Link Aggregation Configuration Commands

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1.1   Link Aggregation Configuration Commands

1.1.1   aggregator-group

description

To configure interface aggregation, use the **aggregator-group** command. Use the no form of this command to restore the default value.

aggregator-group *id* mode {lacp-negotiation |static }

no aggregator-group

parameter

parameter	description
id	ID number of the logical port. Value range: none.
lacp-negotiation	Uses LACP negotiation. Value range:N/A.
static	Negotiation is not used on an port. Value range:N/A.

default

disabled

instruction

Port link aggregation is to bind several ports with the familiar attrubute to one logical port. LACP negotiation can be used to form binding process. Also the binding process can be forced to be formed without any LACP negotiation .

If the static aggregation is used, please make sure the attribute of the ports to be binded is the same,that is, they are all full-duplex mode and with the same rate. Meantime make sure the connection of the ports to be binded is peer-to-peer connection. Also the remote ports of the peer-to-peer connection are also binded to one logical port.

You can select LACP negotiation mode when configuring port aggregation. Active—Places a port into an active negotiating state, in which the port initiates negotiations with remote ports by sending LACP packets. Passive—Places a

port into a passive negotiating state, in which the port responds to LACP packets it receives but does not initiate LACP negotiation.

Switches of partial models doesn't support dynamic negotiation mode, therefore relevant configuration commands are not provided.

Command mode

interface configuration mode

example

Switch(config_f0/24)#aggregator-group 3 mode lacp-negotiation
Creating a port-aggregator interface Port-aggregator3
Switch(config_f0/24)#int f0/23
Switch(config_f0/23)#aggregator-group 3 mode lacp-negotiation

1.1.2   aggregator-group load-balance

description

To configure the load balance after port aggregation, use the **aggregator-group load-balance** command. Use the no form of this command to restore the default value.

aggregator-group load-balance { dst-mac| src-mac| both-mac | src-ip | dst-ip | both-ip }

no aggregator-group load-balance

parameter

parameter	description
dst-mac	Sets destination mac address as standard. Value range: N/A.
src-mac	Sets source mac address as standard. Value range: N/A.
both-mac	Sets source and destination mac address as standard. Value range:N/A.
dst-ip	Sets destination ip address as standard. Value range:N/A.
src-ip	Sets source ip address as standard. Value range:N/A.
both-ip	Sets source and destination ip address as standard. Value range:N/A.

default

dst-mac

instruction

To ensure load balance of each physical port after port aggregation, use this command to equably distribute data flow on each physical port.

When dst-mac mode is selected, the distribution of data flow sets destination MAC address of the data packet as standard. The same MAC address is only sent out on a certain physical interface. The src-mac uses source MAC address as standard.

The supporting capability in load balance policy varies according to different models of switches. The command prompt only shows the sharing policy that the switch supports. If the switch doesn't support any sharing polich or just supports one of them, the relevant subcommands will not be displayed.

Command mode

global configuration mode

Example

The following command modifies load balance of the port-aggregator 3 to src mode:

Switch(config)#**port-aggregator load-balance 3 src-mac**
Switch(config)#

1.1.3 show aggregator-port

description

To show the concrete information of aggregator-group, use the **show aggregator-port** command.

show aggregator-port [*id*] {detail|brief|summary}

parameter

parameter	Description
id	THE CONCRETE LOGICAL PORT ID.

default

instruction

This command is used to show port aggregation information.

Command mode

EXEC/ All configuration modes

1.1.4　show interface port-aggregator

description

To show concrete information of the aggregator-group, use the **show interface port-aggregator** command.

show interface port-aggregator *id*

parameter

parameter	Description
id	The concrete port ID, in the range from 1 to 16.

default

instruction

This command is used to show port aggregation information.

Command mode

EXEC/All configuration modes

example

The following example shows information about port-aggregator 1.

```
Switch#sho int po1
Port-aggregator1 is down, line protocol is down
  Hardware is PortAggregator, Address is 0000.0000.0000(0000.0000.0000)
  MTU 1500 bytes, BW 1000 kbit, DLY 2000 usec
  Encapsulation ARPA, loopback not set
  Members in this Aggregator:
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    0 packets input, 0 bytes, 0 no buffer
    Received 0 broadcasts, 0 multicasts
```

0 input errors, 0 input discards

0 CRC, 0 frame, 0 overrun, 0 ignored

0 packets output, 0 bytes, 0 underruns

Transmited 0 broadcasts, 0 multicasts

0 output errors, , 0 discards

0 output buffer failures, 0 output buffers swapped out

Note: Members in this Aggregator indicates the physical port aggregated to the logical port.

Statistics descriptions are as follows：

Packets input indicates total number of error-free packets received by the system, including unicasts, multicasts and broadcasts.

Bytes indicate total number of in the error-free packets received by the system.

Broadcasts indicate total number of broadcast packets received by the interface.

Multicasts indicate total number of multicast packets received by the interface.

Input errors indicate the received error packets.

Input discards indicate the received packets are discarded, like the received packets when the interface protocol is down.

Packets output indicates total number of messages transmitted by the system, including unicasts, multicasts and broadcasts.

Bytes indicate total number of bytes transmitted by the system.

Broadcasts indicate total number of broadcast packets transmitted by the system.

Multicasts indicate total number of multicast packets transmitted by the system.

Input errors indicate the sending error packets.

Input discards indicate the sending packets are discarded, like the sending packets when the interface protocol is down.

1.1.5   debug lacp errors

description

To debug LACP errors information, use the **debug lacp errors** command.

debug lacp errors

no debug lacp errors

parameter

default

instruction

This command is used to debug all errors information during lacp operation to locate the error.

Command mode

EXEC

example

Switch# debug lacp error
Switch#

1.1.6　debug lacp state

description

To debug lacp state, use the **debug lacp state** command.

debug lacp state

no debug lacp state

parameter

default

command mode

EXEC

example

    Switch# debug lacp state
    Switch#

1.1.7   debug lacp packet

description

To debug lacp packet information, use the **debug lacp packet** command.

debug lacp packet

no debug lacp packet

parameter

default

command mode

EXEC

example

    Switch# debug lacp packet
    Switch#