

## Option: Configuring the Spanning Tree Protocol and VPLS on MX Series Routers

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If multiple routers on a customer site are connected to the same PE, you should enable the Spanning Tree Protocol on that PE. To configure RSTP or MSTP and VPLS simultaneously, include the `rstp` or `mstp` statement at the `[edit instance-type layer2-control]` hierarchy level:

```
[edit]
instance-type layer2-control;
protocols {
  rstp {
    interface interface name;
    force-version stp; # To run STP instead of RSTP
  }
}
```

The Per-VLAN Spanning Tree (PVST) protocol maintains a separate spanning-tree instance for each VLAN. To enable PVST for a specific VLAN ID, there should be a VPLS instance with that VLAN ID and all of the logical interfaces assigned to that instance should have the same matching VLAN ID. To configure PVST with VPLS, include the `vstp` statement at the `[edit instance-type layer2-control]` hierarchy level:

```
[edit]
instance-type layer2-control;
protocols {
  vstp {
    interface interface name;
    vlan vlan-id;
  }
}
```

If you want only STP to run on a device, you can configure STP by including the `force-version stp` statement at the `[edit protocols rstp]` or `[edit protocols vstp]` hierarchy level:

```
[edit]
protocols {
  rstp {
    force-version stp;
  }
}
```

For more information about the Spanning Tree Protocol (VSTP, MSTP, RSTP, or STP), see the *MX Series Solutions Guide* and the *JUNOS Routing Protocols Configuration Guide*.