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FS S3150-8T2FP Multi-Port Gigabit Ethernet Switch User Guide

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FS S3150-8T2FP Multi-Port Gigabit Ethernet Switch

Configuring Port Aggregation

This chapter describes how to set the port aggregation of the switch.

Overview

Port aggregation is binding the physical ports with the same attribute together, so as to establish a logic channel.

To aggregate multiple physical ports into a logical channel, you can use static aggregation or LACP protocol for negotiation. In the case when static aggregation is used, it is required that the link of the physical port should be up, and the VLAN attribute of the aggregation port and physical port should be identical, and then this port will be aggregated to the logical channel, regardless of whether the current port accords with the conditions of port aggregation and whether the port that connects with the physical port accords with the aggregation conditions. Port aggregation supports the following operation modes and functions: Static aggregation control After the settings of physical ports are bound to a logical port, you need not worry whether these physical ports can be bound to a logical port. You must deem that these ports can be bound to a logical port. Aggregation control of LACP dynamic negotiation After physical ports are bound to a logical port, only the physical ports under LACP negotiation can be bound to a logical port and other ports cannot be bound to the logical port. Flow balance of port aggregation is supported. After port aggregation, the data flow of the aggregation port will be distributed to each aggregated physical port.

Port Aggregation Configuration Task

- Configuring logical channels used for aggregation

- Aggregation of the physical port

- Selecting the load balance mode after port aggregation

- Monitoring the concrete condition of port aggregation

Port Aggregation Configuration Task

Configuring Logical Channel Used for Aggregation
Configuring logical channels used for aggregation
Use the following command to configure the logical channel:

Command	Purpose
interface port-aggregator id	Configures aggregated logical channel.

Configuring Logical Channel Used for Aggregation

To aggregate multiple physical ports into a logical channel, you can use static aggregation or LACP protocol for negotiation. In the case when the static aggregation is used, it is required that the link of the physical port should be up, and the VLAN attribute of aggregation port and physical port should be identical, and then this port will be aggregated to the logical channel, regardless of whether the current port accords with the conditions of port aggregation and whether the port that connects with the physical port accords with the aggregation conditions. Use LACP and the ports can be aggregated after the negotiations both in the local end and the opposite end pass. Prerequisites for ports to be aggregated: The link of the port must be up and the port should be negotiated to full-duplex mode. The speed of all physical ports should be same during aggregation process, that is, if there is one physical port that has been aggregated successfully, then the speed of the second physical port must be the same as the first configured one. Also the vlan attributes of all physical ports must be identical to the aggregated port. LACP packets are exchanged between ports in two modes: 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. In this mode, the port channel group attaches the interface to the bundle. If both ports use Passive method, then the aggregation fails. This is because both sides will wait for the other side to launch the aggregation negotiation process.

VALN attributes PVID, Trunk attribute, VLAN-allowed range and VLAN-untagged range.
Use the following command to perform aggregation on the physical ports:

Command	Purpose
aggregator-group agg-id mode { lacp	static }	Configures aggregation option of the physical port.

Selecting the Load Balance Mode after Port Aggregation

You can select the load share method to ensure that all ports can share the data traffic after the aggregation of all physical ports. The switch can provides up to six load balance strategy: src-mac It is to share the data traffic according to the source MAC address, that is, the message with same MAC address attributes is to get through a physical port. dst-mac It is to share the data traffic according to the destination MAC address, that is, the message with same MAC address attributes is to get through a physical port. both-mac It is to share the data traffic according to source and destination MAC addresses, that is, the message with same MAC address attributes is to get through a physical port. Use the following command to configure load balance method:
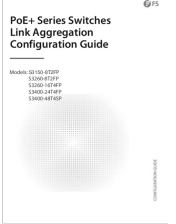
Command	Purpose
aggregator-group load-balance	Configures load balance method.

Monitoring the Concrete Condition of Port Aggregation

Use the following command to monitor port aggregation state in EXEC mode:

Command	Purpose
show aggregator-group [id] {detail|brief|summary}	Displays port aggregation state.

Documents / Resources

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S3150-8T2FP Multi-Port Gigabit Ethernet Switch, S3150-8T2FP, Multi-Port Gigabit Ethernet Switch, Gigabit Ethernet Switch, Ethernet Switch, Switch, S3150-8T2FP Multi-Port Gigabit Ethernet Switch

References

- **FS.com - Data Center, Enterprise, Telecom**