CHAPTER 2

Cisco Transpath TP MIBs

This chapter describes the Cisco Transpath TP MIBs identifies the TransPath operational component MIBS s table and is used to:

- Revise the experimental branch of Cisco MIB tree
- Update the component table
  - Remove the tpComponentIndex
  - Provide better descriptions of the tpComponentId
- Re-design the operational mib

The Cisco Transpath TP MIB definitions include:

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Object Identifiers

```
lightspeed        OBJECT IDENTIFIER ::= {enterprises 2496}
lightspeedProducts OBJECT IDENTIFIER ::= {lightspeed 1}
transpath         OBJECT IDENTIFIER ::= {lightspeedProducts 1}
```

TransPath Main Branches

```
tpOperational       OBJECT IDENTIFIER ::= { transpath 1 }
tpProvisioning      OBJECT IDENTIFIER ::= { transpath 2 }
tpMeasurement       OBJECT IDENTIFIER ::= { transpath 3 }
tpTraps             OBJECT IDENTIFIER ::= { transpath 4 }
tpRecords           OBJECT IDENTIFIER ::= { transpath 5 }
```

Operational Core MIB Objects

ciscoTPOperationalMIB MODULE-IDENTITY

TransPath Operational Component

```
ciscoTPOperationalMIBObjects OBJECT IDENTIFIER ::= { ciscoTPOperationalMIB 1 }
tpCompGroup OBJECT IDENTIFIER ::= { ciscoTPOperationalMIBObjects 1 }
tpAlarmGroup OBJECT IDENTIFIER ::= { ciscoTPOperationalMIBObjects 2 }

tpCompTable OBJECT-TYPE
  SYNTAX SEQUENCE OF TpCompTableEntry
  MAX-ACCESS not-accessible
  STATUS current
  DESCRIPTION
     "TransPath operational components table."
  ::= {tpCompGroup 1}

tpCompTableEntry OBJECT-TYPE
  SYNTAX TpCompTableEntry
  MAX-ACCESS not-accessible
  STATUS current
  DESCRIPTION
     "TransPath component entry definition."
  INDEX {tpComponentId}
  ::= {tpCompTable 1}

TpCompTableEntry ::=
   SEQUENCE
   {
      tpComponentIdINTEGER,
      tpComponentTypeINTEGER,
      tpCompParentIdINTEGER,
      tpCompMMLNameDisplayString,
      tpCompDescDisplayString,
    tpCompOpStatus DisplayString
   }
```

```
tpComponentId OBJECT-TYPE
   SYNTAX INTEGER (1.. 4294967295)
   MAX-ACCESS  not-accessible
   STATUS  current
   DESCRIPTION
      "The component identification number. This number consists of
two parts, the component type and component instance. The
most significant 2-bytes signifies the component type, and the
lower 2 bytes is the sequential instance of the type."
   ::= {tpCompTableEntry 1}

tpComponentType OBJECT-TYPE
   SYNTAX INTEGER (1.. 4294967295)
   MAX-ACCESS  read-only
   STATUS  current
   DESCRIPTION
      "The component type identification number.i"
   ::= {tpCompTableEntry 2}

tpCompParentId OBJECT-TYPE
   SYNTAX INTEGER  (1.. 4294967295)
   MAX-ACCESS read-only
   STATUS  current
   DESCRIPTION
       "The component parent identification."
   ::= {tpCompTableEntry 3}

tpCompMMLName OBJECT-TYPE
   SYNTAX DisplayString (SIZE (1.. 20))
   MAX-ACCESS read-only
   STATUS  current
   DESCRIPTION
      "This is a short notation of the component name. It is also the
MML (man-machine language) name that can be used in the MML
session."
   ::= {tpCompTableEntry 4}
```

```
tpCompDesc OBJECT-TYPE
   SYNTAX DisplayString (SIZE (0.. 128))
   MAX-ACCESS read-only
   STATUS  current
   DESCRIPTION
       "The component description"
   ::= {tpCompTableEntry 5}

tpCompOpStatus OBJECT-TYPE
   SYNTAX DisplayString (SIZE (0.. 15))
   MAX-ACCESS read-only
   STATUS current
   DESCRIPTION
      "The operational status of the component"
   ::= {tpCompTableEntry 6}
```

Alarm Record Objects

```
tpAlarmObject OBJECT IDENTIFIER ::= { tpRecords 5 }

tpAlarmId OBJECT-TYPE
   SYNTAX  INTEGER (1.. 4294967295)
   MAX-ACCESS not-accessible
   STATUS  current
   DESCRIPTION
      "The alarm indentification"
   ::= {tpAlarmObject 1}

tpAlarmCatId OBJECT-TYPE
   SYNTAX  INTEGER (1.. 90000)
   MAX-ACCESS  not-accessible
   STATUS  current
   DESCRIPTION
      "The alarm category identification number"
   ::= {tpAlarmObject 2}

tpAlarmCatName OBJECT-TYPE
```

```
    SYNTAX DisplayString (SIZE (0.. 15))
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "The alarm category name"
    ::= {tpAlarmObject 3}

tpAlarmCatDesc OBJECT-TYPE
    SYNTAX DisplayString (SIZE (0.. 128))
    MAX-ACCESS not-accessible
    STATUS  current
    DESCRIPTION
       "The alarm category description"
    ::= {tpAlarmObject 4}

tpAlarmSet OBJECT-TYPE
    SYNTAX INTEGER
    {
       clear (1),
       set (2)
    }
    MAX-ACCESS not-accessible
    STATUS  current
    DESCRIPTION
       "The alarm set or not."
    ::= {tpAlarmObject 5}

tpAlarmNotify OBJECT-TYPE
    SYNTAX INTEGER
    {
        no (1),
        yes (2)
    }
    MAX-ACCESS read-only
    STATUS  current
    DESCRIPTION
        "The alarm has been notified or not."
    ::= {tpAlarmObject 6}
```

```
tpAlarmSeverity OBJECT-TYPE
   SYNTAX INTEGER
   {
      informational (1),
      minor (2),
      major (3),
      critical (4)
   }
   MAX-ACCESS not-accessible
   STATUS  current
   DESCRIPTION
      "The alarm severity."
   ::= {tpAlarmObject 7}

tpAlarmReported OBJECT-TYPE
   SYNTAX INTEGER
   {
      no (1),
      yes (2)
   }
   MAX-ACCESS not-accessible
   STATUS  current
   DESCRIPTION
      "The alarm reported."
   ::= {tpAlarmObject 8}

tpAlarmTime OBJECT-TYPE
   SYNTAX Counter32
   MAX-ACCESS not-accessible
   STATUS  current
   DESCRIPTION
      "The time when alarm occured."
   ::= {tpAlarmObject 9}
```

Transpath Enterprise Specific Traps

```
commAlarm NOTIFICATION-TYPE
```

```
    OBJECTS
    {
tpAlarmId,
        tpAlarmCatId,
        tpAlarmCatName,
        tpAlarmCatDesc,
        tpAlarmSet,
        tpAlarmNotify,
        tpAlarmSeverity,
        tpAlarmReported,
tpComponentId,
tpComponentType,
tpCompMMLName,
tpCompDesc,
tpCompParentId,
tpAlarmTime
    }
    STATUS current
    DESCRIPTION
        "Notification of a communication error.  This shows
         which component had failed, the fault type and severity
         level and the time it occurred from the MIB-II restart time.
         Because many of the failures need to be described in detail
         for troubleshooting, an alarm log is written with supplemental
         information.  The trap and log are correlated based on the
         alarm time."
    ::= {tpTraps 1}

qualityOfService NOTIFICATION-TYPE
    OBJECTS
    {
tpAlarmId,
        tpAlarmCatId,
        tpAlarmCatName,
        tpAlarmCatDesc,
        tpAlarmSet,
        tpAlarmNotify,
        tpAlarmSeverity,
```

```
        tpAlarmReported,
    tpComponentId,
    tpComponentType,
    tpCompMMLName,
    tpCompDesc,
    tpCompParentId,
        tpAlarmTime
    }
    STATUS current
    DESCRIPTION
        "Notification when there is a failure in the quality of service.
        This shows which component had failed, its operational status,
        fault type and severity level and the time it occurred from the
        MIB-II restart time. Because many of the failures need to be
        described in detail for troubleshooting, an alarm log is written
        with supplemental information.  The trap and log are correlated
        based on the alarm time."
    ::= {tpTraps 2}

processingError NOTIFICATION-TYPE
    OBJECTS
    {
    tpAlarmId,
        tpAlarmCatId,
        tpAlarmCatName,
        tpAlarmCatDesc,
        tpAlarmSet,
        tpAlarmNotify,
        tpAlarmSeverity,
        tpAlarmReported,
    tpComponentId,
    tpComponentType,
    tpCompMMLName,
    tpCompDesc,
    tpCompParentId,
        tpAlarmTime
    }
    STATUS current
```

```
   DESCRIPTION
       "Notification of a process fault. This shows which component had
        failed, its operational status, fault type and severity level and
        the time it occurred from the MIB-II restart time. Because many
        of the failures need to be described in detail for troubleshooting,
        an alarm log is written with supplemental information.  The trap
        and log are correlated based on the alarm time."
   ::= {tpTraps 3}

equipmentError NOTIFICATION-TYPE
   OBJECTS
   {
tpAlarmId,
       tpAlarmCatId,
       tpAlarmCatName,
       tpAlarmCatDesc,
       tpAlarmSet,
       tpAlarmNotify,
       tpAlarmSeverity,
       tpAlarmReported,
tpComponentId,
tpComponentType,
tpCompMMLName,
tpCompDesc,
tpCompParentId,
       tpAlarmTime
   }
   STATUS current
   DESCRIPTION
       "Notification of an equipment error in the TransPath system.
        This shows which component had failed, its operational status,
        fault type and severity level and the time it occurred from the
        MIB-II restart time. Because many of the failures need to be
        described in detail for troubleshooting, an alarm log is written
        with supplemental information.  The trap and log are correlated
        based on the alarm time."
   ::= {tpTraps 4}
```

```
environmentError NOTIFICATION-TYPE
   OBJECTS
   {
tpAlarmId,
        tpAlarmCatId,
        tpAlarmCatName,
        tpAlarmCatDesc,
        tpAlarmSet,
        tpAlarmNotify,
        tpAlarmSeverity,
        tpAlarmReported,
tpComponentId,
tpComponentType,
tpCompMMLName,
tpCompDesc,
tpCompParentId,
        tpAlarmTime
   }
   STATUS current
   DESCRIPTION
       "Notification of an TransPath system.s environment problem.
        This shows which component had failed, its operational status,
        fault type and severity level and the time it occurred from the
        MIB-II restart time. Because many of the failures need to be
        described in detail for troubleshooting, an alarm log is written
        with supplemental information.  The trap and log are correlated
        based on the alarm time."
   ::= {tpTraps 5}
```