



Interconnection between Multiple PoE Switches

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Applied to

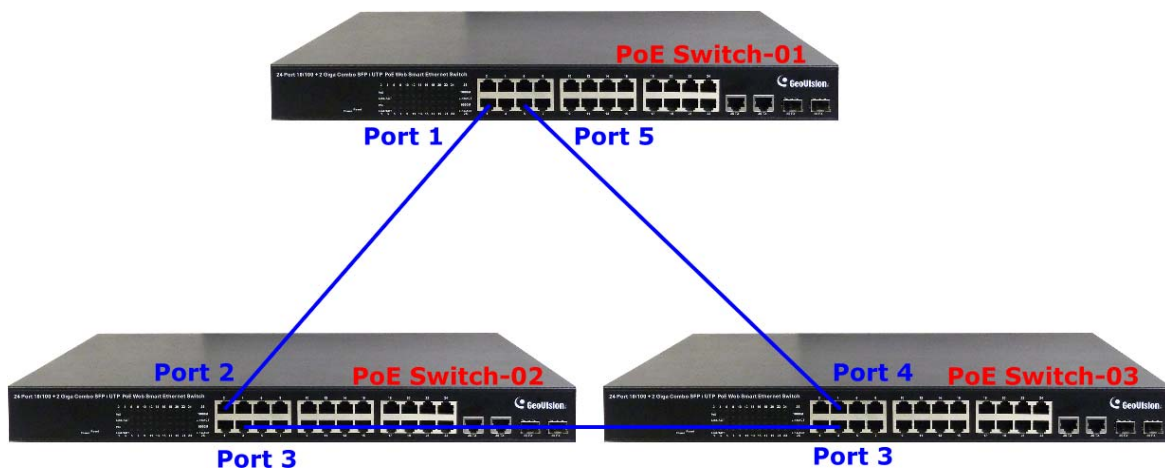
GV-POE0801 / 1601 / 2401

GV-POE0811 / 1611 / 2411

Issue

When multiple PoE Switches are interconnected, the network connection fails and all of the switches are unable to function due to the multicast of network traffic.

For example, under the looping of 3 units of GV-POE2401 as illustrated below, when any one of the PoE Switches tries to connect to the network, all the switches encounter system failure.





Solution

To ensure the network connection with the looping of PoE Switches, you need to configure each switch to enable the RSTP (Rapid Spanning Tree Protocol) for the ports connected to other switches. For instance, in the case illustrated in the earlier section, you need to enable the RSTP for Port 1 and 5 of PoE Switch 1, Port 2 and 3 of PoE Switch 2 and Port 3 and 4 of PoE Switch 3.

For GV-POE0801 / 1601 / 2401

To enable the RSTP and configure the STP port settings, follow the steps below. Here we use GV-POE2401 as an example.

1. Open the Web browser and log into the Web interface of your GV-POE Switch.
2. On the main page, click **Spanning Tree** and select **STP Bridge Settings**.

STP Bridge Settings

Spanning Tree Settings				
STP Mode	Bridge Priority (0~61440)	Hello Time (1~10 Sec)	Max Age (6~40 Sec)	Forward Delay (4~30 Sec)
RSTP	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="button" value="Submit"/>				
<p><i>Note: 2*(Forward Delay-1) >= Max Age,</i></p> <p><i>Max Age >= 2*(Hello Time+1)</i></p> <p><i>Bridge Priority must be multiples of 4096</i></p>				

3. In the STP Mode column, select **RSTP** and click **Submit** to apply. Under the Bridge Status, the STP Mode displays **RSTP** upon successful settings.

Bridge Status				
STP Mode	Bridge ID	Hello Time	Max Age	Forward Delay
RSTP	32768:00 13 E2 FC 6E D6	2	20	15



4. Under Spanning Tree, select **STP Port Settings**.

The screenshot shows the GeoVision web interface. On the left, a sidebar lists configuration options: Administrator, Port Management, VLAN Setting, Per Port Counter, QoS Setting, Security, Spanning Tree (expanded), Trunking, and Backup/Recovery. Under Spanning Tree, 'STP Port Settings' is highlighted with a red box. The main content area is titled 'STP Port Settings' and contains a table with columns for Port No., Priority, and RPC. The 'Port No.' column has a dropdown menu currently set to 'Port 1'. Below the table is a 'Submit' button and a note: 'Priority should be a multiple of 16'. At the top right of the interface, there is a grid of 26 small colored squares representing port status, with numbers 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24 in the top row and 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 26 in the bottom row.

5. In the **Port No.** column, select the port number in use and click **Submit** to apply. Repeat this step until you have configured the STP port settings for all the connected ports.

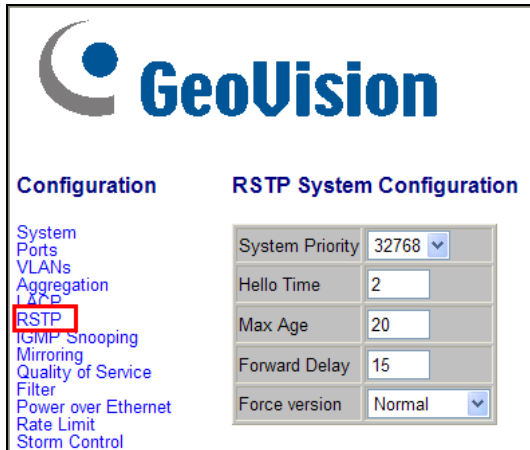
Note: After submitting the settings each time, you will be prompted to reboot the device to apply the configuration.



For GV-POE0811 / 1611 / 2411

To enable the RSTP for specific ports, follow the steps below. Here we use GV-POE2411 as an example.

1. Open the Web browser and log into the Web interface of your GV-POE Switch.
2. On the main page, select **RSTP** under Configuration.



3. In the **Protocol Enabled** columns, tick the boxes for the ports in use and click **Apply**.

