

## Defining GMPLS Label-Switched Paths

---

Next, define LSP attributes at the [edit protocols mpls label-switched-path] hierarchy level. To enable the proper GMPLS switching parameters, configure the attributes appropriate for your network connection. The default values, which are also appropriate for standard MPLS, are `ipv4` for `gpipid`, `none` for `signal-bandwidth`, and `psc-1` for `switching-type`.



**NOTE:** In JUNOS Release 5.6 and later, the `signal-bandwidth` statement replaces the `signal-type` statement. Also, virtual tributary (VT) 1.5 and 2.0 SONET/SDH bandwidth options are available at the [edit protocols mpls label-switched-path `lsp-name` `lsp-attributes` `signal-bandwidth`] hierarchy level.

```
[edit]
protocols {
  mpls {
    label-switched-path lsp-name {
      from ip-address;
      to ip-address;
      primary path-name;
      secondary path-name;
      no-cspf; # This statement to disable CSPF is optional.
      lsp-attributes { # Attributes determine the selection of an LSP.
        gpipid type; # Payload type, such as Ethernet or PPP.
        signal-bandwidth type; # Bandwidth encoding, such as DS3 or STM1.
        switching-type type; # Switching method, such as psc-1 or lambda.
      }
    }
  }
}
```



**NOTE:** Because MPLS and GMPLS use the same configuration hierarchy for LSPs, it is helpful to know which LSP attributes control LSP functionality. Standard MPLS packet-switched LSPs are unidirectional. GMPLS nonpacket LSPs are bidirectional.

If you use the default packet switching type of `psc-1`, your LSP becomes unidirectional. To enable a GMPLS bidirectional LSP, you must select a nonpacket switching type option, such as `lambda` or `fiber`, at the [edit mpls label-switched-path `lsp-name` `lsp-attributes`] hierarchy level.