9 Interswitch Protocol Commands

The following chapter contains information on Interswitch Protocol commands. Topics include:

- Configuring Alcatel Mapping Adjacency Protocol (XMAP)
- Configuring Group Mobility Advertisement Protocol (GMAP)

Refer to the command task list below to find the page number for a specific task. If you would like to reference configuration tasks based on traditional UI commands, refer to Appendix A.

XMAP Commands

xmap

Command Usage

Enable/disable the Alcatel Mapping Adjacency Protocol (XMAP) on the switch.

Syntax Options

xmap {on | off}

Definitions:
on = turns XMAP *on*
off = turns XMAP *off*

Command Examples:
xmap on
xmap off

Corresponding UI Command

xmapst

view xmap

Command Usage

List adjacent switches and associated MAC addresses, ports, groups, and IP addresses.

Syntax Options

view xmap (No additional syntax options are used.)

Corresponding UI Command

xmapls

Screen Output

A screen similar to the following will be displayed:

VPN	Rem Switch ID	Rem VPN	Pri Group	IP Addresses
1	0020da:032c40	1	2	18.1.1.1
				27.0.0.2
				192.168.10.1
				198.206.184.40
3	0020da:999660	1	2	192.168.10.1
		3	7	198.206.184.177
4	0020da:999660	4	9	192.168.10.1
				198.206.184.177

Table Description

VPN. The local virtual port number which is connected to an adjacent switch.

Rem Switch ID. The MAC address of the MPM in the adjacent switch.

Rem VPN. The remote virtual port number in the adjacent switch.

Pri Group. The primary group associated with the remote port. The primary group is the group upon which Spanning Tree converges.

IP Addresses. All IP addresses associated with the adjacent switch.

xmap discovery time

Command Usage

Set the XMAP discovery phase transmission time.

Syntax Options

xmap discovery time <*interval*>

Definitions:
interval = the new message interval value (value may range from 1 to 65,535)

♦ **Syntax Note** ♦

Do not use commas when entering a discovery time value (for example, **10,000** will return a syntax error message).

Command Example:
xmap discovery time 20

Corresponding UI Command

xmapdisctime

Remarks

The discovery transmission time is used in both the discovery transmission state *and* the common transmission state to determine how long the port will wait for Hello packets. For ports in the discovery transmission state, this timer is also used as the interval between sending out Hello packets.

xmap common time

Command Usage

Set the XMAP common phase transmission time.

Syntax Options

xmap common time <*interval*>

Definitions:
interval = the new message interval value (value may range from 1 to 65,535)

♦ **Syntax Note** ♦

Do not use commas when entering a common time value (for example, **10,000** will return a syntax error message).

Command Example:
xmap common time 200

Corresponding UI Command

xmapcmntime

Remarks

This command is used to change the time between sending Hello update packets in the common transmission state. (This timer is only used in the common transmission state.) A switch sends an update for a port just before or after the common transmission time expires.

The switches avoid synchronization by jittering the common transmission time by plus or minus ten percent of the configured value. For example, if the default common transmission time is used (300 seconds), the jitter is plus or minus 30 seconds.

When a Hello packet is received from an adjacent switch before the common transmission time expires, the switch sends a Hello reply and restarts the common transmission timer.

GMAP Commands

gmap

Command Usage

Enable/disable the Group Mobility Advertisement Protocol (GMAP) on the switch.

Syntax Options

gmap {on | off}

Definitions:
on = turns GMAP *on*
off = turns GMAP *off*

Switch Default:
on | off = **off**

Command Examples:
gmap on
gmap off

Corresponding UI Command

gmapst

gmap gap time

Command Usage

Configure the interpacket gap time used when multiple packets are required for an update.

Syntax Options

gmap gap time <*timer-value*>

Definitions:
timer-value = the new gap time, in milliseconds (value may range from 0 to 65,535)

♦ **Syntax Note** ♦

Do not use commas when entering a gap time value (for example, **10,000** will return a syntax error message).

Switch Default:
timer-value = 133 milliseconds

Command Examples:
gmap gap time 100

Corresponding UI Command

gmapgaptime

Remarks

When there are many MAC addresses on mobile ports, more than one GMAP packet is required for an update. Typically the gap time does not have to be changed, but you may want to modify it if traffic spikes are occurring in the network.

The switch approximates the gap time because its internal clock does not use milliseconds. For any value shorter than one second, the switch uses 1/60 second increments called "ticks." The default for gap time is 8 ticks or approximately 133 milliseconds. Any value you enter will be rounded to the nearest tick.

gmap hold time

Command Usage

Configure the length of time for which GMAP will retain information it has learned.

Syntax Options

gmap hold time <*timer-value*>

Definitions:
timer-value = the new hold time, in minutes (value may range from 1 to 65,535)

♦ **Syntax Note** ♦

Do not use commas when entering a hold time value (for example, **12,960** will return a syntax error message).

Switch Default:
timer-value = 4320 minutes (72 hours)

Command Examples:
gmap gap time 12960

Corresponding UI Command

gmapholdtime

gmap update time

Command Usage

Configure the time between sending GMAP updates.

Syntax Options

gmap update time <*timer-value*>

Definitions:
timer-value = the new update time, in seconds (value may range from 1 to 65,535)

♦ **Syntax Note** ♦

Do not use commas when entering an update time value (for example, **12,000** will return a syntax error message).

Switch Default:
timer-value = 300 seconds

Command Examples:
gmap update time 12000

Corresponding UI Command

gmapupdttime

Remarks

The switches avoid synchronization by jittering the update time by plus or minus one quarter of the configured interval. For example, if the default of 300 seconds is used, the jitter is plus or minus 75 seconds.

VAP Commands

vap

Command Usage

Enable/disable VLAN Advertisement Protocol on the switch.

Syntax Options

vap {on | off}

Definitions:
on = turns VAP *on*
off = turns VAP *off*

Command Examples:
vap on
vap off

Corresponding UI Command

vlap

Remarks

The **vap** and **vlap** CLI commands perform the same function.

vlap

Command Usage

Enable/disable VLAN Advertisement Protocol on the switch.

Syntax Options

vlap {on | off}

Definitions:
on = turns VAP *on*
off = turns VAP *off*

Command Examples:
vlap on
vlap off

Corresponding UI Command

vlap

Remarks

The **vap** and **vlap** CLI commands perform the same function.