Configuring ISDN Physical Interface Properties

You specify the physical ISDN interface in the form `br-pim/0/port`. `pim` is the slot in which the PIM is installed. The second number is always 0. `port` is the configured port number.

You specify the B-channel in the form `bc-pim/0/port:n`. `n` is the B-channel ID and can be 1 or 2. You specify the D-channel in the form `dc-pim/0/port:0`.

**NOTE:** The B- and D-channel interfaces do not have any configurable parameters. However, when interface statistics are displayed, B- and D-channel interfaces have statistical values.

To enable ISDN interfaces installed on your Services Router to work properly, you must configure the interface properties. To configure physical interface properties, include the `isdn-options` statement at the `[edit interfaces br-pim/0/port]` hierarchy level:

```markdown
[edit interfaces br-pim/0/port]
isdn-options {
  calling-number number;
  incoming-called-number number <reject>;
  spid1 spid-string;
  spid2 spid-string;
  static-tei-val value;
  switch-type (att5e | etsi | ni1 | ntdms100 | ntt);
  t310 seconds;
  tei-option (first-call | power-up);
}
dialer-options {
  pool pool-name <priority priority>;
}
```

You can configure the following ISDN options:

- **calling-number**—The calling number included in outgoing calls.
- **incoming-called-number**—Screening of incoming calls. If the incoming number of the incoming call is configured, the call is accepted. If the reject option is specified with the number, the call is rejected. If no numbers are configured, all calls are accepted. See Configuring an ISDN Interface to Screen Incoming Calls.
- **pool**—The dial pool for logical and physical ISDN interfaces. The dial pool allows logical (dialer) and physical (br-pim/0/port) interfaces to be bound together dynamically on a per-call basis. On a dialer interface, pool directs the dialer interface to a dial pool. On a br-pim/0/port interface, pool defines the pool to which the interface belongs. Specify a priority value from 0 (lowest) to 255 (highest) for the interface.
- **spid1**—The Service Profile Identifier (SPID). `spid-string` is a numeric value. If your service provider requires SPIDs, you cannot place calls until the interface sends
a valid, assigned SPID to the service provider when accessing the ISDN connection. A single SPID must be configured as spid1.

- **spid2**—A second SPID, used for DMS-100 and NI1 switch types.
- **static-tei-val**—A static Terminal Endpoint Identifier (TEI) value. The TEI value represents any ISDN-capable device attached to an ISDN network that is the terminal endpoint. TEIs are used to distinguish between different devices using the same ISDN links. Specify a value from 0 through 63. You cannot configure a TEI value with multiple SPIDs—dynamic TEI assignment is required.

**NOTE:** TEI assignment is usually done dynamically instead of statically using the TEI management protocol. When the TEI management protocol is used, values 64-126 are assigned to terminal endpoints. TEI value 127 is used for group assignment.

- **switch-type**—The ISDN switch type. The following switches are compatible:
  - **att5e**—AT&T 5ESS
  - **etsi**—NET3 for United Kingdom and Europe
  - **ni1**—National ISDN-1
  - **ntdms100**—Northern Telecom DMS-100
  - **ntt**—NTT Group switch for Japan
- **tei-option**—When the Terminal Endpoint Identifier (TEI) negotiates with the ISDN provider. Specify first-call (activation does not occur until the call setup is sent) or power-up (activation occurs when the Services Router is powered on). The default value is power-up.
- **t310**—Q.931-specific timer for T310, in seconds. Specify the number of seconds from 1 through 65536. The default value is 10 seconds.