

# How to Detect Frame Relay PVC State Changes Using SNMP

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## Introduction

There are three possible permanent virtual connection (PVC) states:

- Invalid
- Active
- Inactive

This document explains how you can detect Frame Relay PVC state changes using Simple Network Management Protocol (SNMP).

## Prerequisites

### Requirements

There are no specific requirements for this document.

### Components Used

The information in this document applies to all devices that support the RFC 1315 MIB.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

### Conventions

For more information on document conventions, refer to the Cisco Technical Tips Conventions.

## Detect Change of Frame Relay PVC States

Use the **frDLCIStatusChange** trap (from RFC 1315 MIB). This trap is generated whenever a PVC changes state.

`.1.3.6.1.2.1.10.32.0.1`  
`frDLCIStatusChange` OBJECT-TYPE

```

-- FROM RFC1315-MIB
TRAP
VARBINDS      { frCircuitIfIndex, frCircuitDlci, frCircuitState }
DESCRIPTION   "This trap indicates that the indicated Virtual Circuit has changed
               It has either been created or invalidated, or has toggled between
               active and inactive states."
 ::= { iso(1) org(3) dod(6) internet(1) mgmt(2) mib-2(1) transmission(10) frame-relay(32)
       frame-relay#(0) 1 } cfrCircuitEntry(1) 3 }

```

You can also get the current state by polling the **frCircuitState** variable from RFC 1315 MIB. Keep in mind that in most service provider networks, Frame Relay Local Management Interface (LMI) is not end-to-end, and that the service provider's switch may not accurately report loss of a PVC.

```

.1.3.6.1.2.1.10.32.2.1.3
frCircuitState OBJECT-TYPE
-- FROM RFC1315-MIB
SYNTAX      Integer { invalid(1), active(2), inactive(3) }
MAX-ACCESS  read-write
STATUS      Mandatory
DESCRIPTION "Indicates whether the particular virtual circuit is operational.
           of a Data Link Connection Management Interface, virtual circuit en
           may be created by setting virtual circuit state to 'active', or
           changing Circuit state to 'invalid'. Whether or not the row actual
           is left to the implementation, so this object may actually read a
           for some arbitrary length of time. It is also legal to set the sta
           circuit to 'inactive' to temporarily disable a given circuit."
 ::= { iso(1) org(3) dod(6) internet(1) mgmt(2) mib-2(1) transmission(10) frame-relay(32) f
       frCircuitEntry(1) 3 }

```

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