS IF Management Set Window	44
Figure 2.24	VoIP Management Window	47
Figure 2.25	Misc. Management Window (GPLIM)	48
Figure 2.26	Misc. Management Window (WIM).....	48
Figure 2.27	Misc. Management Set Window (GPLIM).....	49
Figure 2.28	Misc. Management Set Window (WIM)	49
Figure 2.29	Mirror Port Management Window	51
Figure 2.30	Mirror Port Management Set Window.....	51
Figure 2.31	Mirror Port Management Add Window.....	51
Figure 2.32	NI Info Management Window	54
Figure 2.33	NI Info Management Set Window	54
Figure 2.34	Stp Port Management Window	56
Figure 2.35	Stp Ext Port Management Window	58
Figure 2.36	Agg. Management Window.....	61
Figure 2.37	Agg Port Management Window	63
Figure 2.38	VLAN Base Management Window	66
Figure 2.39	Static VLAN Management Window.....	68
Figure 2.40	VLAN Port Management Window	69
Figure 2.41	Classification Management Window.....	71
Figure 3.1	Router Management Window	73
Figure 3.2	IP Cidr Route Management Window	74
Figure 3.3	RIP Global Management Window.....	76
Figure 3.4	RIP Interface Stat Management Window	77
Figure 3.5	RIP Interface Conf Management Window.....	78
Figure 3.6	RIP Peer Management Window	80
Figure 3.7	General Group Management Window	81
Figure 3.8	Area Management Window	84
Figure 3.9	Stub Area Management Window	86
Figure 3.10	Link State DB Management Window	87
Figure 3.11	Area Range Management Window	89
Figure 3.12	Host Management Window.....	90
Figure 3.13	Interface Management Window	91
Figure 3.14	Metric Management Window	94
Figure 3.15	Neighbor Management Window	96
Figure 3.16	Virtual Neighbor Management Window	98
Figure 3.17	Ext Link Group State DB Management Window	100
Figure 3.18	Area Aggregate Management Window	101
Figure 3.19	BGP Peer Management Window.....	102

TABLE OF CONTENTS

Figure 3.20	BGP-4 Path Attribute Management Window	105
Figure 3.21	DVMRP General Management Window.....	107
Figure 3.22	DVMRP Interface Management Window	108
Figure 3.23	DVMRP Neighbor Management Window	110
Figure 3.24	DVMRP Route Management Window.....	112
Figure 3.25	DVMRP Route Next Hop Management Window	114
Figure 3.26	DVMRP Prune Management Window.....	116
Figure 3.27	PIM Interface Management Window	117
Figure 3.28	PIM Neighbor Management Window	119
Figure 3.29	PIM IP Multicast Route Management Window.....	121
Figure 3.30	PIM RP Set Management Window.....	123
Figure 3.31	PIM Multicast Route Next Hop Management Window	125
Figure 3.32	PIM Component Management Window	126
Figure 3.33	DLC Management Interface Management Window	128
Figure 3.34	DLC/Virtual Circuit Management Window.....	130



CHAPTER 1. System Configuration Management (Data Part)

This chapter describes configuration management window and function related to data.

Configuration management is used to search, change, add, and delete configuration information of NE. An operator can check the current configuration status and set or control NE through a function provided by Configuration Management.

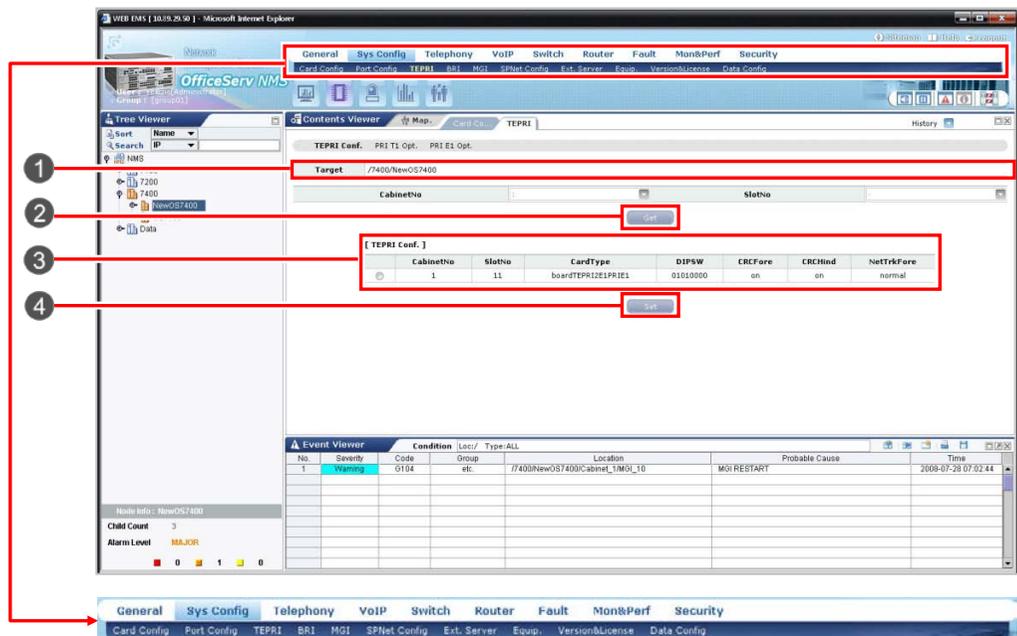


Figure 1.1 Configuration Management Window

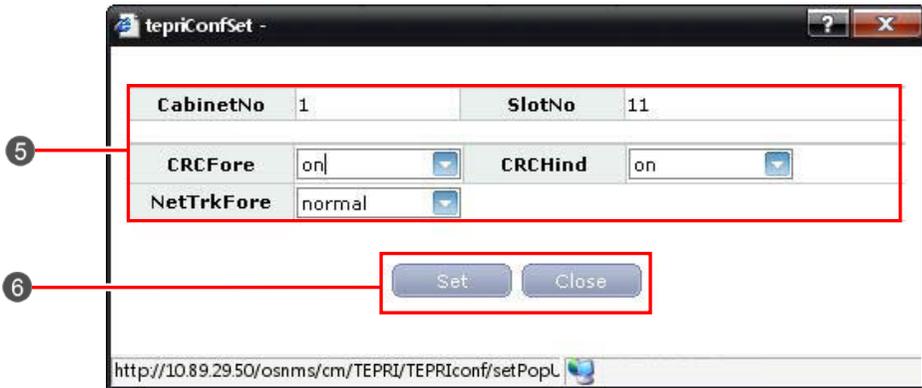


Figure 1.2 Configuration Management Set Window

Number	Description
①	Target
②	[Get] Button
③	Result Table
④	[Set] Button of Configuration Management Window
⑤	Set Window of Parameter
⑥	[Set] Button of Configuration Management Set Window



CHECK

This chapter describes the items related to the data for 'Port Config' and 'Data Config' in system configuration management. For the description of the other items, refer to 'Chapter 1. System Configuration Management' of Part II.

Port Config

Port management is used to add, change and remove port information of OfficeServ Series devices.

Data Port Management Function (GPLIM/GSIM/WIM Only)

The user can set the function for ports and retrieves the information on the ports.

The function is performed in order of **[Sys Config] → [Port Conf] → [Data Port]**.

[Data Port]											Total Count: 14
PortNo	ActiveOption	LinkStatus	FlowCtrl	RateIn	RateOut	Nego	Speed	Duplex	Security	Priority	
1	disable	off	false	0	2	force	10Mbps	full	off	off	
2	disable	off	false	0	0	auto	100Mbps	full	off	off	
3	enable	off	false	0	0	auto	100Mbps	full	off	low	
4	enable	off	true	0	0	auto	100Mbps	full	on	off	
5	enable	off	true	0	0	auto	100Mbps	full	off	off	
6	enable	off	true	0	0	auto	100Mbps	full	off	off	
7	enable	on	true	0	0	auto	100Mbps	full	off	off	
8	enable	off	true	0	0	auto	100Mbps	full	off	off	
9	enable	off	true	0	0	auto	100Mbps	full	off	off	
10	enable	off	true	0	0	auto	100Mbps	full	off	off	

Figure 1.3 Data Port Management Window (GPLIM/WIM)

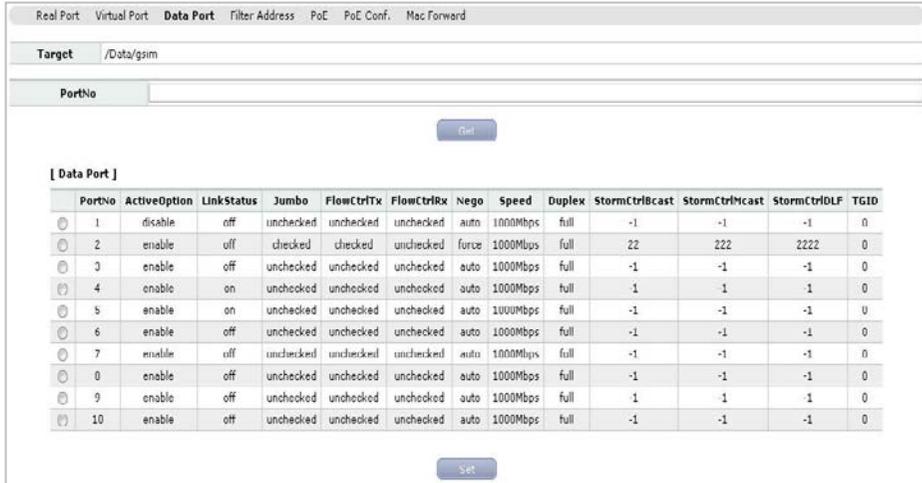


Figure 1.4 Data Port Management Window (GSIM)



Figure 1.5 Data Port Management Set Window (GPLIM/WIM)



Figure 1.6 Data Port Management Set Window (GSIM)

The GPLIM/WIM parameters displayed in the '**Data Port**' window are described as follows:

Parameter	Description
Port No.	Port number
ActiveOption	Sets whether to user a port or not
LinkStatus	Link Status of current port
FlowCtl	Sets whether to user the function for flow control. The flow control is processed according to the value set at RateIN/RateOut
RateIn	Controls the flow to be setting the entry rate by ports. The unit is the rate (%) of the port speed. If the functions of FlowCtl is 'False', the value is set as '0'
RateOut	Controls the flow to be setting the exit rate by ports. The unit is the rate (%) of the port speed. If the functions of FlowCtl is 'False', the value is set as '0'
Nego	Negotiation - Auto: Adjust the speed through a negotiation with the counter party. - Force: Sets the speed without a negotiation. Sets the negotiation item as 'Force' if setting the duplex items as 'Full' - Nway Force: Depends capability when it's negotiated.
Speed	Selects the speed as 10/100/1000 Mbps.
Duplex	Selects 'Full' (two way service) or 'Half' (One way server)
Security	Set whether to allow updating the MAC Address Table
Priority	Sets as 'Low' or 'High', the priority is set as 'Low' or 'High' regardless of the configuration value of QoS bit for the packet entered to the relevant port.

The GSIM/GSIMT parameters displayed in the '**Data Port**' window are described as follows:

Parameter	Description
Port No.	Port number
ActiveOption	Set whether to use a port or not
LinkStatus	Link Status of current port

(Continued)

Parameter	Description
Jumbo	It's used for activation (Checked)/inactivation (Unchecked) of jumbo Frame Setup. The checked port allows the forwarding for the frame up to 9216 Bytes.
FlowCtl Tx	FlowCtlTx Setting enables to set the Tx of Pause frame in overload at the corresponding port.
FlowCtl Rx	FlowCtlRx setting enables to respond as following the instruction of received Pause Frame.
Nego	Negotiation - Auto: Adjusts the speed through a negotiation with the counter party. - Force: Sets the speed without a nego. Sets the nego. item as 'Force' if setting the Duplex item as 'Full'
Speed	Selects the speed as 10/100/1000 Mbps.
Duplex	Selects 'Full' (two-way service) or 'Half' (one-way service)
StormCtlBcast	Sets stormControl. It's used to set the packet per seconds (pps) to permit Forwarding or Flooding for BroadCasting. The value between 0 and 99999 can be set.
StormCtlMcast	Sets stormControl. It's used to set the packet per seconds (pps) to permit Forwarding or Flooding for MultiCasting. The value between 0 and 99999 can be set.
StormCtlDLF	Sets stormControl. It's used to set the packet per seconds (pps) to permit Forwarding or Flooding for Destination Lockup Failure (DLF). The value between 0 and 99999 can be set.
TGID	When a port is a member of static trunking or LACP Aggregator, It displays the Trunk Group Identity (TGID) of Aggregator.

Searching Data Port

1. Select the target IP from the Tree viewer.
The selected object is displayed in the '**Target**' field (①).
2. Clicking the [**Search**] button (②) searches the information of each cabinet.
3. Then, the retrieval result is displayed in the result table (③).

Changing Data Port

1. Choose Row which is revised, and Press set button (4).
2. Revise the value of parameters (5) which is changed, and Press set button (6).
3. Then, the retrieval result is displayed in the result table (3).

Filter Address

Use Mac Filtering to block unwanted traffics. Enter the target MAC Address to block the target packet in the switch. Note that MAC is the destination address of the packet sent to the switch port.

This function is performed in order of **[Sys Config] → [Port Conf.] → [Filter Address]**.



Figure 1.7 Filter Address Management Window



Figure 1.8 Filter Address Management Set Window

The GPLIM/GPLIMT parameters displayed in the 'Filter Address' window are described as follows:

Parameter	Description
FilterNo	Filter No
Address	Target Mac Address to block unwanted traffics
VlanID	Virtual LAN Identification

Searching Filter Address

1. Select the target IP from the Tree viewer.
The selected object is displayed in the 'Target' field (①).
2. Clicking the **[Search]** button (②) searches the information of each cabinet.
3. Then, the retrieval result is displayed in the result table (③).

PoE Management (GPLIM Only)

This function is performed in order of [Sys Config] → [Port Conf.] → [PoE].

SW Version	Dev0 Version	Dev1 Version	Dev2 Version	Power Supply Voltage	Power Consumption	Power Max Shutdown Voltage	Power Min Shutdown Voltage	Power Info.	Power Manage Mode	Disconnect Method	Capacitor Detection
603.4	1	1	1	53	0	57	44	internal	static	accessDeny	enable

Figure 1.9 PoE Management Window

Figure 1.10 PoE Management Set Window

The parameters displayed in the 'POE' window are described as follows:

Parameter	Description
SW Version	Software Version
Dev0Version	Version for Dev0
Dev1Version	Version for Dev1
Dev2Version	Version for Dev2
Power Supply Voltage	Power Supply Voltage
Power Consumption	Power Consumption
Power Max Shutdown Voltage	Power Maximum Shutdown Voltage
Power Min Shutdown Voltage	Power Minimum Shutdown Voltage
Power Info.	Power Information
Power Manage Mode	Power Manage Mode
Disconnect Method	System Masks Disconnect Method
Capacitor Detection	System Masks Capacitor Detection

Searching PoE

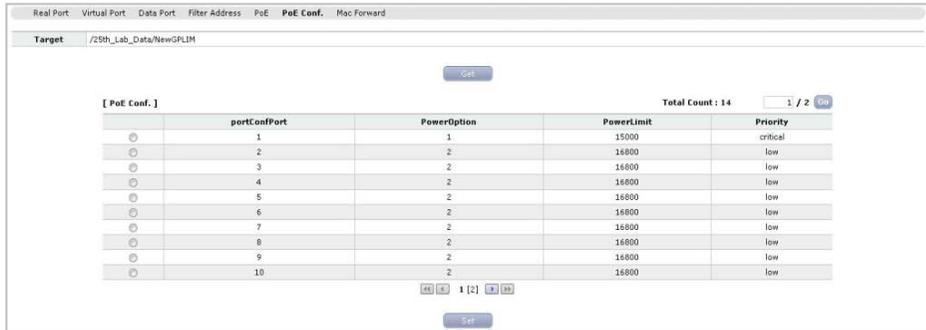
1. Select the target IP from the Tree viewer.
The selected object is displayed in the 'Target' field (①).
2. Clicking the **[Search]** button (②) searches the information of each cabinet.
3. Then, the retrieval result is displayed in the result table (③).

Changing PoE

1. Choose Row which is revised, and Press set button (④).
2. Revise the value of parameters (⑤) which is changed, and Press set button (⑥).
3. Then, the retrieval result is displayed in the result table (③).

PoE Conf. Management (GPLIM Only)

This function is performed in order of [Sys Config] → [Port Conf.] → [PoE Conf.].



The screenshot shows the PoE Conf. Management Window with a table of configurations. The table has columns for portConfPort, PowerOption, PowerLimit, and Priority. The data is as follows:

portConfPort	PowerOption	PowerLimit	Priority
1	1	15000	critical
2	2	18000	low
3	2	18000	low
4	2	18000	low
5	2	18000	low
6	2	18000	low
7	2	18000	low
8	2	18000	low
9	2	18000	low
10	2	18000	low

Figure 1.11 PoE Conf. Management Window



The screenshot shows the PoE Conf. Management Set Window with the following configuration fields:

- portConfPort: 1
- PowerOption: disable
- PowerLimit: 15000
- Priority: critical

Buttons: Set, Close

URL: http://10.89.29.50/osnms/cm/port/poeconf/setF

Figure 1.12 PoE Conf. Management Set Window

The parameters displayed in the 'POE Conf' window are described as follows:

Parameter	Description
PortConfPort	Port Configuration number
PowerOption	Power Option
PowerLimit	Power Limit
Priority	Priority

Searching PoE Conf

1. Select the target IP from the Tree viewer.
The selected object is displayed in the 'Target' field (1).
2. Clicking the [Search] button (2) searches the information of each cabinet.
3. Then, the retrieval result is displayed in the result table (3).

Changing PoE Conf

1. Choose Row which is revised, and Press set button (4).
2. Revise the value of parameters (5) which is changed, and Press set button (6).
3. Then, the retrieval result is displayed in the result table (3).

Mac Forward Management Function (GSIM Only)

This function is performed in order of [Sys Config] → [Port Conf.] → [Mac Forward].

Port	Vlan	Mac Address	Mac Type	Mac Learn Type
4	1	00:00:50:35:2c:9e	unicast	dynamic
4	1	00:00:50:3e:bc:cb	unicast	dynamic
4	1	00:00:f0:ef:ac:dd	unicast	dynamic
4	1	00:00:f0:ef:b0:fd	unicast	dynamic
4	1	00:00:f0:ef:b1:2a	unicast	dynamic
4	1	00:00:f0:ef:b1:46	unicast	dynamic
4	1	00:00:f0:72:1e:03	unicast	dynamic
4	1	00:00:f0:72:07:dd	unicast	dynamic
4	1	00:00:f0:74:1a:94	unicast	dynamic
4	1	00:00:f0:74:1b:06	unicast	dynamic

Figure 1.13 Mac Forward Management Window

The parameters displayed in the 'Mac Forward' window are described as follows:

Parameter	Description
Port	Port
Vlan	VLAN
Mac Address	MAC Address
Mac Type	Mac Type
Mac Learn Type	Learn Type for MAC

Searching Mac Forward

1. Select the target IP from the Tree viewer.
The selected object is displayed in the 'Target' field (1).
2. Clicking the [Search] button (2) searches the information of each cabinet.
3. Then, the retrieval result is displayed in the result table (3).

Data Config

Community Management

Community Management function is used to search the configuration information related with the IP address of MGI board.

This function is performed in order of **[Configuration Management] → [Data Config] → [Community]**.

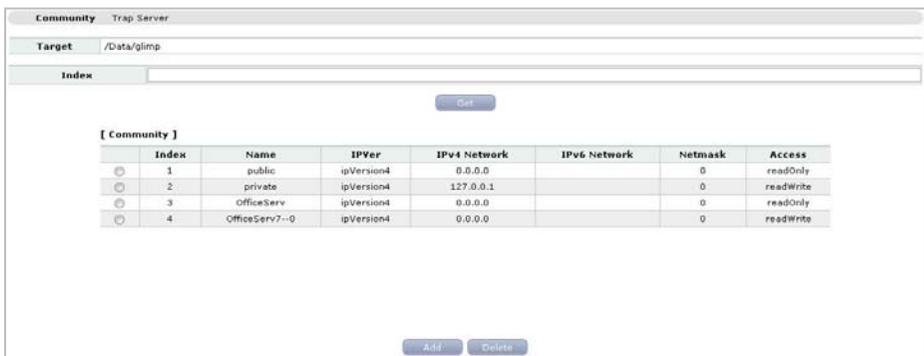


Figure 1.14 Community Management Window



Figure 1.15 Community Management Add Window



Figure 1.16 Community Management Add Window

The parameters displayed in the '**Community**' window are described as follows:

Parameter	Description
Index	Sequence Number
Name	Community Name
IPVer	IP Address Version Information (IPv4/IPv6)
IPv4Network	IPv4 Address of NMS Server for querying or updating information
IPv6Network	IPv6 Address of NMS Server for querying or updating information
Netmask	Network mask
Access	Access Permission (read-only/read-write)

Searching Community

1. Select the target IP from the Tree viewer.
The selected IP is displayed in the 'Target' field (1).
2. Clicking the **[Search]** button (3) searches the information of each cabinet and slot.
3. Then, the retrieval result is displayed in the result table (4).

Adding Community

1. Press add button (4).
2. Revise the value of parameters (5) which is added, and Press set button (6).
3. Then, the retrieval result is displayed in the result table (3).

Deleting Community

1. Choose Row which is deleted, and Press Delete button (4).
2. The confirm window will be displayed if clicking the **[OK]** button (4).
3. Then, the execution result is reflected and displayed on the result table (3).

Trap Server Management

Trap Server Ch. Management is used to manage the channel information of MGI board.

This function is performed in order of **[Configuration Management] → [Data Config] → [Trap Server]**.



Figure 1.17 Trap Server Management Window



Figure 1.18 Trap Server Management Add Window



Figure 1.19 Trap Server Management Delete Window

The parameters displayed in the ‘Trap Server’ window are described as follows:

Parameter	Description
Index	Sequence Number
IPVer	IP Address Version Information (IPv4/IPv6)
IPv4 Address	IPv4 Address of NMS Trap Server for getting Events
IPv6 Address	IPv6 Address of NMS Trap Server for getting events
Port	Port Number of NMS Trap Server for getting events
Community Name	Community Name for communication

Searching Trap Server

1. Select the target IP from the Tree viewer.
The selected IP is displayed in the ‘Target’ field (1).
2. Clicking the **[Search]** button (3) searches the information of each cabinet and slot.
3. Then, the retrieval result is displayed in the result table (4).

Adding Trap Server

1. Press add button (4).
2. Revise the value of parameters (5) which is added, and Press set button (6).
3. Then, the retrieval result is displayed in the result table (3).

Deleting Trap Server

1. Choose Row which is deleted, and Press Delete button (4).
2. The confirm window will be displayed if clicking the [OK] button (4).
3. Then, the execution result is reflected and displayed on the result table (3).



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CHAPTER 2. Switch Management

This chapter describes switch management window and function of OfficeServ NMS.

The Switch management is to manage and control the configurations for using switch cards.

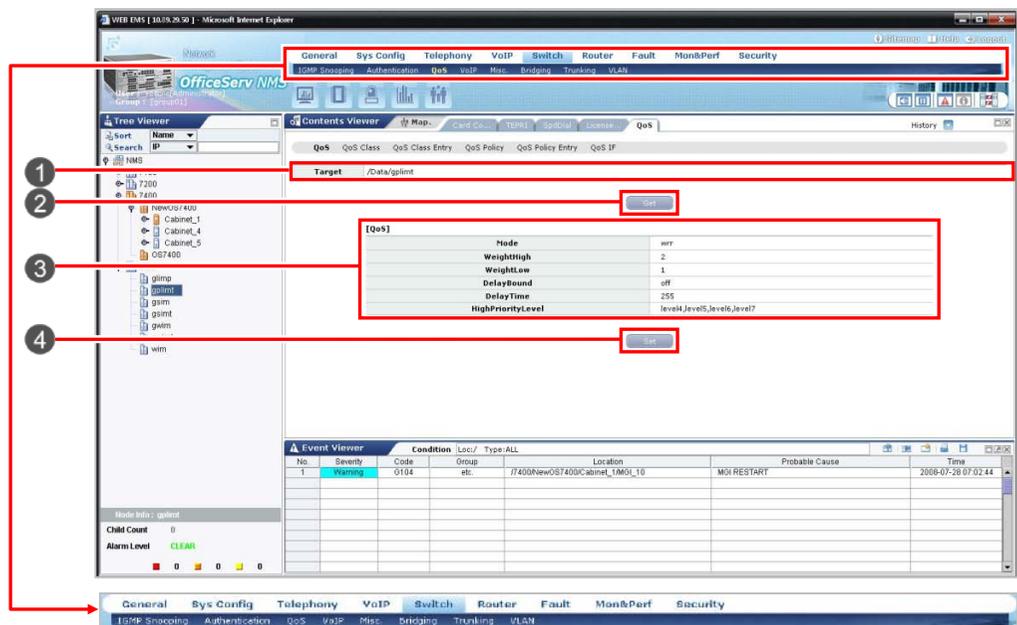


Figure 2.1 Switch Management Window



Figure 2.2 Switch Management Set Window

Number	Description
①	Target Field of Switch Management Window
②	[Get] Button of Switch Management Window
③	Result Table of Switch Management Window
④	[Set] Button of Switch Management Window for pop-up set-window
⑤	Set parameters of Switch Management Set Window
⑥	[Set] Button of Switch Management Set Window for changing the values

IGMP Snooping

IGMP Snooping Management (GPLIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of IGMP Snooping.

This function is performed in order of **[Switch]** → **[IGMP Snooping]** → **[IGMP Snooping]**.

Figure 2.3 IGMP Snooping Management Window

Parameters displayed on the 'IGMP Snooping' menu window are described as follows:

Parameter	Description
Global Status	Set Global Status (enable/disable)
Global Priority	Set Global Priority (enable/disable)

Retrieving IGMP Snooping

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the '**Target**' field (①) of the window.
2. Click the [**Retrieve**] button (②) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (③) in the window.

Changing IGMP Snooping

1. Revise the value of parameters which is changed, and Press set button (④).
2. Then, the retrieval result is displayed in the result table (③).

Authentication

Pae System Management (GPLIM/GSIM/WIM Only)

This function allows retrieving and setting up Pae system parameters.

This function is performed in order of **[Switch]** → **[Authentication]** → **[Pae System]**.



Figure 2.4 Pae System Management Window

Parameters displayed on the 'Pae System' menu window are described as follows:

Parameter	Description
Pae Auth Control	Whether Pae Auth Control is enabled or disabled

Retrieving Pae System

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the **[Retrieve]** button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

Pae Port Management (GPLIM/GSIM/WIM)

This function allows retrieving and setting up parameters of Pae Port.

This function is performed in order of **[Switch] → [Authentication] → [Pae Port]**.



Figure 2.5 Pae Port Management Window

Parameters displayed on the 'Pae Port' menu window are described as follows:

Parameter	Description
Port	Port Number, Pae Control is enabled.
Protocol Version	The Protocol Version associated with this port.
Capability	Indicates the PAE Functionality that this port supports and that may be managed.
Initialize	The Initialization control for this port. Setting this attributes TRUE cases the Port to be initialized. The attribute value reverts to FALSE once initialization has completed.
Reauthenticate	The re-authentication control for this port. Setting this attribute TRUE causes the Authenticator PAE state machine for the port to re-authenticate the Supplicant. Setting this attribute FALSE has no effect. This attribute always returns FALSE when it's read.

Retrieving Pae Port

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the '**Target**' field (①) of the window.
2. Click the [**Retrieve**] button (②) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (③) in the window.

Auth Config Management (GPLIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of Auth Config.

This function is performed in order of [Switch] → [Authentication] → [Auth Config].



Figure 2.6 Auth Config Management Window

Parameters displayed on the ‘Auth Config’ menu window are described as follows:

Parameter	Description
Port	Current Port Number
Pae State	The current value of the Authenticator PAE State machine. - none - Force-authorized (forceAuth) - Force-Un authorized (forceUnauth) - Auto
BackendAuthState	The current state of the Backend Authentication State machine.
AdminControlledDirection	The current state of the administrative controlled directions parameter for the port.
OperControlledDirection	The current state of the operational controlled directions parameter for the port.
Controlled Port Status	The current value of the Controlled Port status parameter for the port.
Controlled Port Control	The current value of the Controlled Port Control parameter for the port.

(Continued)

Parameter	Description
QuietPeriod	The value, in seconds, of the QuietPeriod constant currently is use by the Authenticator PAE State machine.
TxPeriod	The value, in seconds, of the TxPeriod currently is use by the Authenticator PAE State machine (1~65535 sec) default value: 30 sec
SuppTimeout	The value, in seconds, of the SuppTimeout constant currently is use by the Backend authentication State machine (1~65535sec) default value: 30 sec
ServerTimeout	The value, in seconds, of the ServerTimeout constant currently is use by the Backend Authentication State machine (1~65535sec) Default Value: 30 sec
MaxReq	The value of the MaxReq constant currently is use by the Backend Authentication State machine.
ReAuthPeriod	The value, in seconds, of the ReAuthPeriod constant currently is use by the Reauthentication Timer machine (1~4294967295 msec) Default value: 3600 sec
ReAuthEnabled	The enable/disable control used by the Reauthentication Timer state machine.
KeyTxEnabled	The value of the ketTransmissionEnabled constant currently in use by the Authenticator PAE State machine.

Retrieving Auth Config

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

Radius Server Management (GPLIM/GSIM/WIM Only)

Setting 802.1x user authentication indicates that there is the Radius server that has the user information. The host IP Address, host port and key should be registered of the Radius server to be used. This function allows retrieving and setting up parameters of Radius Server.

This function is performed in order of **[Switch] → [Authentication] → [Radius Server]**.



Figure 2.7 Radius Server Management Window

Parameters displayed on the ‘**Radius Server**’ menu window are described as follows:

Parameter	Description
HostIP	Host IP address of Radius Server
SecretKey	Secret Key value
HostPort	Host Port of Radius Server It uses usually 1812 as a port number

Retrieving Radius Serve

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

Changing Radius Server

1. Revise the value of parameters which is changed, and Press set button (4).
2. Then, the retrieval result is displayed in the result table (3).

QoS

QoS Management (GPLIM/WIM Only)

This function allows retrieving and setting up QoS parameters.

This function is performed in order of [Switch] → [QoS] → [QoS].

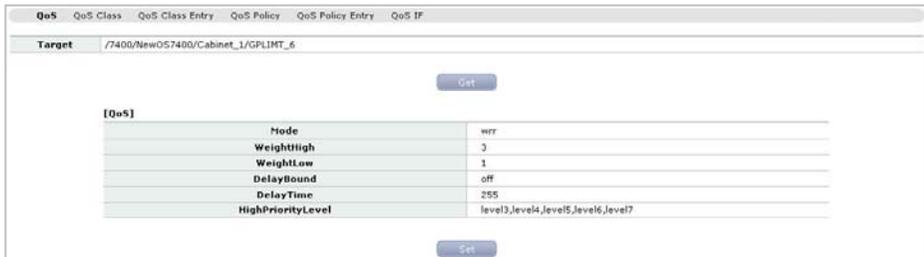


Figure 2.8 QoS Management Window



Figure 2.9 QoS Management Set Window

Parameters displayed on the 'QoS' menu window are described as follows:

Parameter	Description
Mode	Select QoS Mode - First Come First Service (fcfs) - All High before Low (ahbl) - Weighted Round Robin (wrr)
WeighHigh	Set the rate of high Weight when the method of 'Weighted Round Robin'.
WeighLow	Set the rate of Low Weight when the method of 'Weighted Round Robin'.

(Continued)

Parameter	Description
DelayBound	Set the time limit to prevent the low priority packets from being delayed too much the QoS mode is selected as 'All High before Low' or 'Weighted Round Robin'.
DelayTime	Max Delay Time is ms (1/1000 second) and default is 255 ms.
HighPriorityLevel	There are 8 tags to indicate the priority.

Retrieving QoS

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the '**Target**' field (1) of the window.
2. Click the [**Retrieve**] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

Changing QoS

1. Choose Row which is revised, and Press set button (4).
2. Revise the value of parameters (5) which is changed, and Press set button (6).
3. Then, the retrieval result is displayed in the result table (3).

QoS Class Management (GSIM/WIM Only)

This function allows retrieving and setting up parameters of QoS Class.

This function is performed in order of [Switch] → [QoS] → [QoS Class].

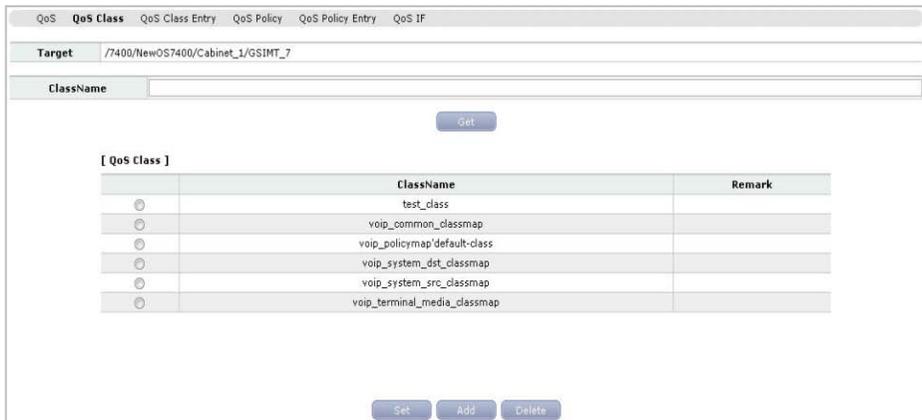


Figure 2.10 QoS Class Management Window



Figure 2.11 QoS Class Management Set Window



Figure 2.12 QoS Class Management Add Window

Parameters displayed on the 'QoS Class' menu window are described as follows:

Parameter	Description
ClassName	Class Name
Remark	Description of this Class

Retrieving QoS Class.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

Changing QoS Class.

1. Choose Row which is revised, and Press set button (4).
2. Revise the value of parameters (5) which is changed, and Press set button (6).
3. Then, the retrieval result is displayed in the result table (3).

Generating QoS Class.

1. Press [Add] button (4).
2. Add QoS Class Name(5). and Press set button (6).
3. Then, the retrieval result is displayed in the result table (3).

QoS Class Entry Management (GSIM/WIM Only)

This function allows retrieving and setting up parameters of QoS Class Entry.

This function is performed in order of [Switch] → [QoS] → [QoS Class Entry].

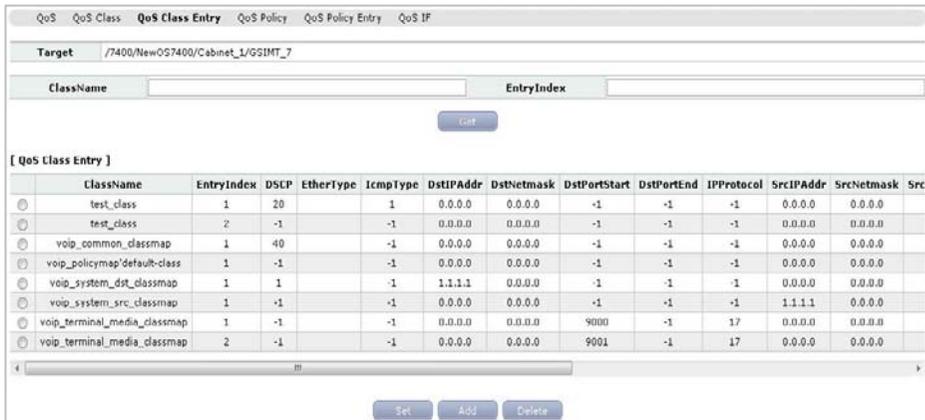


Figure 2.13 QoS Class EntryManagement Window



Figure 2.14 QoS Class EntryManagement Set Window



Figure 2.15 QoS Class EntryManagement Add Window

Parameters displayed on the 'QoS Class Entry' menu window are described as follows:

Parameter	Description
ClassName	Name of QoS Class
EntryIndex	Entry Number
DSCP	Diffserv-codepoint (0~63)
EtherType	Ethernet Type String format 0xNNNN, ex> 0x08000
IcmpType	ICMP Type (0~18)
DstIPAddr	Destination IP Address
DstNetmask	Destination IP Netmask
DstPortStart	Destination IP Port Number or Staring from this IP Port Number
DstPortEnd	Destination IP Port Number or ending to this IP Port Number
IPProtocol	IP Protocol Number (1~255)
SrcIPAddr	Source IP Address
SrcNetmask	Source IP Netmask
SrcPortStart	Source IP Port Number or Staring from this IP Port Number
SrcPortEnd	Source IP Port Number or ending to this IP Port Number
DstMacAddr	Destination Mac Address
SrcMacAddr	Source Mac Address
OutInterface	Interface Name
PrioTag	Number of Priority 0~7
TcpControl	TCP Control bits 0~63 FIN: 1, SSYNC: 2, RST: 4, PSH: 8, URG:31
VlanTag	Number of VLAN 1~4094

Retrieving QoS Class Entry.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

Changing QoS Class Entry.

1. Choose Row which is revised, and Press set button (4).
2. Revise the value of parameters (5) which is changed, and Press set button (6).
3. Then, the retrieval result is displayed in the result table (3).

Generating QoS Class Entry.

1. Press [Add] button (4).
2. Revise the value of parameters (5) which is changed, and Press set button (6).
3. Then, the retrieval result is displayed in the result table (3).

QoS Policy Management (GSIM/WIM Only)

This function allows retrieving and setting up parameters of QoS Policy.

This function is performed in order of [Switch] → [QoS] → [QoS Policy].



Figure 2.16 QoS Policy Management Window



Figure 2.17 QoS Policy Management Set Window



Figure 2.18 QoS Policy Management Add Window

Parameters displayed on the 'QoS Policy' menu window are described as follows:

Parameter	Description
Policy Name	The Name of QoS Policy
Remark	Description for QoS Policy

Retrieving QoS Policy.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the '**Target**' field (①) of the window.
2. Click the [**Retrieve**] button (②) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (③) in the window.

Changing QoS Policy.

1. Choose Row which is revised, and Press set button (④).
2. Revise the value of parameters (⑤) which is changed, and Press set button (⑥).
3. Then, the retrieval result is displayed in the result table (③).

Generating QoS Policy.

1. Choose Press [**Add**] button (④).
2. Revise the value of parameters (⑤) which is changed, and Press set button (⑥).
3. Then, the retrieval result is displayed in the result table (③).

QoS Policy Entry Management (GSIM/WIM Only)

This function allows retrieving and setting up parameters of QoS Policy Entry.

This function is performed in order of [Switch] → [QoS] → [QoS Policy Entry].

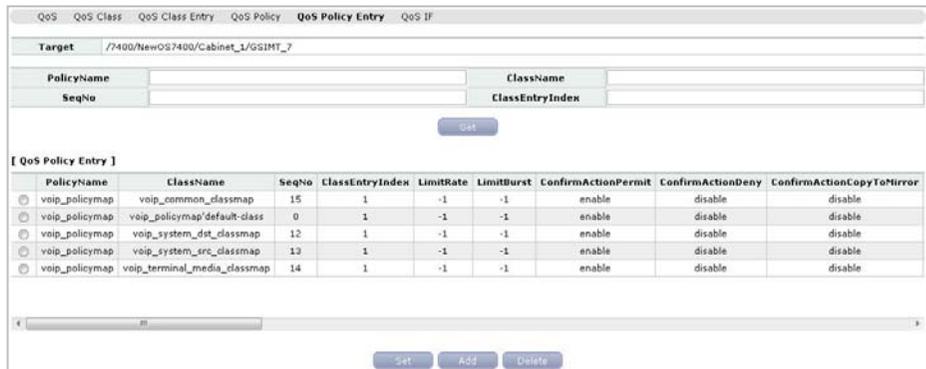


Figure 2.19 QoS Policy Entry Management Window

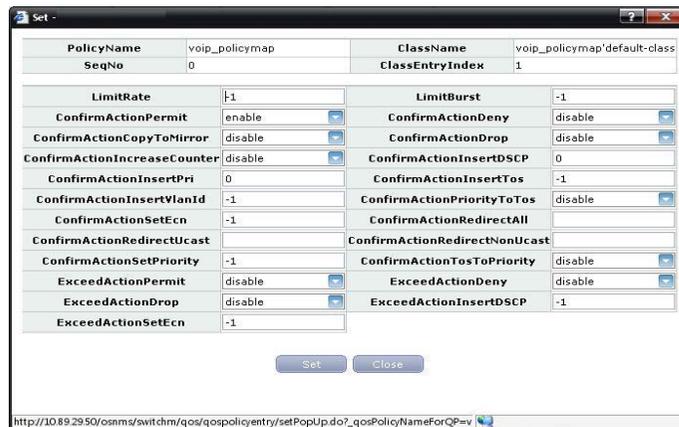


Figure 2.20 QoS Policy Entry Management Set Window



Figure 2.21 QoS Policy Entry Management Add Window

Parameters displayed on the 'QoS Policy Entry' menu window are described as follows:

Parameter	Description
PolicyName	The Name of PolicyName
ClassName	The Name of ClassName
SeqNo	The Number of SeqNo
ClassEntryIndex	The Number of ClassEntryIndex
LimitRate	LimitRate, Average metered rate (kbits/s) 1~1000000
LimitBurst	LimitBurst, Meter's max allowable burst (kbits) 1~20000
ConfirmActionPermit	ConfirmActionPermit, Sets disable or enable
ConfirmActionDeny	ConfirmActionDeny, Sets disable or enable
ConfirmActionCopyToMirror	ConfirmActionCopyToMirror, Sets disable or enable
ConfirmActionDrop	ConfirmActionDrop, Sets disable or enable
ConfirmIncreaseCounter	ConfirmIncreaseCounter, Sets disable or enable
ConfirmActionInsertDSCP	Confirms Action Insert DSCP
ConfirmActionInsertPri	Confirms Action Insert Priority
ConfirmActionInsertTos	Confirms Action Insert Tos
ConfirmActionInsertVlanId	Confirms Action Insert VLAN ID
ConfirmActionPriorityToTos	Confirms Action Priority To Tos, Set disable or enable
ConfirmActionSetEcn	Confirms Action Set Ecn
ConfirmActionRedirectAll	Confirms Action Redirect-All Interface name
ConfirmActionRedirectUcast	Confirms Action Redirect-Ucast Interface name
ConfirmActionRedirectNonUcast	Confirms Action Redirect-NonUcast Interface name
ConfirmActionSetPriority	Confirms Action Set Priority
ConfirmActionTosToPriority	ConfirmActionTosToPriority, Sets disable or enable
ExceedActionPermit	ExceedActionPermit, Sets disable or enable

(Continued)

Parameter	Description
ExceedActionDeny	ExceedActionDeny, Sets disable or enable
ExceedActionDrop	ExceedActionDrop, Sets disable or enable
ExceedActionInsertDSCP	Exceed Action Insert DSCP
ExceedActionSetEcn	Exceed Action Set Ecn

Retrieving QoS Policy Entry.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

Changing QoS Policy Entry.

1. Choose Row which is revised, and Press set button (4).
2. Revise the value of parameters (5) which is changed, and Press set button (6).
3. Then, the retrieval result is displayed in the result table (3).

Generating QoS Policy Entry.

1. Press [Add] button (4).
2. Revise the value of parameters (5) which is changed, and Press set button (6).
3. Then, the retrieval result is displayed in the result table (3).

QoS IF Management (GSIM/WIM Only)

This function allows retrieving and setting up parameters of QoS IF.

This function is performed in order of [Switch] → [QoS] → [QoS IF].

Name	InputPolicy	InputFrameSize	LimitRate	LimitBurst	LimitFrameSize	CosmapDefaultSet	CosmapPriority0	CosmapPriority1	CosmapPriority2	CosmapPriority3	CosmapPriority4	CosmapPriority5	CosmapPriority6	CosmapPriority7
port1	voip_policymap	-	-1	-1	-	disable	0	1	2	3	4	5	6	7
port2	voip_policymap	-	-1	-1	-	disable	0	1	2	3	4	5	6	7
port3	voip_policymap	-	-1	-1	-	disable	0	1	2	3	4	5	6	7
port4	voip_policymap	-	-1	-1	-	disable	0	1	2	3	4	5	6	7
port5	voip_policymap	-	-1	-1	-	disable	0	1	2	3	4	5	6	7
port6	voip_policymap	-	-1	-1	-	disable	0	1	2	3	4	5	6	7
port7	voip_policymap	-	-1	-1	-	disable	0	1	2	3	4	5	6	7
port8	voip_policymap	-	-1	-1	-	disable	0	1	2	3	4	5	6	7
port9	voip_policymap	-	-1	-1	-	disable	0	1	2	3	4	5	6	7
port10	voip_policymap	-	-1	-1	-	disable	0	1	2	3	4	5	6	7

Figure 2.22 QoS IF Management Window

InputPolicy	voip_policymap	InputFrameSize	frameSize
LmtRate	-1	LmtBurst	-1
LmtFrameSz	0	CosDefSet	disable
CosP0	0	CosP1	1
CosP2	2	CosP3	3
CosP4	4	CosP5	5
CosP6	6	CosP7	7
OutSchMode	strict	OutSchWQ0	-1
OutSchWQ1	-1	OutSchWQ2	-1
OutSchWQ3	-1	OutSchWQ4	-1
OutSchWQ5	-1	OutSchWQ6	-1
OutSchWQ7	-1	CosThDefSet	disable
CosThQ0	128	CosThQ1	128
CosThQ2	128	CosThQ3	128
CosThQ4	128	CosThQ5	128
CosThQ6	128	CosThQ7	128

Figure 2.23 QoS IF Management Set Window

Parameters displayed on the 'QoS IF' menu window are described as follows:

Parameter	Description
Name	QoS Interface Name
IfIndex	QoS Interface Index
InputPolicy	Mapped Input Policy Name
InputFramesize	Input Frame size
LimitRate	Limit Rate
LimitBurst	Limit Burst
LimitFramesize	Limit Frame size
CosmapDefaultSet	Set all Cosmap parameters to default value. After setting this value reverts to 'disable'
CosP0~7	Cosmap Priority0~7
CosmapPriority1	Cosmap Priority1
CosmapPriority2	Cosmap Priority2
OutSchMode	QoS Interface OutSchMode
OutSchWQ0~7	QoS Interface OutSchWQ0~7
CosThDeftSet	QoS Interface CosThDeftSet
CosThQ0~7	QoS Interface CosThQ0~7

Retrieving QoS IF.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

Changing QoS IF

1. Press set button (4).
2. Revise the value of parameters (5) which is changed, and Press set button (6).
3. Then, the retrieval result is displayed in the result table (3).

VoIP

VoIP Management (GPLIM/GSIM/GWIM/WIM Only)

This function allows retrieving and setting up VoIP parameters.

This function is performed in order of **[Switch]** → **[VoIP]** → **[VoIP]**.



Figure 2.24 VoIP Management Window

Parameters displayed on the 'VoIP' menu window are described as follows:

Parameter	Description
ActivityStatus	Activity Status of VoIP Management

Retrieving VoIP.

1. Select the target object to perform a function from Tree Viewer. The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

Changing VoIP

1. Press [Run] button (4). Then, the retrieval result is displayed in the result table (3).
2. Press [Stop] button (4). Then, the retrieval result is displayed in the result table (3).

Misc.

Misc. Management (GPLIM/WIM Only)

This function allows retrieving and setting up Misc. parameters.

This function is performed in order of [Switch] → [Misc.] → [Misc.]



Figure 2.25 Misc. Management Window (GPLIM)



Figure 2.26 Misc. Management Window (WIM)



Figure 2.27 Misc. Management Set Window (GPLIM)



Figure 2.28 Misc. Management Set Window (WIM)

Parameters displayed on the 'Misc.' menu window are described as follows:

Parameter	Description
MirrorMode	Mirror mode
MirrorMonitoringPort	The Monitoring Port for mirroring
MirrorMonitoredPort	The Monitored Port for mirroring
MacAgeOutTime	Setting Information of MacAgeOutTime
BroadcastStormFilterMode	Setting Information of BroadcastStormFilterMode
AutoMdiMdx	Setting Information of AutoMdiMdx
NiIPAddress	IP Address of Network Interface It's used for a switch equipment (ex. PGPLIM (T) Card)
NiNetmask	Netmask Information of Network Interface It's used for a switch equipment (ex. PGPLIM (T) Card)
NiDefaultGateway	Default Gateway IP Address of Network Interface It's used for a switch equipment (ex. PGPLIM (T) Card)

(Continued)

Parameter	Description
NiDNS	Domain Name Server (DNS) Information of Network Interface It's used for a switch equipment (ex. PGPLIM (T) Card)
PlimModuleActivity Status	An Activity Status of PLIM Module. It's used for a router equipment (ex. Wim Card)

Retrieving Misc.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the '**Target**' field (①) of the window.
2. Click the [**Retrieve**] button (②) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (③) in the window.

Changing Misc.

1. Revise the value of parameters, and Press set button (④).
2. Then, the retrieval result is displayed in the result table (③).

Mirror Port Management (GSIM Only)

This function allows retrieving and setting up parameters of Mirror Port.

This function is performed in order of [Switch] → [Misc.] → [Mirror Port].

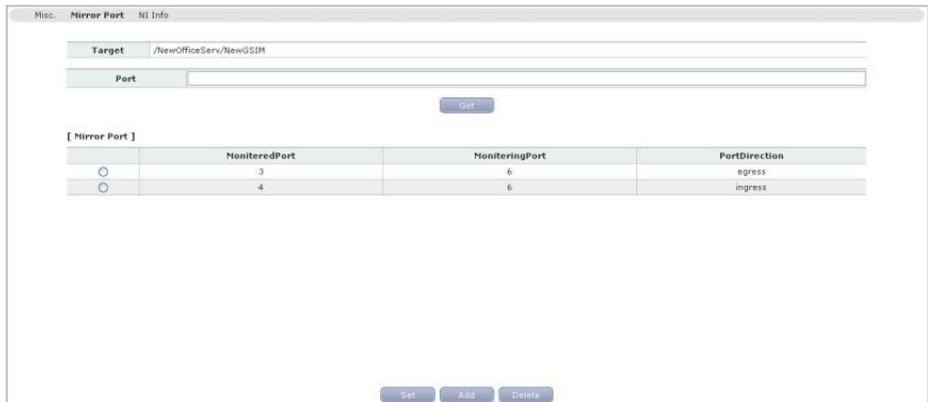


Figure 2.29 Mirror Port Management Window



Figure 2.30 Mirror Port Management Set Window



Figure 2.31 Mirror Port Management Add Window

Parameters displayed on the '**Mirror Port**' menu window are described as follows:

Parameter	Description
MonitoredPort	Monitored Port Number
MonitoringPort	Monitoring Port Number
PortDirection	Set Port Direction, egress, ingress or both

Retrieving Mirror Port.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the '**Target**' field (1) of the window.
2. Click the [**Retrieve**] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

Changing Mirror Port

1. Choose Row which is revised, and Press set button (4).
2. Revise the value of parameters (5) which is changed, and Press set button (6).
3. Then, the retrieval result is displayed in the result table (3).

Generating Mirror Port

1. Press [**Add**] button (4).
2. Revise the value of parameters (5) which is changed, and Press set button (6).
3. Then, the retrieval result is displayed in the result table (3).

Deleting Mirror Port

1. Choose Row which is revised, and Press **[Delete]** button (4).
2. Then, the retrieval result is displayed in the result table (3).

NI Info Management (GSIM Only)

This function allows retrieving and setting up NI parameters.

This function is performed in order of [Switch] → [Misc.] → [NI Info].



Figure 2.32 NI Info Management Window



Figure 2.33 NI Info Management Set Window

Parameters displayed on the 'NI Info' menu window are described as follows:

Parameter	Description
ID	Network Interface ID
IP Address	IP Address
Netmask	IP Netmask
Activity	Activity Information

Retrieving NI Info.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

Changing NI Info.

1. Choose Row which is revised, and Press set button (4).
2. Revise the value of parameters (5) which is changed, and Press set button (6).
3. Then, the retrieval result is displayed in the result table (3).

Bridging

Stp Port Management (GPLIM/GSIM/WIM Only)

This function allows retrieving and setting up Stp Port.

This function is performed in order of [Switch] → [Bridging] → [Stp Port].

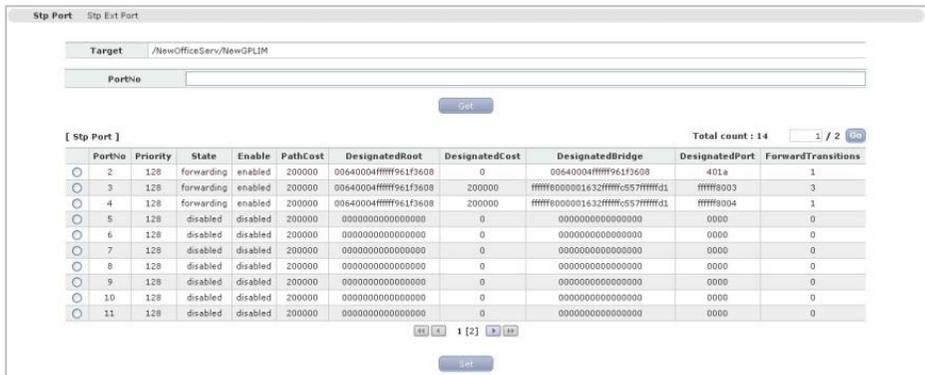


Figure 2.34 Stp Port Management Window

Parameters displayed on the 'Stp Port' menu window are described as follows:

Parameter	Description
PortNo	The Port Number of the port for which this entry contains Spanning Tree Protocol management information
Priority	The value of the Priority, 0~255
State	The port's current state as defined by application of the STP
Enable	The Enabled/disabled status of the port
PathCost	The contribution of this port to the path cost of paths towards the spanning tree root which include this port. IEEE 802.1D-1990 recommends that the default value of this parameter be in inverse proportion to the speed of the attached LAN.
DesignatedRoot	The unique Bridge identifier of the Bridge recorded as the Root in the Configuration BPDUs transmitted by the segment to which the port is attached.

(Continued)

Parameter	Description
DesignatedCost	The path cost of the Designated Port of the segment connected to this port. The value is compared to the Root Path Cost field in received bridge PDUs
DesignatedBridge	The bridge identifier of the bridge which this port considers to be the Designated Bridge for this port's segment
DesignatedPort	The port identifier of the port on the Designated Bridge for this port's segment
ForwardTransitions	The number of times this port has transmitted from the learning state to the Forwarding state.

Retrieving Stp Port.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

Stp Ext Port Management (GPLIM/GSIM/WIM Only)

This function allows retrieving and setting up Stp Ext Port.

This function is performed in order of [Switch] → [Bridging] → [Stp Ext Port].

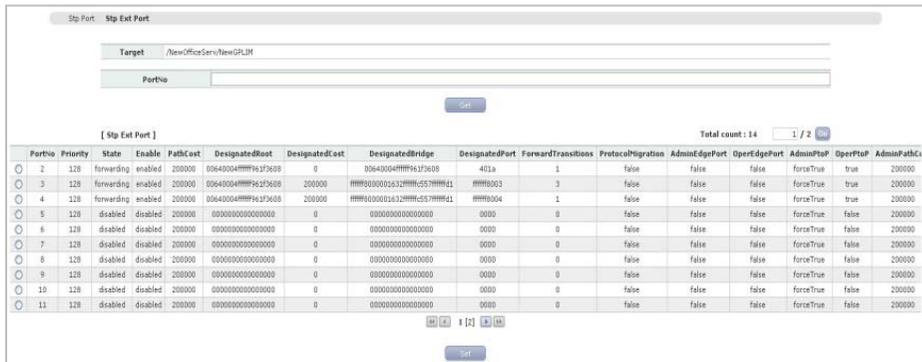


Figure 2.35 Stp Ext Port Management Window

Parameters displayed on the 'Stp Ext Port' menu window are described as follows:

Parameter	Description
PortNo	The Port Number of the port for which this entry contains Spanning Tree Protocol management information
Priority	The value of the Priority, 0~255
State	The port's current state as defined by application of the STP
Enable	The Enabled/disabled status of the port
PathCost	The contribution of this port to the path cost of paths towards the spanning tree root which include this port. IEEE 802.1D-1990 recommends that the default value of this parameter be in inverse proportion to the speed of the attached LAN.
DesignatedRoot	The unique Bridge identifier of the Bridge recorded as the Root in the Configuration BPDUs transmitted by the segment to which the port is attached.
DesignatedCost	The Port Number of the port for which this entry contains Spanning Tree Protocol management information
DesignatedBridge	The value of the Priority, 0~255
DesignatedPort	The port's current state as defined by application of the STP

(Continued)

Parameter	Description
ForwardTransitions	The number of times this port has transmitted from the learning state to the Forwarding state
ProtocolMigration	The value has true or false. When operation in RSTP (version2) mode, writing TRUE (1) to this object forces this port to transmit RSTD BPDUs. Any other operation on this object has no effect and it always returns FALSE (2) when read.
AdminEdgePort	The value has true or false. The administrative value of the Edge Port Parameter. A value of TRUE (1) indicates that this port should be assumed as an edge-port and a value of FALSE (2) indicates that this port should be assumed as a non-edge-port.
OperEdgePort	The value has true or false. The operational value of the Edge Port Parameter. The object is initialized to the value of dot1StpPortAdminEdgePort and is set FALSE on reception of a BPDU.
AdminPtoP	The administrative point-to-point status of the LAN segment attached to this port. - forceTrue (0): this port should always be treated as if it is connected to a point-to-point link. - forcefalse (1): this port should be treated as having shared media connection. - auto (2): this port is considered to have a point-to-point link if it is an Aggregator and all of its members are aggregatable, or if the MAC entry is configured for full duplex operation, either through auto-negotiation or be management means.
OperPtoP	The operational point-to-point status of the LAN segment attached to this port. It indicates whether a port is considered to have a point-to-point connection or not.
AdminPathCost	The administratively assigned value for the contribution of this port to the path cost of paths towards the spanning tree root. Writing a value of '0' assigns the automatically calculated default Path Cost value to the port. If the default Path Cost is being used, this object returns '0' when read

Retrieving Stp Ext Port.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the '**Target**' field (①) of the window.
2. Click the [**Retrieve**] button (②) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (③) in the window.

Trunking

Agg. Management (GPLIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of Agg.

This function is performed in order of [Switch] → [Trunking] → [Agg.].

The screenshot shows a web interface for Agg. Management. At the top, there is a header 'Agg. - Agg Port'. Below it, there are two input fields: 'Target' with the value '/NewOfficeServ/NewGSIM' and 'Index' which is empty. A 'Get' button is positioned below the Index field. Underneath the form, there is a label '[Agg.]' and a table with 11 columns representing various parameters and their values.

AggIndex	AggMACAddress	AggActorSystemPriority	AggActorSystemID	AggAggregateOrIndividual	AggActorAdminKey	AggActorOperKey	AggPartnerSystemID	AggPartnerSystemPriority	AggPartnerOperKey	AggCollectorMaxDelay
17	00:16:32:c5:02:c8	32768	00:16:32:c5:57:c8	false	1	1	00:16:32:c5:57:d1	32768	1	0

Figure 2.36 Agg. Management Window

Parameters displayed on the 'Agg.' menu window are described as follows:

Parameter	Description
AggIndex	The unique identifier allocated to this Aggregator by the local system.
AggMACAddress	A 6-octet read-only value carrying the individual MAC Address assigned to the Aggregator. 0~65535
AggActorSystemPriority	A 2-octet value indicating the priority value associated with the Actor's System ID
AggActorSystemID	A 6-octet MAC Address value used as a unique identifier for system that contains this Aggregator.
AggAggregateOrIndividual	A Boolean value indicating whether the Aggregator represents an Aggregate ('TRUE') or Individual Link ('FALSE')
AggActorAdminKey	The current administrative value of the key for the Aggregator.
AggActorOperKey	The current operational value of the key for the Aggregator.
AggPartnerSystemID	A 6-octet MAC Address value consisting of the unique identifier for the current protocol Partner of this Aggregator.

(Continued)

Parameter	Description
AggPartnerSystemPriority	A 2-octet value that indicates the priority value associated with the Partner's System ID.
AggPartnerOperKey	The current operational value of the key for the Aggregator's current protocol partner.
AggCollectorMaxDelay	It defines the maximum delays

Retrieving Agg.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the '**Target**' field (①) of the window.
2. Click the [**Retrieve**] button (②) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (③) in the window.

Agg Port Management (GPLIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of Agg. Port

This function is performed in order of [Switch] → [Trunking] → [Agg Port].

Index	ActorSystemPriority	ActorSystemID	ActorAdminKey	ActorOperKey	PartnerAdminSystemPriority	PartnerOperSystemPriority	PartnerAdminKey	PartnerOperKey	SelectedAggID	AttachedAggID	ActorPort	ActorPortPriority	Part
4	32768	00:16:32:c5:57:c8	1	1	32768	32768	0	1	17	0	4	32768	

Figure 2.37 Agg Port Management Window

Parameters displayed on the 'Agg Port' menu window are described as follows:

Parameter	Description
Index	The ifindex of the port
ActorSystemPriority	A 2-octet value indicating the priority value associated with the Actor's System ID.
ActorSystemID	A 6-octet MAC Address value used as a unique identifier for system that contains this Aggregation port.
ActorAdminkey	The current administrative value of the key for the Aggregation port.
ActorOperKey	The current operational value of the key for the Aggregation port.
PartnerAdminSystemPriority	A 2-octet value that indicates the administrative value of priority associated with the Partner's System ID.
PartnerOperSystemPriority	A 2-octet value that indicates the operational value of priority associated with the Partner's System ID.
PartnerAdminSystemID	A 6-octet MAC Address value representing the administrative value of the Aggregation Port's protocol Partner's System ID.
PartnerOperSystemID	A 6-octet MAC Address value representing the operational value of the Aggregation Port's protocol Partner's System ID.

(Continued)

Parameter	Description
PartnerOperKey	The current operational value of the key for the Aggregator's current protocol partner.
SelectedAggID	The identifier value of the Aggregator that this Aggregation Port has currently selected. Zero indicates that the Aggregation Port has not selected an Aggregator.
AttachedAggID	The identifier value of the Aggregator that this Aggregation Port is currently attached to, Zero indicates that the Aggregation Port is not currently attached to an Aggregator.
ActorPort	The Port Number locally assigned to the Aggregation Port. The port Number is communicated in LACPDUs as the Actor_Port.
ActorPortPriority	The Priority value assigned to this Aggregation Port.
PartnerAdminPort	The current administrative value of the port number for the protocol partner.
PartnerOperPort	The operational port number assigned to this Aggregation Port by the Aggregation Port's protocol partner.
PartnerAdminPortPriority	The current administrative value of the port priority for the protocol partner.
PartnerOperPortPriority	The priority value assigned to this Aggregation Port by the Aggregation Port's protocol partner.
ActorAdminState	The string of 8 bits, corresponding to the administrative values of Actor_State as transmitted by the Actor in LACPDUs. <ul style="list-style-type: none"> - 1st bit (0): LACP_Activity - 2nd bit (1): LACP_Timeout - 3rd bit (2): Aggregation - 4th bit (3): Synchronization - 5th bit (4): Collecting - 6th bit (5): Defaulted - 7th bit (6): Expired
ActorOperState	The string of 8 bits, corresponding to the operational values of Actor_State as transmitted by the Actor in LACPDUs.
PartnerAdminState	The string of 8 bits, corresponding to the administrative values of Actor_State for the protocol Partner.

(Continued)

Parameter	Description
PartnerOperState	The string of 8 bits, corresponding to the current values of Actor_State in most recently LACPDU transmitted by the Protocol Partner.
AggregateOrIndividual	The Aggregation Port is able to Aggregate ('true') Or is only able to operate as an Individual link ('false').

Retrieving Agg Port.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the '**Target**' field (1) of the window.
2. Click the [**Retrieve**] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

VLAN

VLAN Base Management (GPLIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of VLAN Base.

This function is performed in order of **[Switch] → [VLAN] → [VLAN Base]**.



Figure 2.38 VLAN Base Management Window

Parameters displayed on the 'VLAN Base' menu window are described as follows:

Parameter	Description
VlanVersion	The Version number of IEEE 802.1Q that this device supports.
MaxVlanID	The maximum IEEE 802.1Q VLAN ID that this device supports.
MaxSupportedVlans	The maximum number of IEEE 802.1Q VLANs that this device supports.
VlanNumber	The current number of IEEE 802.1Q VLANs that are configured in this device.
GVRPStatus	The administrative Status represented by management for GVRP. The value enabled (1) indicates the GVRP should be enabled on this device, on all ports for which it has not been specifically disabled. When disabled (2), GVRP is disabled on all ports and all GVRP packets will be forwarded transparently. A transition from disabled (2) to enabled (1) will cause a reset of all GVRP state machines on all ports.

Retrieving VLAN Base.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the '**Target**' field (①) of the window.
2. Click the [**Retrieve**] button (②) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (③) in the window.

Static VLAN Management (GPLIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of Static VLAN.

This function is performed in order of [Switch] → [VLAN] → [Static VLAN].



Figure 2.39 Static VLAN Management Window

Parameters displayed on the 'Static VLAN' menu window are described as follows:

Parameter	Description
Index	VLAN-ID
Name	An administrative assigned string, which may be used to identify the VLAN.
StaticEgressPort	The set of ports which are permanently assigned to the egress list for this VLAN by management.
ForbiddenEgressPort	The set of ports which are prohibited by management from being included in the egress list for this VLAN.
StaticUntaggedPort	The set of ports which should transmit egress packets for this VLAN as untagged.

Retrieving Static VLAN.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

VLAN Port Management (GPLIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of VLAN Port.

This function is performed in order of [Switch] → [VLAN] → [VLAN Port].

Port	Pvid	AcceptableFrameType	IngressFiltering
1	1	admitAll	false
2	1	admitAll	false
3	1	admitAll	false
4	1	admitAll	false
5	1	admitAll	false
6	1	admitAll	false
7	1	admitAll	false
8	1	admitAll	false
9	1	admitAll	false
10	1	admitAll	false

Figure 2.40 VLAN Port Management Window

Parameters displayed on the 'VLAN Port' menu window are described as follows:

Parameter	Description
Port	Port Number
PvID	The PVID, the VLAN ID assigned to untagged frames or Priority-Tagged frames received on this port.
AccepttableFrameType	When this is admitOnlyVlanTagged (2) the device will discard untagged frames or Priority-Tagged frames received on this port. When adminAll (1), untagged frames or Priority-Tagged frames received on this port will be accepted and assigned to the PVID for this port. It does affect VLAN dependent BPDU frames, such as GMRP.
IngressFiltering	When this is true (1) the device will discard incoming frames for VLANs which do not include this port in its Member set. When false (2), the port will accept all incoming frames.

Retrieving VLAN Port.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the '**Target**' field (①) of the window.
2. Click the [**Retrieve**] button (②) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (③) in the window.

Classification Management (GPLIM/WIM Only)

This function allows retrieving and setting up Classification parameters.

This function is performed in order of **[Switch]** → **[VLAN]** → **[Classification]**.



Figure 2.41 Classification Management Window

Parameters displayed on the 'Classification' menu window are described as follows:

Parameter	Description
ClassificationMode	Selected automatically according to the VLAN Mode. In case of 802.1Q VLAN, 'proto' is selected. In case of MAC based VLAN, 'MAC' is selected. - proto (1): protocol based VLAN - mac (2): MAC address based VLAN - notsupp (3): Not Supported

Retrieving Classification.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.



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CHAPTER 3. Router Management

This chapter describes router management window and function of OfficeServ NMS.

The Router management is to manage and control the configurations for using router cards.

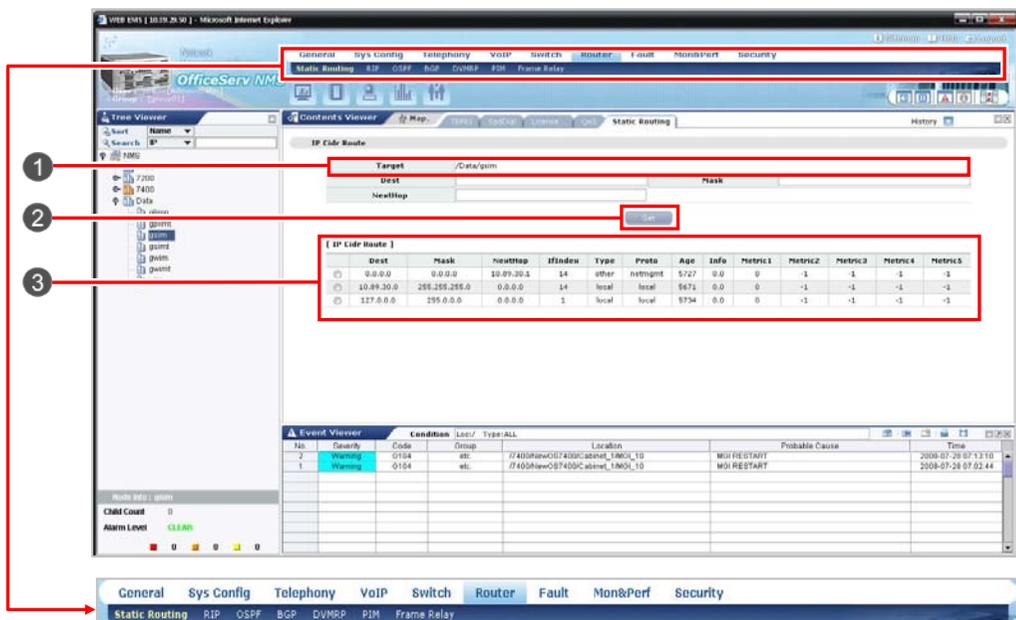


Figure 3.1 Router Management Window

Number	Description
①	Target Field of Router Management Window
②	[Get] Button of Router Management Window
③	Result Table of Router Management Window

Static Routing

IP Cidr Route Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of IP Routing Table.

This function is performed in order of [Route] → [Static Routing] → [IP Cidr Route].



Figure 3.2 IP Cidr Route Management Window

Parameters displayed on the 'IP Cidr Route' menu window are described as follows:

Parameter	Description
Dest	The destination IP Address of this route.
Mask	Indicate the mask to be logical-ANDed with the destination address before being compared to the value in the ipCidrRouteDest field.
NextHop	On remote routes, the address of the next system route; otherwise, 0.0.0.0
IfIndex	The IfIndex value which identifies the local interface through which the next hop of this route should be reached.
Type	The type of route. - other (1) - reject (2): A route which, if matched, discards the message as unreachable. - local (3): A route which the next hop is the final destination - remote (4): A route for which the next hop is not the final destination

(Continued)

Parameter	Description
Proto	The routing mechanism via which this route was learned. - 1: other (1) - 2: local (2) - 3: netmgmt (3) - 4: icmp (4) - 5: egp (5) - 6: ggp (6) - 7: hello (7) - 8: rip (8) - 9: isls (9) - 10: esls (10) - 11: ciscolggrp (11) - 12: bbnSpfgp (12) - 13: ospf (13) - 14: bgp (14) - 15: idpr (15) - 16: ciscoEigrp (16)
Age	The number of seconds since this route was last updated or otherwise determined to be correct.
Info	A reference to the particular routing protocol which is responsible for this route.
Metric1	The primary routing metric for this route.
Metric2	An alternate routing metric for this route.
Metric3	An alternate routing metric for this route
Metric4	An alternate routing metric for this route
Metric5	An alternate routing metric for this route

Retrieving IP Cidr Route.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

RIP

RIP Global Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up RIP Global parameters.

This function is performed in order of **[Route] → [RIP] → [RIP Global]**.



Figure 3.3 RIP Global Management Window

Parameters displayed on the 'RIP Global' menu window are described as follows:

Parameter	Description
RoutegChanges	The number of route changes made to IP Route Database by RIP.
Queries	The number of responses sent to RIP queries from other systems.

Retrieving RIP Global.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the **[Retrieve]** button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

RIP Interface Stat Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of RIP Interface Stat.

This function is performed in order of [Route] → [RIP] → [RIP Interface Stat].



Figure 3.4 RIP Interface Stat Management Window

Parameters displayed on the 'RIP Interface Stat' menu window are described as follows:

Parameter	Description
Address	The IP Address of this system on the indicated subnet
RcvBadPackets	The number of RIP response packets received by the RIP process which were subsequently discarded for any reason (e.g., a version 0 packet, or an unknown command type)
RcvBadRoutes	The number of routes, invalid RIP Packets, which were ignored for any reason. (e.g., unknown address family, or invalid metric)
SentUpdates	The number of triggered RIP updates actually sent o this interface

Retrieving RIP Interface Stat.

1. Select the target object to perform a function from Tree Viewer. The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

RIP Interface Conf Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of RIP Interface Conf.

This function is performed in order of [Route] → [RIP] → [RIP Interface Conf].



Figure 3.5 RIP Interface Conf Management Window

Parameters displayed on the ‘RIP Interface Conf’ menu window are described as follows:

Parameter	Description
Address	The IP Address of this system on the indicated subnet.
Domain	Value inserted into the Routing Domain field of all RIP packet sent on this interface.
AuthType	The type of Authentication used on this interface. - 1: noAuthentication (1) - 2: simplePassword (2) - 3: md5 (3)
AuthKey	The value to be used as the Authentication Key whenever the corresponding instance of AuthType has a value other than no Authentication. (0~16 hex-string)

(Continued)

Parameter	Description
Send	<p>What the router sends on this interface.</p> <ul style="list-style-type: none"> - 1: donotSend (1) - 2: ripVersion1 (2), sending RIP updates - 3: rip1Compatible (3), broadcasting RIP-2 updates - 4: ripVersion2 (4), multicasting RIP-2 updates - 5: ripV1Demand (5), the use of Demand RIP on a WAN interface under RIP version 1 rules. - 6: ripV2Demand (6), the use of Demand RIP on a WAN interface under RIP version 2 rules.
Receive	<p>This indicates which version of RIP updates are to be accepted.</p> <ul style="list-style-type: none"> - 1: rip1 (1) - 2: rip2 (2), reception of multicast packets - 3: rip1OrRip2 (3), reception of multicast packets - 4: doNotReceive (4)
DefaultMetric	The variable indicates the metric that is to be used for the default route entry in RIP updates originated on this interface.
SrcAddress	The IP Address this system will use as a source address on this interface.

Retrieving RIP Interface Conf.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

RIP Peer Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of RIP Peer.

This function is performed in order of [Route] → [RIP] → [RIP Peer]

Figure 3.6 RIP Peer Management Window

Parameters displayed on the 'RIP Peer' menu window are described as follows:

Parameter	Description
Address	The IP Address of this system on the indicated subnet.
Domain	Value inserted into the Routing Domain field of all RIP packets sent on this interface.
LastUpdate	The value of sysUpTime when the most recent RIP updates was received from this system.
Version	The RIP Version number in the header of the last RIP packet received.
RcvBadPackets	The number of RIP response packets from this peer discarded as invalid.

Retrieving RIP Peer

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

OSPF

General Group Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up general group parameters.

This function is performed in order of **[Route]** → **[OSPF]** → **[General Group]**.



Figure 3.7 General Group Management Window

Parameters displayed on the 'General Group' menu window are described as follows:

Parameter	Description
RouterId	Router ID By convention, it ensure uniqueness, this should default to the value of one of the route's IP Interface addresses.
AdminStat	The administrative status of OSPF in the router. The value 'enabled' denotes that the OSPF process is active at least one interface; 'disabled' disables it on all interfaces.
VersionNumber	The current Version number of the OSPF protocol is 2
AreaBdrRtrStatus	A flag to note whether this router is an area border router.
ASBdrRtrStatus	A flag to note whether this router is configured as an Autonomous System border router.

(Continued)

Parameter	Description
ExternLsaCount	The number of external (LS type 5) link-state advertisements in the link-state database.
ExternLsaChecksumsum	The 32-bit unsigned sum of the LS checksums of the external link-state advertisements contained in the link-state database.
TOSSupport	The router's support for type-of-service routing.
OriginateNewLsas	The number of new link-state advertisements that have been originated.
RxNewLsas	The number of new link-state advertisements received determined to be new instantiations.
ExtLsdbLimit	The maximum number of non-default AS-external-LSAs entries that can be stored in the link-state database. If the value is -1, then there is no limit.
MulticastExtensions	A bit mask indicating whether the router is forwarding IP Multicasting (Class D) datagrams based on the algorithms defined in the Multicast Extensions to OSPF If set, <ul style="list-style-type: none"> - Bit 0: intra-area multicast routing (directly attached areas) - Bit 1: inter-area multicast routing (between OSPF areas) - Bit 2: inter-AS multicast routing (between Autonomous Systems) <p>Only certain combinations of bit setting are allowed:</p> <ul style="list-style-type: none"> - 0: no multicast forwarding is enabled - 1: intra-area multicast only - 3: intra-area and inter-area multicast only - 5: intra-area and inter-AS multicast only - 7: multicasting everywhere
ExitOverflowInterval	The number of seconds that, after entering OverflowState, a router will attempt to leave OverflowState.
DemandExtensions	The router's support for Demanding routing.

Retrieving General Group.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the '**Target**' field (①) of the window.
2. Click the [**Retrieve**] button (②) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (③) in the window.

Area Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up Area parameters.

This function is performed in order of [Route] → [OSPF] → [Area].

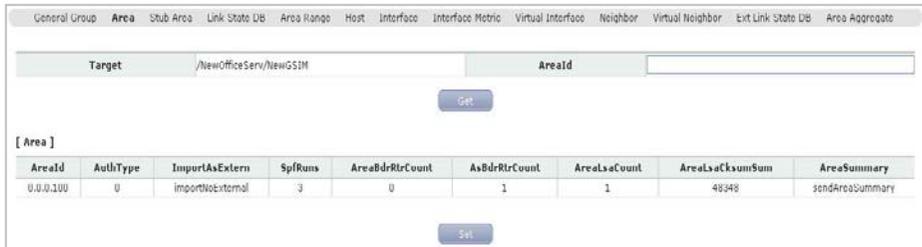


Figure 3.8 Area Management Window

Parameters displayed on the ‘Area’ menu window are described as follows:

Parameter	Description
AreaId	Uniquely identifying an area. Area Id 0.0.0.0 is used for the OSPF backbone
AuthType	The Authentication Type specified for an area.
ImportAsExtern	The area’s support for importing AS external link-state advertisements.
SpfRuns	The number of times that the intra-area route table has been calculated using this area’s link-state database.
AreaBdrRtrCount	The total number of area border routers reachable within this area. This is initially zero, and is calculated in each SPF Pass.
AsBdrRtrCount	The total number of AS border routers reachable within this area. This is initially zero, and is calculated in each SPF Pass.
AreaLsaCount	The total number of link-state advertisements in this area’s link-state database, excluding AS external LSA’s.
AreaLsaChecksumSum	The 32-bit unsigned sum of the link-state advertisements LS checksums contained in this area’s link-state database.
AreaSummary	Controls the import of summary LSAs into stub area. It has no effect no other area. - 1: noAreaSummary, It will reply entirely on its default route. - 2: sendAreaSummary (2), It will both summarize and propagate summary LSAs.

Retrieving Area.

- 1.** Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the '**Target**' field (①) of the window.
- 2.** Click the [**Retrieve**] button (②) to retrieve information on SIP Phone Mgmt.
- 3.** The retrieval result is displayed on the result table (③) in the window.

Stub Area Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of Stub Area.

This function is performed in order of [Route] → [OSPF] → [Stub Area].

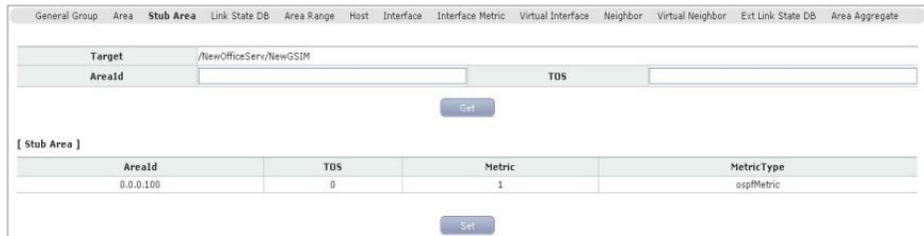


Figure 3.9 Stub Area Management Window

Parameters displayed on the ‘Stub Area’ menu window are described as follows:

Parameter	Description
AreaId	Uniquely identifying a stub area.
TOS	The Type of Service associated with the metric.
Metric	The Metric value applied at the indicated type of service. By default, this equals the least metric at the type of service among the interfaces to other area.
MetricType	This variable displays the type of metric advertised as a default route.

Retrieving Stub Area.

1. Select the target object to perform a function from Tree Viewer. The selected object is displayed on the ‘Target’ field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

Link State DB Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of Link Stat DB.

This function is performed in order of [Route] → [OSPF] → [Link State DB].

Figure 3.10 Link State DB Management Window

Parameters displayed on the 'Link State DB' menu window are described as follows:

Parameter	Description
AreaId	The identifier of the Area from which the LSA was received
Type	The type of the link state advertisement - 1: routeLink (1) - 2: networkLink (2) - 3: summaryLink (3) - 4: asSummaryLink (4) - 5: asExternalLink (5) - 6: multicastLink (6) - 7: nssaExternalLink (7)
Lsid	The link state ID is an LS type specific field containing either a Router ID or an IP Address
RouterId	The uniquely identifier the originating router in the AS
Sequence	The Sequence number field is a signed 32-bit integer. It is used to detect oid and duplicate link state advertisements.
Age	The field is the Age of the link state advertisement in seconds.
Checksum	This field is the Checksum of the complete contents of the advertisement, excepting the age filed.
Advertisement	The entire link state Advertisement, including its header.

Retrieving Link State DB.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the '**Target**' field (①) of the window.
2. Click the [**Retrieve**] button (②) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (③) in the window.

Area Range Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of Area Range.

This function is performed in order of **[Route]** → **[OSPF]** → **[Area Range]**.

Figure 3.11 Area Range Management Window

Parameters displayed on the 'Area Range' menu window are described as follows:

Parameter	Description
AreaId	The Area the Address Range is to be found within
Net	The IP Address of the Net or Subnet indicated by the range
Mask	The subnet Mask that pertains to the Net or Subnet
Effect	Obsolete

Retrieving Area Range.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the **[Retrieve]** button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

Host Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up Host parameters.

This function is performed in order of [Route] → [OSPF] → [Host].



Figure 3.12 Host Management Window

Parameters displayed on the ‘Host’ menu window are described as follows:

Parameter	Description
IpAddress	The IP Address of Host
TOS	The Type Of Service if the route being configured.
Metric	The Metric to be advertised.
AreaID	The Area the Host entry is to be found within. By default, the area a subsuming OSPF interface is in, or 0.0.0.0

Retrieving Host.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the ‘Target’ field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

Interface Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up Interface parameters.

This function is performed in order of [Route] → [OSPF] → [Interface].

IpAddress	AddressLessIf	AreaId	Type	AdminStat	RtrPriority	TransitDelay	RetransInterval	HelloInterval	RtrDeadInterval	PollInterval	State	DesignatedRouter	BackupDesignateRtr
10.0.1.1	0	0.0.0.100	broadcast	enabled	1	1	5	10	40	120	designatedRouter	10.0.1.1	0.0.0.0
10.0.2.1	0	0.0.0.100	broadcast	enabled	1	1	5	10	40	120	designatedRouter	10.0.2.1	0.0.0.0
10.0.3.1	0	0.0.0.100	broadcast	enabled	1	1	5	10	40	120	designatedRouter	10.0.3.1	0.0.0.0
10.89.25.212	0	0.0.0.100	broadcast	enabled	1	1	5	10	40	120	designatedRouter	10.89.25.212	0.0.0.0

Figure 3.13 Interface Management Window

Parameters displayed on the 'Interface' menu window are described as follows:

Parameter	Description
IPAddress	The IP Address of this OSPF interface
AddressLessIf	For the purpose of easing the instancing of addressed and addressless interfaces; This variable takes the value 0 on interfaces with IP Addresses, and the corresponding value of ifIndex for interfaces having no IP Address.
AreaId	Uniquely identifying the area to which the interface connects. Area ID 0.0.0.0 is used for the OSPF backbone.
Type	The OSPF Interface Type - 1: broadcast (1) - 2: nbma (2) - 3: pointToPoint (3) - 4: pointToMultipoint (5)
AdminStat	The OSPF interface's administrative status. The value formed on the interface, and the interface will be advertised as an internal route to some area. The value 'disabled' denotes that the interface is external to OSPF
RtrPriority	The Priority of this interface. Used in multi-access networks, this field is used in the designated router election algorithm. The value 0 signifies that the router is not eligible to become the designated router on this particular network.
TransitDelay	The estimated number of seconds it takes to transmit a link state update packet over this interface.

(Continued)

Parameter	Description
RetransInterval	The number of seconds between link-state advertisement retransmissions, for adjacencies belonging to this interface.
HelloInterval	The length of time, in seconds, between the Hello packets that the router sends on the interface. This value must be the same for all routers attached to a common network.
RtrDeadInterval	The number of seconds that a router's Hello packets have not been seen before it's neighbors declare the router down.
PollInterval	The larger time interval, in seconds, Between the Hello packets sent to an inactive non-broadcast multi-access neighbor.
State	The OSPF Interface State - 1: down (1) - 2: loopback (2) - 3: waiting (3) - 4: pointToPoint (4) - 5: designatedRouter (5) - 6: backupDesignatedRouter (6) - 7: otherDesignatedRouter (7)
DesignatedRouter	The IP Address of the Designated Router
BackupDesignated Router	The IP Address of the Backup Designated Router
Events	The number of times this OSPF Interface has changed its state or an error has occurred.
AuthKey	Authentication Key
MulticastForwarding	Multicasting Type - 1: blocked (1) - 2: multicast (2) - 3: unicast (3)
Demand	It's required to perform Demand OSPF procedures on this Interface.
AuthType	An Identified Authentication Type on this Interface.
Demand	Indicates whether Demand OSPF procedures should be performed on this interface.
AuthType	The Authentication Type specified for an interface.

Retrieving Interface.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the '**Target**' field (①) of the window.
2. Click the [**Retrieve**] button (②) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (③) in the window.

Interface Metric Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of Interface Metric.

This function is performed in order of **[Route] → [OSPF] → [Interface Metric]**.



Figure 3.14 Metric Management Window

Parameters displayed on the ‘**Interface Metric**’ menu window are described as follows:

Parameter	Description
IpAddress	The IP Address of this OSPF Interface.
AddressLessIf	For the purpose of easing the instancing of addressed and addressless interfaces; This variable takes the value 0 on interfaces with IP Addresses, and the corresponding value of ifIndex for interfaces having no IP Address.
TOS	The Type Of Service metric being referenced.
Value	The metric of using this type of service on this interface. The default value of the TOS 0 Metric is 108/ifSpeed.

Retrieving Interface Metric.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the '**Target**' field (①) of the window.
2. Click the [**Retrieve**] button (②) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (③) in the window.

Neighbor Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up Neighbor parameters.

This function is performed in order of [Route] → [OSPF] → [Neighbor].



Figure 3.15 Neighbor Management Window

Parameters displayed on the ‘Neighbor’ menu window are described as follows:

Parameter	Description
IpAddr	The IP Address this neighbor is using in its IP Source Address.
AddressLessIndex	On an interface having an IP Address, zero. On addressless interfaces, the corresponding value of ifIndex.
RtrId	An uniquely identifying the neighbor router in the AS.
Option	A bit mask corresponding to the neighbor’s options field. - Bit 0: if sets, the system will operate on TOS Service metrics other than TOS 0. if zero, the neighbor will ignore all metrics except the TOS 0 metric. - Bit 1: if set, the associated area accepts and operates on external information, if zero, it is a stub area. - Bit 2: if set, the system is capable of routing IP Multicast datagrams. - Bit3: if set, the associated area in an NSSA.
Priority	The Priority of this neighbor in the designated router election algorithm. The value 0 signifies that the neighbor is not eligible to become the designated router on this particular network.

(Continued)

Parameter	Description
State	The State of the relationship with this Neighbor. - 1: down (1) - 2: attempt (2) - 3: init (3) - 4: twowWy (4) - 5: exchangeStart (5) - 6: exchange (6) - 7: loading (7) - 8: full (8)
Events	The number of times this neighbor relationship has changed state, or error has occurred.
LsRetransQLen	The current length of the retransmission queue.
NbmaNbPermenence	This variable displays the status of the entry. It refers to how the neighbor become known. - 1: dynamic (1) - 2: permanent (2)
NbrHelloSuppressed	Indicates whether Hellos are being suppressed to the neighbor.

Retrieving Neighbor.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

Virtual Neighbor Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of Virtual Neighbor.

This function is performed in order of [Route] → [OSPF] → [Virtual Neighbor].



Figure 3.16 Virtual Neighbor Management Window

Parameters displayed on the ‘Virtual Neighbor’ menu window are described as follows:

Parameter	Description
VirtualNbrArea	The Transit Area Identifier
VirtualNbrRtrId	An uniquely identifying the neighbor router in the AS
VirtualNbrIpAddr	IP Address this virtual Neighbor is using.
VirtualNbrOptions	A bit Mask corresponding to the neighbor’s option’s field. - Bit 1: ifsets, the system will operate on TOS Service metrics other than TOS 0. if zero, the neighbor will ignore all metrics except the TOS 0 metric. - Bit 2: if set, the system is capable of routing IP Multicast datagrams.
VirtualNbrState	The State of the relationship with this Neighbor. - 1: down (1) - 2: attempt (2) - 3: init (3) - 4: twowWy (4) - 5: exchangeStart (5) - 6: exchange (6) - 7: loading (7) - 8: full (8)

(Continued)

Parameter	Description
VirtNbrEvents	The number of times this virtual link has changed state, or error has occurred.
VirtNbrLsRetransQLen	The current length of the retransmission queue
VirtNbrHelloSuppressed	Indicates whether Hellos are being suppressed to the virtual link.

Retrieving Virtual Neighbor.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

Ext Link State DB (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of Ext. Link State DB.

This function is performed in order of [Route] → [OSPF] → [Ext Link State DB].

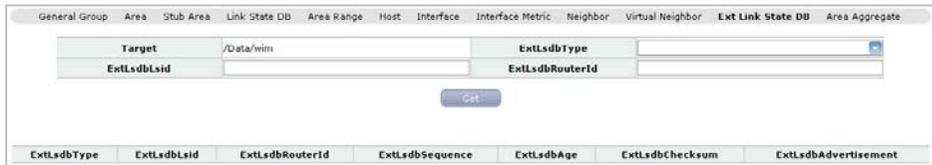


Figure 3.17 Ext Link Group State DB Management Window

Parameters displayed on the ‘Ext Link State DB’ menu window are described as follows:

Parameter	Description
ExtLsdbType	The type of the link state advertisement. Each link state type has a separate advertisement format.
ExtLsdbLsid	The Link State ID is an LS Type Specific field containing either a Router ID or an IP Address
ExtLsdbRouterId	The uniquely identifying the originating router in the AS
Sequence	The Sequence number field is a signed 32-bit integer. It is used to detect oid and duplicate link state advertisements.
Age	The field is the Age of the link state advertisement in seconds.
Checksum	This field is the Checksum of the complete contents of the advertisement, excepting the age filed.
Advertisement	The entire link state Advertisement, including its header.

Retrieving Ext Link State DB.

1. Select the target object to perform a function from Tree Viewer. The selected object is displayed on the ‘Target’ field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

Area Aggregate Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of Area Aggregate.

This function is performed in order of **[Route]** → **[OSPF]** → **[Area Aggregate]**.

Figure 3.18 Area Aggregate Management Window

Parameters displayed on the 'Area Aggregate' menu window are described as follows:

Parameter	Description
AreaAggregateAreaID	The Area the Address Aggregate is to be found within.
AreaAggregateLsdbType	The type of the Address Aggregate. - 1: summaryLink (1) - 2: nssaExternalLink (2)
AreaAggregateNet	The IP Address of the Net or subnet indicated by the range.
AreaAggregateMask	The subnet Mask that pertains to the Net or Subnet.
AreaAggregateEffect	Subnets subsumed by ranges either trigger the advertisement of the indicated aggregate, or result in the subnet's not being advertised at all outside the area.

Retrieving Area Aggregate.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the **[Retrieve]** button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

BGP

BGP Peer Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of BGP Peer.

This function is performed in order of [Router] → [BGP] → [BGP Peer].

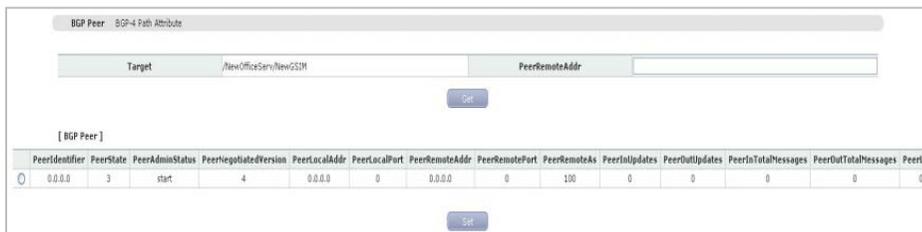


Figure 3.19 BGP Peer Management Window

Parameters displayed on the ‘BGP Peer’ menu window are described as follows:

Parameter	Description
PeerIdentifier	The BGP Identifier of this entry's BGP Peer.
PeerState	BGP Peer Connection state.
PeerAdminStatus	The desired state of the BGP connection. - 1: stop (1) - 2: start (2)
PeerNegotiatedVersion	The Negotiated Version of BGP running between two peers.
PeerLocalAddr	The Local IP Address of this entry's BGP connection.
PeerLocalPort	The Local Port for the TCP connection between the BGP peers
PeerRemoteAddr	The Remote IP Address of this entry's BGP connection.
PeerRemotePort	The Remote Port for the TCP connection between the BGP peers
PeerRemoteAs	The Remote Autonomous System (AS) number
PeerInUpeate	The number of BGP Update messages received on this connection.
PeerOutUpeate	The number of BGP Update messages transmitted on this connection.

(Continued)

Parameter	Description
PeerIntotalMessages	The total number of message received from the remote peer on this connection.
PeerOuttotalMessages	The total number of message transmitted from the remote peer on this connection
PeerLastError	The Last Error code and sub code seen by this peer on this connection. If no error has occurred, this field is zero.
PeerFsmEstablishedTransitions	The total number of times the BGP FSM transitioned into the established state.
PeerFsmEstablishedTime	The timer indicates how long this peer in the Established state or how long since this peer was last in the Established state. It is set zero when a new peer is configured or the router is booted.
PeerConnectRetryInterval	The time Interval in seconds for the ConnectRetry timer is 120 seconds.
PeerHoldTime	The time Interval in seconds for the Hold timer established with the peer
PeerKeepAlive	The time Interval in seconds for the KeepAlive timer established with the peer
PeerTimeConfigured	Time Interval in seconds for the Hold timer configured for this BGP speaker with the peer
PeerKeepAliveConfigured	Time Interval in seconds for the KeepAlive timer configured for this BGP speaker with the peer
PeerMinASOriginationInterval	The time Interval in seconds for the MinASOriginationInterval timer
PeerMinRouteAdvertisementInterval	The time Interval in seconds for the MinRouteAdvertisementInterval timer
PeerInUpdateElapsedTime	Elapsed Time in seconds the last BGP UPDATE message was received from the peer.

Retrieving BGP Peer.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the '**Target**' field (①) of the window.
2. Click the [**Retrieve**] button (②) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (③) in the window.

BGP-4 Path Attribute Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of BGP-4 Path Attribute.

This function is performed in order of [Router] → [BGP] → [BGP-4 Path Attribute].



Figure 3.20 BGP-4 Path Attribute Management Window

Parameters displayed on the 'BGP-4 Path Attribute' menu window are described as follows:

Parameter	Description
PatAttrPeer	The IP Address of the peer where the path information was learned.
PathAttrIpAddrPrefixLen	Length in bits of the IP address prefix in the Network Layer Reachability Information field.
PathAttrIpAddrPrefix	An IP address prefix in the Network layer Reachability information field. This object is an IP address containing the prefix with length specified by bgp4PathAttrIpAddrPrefixLen. Any bits beyond the length specified by bgp4PathAttrIpAddrPrefixLen are zeroed.
Origin	The ultimate origin of the path information
ASPPathSegment	The sequence of AS path segments.
NextHop	The address of the border router that should be used for the destination network.
MultiExitDisc	This metric is used to discriminate between multiple exit points to an adjacent AS. A value of -1 indicates the absence of this attribute.
LocalPref	The originating BGP4 speaker's degree of preference for an advertised route. A value of -1 indicates absence of this attribute.

(Continued)

Parameter	Description
AtomicAggregate	Whether or not the local system has selected a less specific route without selecting a more specific route.
AggregatorAS	The AS number of the last BGP4 speaker that performed route aggregation. A value of zero (0) indicates the absence of this attribute.
AggregatorAddr	The IP Address of the last BGP4 speaker that performed route aggregation. A value of 0.0.0.0 indicates the absence of this attribute.
CalcLocalPref	The degree of preference calculated by the received BGP4 speaker for an advertised route. A value of zero (0) indicates the absence of this attribute.
Best	An indication of whether or not this route was chosen as the best BGP4 route.
Unknown	One or more path attributes not understood by this BGP4 speaker. Size zero (0) indicates the absence of such attributes.

Retrieving BGP-4 Path Attribute

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the '**Target**' field (①) of the window.
2. Click the [**Retrieve**] button (②) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (③) in the window.

DVMRP

DVMRP General Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up DVMRP General parameters.

This function is performed in order of [Router.] → [DVMRP] → [DVMRP General].

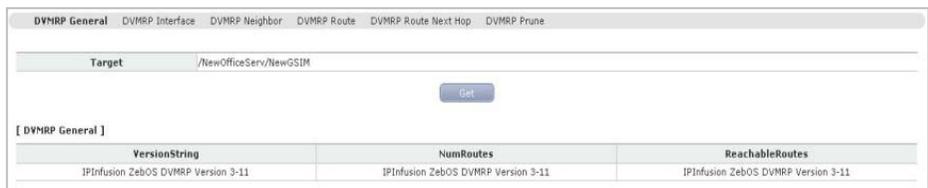


Figure 3.21 DVMRP General Management Window

Parameters displayed on the 'DVMRP General' menu window are described as follows:

Parameter	Description
VersionString	The router's DVMRP version information.
NumRoutes	The number of entries in the routing table. This can be used to monitor the routing table size.
ReachableRoutes	The number of entries in the routing table with non infinite metrics.

Retrieving DVMRP General.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

DVMRP Interface Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of DVMRP Interface.

This function is performed in order of [Router] → [DVMRP] → [DVMRP Interface].

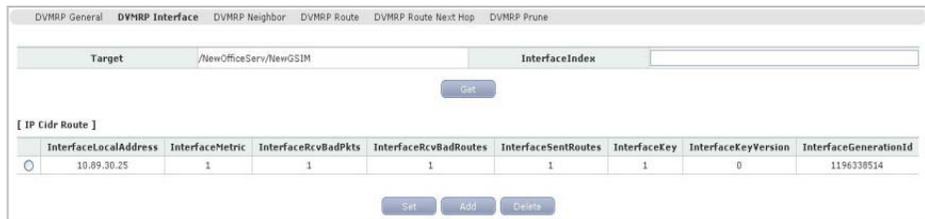


Figure 3.22 DVMRP Interface Management Window

Parameters displayed on the ‘DVMRP Interface’ menu window are described as follows:

Parameter	Description
InterfaceIndex	The ifIndex value of the interface for which DVMRP is enabled.
InterfaceLocalAddress	The IP Address this system will use as a source address on this interface.
InterfaceMetric	The distance Metric for this Interface which is used to calculated distance vectors.
InterfaceBadPkts	The number of DVMRP messages received on the interface by the DVMRP process which were subsequently on the interface by the DVMRP process which were subsequently discarded as invalid.
InterfaceBadRoutes	The number of routers, in valid DVMRP packets, which were ignored because the entry id invalid.
InterfaceSentRoutes	The number of routers, in DVMRP Report packets, which have been sent on this interface.
InterfaceKey	The (shared) Key for authenticating neighbors on this interface.

(Continued)

Parameter	Description
InterfaceVersion	The highest Version number of all known interface keys for this interface used for authenticating neighbors.
InterfaceGenerationId	The generation Identifier for the interface. This is used by neighbor routers to detect whether the DVMRP routing table should be resent.

Retrieving DVMRP Interface.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

DVMRP Neighbor Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of DVMRP Neighbor.

This function is performed in order of [Router] → [DVMRP] → [DVMRP Neighbor].



Figure 3.23 DVMRP Neighbor Management Window

Parameters displayed on the ‘DVMRP Neighbor’ menu window are described as follows:

Parameter	Description
NeighborIfIndex	The value of ifIndex for the virtual interface used to reach this DVMRP neighbor.
NeighborAddress	The IP Address of the DVMRP neighbor for which this entry contains information.
Uptime	The time since this DVMRP neighbor (last) became a neighbor of the local router
ExpiryTime	The minimum time remaining before this DVMRP neighbor will be aged out
GenerationId	The neighbor router’s generation identifier
MajorVersion	The neighbor router’s major DVMRP version number
MinorVersion	The neighbor router’s minor DVMRP version number
Capabilities	This object describes the neighbor router’s capabilities. <ul style="list-style-type: none"> - 1: leaf (0): the neighbor has only one interface with neighbors. - 2: prune (1): the neighbor supports pruning - 3: generationID (2): the neighbor sends its generationID in probe messages. - 4: mtrace (3): the neighbor can handle mtrace requests. - 5: snmp (4) - 6: netmask (5)

(Continued)

Parameter	Description
RcvRoutes	The total number of routers received, in valid DVMRP packets received from this neighbor.
RcvBadPkts	The number of packet received from this neighbor which was discarded as invalid.
RcvBadoutes	The number of routers, in valid DVMRP packets, which were ignored because the entry id was invalid.
State	State of the neighbor adjacency - 1: oneway (1) - 2: active (2) - 3: ignoring (3) - 4: down (4)

Retrieving DVMRP Neighbor.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

DVMRP Route Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of DVMRP Route.

This function is performed in order of [Router] → [DVMRP] → [DVMRP Route].

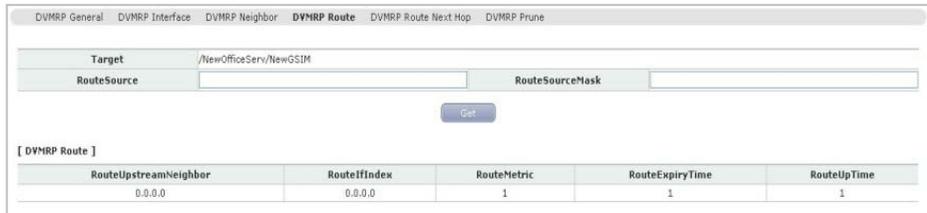


Figure 3.24 DVMRP Route Management Window

Parameters displayed on the ‘DVMRP Route’ menu window are described as follows:

Parameter	Description
RouteSource	The network address which when combined with the corresponding value of RouteSourceMask identifies the source for which this entry contains multicast routing information.
RouteSourceMask	The network mask which when combined with the corresponding value of RouteSource identifies the source for which this entry contains multicast routing information.
RouteUpstreamNeighbor	The address of the upstream neighbor (e.g. RPF neighbor) from which IP datagrams from these sources are received.
RouteIfIndex	The value of ifIndex for the interface on which IP datagrams sent by these sources are received. A value of 0 typically means the route is an aggregate for which no next-hop interface exists.
RouteMetric	The distance in hops to the source subnet.
RouteExpiryTime	The minimum amount of time remaining before this entry will be aged out.
RouteUpTime	The time since the route represented by this entry was learned by the router.

Retrieving DVMRP Route.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the '**Target**' field (①) of the window.
2. Click the [**Retrieve**] button (②) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (③) in the window.

DVMRP Route Next Hop Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of DVMRP Route Next Hop.

This function is performed in order of **[Router] → [DVMRP] → [DVMRP Route Next Hop]**.



Figure 3.25 DVMRP Route Next Hop Management Window

Parameters displayed on the ‘**DVMRP Route Next Hop**’ menu window are described as follows:

Parameter	Description
RouteNextHopSource	The network address which when combined with the corresponding value of RouteNextHopSourceMask identifies the source for which this entry specifies a next hop on an outgoing interface.
RouteNextHopSourceMask	The network mask which when combined with the corresponding value of dvmrpRouteSource identifies the source for which this entry specifies a next hop on an outgoing interface.
RouteNHopIfIndex	The value of ifIndex for the interface for outgoing interface for this next hop.
RouteNHopType	Type is leaf if no downstream dependent neighbors exist on the outgoing virtual interface. Otherwise, type is branch. - 1: leaf (1) - 2: branch (2)

Retrieving DVMRP Route Next Hop.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the '**Target**' field (①) of the window.
2. Click the [**Retrieve**] button (②) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (③) in the window.

DVMRP Prune Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of DVMRP Prune.

This function is performed in order of **[Router] → [DVMRP] → [DVMRP Prune]**.



Figure 3.26 DVMRP Prune Management Window

Parameters displayed on the 'DVMRP Prune' menu window are described as follows:

Parameter	Description
PruneGroup	The group address which has been pruned.
PruneSource	The address of the source or source network which has been pruned.
PruneSourceMask	The address of the source or source network which has been pruned. The mask must either be all 1's, or else PruneSource and PruneSourceMask must match.
PruneExpiryTime	The amount of time remaining before this prune should expire at the upstream neighbor. This value should be the minimum of the default prune lifetime and the remaining prune lifetimes of the local router's downstream neighbors, if any.

Retrieving DVMRP Prune.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the '**Target**' field (❶) of the window.
2. Click the **[Retrieve]** button (❷) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (❸) in the window.

PIM

PIM Interface Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of PIM Interface.

This function is performed in order of [Router] → [PIM] → [PIM Interface].



Figure 3.27 PIM Interface Management Window

Parameters displayed on the 'PIM Interface' menu window are described as follows:

Parameter	Description
IfIndex	The ifIndex value of this PIM Interface
Address	The IP Address of the PIM Interface
NetMask	The Network Mask for the IP Address of the PIM Interface
Mode	The configured Mode of this PIM interface. A value of sparse/Dense is only valid for PIMv1 - 1: dense (1) - 2: sparse (2) - 3: sparseDense (3)
DR	The DR (Designated Router) on this PIM Interface
HelloInterval	The frequency at which PIM Hello message are transmitted on this interface.
JoinPruneInterval	The frequency at which PIM Join/Prune message are transmitted on this interface.
CBSRPreference	The preference value for the local interface as a candidate bootstrap router. The value of-1 is used to indicate that the local interface is not a candidate BDR interface.
TrigHelloInterval	The maximum time before a triggered PIM Hello message is transmitted on this interface.

(Continued)

Parameter	Description
HelloHoldTime	The value set in the HoldTime field of Hello messages transmitted on this interface. This should be 3.5 times the value of HelloInterval.
LanPruneDelay	Turns the LAN Prune Delay Option on and off on this interface.
PropagationDelay	The value inserted into the LAN Prune Delay field of a LAN Prune Delay option on this interface
OverrideInterval	The value inserted into the Override interval field of a LAN Prune Delay option on this interface
GenerationID	Turns the Generation ID option on and off on this interface.
JoinPruneHoldTime	The value inserted into the Holdtime field of a join/Prune message sent on this interface. The value should be 3.5 times than pimInterfacePruneInterval.
GraftRetryInterval	The interval a PIM router waits for a Graft Ack before resending a Graft in this interface.
MaxGraftRetires	The maximum number of times this router will resend a Graft on this interface.
SRTTLThreshold	The time To Live in a PIM-DM State Refresh message at which it is not forwarded on this interface.
LanDelayEnabled	Evaluates to TRUE if all routers on this interface using the LAN Prune Delay Option.
SRCapable	Evaluate to TRUE if all routers on this interface are using the State Refresh Capable Option.
DRPriority	The Designator Priority inserted into the DR priority option on this interface.

Retrieving PIM Interface.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

PIM Neighbor Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of PIM Neighbor.

This function is performed in order of [Router] → [PIM] → [PIM Neighbor].



Figure 3.28 PIM Neighbor Management Window

Parameters displayed on the 'PIM Neighbor' menu window are described as follows:

Parameter	Description
NeighborAddress	The IP Address of the PIM neighbor for which this entry contains information.
IfIndex	The value of ifIndex for the interface used to reach this PIM neighbor.
UpTime	The time since the PIM neighbor became a neighbor of the local router.
ExpiryTime	The minimum time remaining before this PIM neighbor will be aged out.
Mode	The active PIM mode of this neighbor. - 1: dense (1) - 2: sparse (2)
LanPruneDelay	The value of LAN Prune Delay field of LAN Prune Delay Option received from this neighbor. A value of 0 indicates that no LAN Prune Delay Option was received from this neighbor.
OverrideInterval	The value of override interval field of LAN Prune Delay Option received from this neighbor. A value of 0 indicates that no LAN Prune Delay Option was received from this neighbor.

(Continued)

Parameter	Description
DRPresent	Evaluates to TRUE if this neighbor is using the Designated Router Option.
TBit	The value of T bit field of the LAN Prune Delay Option received from this neighbor. The Tbit specifies the ability of the neighbor to disable join suppression. - 1: false (0) - 2: true (1)

Retrieving PIM Neighbor.

1. Select the target object to perform a function from Tree Viewer. The selected object is displayed on the **'Target'** field (1) of the window.
2. Click the **[Retrieve]** button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

PIM IP Multicast Route Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of PIM IP Multicast Route.

This function is performed in order of [Router] → [PIM] → [PIM IP Multicast Route]



Figure 3.29 PIM IP Multicast Route Management Window

Parameters displayed on the 'PIM IP Multicast Route' menu window are described as follows:

Parameter	Description
ipMRRouteGroup	PIM IP Multicast Route Group Name
ipMRRouteSource	PIM IP Multicast Route Group IP Address
ipMRRouteSourceMask	PIM IP Multicast Route Group Subnetmask
UpstreamAssertTimer	The time remaining before the router changes its upstream neighbor back to its RPF neighbor. This timer is called the Assert timer in the PIM Sparse and Dense mode specification. A value of 0 indicates that no Assert has changed the upstream neighbor away from the RPF neighbor.
AssertMetric	The metric advertised by the assert winner on the upstream interface, or 0 if no such assert is in received.
AssertMetricPref	The preference advertised by the assert winner on the upstream interface, or 0 if no such assert is in effect.
AssertRPTBit	The value of the RPT-bit advertised by the assert winner on the upstream interface, or false if no such assert is in effect.

(Continueud)

Parameter	Description
Flags	This object describes PIM-specific flags related to a multicast state entry. - 1: rpt (0) - 2: spt (1)
RPFNeighbor	The IP Address of current RPF neighbor.

Retrieving PIM IP Multicast Route.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

PIM RP Set Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of PIM RP Set.

This function is performed in order of [Router] → [PIM] → [PIM RP Set].

PIM RP Set	
Target	/NewOfficeServ/NewOS7400/Cabinet_1/GWIM_2
RPSetComponent	
RPSetGroupMask	
RPSetGroupAddress	
RPSetAddress	
[Get]	
[PIM RP Set]	
RPSetHoldTime	0
RPSetExpiryTime	0

Figure 3.30 PIM RP Set Management Window

Parameters displayed on the 'PIM RP Set' menu window are described as follows:

Parameter	Description
RPSet GroupAddress	The IP Address group address which, when combined with pimRPSetGroupMask, gives the group prefix for which this entry contains information about the Candidate-RP
RPSet GroupMask	The multicast group address mask which, when combined with pimRPSetGroupAddress, gives the group prefix for which this entry contains information about the Candidate-RP
RPSet Address	The IP Address of the Candidate RP
RPSet HoldTime	The holdtime of a Candidate-RP. If the local router is not the BSR, the value is 0.
RPSet ExpiryTime	The minimum time remaining before the Candidate-RP will be declared down. If the local router is not the BSR, this value is 0.
RPSet Component	A number uniquely identifying the component. Each protocol instance connected to a separate domain should have a different index value.

Retrieving PIM RP Set.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the '**Target**' field (①) of the window.
2. Click the [**Retrieve**] button (②) to retrieve information on SIP Phone Mgmt.
3. retrieval result is displayed on the result table (③) in the window.

PIM Multicast Route Next Hop Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of PIM Multicast Route Next Hop.

This function is performed in order of **[Router]** → **[PIM]** → **[PIM Multicast Route Next Hop]**.



Figure 3.31 PIM Multicast Route Next Hop Management Window

Parameters displayed on the 'PIM Multicast Route Next Hop' menu window are described as follows:

Parameter	Description
ipMRouteNextHopGroup	Group of PIM Multicast Route Next Hop
ipMRouteNextHopSource	The originating IP Address of PIM Multicast Route Next Hop
ipMRouteNextHopSource Mask	The originating Subnet mask of PIM Multicast Route Next Hop
ipMRouteNextHopIfIndex	The ifindex of PIM Multicast Route Next Hop
ipMRouteNextHopAddress	The IP Address of PIM Multicast Route Next Hop
IpMRouteNextHopPrune Reason	A Prune Reason of PIM Multicast Route Next Hop

Retrieving PIM Multicast Route Next Hop.

1. Select the target object to perform a function from Tree Viewer. The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

PIM Component Management (GWIM/GSIM/WIM Only)

This function allows retrieving and setting up parameters of PIM Component.

This function is performed in order of [Router] → [PIM] → [PIM Component].



Figure 3.32 PIM Component Management Window

Parameters displayed on the ‘PIM Component’ menu window are described as follows:

Parameter	Description
Index	A number uniquely identifying the component. Each protocol instance connected to a separate domain should have a different index value. Routers that only support membership in a single PIM-SM domain should use a pimComponentIndex value is 1.
BSRAddress	The IP Address of the bootstrap router (BSR) for the local PIM region.
BSRExpiryTime	The minimum time remaining before the bootstrap router in the local domain will be declared down. For candidate BSRs, this is the time until the component sends an RP-set message. For other routers, this is the time until it may accept an RP-set message from a lower candidate BSR.
CRPHoldTime	The holdtime of the component when it is a candidate RP in the local domain. The value of 0 is used to indicate that the local system is not a Candidate-RP.

Retrieving PIM Component.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the '**Target**' field (①) of the window.
2. Click the [**Retrieve**] button (②) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (③) in the window.

Frame Relay

DLC Management Interface Management (GWIM/WIM Only)

This function allows retrieving and setting up parameters of DLC Management Interface.

This function is performed in order of [Router] → [Frame Relay] → [DLC Management Interface].



Figure 3.33 DLC Management Interface Management Window

Parameters displayed on the ‘DLC Management Interface’ menu window are described as follows:

Parameter	Description
Index	The ifIndex value of the corresponding ifEntry
State	The variables States which Data Link Connection Management scheme is active (and by implication, what DLCI it uses) on the Frame Relay interface. - 1: noLmiConfigured (1) - 2: lmiRev1 (2) - 3: ansiT1617D(3) - 4: ansiT1617B (4) - 5: itut933A (4) - 6: ansiT1617D1994 (6)
PollingInterval	This is the number of seconds between successive status enquiry message.
FullEnquiryInterval	Number of status enquiry intervals that pass before issuance of a full status enquiry message.
ErrorThreshold	This is the maximum number of unanswered Status Enquiries the equipment shall accept before declaring the interface down.

(Continued)

Parameter	Description
MoniteredEvents	This is the number of status polling intervals over which the error threshold is counted.
MaxSupportedVCs	The Maximum number of Virtual Circuit allowed for this interface. Usually dictated by the Frame Relay network.
Multicast	This indicates whether the Frame Relay interface is using a multicast service. - 1: nonBroadcast (1) - 2: broadcast (2)
Status	This indicates that Status of the Frame Relay interface as determined by the performance of the dlcmi. If no dlcmi is running, the Frame Relay interface will stay in the running state indefinitely. - 1: running (1) - 2: fault (2) - 3: initializing (3)

Retrieving DLC Management Interface.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. The retrieval result is displayed on the result table (3) in the window.

DLC/Virtual Circuit Management (GWIM/WIM Only)

This function allows retrieving and setting up parameters of DLC/Virtual Circuit.

This function is performed in order of [Router] → [Frame Relay] → [DLC/Virtual Circuit].

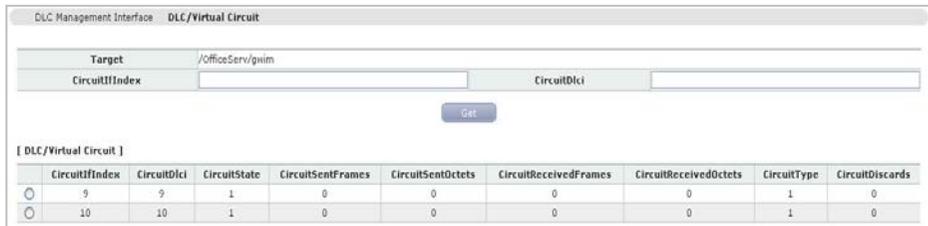


Figure 3.34 DLC/Virtual Circuit Management Window

Parameters displayed on the 'DLC/Virtual Circuit' menu window are described as follows:

Parameter	Description
Circuit IfIndex	The ifIndex value of the ifEntry this virtual circuit is layered onto.
Circuit Dlci	The Data Link Connection Identifier for this virtual circuit.
Circuit State	Indicates whether the particular virtual circuit is operational. - 1: invalid (1) - 2: active (2) - 3: inactive (3)
Circuit SentFrames	The number of frames sent from this virtual circuit since it was created.
Circuit SentOctets	The number of octets sent from this virtual circuit since it was created. Octets countered are the full frame relay header and the payload, but do not include the flag characters or CRC.
Circuit ReceivedFrames	Number of frames received over this virtual circuit since it was created.
Circuit ReceivedOctets	Number of octets received over this virtual circuit since it was created. Octets countered are the full frame relay header and the payload, but do not include the flag characters or CRC.

(Continued)

Parameter	Description
Circuit Type	This indicates whether this VC was manually created (static), or dynamically created (dynamic) via the data link control management interface - 1: static (1) - 2: dynamic (2)
Circuit Discards	The number of inbound frames dropped because of format errors, or because the VC is inactive.

Retrieving DLC/Virtual Circuit.

1. Select the target object to perform a function from Tree Viewer.
The selected object is displayed on the 'Target' field (1) of the window.
2. Click the [Retrieve] button (2) to retrieve information on SIP Phone Mgmt.
3. retrieval result is displayed on the result table (3) in the window.



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OfficeServ NMS User Guide
PART III. Data Function
Management

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