Objective

This article explains about the configuration of Multiple Spanning Tree Protocol (MSTP) Interface Settings on SFE/SGE Managed Devices. It is an extension to Rapid Spanning Tree Protocol (RSTP). MSTP further develops the usefulness of VLANs. MSTP configures a separate spanning tree for each VLAN group and blocks all but one possible alternate path within each spanning tree. MSTP Interface Settings are used to configure the port MSTP settings for every MST instance. They are also used to view statistics that have been learned from the protocol.

Note: Before configuring Interface settings you need to enable SPT. To do so go through the article [Spanning Tree Properties on SFE/SGE Stackable Managed Switches](#) and to configure Instance ID go through the [MSTP Instance to VLAN Configuration on SFE/SGE Managed Switches](#).

Applicable Devices

- SFE/SGE Managed Device.

Software Version

- v3.0.2.0

MSTP Interface Settings

Step 1. Use the web configuration utility to choose **Bridging > Spanning Tree > MSTP > Interface Settings**. The **Interface Settings** page opens:

Step 2. Choose an MST instance to be configured from the Instance ID drop-down list. Multiple spanning tree instances (MSTI) group VLANs on a switch. Each instance runs independently of the others inside the MST region.
Step 3. Click the radio button that corresponds to the desired interface in the Interface field.
• Port — From the Port drop-down lists choose the port to configure. This only affects the single port chosen.

• LAG — From the LAG drop-down list choose the LAG to configure. This affects the group of ports in the LAG configuration.

The following fields display statistics of the interface.

• Port Status — Current state of the specified port.
  – Disabled — STP is disabled on the port. The port forwards traffic and learns MAC addresses.
  – Blocking — The port is blocked. The port cannot forward traffic or learn MAC addresses. The port can forward BPDU data.
  – Listening — The port cannot forward traffic and cannot learn MAC addresses.
  – Learning — The port cannot forward traffic but it can learn new MAC addresses.
  – Forwarding — The port can forward traffic and can learn new MAC addresses.

• Type — The MST type of the port.
  – Boundary — The port is a boundary port. A boundary port attaches MST bridges to a LAN in a remote location. A boundary port also indicates whether the connected device is working in RSTP or STP mode.
– Internal — The port is an internal port.

• Port Role — The role of the port or LAG that was assigned by the MSTP to provide STP paths.

  – Root — The port that provides the lowest cost path for forwarding packets to the root device.

  – Designated — The port through which the bridge is connected to the LAN. This provides the lowest root path cost from the LAN to the Root Bridge for the MST instance.

  – Alternate — The port that provides an alternate path to the root device from the root interface.

  – Backup — The port that provides a backup path to the designated port path toward the spanning tree. This is due to a configuration in which two ports are connected in a loop by a point to point link. Backup ports are also used when a LAN has two or more connections to a shared segment.

  – Disabled — The port is not part of the spanning tree.

  – Boundary — The port on this instance is a boundary port. It gets its state from instance 0. It can be viewed on the STP Interface Settings page.

• Mode — Displays the current spanning tree mode (STP, RSTP, or MSTP).

Step 4. Enter a value in the Interface Priority field. The priority value determines port choice when a bridge has two ports connected in a loop. The lower the value, the higher the priority the port will have on the bridge.
Step 5. Enter a value in the Path Cost field or check enable to Use Default path cost, which indicates the port contribution to the Spanning Tree instance. The range is 1 to 200,000,000.
The following fields display statistics of the interface.

- Designated Bridge ID — The ID number of the bridge that connects the link to the root.
- Designated Port ID — The port ID number on the designated bridge that connects the link to the root.
- Designated Cost — The cost of the port participating in the STP topology. Ports with a lower cost are less likely to be blocked if STP detects loops.
- Forward Transitions — The number of times the port has changed from the forwarding state to the blocking state.
- Remain Hops — The number of hops until the next destination.

Step 6. Click **Apply**.

**Interface Table**

Step 1. Click **Interface Table** and the **Interface Table** page opens:
Step 2. Click the desired radio button to select the Port or LAGs.

- Port — Specifies the port to configure the MSTP settings.
- LAGs — Specifies the LAGs to configure the MSTP settings.

Step 3. (Optional) Enter the priority of the port in the Port Priority field.

Step 4. (Optional) Enter the path cost in the Path Cost field, which indicates the port contribution to the Spanning Tree instance. The range is 1-200,000,000.

Step 5. Click **Apply**.

**Caution:** This only saves your configuration to the running configuration file. This means any changes made will be lost if the device is rebooted. If you wish to save these changes even after a system reboot, you need to copy the running configuration file to the startup configuration file. See [Copy Configuration File on SFE/SGE Series Managed Switches](#) for more information on how to do this.