

**Definitions of Extension Managed Objects  
for ADSL Lines**

March 10, 2000

[draft-ietf-adslmib-adslext-04.txt](http://www.ietf.org/drafts/ietf-adslmib-adslext-04.txt)

1. Status of this Memo

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2. Abstract

This document defines a standard SNMP MIB for additional functions

not covered by the ADSL Line MIB [[1](#)].

### 3. The SNMP Network Management Framework

Expires September 2000

[Page 1]

The SNMP Management Framework presently consists of five major components:

- o An overall architecture, described in [RFC 2571](#) [11].
- o Mechanisms for describing and naming objects and events for the purpose of management. The first version of this Structure of Management Information (SMI) is called SMIV1 and described in [RFC 1155](#) [14], [RFC 1212](#) [15] and [RFC 1215](#) [16]. The second version, called SMIV2, is described in [RFC 2579](#) [1], [RFC 1903](#) [2] and [RFC 1904](#) [17].
- o Message protocols for transferring management information. The first version of the SNMP message protocol is called SNMPv1 and described in [RFC 1157](#) [7]. A second version of the SNMP message protocol, which is not an Internet standards track protocol, is called SNMPv2c and described in [RFC 1901](#) [18] and [RFC 1906](#) [19]. The third version of the message protocol is called SNMPv3 and described in [RFC 1906](#) [19], [RFC 2272](#) [20] and [RFC 2274](#) [21].
- o Protocol operations for accessing management information. The first set of protocol operations and associated PDU formats is described in [RFC 1157](#) [7]. A second set of protocol operations and associated PDU formats is described in [RFC 1905](#) [8].
- o A set of fundamental applications described in [RFC 2273](#) [22] and the view-based access control mechanism described in [RFC 2275](#) [23].

Managed objects are accessed via a virtual information store, termed the Management Information Base or MIB. Objects in the MIB are defined using the mechanisms defined in the SMI.

This document specifies a MIB module that is compliant to the SMIV2. A MIB conforming to the SMIV1 can be produced through the appropriate translations. The resulting translated MIB must be semantically equivalent, except where objects or events are omitted because no translation is possible (e.g., use of Counter64). Some machine readable information in SMIV2 will be converted into textual descriptions in SMIV1 during the translation process. However, this loss of machine readable information is not considered to change the semantics of the MIB.

#### 4. Change Log

This section tracks changes made to the revisions of the Internet

Expires September 2000

[Page 2]

Drafts of this document. It will be deleted when the document is published as an RFC.

The following changes were made for the version of the document dated March 10, 2000.

- Added a new object in the adslLineExtTable describing the G.lite power state.

The following changes were made for the version of the document dated October 20, 1999.

- Changed adslLineExtTable to include config ATU-C, ATU-C and ATU-R actual transmission capabilities.
- renamed adslProfileLineMode to adslProfileLineType to match [rfc2662](#) adslLineType object.
- Added two objects in the adslLineExtTable: one for adslLineModeConfig and adslLineModeActual.
- Added a new textual convention for ADSL line mode.
- Corrected the MIB compiled errors and typos.

## 5. Introduction

The purpose of this memo is to define a supplemental set of managed objects that is not covered by ADSL Line MIB as defined in [\[10\]](#). This memo addresses the additional objects defined in ITU G.997.1 [\[8\]](#). These additional objects specifically address the management capabilities of ADSL "Lite" as defined by ITU-T G.992.2 [\[9\]](#).

## 6. Relationship of the ADSL LINE EXTENTION MIB with standard MIBs

This section outlines the relationship of ADSL Line Extention MIB with other MIBs described in RFCs and in their various degrees of "standardization". ADSL Line Extention MIB obeys the same relationship between ADSL Line MIB to other standard MIBs with one exception for the ifOperStatus as defined in [RFC 1213](#) [\[3\]](#).

### 6.1 ifOperStatus

ifOperStatus is set to down(2) when the ADSL line interface is in power state L2 which means no power. ifOperStatus is set to up(1) if the ADSL line interface is in power state L0 (power on) or L1 (reduced power).

## 7. Conventions used in the MIB

### 7.1 Structure

Expires September 2000

[Page 3]

The MIB is organized to follow the same structure of the ADSL Line MIB [1].

## 7.2 Additional Managed Objects

A few objects are added to cover the ADSL "Lite" management and they are:

- ATU-C Transmission System and Line Mode
- Power Management
- Counters for Fast Retrains and Failed Fast Retrains
- Counters for Severed Error Second-line and Unavailable Second
- Alternative profile configuration for the Dual line mode interface

Besides the management of ADSL "Lite", another object needs to be added to the ADSL Line MIB [10] in order to manage the ADSL line profile. The object is the line mode configuration.

The MIB definitions are attached. The MIB will be branched from the ADSL Line MIB [10].

### 7.2.1 ATU-C ADSL Transmission System Parameters and Line Mode

The adslLineConfigTable needs to be extended to cover the ATU-C ADSL Transmission system enabling. Three objects are defined to monitor and configure the transmission mode as well as the actual line mode:

- Capability
- Configuration
- Actual Status

Transmission modes can further determine the line mode of the ADSL interface. For example, if g9921PotsNonOverlapped(2) is the actual value of the ADSL interface, the interface is operating in Full rate ADSL. If the interface is set to g9922PotsOverlapped(9), the interface is operating in G.lite mode.

The transmssion mode and the corresponding line mode are defined as:

| Transmission mode                | Line Mode |
|----------------------------------|-----------|
| -----                            |           |
| Regional Std. (ANSI T1.413)      | Full      |
| Regional Std. (ETSI DTS/TM06006) | Full      |
| G.992.1 POTS non-overlapped      | Full      |
| G.992.1 POTS overlapped          | Full      |

Expires September 2000

[Page 4]



|                                      |      |
|--------------------------------------|------|
| G.992.1 ISDN non-overlapped          | Full |
| G.992.1 ISDN overlapped              | Full |
| G.992.1 TCM-ISDN non-overlapped      | Full |
| G.992.1 TCM-ISDN overlapped          | Full |
| G.992.2 POTS non-overlapped          | Lite |
| G.992.2 POTS overlapped              | Lite |
| G.992.2 with TCM-ISDN non-overlapped | Lite |
| G.992.2 with TCM-ISDN overlapped     | Lite |

Table 1: Transmission Mode and Line Mode

In case more than one bit is configured for an ADSL interface and both Full and Lite modes are selected, the interface is said to configure in the dual mode. Only one bit can be set in the Actual object that reflects the actual mode of transmission as well as the line mode.

#### 7.2.2 Power Management

There are three power states for each managed ADSL interface operating in the G.lite mode. L0 is power on, L1 is power on but reduced and L2 is power off. Power state cannot be configured by an operator but it can be viewed via the ifOperStatus object for the managed ADSL interface. The value of the object ifOperStatus is set to down(2) if the ADSL interface is in power state L2 and is set to up(1) if the ADSL line interface is in power state L0 or L1.

An ADSL line power state, if is operating in the G.lite mode, can also be monitored by the adslLineGlitePowerState object defined in the ADSL Line Extention table. The value of the object enumerates the three power states the managed interface can be in.

#### 7.2.3 Fast Retrain Parameters

[Section 7.4.15](#) of ITU G.997.1 specifies fast retrain parameters. Fast retrain parameters include two counters: fast retrain count and failed fast retrain count. These two counters need to be added to all performance tables.

#### 7.2.4 Counters for Severed Error Second-line and Unavailable Second

[Section 7.2.1.1.7](#) and [section 7.2.1.1.9](#) specify two counters that are not covered by the ADSL Line MIB [[10](#)]. These two counters (severed error second-line and unavailable second) are added to all the performance tables.

Unavailable second counts number of seconds when there was Unavailable Errored seconds during the measured period. This counter

Expires September 2000

[Page 5]

does not include the seconds incurred by Fast Retrain and Failed Fast Retrain. Fast Retrain and Failed Fast Retrain are considered to be part of normal network operation and thus are not counted as unavailable errors.

#### 7.2.5 Alternative profile configuration for the Dual line mode interface

This object is used only when the interface (for the ADSL line or channel) is configured as dual mode, that is, the object `adslLineTransAtucModeConfig` is configured with one or more Full-Rate modes and one or more Lite modes.

The object `adslLineConfProfile` defined in ADSL-MIB [10] is used as the primary Full-Rate profile. The newly added object in this MIB module, `adslLineConfProfileDualLite` is used to describe or configure the Lite profile. Note that if one or more Full-Rate modes are configured, only one Full-Rate profile is needed. This object is only needed when both Full-Rate and Lite profiles are needed.

If the static profile is used, the profile name is the `ifIndex` ASCII string plus the differentiator string appended to the end of the static profile name. For example, for interface 100, the object `adslLineConfProfile` is set by the agent to be "100Full" and the object `adslLineConfProfileDualLite` is set to be "100Lite".

### 8. Conformance and Compliance

See the conformance and compliance statements within the information module.

### 9. Definitions

ADSL-LINE-EXT-MIB DEFINITIONS ::= BEGIN

#### IMPORTS

```
Counter32,
Unsigned32,
NOTIFICATION-TYPE,
MODULE-IDENTITY, Gauge32,
OBJECT-TYPE, mib-2          FROM SNMPv2-SMI
MODULE-COMPLIANCE, OBJECT-GROUP,
NOTIFICATION-GROUP        FROM SNMPv2-CONF
TEXTUAL-CONVENTION        FROM SNMPv2-TC
PerfCurrentCount,
PerfIntervalCount         FROM PerfHist-TC-MIB
AdslPerfCurrDayCount,
```

Expires September 2000

[Page 6]

```
AdslPerfPrevDayCount,
AdslPerfTimeElapsed,
AdslLineCodingType          FROM ADSL-TC-MIB
ifIndex                     FROM IF-MIB
SnmpAdminString             FROM SNMP-FRAMEWORK-MIB
adslLineEntry,
adslAtucPerfDataEntry,
adslLineConfProfileEntry,
adslAtucIntervalNumber,
adslAturIntervalNumber,
adslLineAlarmConfProfileEntry,
adslAturPerfDataEntry,
adslMIB                     FROM ADSL-LINE-MIB
;
```

adslExtMIB MODULE-IDENTITY

LAST-UPDATED "9905141200Z"

ORGANIZATION "IETF ADSL MIB Working Group"

CONTACT-INFO

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DESCRIPTION

"This MIB Module is a supplement to the ADSL-LINE-MIB [[1](#)]."  
 ::= { adslMIB 3 }

adslExtMibObjects OBJECT IDENTIFIER ::= { adslExtMIB 1 }

AdslTransmissionModeType ::= TEXTUAL-CONVENTION  
STATUS current



## DESCRIPTION

"A set of ADSL line transmission modes, with one bit per mode. The notes (F) and (L) denote Full-Rate and Lite respectively:

- Bit 01 : Regional Std. (ANSI T1.413) (F)
- Bit 02 : Regional Std. (ETSI DTS/TM06006) (F)
- Bit 03 : G.992.1 POTS non-overlapped (F)
- Bit 04 : G.992.1 POTS overlapped (F)
- Bit 05 : G.992.1 ISDN non-overlapped (F)
- Bit 06 : G.992.1 ISDN overlapped (F)
- Bit 07 : G.992.1 TCM-ISDN non-overlapped (F)
- Bit 08 : G.992.1 TCM-ISDN overlapped (F)
- Bit 09 : G.992.2 POTS non-overlapped (L)
- Bit 10 : G.992.2 POTS overlapped (L)
- Bit 11 : G.992.2 with TCM-ISDN non-overlapped (L)
- Bit 12 : G.992.2 with TCM-ISDN overlapped (L)

"

```
SYNTAX      BITS {
    ansit1413(0),
    etsi(1),
    a9921potsNonoverlapped(2),
    a9921potsoverlapped(3),
    a9921isdnnonoverlapped(4),
    a9921isdnoverlapped(5),
    a9921tcmIsdnNonoverlapped(6),
    a9921tcmIsdnOverlapped(7),
    a9922potsnonOverlapped(8),
    a9922potsOverlapped(9),
    a9922tcmIsdnNonOverlapped(10),
    a9922tcmIsdnOverlapped(11)
}
```

```
adslLineExtTable  OBJECT-TYPE
    SYNTAX          SEQUENCE OF AdslLineExtEntry
    MAX-ACCESS      not-accessible
    STATUS           current
    DESCRIPTION
```

"This table contains ADSL line configuration and monitoring information not defined in the adslLineTable from the ADSL-LINE-MIB [1]. This includes the capabilities and actual ADSL transmission system."

```
::= { adslExtMibObjects 17 }
```

```
adslLineExtEntry  OBJECT-TYPE
    SYNTAX          AdslLineExtEntry
```

Expires September 2000

[Page 8]



MAX-ACCESS not-accessible  
STATUS current  
DESCRIPTION

"An entry extends the adslLineEntry defined in [\[1\]](#).

Each

entry corresponds to an ADSL line."

INDEX { ifIndex }

::= { adslLineExtTable 1 }

AdslLineExtEntry ::=

SEQUENCE {  
adslLineTransAtucCap AdslTransmissionModeType,  
adslLineTransAtucConfig AdslTransmissionModeType,  
adslLineTransAtucCapActual AdslTransmissionModeType,  
adslLineGlitePowerState INTEGER,  
adslLineConfProfileDualLite SnmpAdminString  
}

adslLineTransAtucCap OBJECT-TYPE

SYNTAX AdslTransmissionModeType  
MAX-ACCESS read-only  
STATUS current  
DESCRIPTION

"The transmission modes that the ATU-C is capable  
of supporting. The modes available are limited  
by the design of the equipment."

REFERENCE "[Section 7.3.2](#) ITU G.997.1 [\[8\]](#)"

::= { adslLineExtEntry 1 }

adslLineTransAtucConfig OBJECT-TYPE

SYNTAX AdslTransmissionModeType  
MAX-ACCESS read-write  
STATUS current  
DESCRIPTION

"The transmission modes that the ATU-C must enable  
for the line. The ATU-C's enable modes must be  
a subset of its capable modes."

REFERENCE "[Section 7.3.2](#) ITU G.997.1 [\[8\]](#)"

::= { adslLineExtEntry 2 }

adslLineTransAtucCapActual OBJECT-TYPE

SYNTAX AdslTransmissionModeType  
MAX-ACCESS read-only  
STATUS current  
DESCRIPTION

"The transmission mode of the ATU-C. This object  
returns 0 (i.e BITS with no mode bit set) if there  
is no mode currently known. The initialization

Expires September 2000

[Page 9]

with the ATU-R will determine the mode used and the result must be a one-mode subset of the 'Enable' modes. After an initialization has occurred,

its mode is saved as the 'Current' mode and it should persist even if the link goes down subsequently. This leaves a hint on what may be used next time."

REFERENCE "[Section 7.3.2](#) ITU G.997.1 [8]"

::= { adslLineExtEntry 3 }

#### adslLineGlitePowerState OBJECT-TYPE

SYNTAX INTEGER {  
     none(1),  
     l0(2),               -- L0 Power on  
     l1(3),               -- L1 Power on but reduced  
     l2(4)               -- L2 Power off  
 }

MAX-ACCESS read-only

STATUS current

#### DESCRIPTION

"The value of this object specifies the power state this interface is in. If the object

adslLineModeActual

is set to glite, the value of this object can be

either

one of the power state from L0 to L2. If the

object

adslLineTransAtucCapActual is set to other than

G.lite,

the value of this object is always set to none(1)."

::= { adslLineExtEntry 4 }

#### adslLineConfProfileDualLite OBJECT-TYPE

SYNTAX SnmpAdminString

MAX-ACCESS read-write

STATUS current

#### DESCRIPTION

"The value of this object identifies the row in the ADSL Line Configuration Profile Table, (adslLineConfProfileTable), which applies for this ADSL line, and channels if applicable, when the mode after initialization is any G.992.2 (G.lite) mode AND adslLineTransAtucModeConfig has enabled dual-mode. Dual-mode in this case means one or more Full-Rate modes AND one or more Lite modes enabled.

If dual-mode has not been enabled by this MIB or if

Expires September 2000

[Page 10]

the ATU-C does not support this extension MIB, then the previously existing adslLineConfProfile is used even if the ATU-C mode is one of the G.992.2 modes."

```
::= { adslLineExtEntry 5 }
```

```
adslAtucPerfDataExtTable OBJECT-TYPE
```

```
SYNTAX SEQUENCE OF AdslAtucPerfDataExtEntry
```

```
MAX-ACCESS not-accessible
```

```
STATUS current
```

```
DESCRIPTION
```

"This table contains ADSL physical line counters information not defined in the adslAtucPerfDataTable from the ADSL-LINE-MIB [[10](#)]."

```
::= { adslExtMibObjects 18 }
```

```
adslAtucPerfDataExtEntry OBJECT-TYPE
```

```
SYNTAX AdslAtucPerfDataExtEntry
```

```
MAX-ACCESS not-accessible
```

```
STATUS current
```

```
DESCRIPTION
```

"An entry extends the adslAtucPerfDataEntry defined in [[10](#)]. Each entry corresponds to an ADSL line."

```
INDEX { ifIndex }
```

```
::= { adslAtucPerfDataExtTable 1 }
```

```
AdslAtucPerfDataExtEntry ::=
```

```
SEQUENCE {
```

```
adslAtucPerfStatFastR Counter32,
```

```
adslAtucPerfStatFailedFastR Counter32,
```

```
adslAtucPerfStatSesL Counter32,
```

```
adslAtucPerfStatUasL Counter32,
```

```
adslAtucPerfCurr15MinFastR PerfCurrentCount,
```

```
adslAtucPerfCurr15MinFailedFastR PerfCurrentCount,
```

```
adslAtucPerfCurr15MinSesL PerfCurrentCount,
```

```
adslAtucPerfCurr15MinUasL PerfCurrentCount,
```

```
adslAtucPerfCurr1DayFastR AdslPerfCurrDayCount,
```

```
adslAtucPerfCurr1DayFailedFastR AdslPerfCurrDayCount,
```

```
adslAtucPerfCurr1DaySesL AdslPerfCurrDayCount,
```

```
adslAtucPerfCurr1DayUasL AdslPerfCurrDayCount,
```

```
adslAtucPerfPrev1DayFastR AdslPerfPrevDayCount,
```

```
adslAtucPerfPrev1DayFailedFastR AdslPerfPrevDayCount,
```

```
adslAtucPerfPrev1DaySesL AdslPerfPrevDayCount,
```

```
adslAtucPerfPrev1DayUasL AdslPerfPrevDayCount
```

```
}
```

```
adslAtucPerfStatFastR OBJECT-TYPE
```

```
SYNTAX Counter32
```

```
MAX-ACCESS read-only
```

Expires September 2000

[Page 11]

```

        STATUS      current
        DESCRIPTION
            "The value of this object indicates the count of
fast retrains."
        REFERENCE "ITU G.997.1 Section 7.4.15.1 [8]"
        ::= { adslAtucPerfDataExtEntry 1 }

adslAtucPerfStatFailedFastR OBJECT-TYPE
    SYNTAX      Counter32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The value of this object indicates the count of
failed fast retrains."
    REFERENCE "ITU G.997.1 Section 7.4.15.2 [8]"
    ::= { adslAtucPerfDataExtEntry 2 }

adslAtucPerfStatSesL OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "seconds"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The value of this object indicates the count of
severely errored second-line."
    REFERENCE "ITU G.997.1 Section 7.2.1.1.7 [8]"
    ::= { adslAtucPerfDataExtEntry 3 }

adslAtucPerfStatUasL OBJECT-TYPE
    SYNTAX      Counter32
    UNITS       "seconds"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The value of this object indicates the count of
unavailable second."
    REFERENCE "ITU G.997.1 Section 7.2.1.1.9 [8]"
    ::= { adslAtucPerfDataExtEntry 4 }

adslAtucPerfCurr15MinFastR OBJECT-TYPE
    SYNTAX      PerfCurrentCount
    UNITS       "seconds"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Count of seconds in the current 15 minute interval
when there was fast retrains."
    REFERENCE "ITU G.997.1 Section 7.4.15.1 [8]"
```

Expires September 2000

[Page 12]



```
::= { adslAtucPerfDataExtEntry 5 }
```

```
adslAtucPerfCurr15MinFailedFastR OBJECT-TYPE
```

```
SYNTAX      PerfCurrentCount
```

```
UNITS       "seconds"
```

```
MAX-ACCESS  read-only
```

```
STATUS      current
```

```
DESCRIPTION
```

```
    "Count of seconds in the current 15 minute interval  
    when there was failed fast retrains."
```

```
REFERENCE "ITU G.997.1 Section 7.4.15.2 [8]"
```

```
::= { adslAtucPerfDataExtEntry 6 }
```

```
adslAtucPerfCurr15MinSesL OBJECT-TYPE
```

```
SYNTAX      PerfCurrentCount
```

```
UNITS       "seconds"
```

```
MAX-ACCESS  read-only
```

```
STATUS      current
```

```
DESCRIPTION
```

```
    "Count of seconds in the current 15 minute interval  
    when there was fast retrains."
```

```
REFERENCE "ITU G.997.1 Section 7.2.1.1.7 [8]"
```

```
::= { adslAtucPerfDataExtEntry 7 }
```

```
adslAtucPerfCurr15MinUasL OBJECT-TYPE
```

```
SYNTAX      PerfCurrentCount
```

```
UNITS       "seconds"
```

```
MAX-ACCESS  read-only
```

```
STATUS      current
```

```
DESCRIPTION
```

```
    "Count of seconds in the current 15 minute interval  
    when there was count for unavailable errored
```

```
seconds."
```

```
REFERENCE "ITU G.997.1 Section 7.2.1.1.9 [8]"
```

```
::= { adslAtucPerfDataExtEntry 8 }
```

```
adslAtucPerfCurr1DayFastR OBJECT-TYPE
```

```
SYNTAX      AdslPerfCurrDayCount
```

```
UNITS       "seconds"
```

```
MAX-ACCESS  read-only
```

```
STATUS      current
```

```
DESCRIPTION
```

```
    "Count of the number of seconds when there was fast  
    retrains during the current day as measured by  
    adslAtucPerfCurr1DayTimeElapsed."
```

```
REFERENCE "ITU G.997.1 Section 7.4.15.1 [8]"
```

```
::= { adslAtucPerfDataExtEntry 9 }
```

Expires September 2000

[Page 13]

adslAtucPerfCurr1DayFailedFastR OBJECT-TYPE  
SYNTAX AdslPerfCurrDayCount  
UNITS "seconds"  
MAX-ACCESS read-only  
STATUS current  
DESCRIPTION  
"Count of the number of seconds when there was  
failed  
fast retrains during the current day as measured by  
adslAtucPerfCurr1DayTimeElapsed."  
REFERENCE "ITU G.997.1 [Section 7.4.15.2](#) [8]"  
::= { adslAtucPerfDataExtEntry 10 }

adslAtucPerfCurr1DaySesL OBJECT-TYPE  
SYNTAX AdslPerfCurrDayCount  
UNITS "seconds"  
MAX-ACCESS read-only  
STATUS current  
DESCRIPTION  
"Count of the number of seconds when there was  
Severed  
Errored Seconds during the current day as measured  
by  
adslAtucPerfCurr1DayTimeElapsed."  
REFERENCE "ITU G.997.1 [Section 7.2.1.1.7](#) [8]"  
::= { adslAtucPerfDataExtEntry 11 }

adslAtucPerfCurr1DayUasL OBJECT-TYPE  
SYNTAX AdslPerfCurrDayCount  
UNITS "seconds"  
MAX-ACCESS read-only  
STATUS current  
DESCRIPTION  
"Count of the number of seconds when there was  
Unavailable  
Errored Seconds during the current day as measured  
by  
adslAtucPerfCurr1DayTimeElapsed."  
REFERENCE "ITU G.997.1 [Section 7.2.1.1.9](#) [8]"  
::= { adslAtucPerfDataExtEntry 12 }

adslAtucPerfPrev1DayFastR OBJECT-TYPE  
SYNTAX AdslPerfPrevDayCount  
UNITS "seconds"  
MAX-ACCESS read-only  
STATUS current  
DESCRIPTION  
"Count of seconds in the interval when there was

Expires September 2000

[Page 14]

fast retrains within the most recent previous  
1-day period."

REFERENCE "ITU G.997.1 [Section 7.4.15.1](#) [8]"

::= { adslAtucPerfDataExtEntry 13 }

adslAtucPerfPrev1DayFailedFastR OBJECT-TYPE

SYNTAX AdslPerfPrevDayCount

UNITS "seconds"

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Count of seconds in the interval when there was  
failed fast retrains within the most recent previous  
1-day period."

REFERENCE "ITU G.997.1 [Section 7.4.15.2](#) [8]"

::= { adslAtucPerfDataExtEntry 14 }

adslAtucPerfPrev1DaySesL OBJECT-TYPE

SYNTAX AdslPerfPrevDayCount

UNITS "seconds"

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Count of seconds in the interval when there was  
severed errored seconds within the most recent

previous

1-day period."

REFERENCE "ITU G.997.1 [Section 7.2.1.1.7](#) [8]"

::= { adslAtucPerfDataExtEntry 15 }

adslAtucPerfPrev1DayUasL OBJECT-TYPE

SYNTAX AdslPerfPrevDayCount

UNITS "seconds"

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Count of seconds in the interval when there was  
unavailable errored seconds within the most recent

previous

1-day period."

REFERENCE "ITU G.997.1 [Section 7.2.1.1.9](#) [8]"

::= { adslAtucPerfDataExtEntry 16 }

adslAtucIntervalExtTable OBJECT-TYPE

SYNTAX SEQUENCE OF AdslAtucIntervalExtEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

Expires September 2000

[Page 15]

```

        "This table provides one row for each ATUC
        performance data collection interval.
        ADSL physical interfaces are
        those ifEntries where ifType is equal to adsl(94)."
```

::= { adslExtMibObjects 19 }

adslAtucIntervalExtEntry OBJECT-TYPE

SYNTAX AdslAtucIntervalExtEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION "An entry in the

adslAtucIntervalExtTable."

INDEX { ifIndex, adslAtucIntervalNumber }

::= { adslAtucIntervalExtTable 1 }

AdslAtucIntervalExtEntry ::=

SEQUENCE {

adslAtucIntervalFastR PerfIntervalCount,

adslAtucIntervalFailedFastR PerfIntervalCount,

adslAtucIntervalSesL PerfIntervalCount,

adslAtucIntervalUasL PerfIntervalCount

}

adslAtucIntervalFastR OBJECT-TYPE

SYNTAX PerfIntervalCount

UNITS "seconds"

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Count of seconds in the interval when there was

Fast

Retrains."

::= { adslAtucIntervalExtEntry 1 }

adslAtucIntervalFailedFastR OBJECT-TYPE

SYNTAX PerfIntervalCount

UNITS "seconds"

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Count of seconds in the interval when there was

Failed

Fast Retrains."

::= { adslAtucIntervalExtEntry 2 }

adslAtucIntervalSesL OBJECT-TYPE

SYNTAX PerfIntervalCount

UNITS "seconds"

Expires September 2000

[Page 16]



```

    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "Count of seconds in the interval when there was
        severed errors."
 ::= { adslAtucIntervalExtEntry 3 }

adslAtucIntervalUasL OBJECT-TYPE
    SYNTAX        PerfIntervalCount
    UNITS         "seconds"
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "Count of seconds in the interval when there was
        unavailable errors."
 ::= { adslAtucIntervalExtEntry 4 }

adslAturPerfDataExtTable OBJECT-TYPE
    SYNTAX        SEQUENCE OF AdslAturPerfDataExtEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "This table contains ADSL physical line counters
        information not defined in the adslAturPerfDataTable from the ADSL-
        LINE-MIB [10]."
 ::= { adslExtMibObjects 20 }

adslAturPerfDataExtEntry OBJECT-TYPE
    SYNTAX        AdslAturPerfDataExtEntry
    MAX-ACCESS    not-accessible
    STATUS        current
    DESCRIPTION
        "An entry extends the adslAturPerfDataEntry defined
        in [10]. Each entry corresponds to an ADSL line."
    INDEX { ifIndex }
 ::= { adslAturPerfDataExtTable 1 }

AdslAturPerfDataExtEntry ::=
    SEQUENCE {
        adslAturPerfStatSesL          Counter32,
        adslAturPerfStatUasL          Counter32,
        adslAturPerfCurr15MinSesL     PerfCurrentCount,
        adslAturPerfCurr15MinUasL     PerfCurrentCount,
        adslAturPerfCurr1DaySesL      AdslPerfCurrDayCount,
        adslAturPerfCurr1DayUasL      AdslPerfCurrDayCount,
        adslAturPerfPrev1DaySesL      AdslPerfPrevDayCount,
        adslAturPerfPrev1DayUasL      AdslPerfPrevDayCount
    }

```

Expires September 2000

[Page 17]

## adslAturPerfStatSesL OBJECT-TYPE

SYNTAX Counter32

UNITS "seconds"

MAX-ACCESS read-only

STATUS current

## DESCRIPTION

"The value of this object indicates the count of severely errored second-line."

REFERENCE "ITU G.997.1 [Section 7.2.1.1.7](#) [8]"

::= { adslAturPerfDataExtEntry 1 }

## adslAturPerfStatUasL OBJECT-TYPE

SYNTAX Counter32

UNITS "seconds"

MAX-ACCESS read-only

STATUS current

## DESCRIPTION

"The value of this object indicates the count of unavailable second."

REFERENCE "ITU G.997.1 [Section 7.2.1.2.9](#) [8]"

::= { adslAturPerfDataExtEntry 2 }

## adslAturPerfCurr15MinSesL OBJECT-TYPE

SYNTAX PerfCurrentCount

UNITS "seconds"

MAX-ACCESS read-only

STATUS current

## DESCRIPTION

"Count of seconds in the current 15 minute interval when there was Severed Errored Seconds-Line."

REFERENCE "ITU G.997.1 [Section 7.2.1.2.7](#) [8]"

::= { adslAturPerfDataExtEntry 3 }

## adslAturPerfCurr15MinUasL OBJECT-TYPE

SYNTAX PerfCurrentCount

UNITS "seconds"

MAX-ACCESS read-only

STATUS current

## DESCRIPTION

"Count of seconds in the current 15 minute interval when there was Unavailable Errored Seconds."

REFERENCE "ITU G.997.1 [Section 7.2.1.2.9](#) [8]"

::= { adslAturPerfDataExtEntry 4 }

## adslAturPerfCurr1DaySesL OBJECT-TYPE

SYNTAX AdslPerfCurrDayCount

UNITS "seconds"

Expires September 2000

[Page 18]

```

MAX-ACCESS    read-only
STATUS        current
DESCRIPTION
    "Count of the number of seconds when there was
Severed
    Errored Seconds during the current day as measured
by
    adslAturPerfCurr1DayTimeElapsed."
REFERENCE "ITU G.997.1 Section 7.2.1.2.7 [8]"
 ::= { adslAturPerfDataExtEntry 5 }

```

```

adslAturPerfCurr1DayUasL    OBJECT-TYPE
    SYNTAX      AdslPerfCurrDayCount
    UNITS       "seconds"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Count of the number of seconds when there was
Unavailable
        Errored Seconds during the current day as measured
by
        adslAturPerfCurr1DayTimeElapsed."
    REFERENCE "ITU G.997.1 Section 7.2.1.2.9 [8]"
 ::= { adslAturPerfDataExtEntry 6 }

```

```

adslAturPerfPrev1DaySesL    OBJECT-TYPE
    SYNTAX      AdslPerfPrevDayCount
    UNITS       "seconds"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Count of seconds in the interval when there was
previous
        severed errored second within the most recent
        1-day period."
    REFERENCE "ITU G.997.1 Section 7.2.1.2.7 [8]"
 ::= { adslAturPerfDataExtEntry 7 }

```

```

adslAturPerfPrev1DayUasL    OBJECT-TYPE
    SYNTAX      AdslPerfPrevDayCount
    UNITS       "seconds"
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Count of seconds in the interval when there was
previous
        unavailable errored second within the most recent
        1-day period."

```

Expires September 2000

[Page 19]

```
REFERENCE "ITU G.997.1 Section 7.2.1.2.9 [8]"
 ::= { adslAturPerfDataExtEntry 8 }

adslAturIntervalExtTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF AdslAturIntervalExtEntry
    MAX-ACCESS   not-accessible
    STATUS       current
    DESCRIPTION
        "This table provides one row for each ATUC
        performance data collection interval.
        ADSL physical interfaces are
        those ifEntries where ifType is equal to adsl(94)."
```

```
 ::= { adslExtMibObjects 21 }

adslAturIntervalExtEntry OBJECT-TYPE
    SYNTAX      AdslAturIntervalExtEntry
    MAX-ACCESS   not-accessible
    STATUS       current
    DESCRIPTION  "An entry in the
adslAturIntervalExtTable."
```

```
    INDEX      { ifIndex, adslAturIntervalNumber }
 ::= { adslAturIntervalExtTable 1 }

AdslAturIntervalExtEntry ::=
    SEQUENCE {
        adslAturIntervalSesL      PerfIntervalCount,
        adslAturIntervalUasL      PerfIntervalCount
    }

adslAturIntervalSesL OBJECT-TYPE
    SYNTAX      PerfIntervalCount
    UNITS        "seconds"
    MAX-ACCESS   read-only
    STATUS       current
    DESCRIPTION
        "Count of seconds in the interval when there was
        severed errors."
 ::= { adslAturIntervalExtEntry 1 }

adslAturIntervalUasL OBJECT-TYPE
    SYNTAX      PerfIntervalCount
    UNITS        "seconds"
    MAX-ACCESS   read-only
    STATUS       current
    DESCRIPTION
        "Count of seconds in the interval when there was
        unavailable errors."
 ::= { adslAturIntervalExtEntry 2 }
```

Expires September 2000

[Page 20]



```

adslConfProfileExtTable OBJECT-TYPE
    SYNTAX          SEQUENCE OF AdslConfProfileExtEntry
    MAX-ACCESS      not-accessible
    STATUS          current
    DESCRIPTION
        "This table contains ADSL line profile configuration
        information not defined in the
adslLineConfProfileTable
        from the ADSL-LINE-MIB [1]. This includes the line
mode."
    ::= { adslExtMibObjects 22 }

adslConfProfileExtEntry OBJECT-TYPE
    SYNTAX          AdslConfProfileExtEntry
    MAX-ACCESS      not-accessible
    STATUS          current
    DESCRIPTION
        "An entry extends the adslLineConfProfileEntry
defined in [1].
        Each entry corresponds to an ADSL line profile."
    AUGMENTS { adslLineConfProfileEntry }
    ::= { adslConfProfileExtTable 1 }

AdslConfProfileExtEntry ::=
    SEQUENCE {
        adslConfProfileLineType  INTEGER
    }

adslConfProfileLineType OBJECT-TYPE
    SYNTAX          INTEGER {
        noChannel (1),          -- no channels exist
        fastOnly (2),          -- fast channel exists only
        interleavedOnly (3),    -- interleaved channel exists
                                -- only
        fastOrInterleaved (4),  -- either fast or interleaved
                                -- channels can exist, but
                                -- only one at any time
        fastAndInterleaved (5) -- both fast or interleaved
                                -- channels exist
    }
    MAX-ACCESS      read-create
    STATUS          current
    DESCRIPTION
        "
        This object is used to configure the ADSL physical
line
        mode. "
    ::= { adslConfProfileExtEntry 1 }

```

Expires September 2000

[Page 21]

```

adslAlarmConfProfileExtTable  OBJECT-TYPE
    SYNTAX          SEQUENCE OF AdslAlarmConfProfileExtEntry
    MAX-ACCESS      not-accessible
    STATUS          current
    DESCRIPTION
        "This table extends the
adslLineAlarmConfProfileTable and
        provides threshold parameters for all the counters
defined
        in this MIB module."
    ::= { adslExtMibObjects 23 }

adslAlarmConfProfileExtEntry  OBJECT-TYPE
    SYNTAX          AdslAlarmConfProfileExtEntry
    MAX-ACCESS      not-accessible
    STATUS          current
    DESCRIPTION
        "An entry extends the adslLineAlarmConfProfileTable
defined in [10]. Each entry corresponds to an ADSL alarm profile."
    AUGMENTS { adslLineAlarmConfProfileEntry }
    ::= { adslAlarmConfProfileExtTable 1 }

AdslAlarmConfProfileExtEntry ::=
    SEQUENCE {
        adslAtucThreshold15MinFailedFastR      Unsigned32,
        adslAtucThreshold15MinSesL              Unsigned32,
        adslAtucThreshold15MinUasL              Unsigned32
    }

adslAtucThreshold15MinFailedFastR  OBJECT-TYPE
    SYNTAX          Unsigned32
    UNITS           "seconds"
    MAX-ACCESS      read-create
    STATUS          current
    DESCRIPTION
        "The number of failed retrains encountered by an
performance
        ADSL interface within any giving 15 minutes
        data collection period, which cause the SNMP agent
        to send an adslAtucFailedFastRTrap. One trap will
be
        sent per interval per interface. A value '0' will
        disable the trap."
    ::= { adslAlarmConfProfileExtEntry 1 }

adslAtucThreshold15MinSesL  OBJECT-TYPE
    SYNTAX          Unsigned32
    UNITS           "seconds"

```

Expires September 2000

[Page 22]

```

MAX-ACCESS    read-create
STATUS        current
DESCRIPTION
    "The number of Severed errored seconds encountered
by an
    ADSL interface withing any giving 15 minutes
performance
    data collection period, which cause the SNMP agent
    to send an adslAtucSesLTrap. One trap will be
    sent per interval per interface. A value '0' will
    disable the trap."
 ::= { adslAlarmConfProfileExtEntry 2 }

adslAtucThreshold15MinUasL OBJECT-TYPE
    SYNTAX      Unsigned32
    UNITS        "seconds"
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "The number of unavailable errored seconds
encountered by an
        ADSL interface withing any giving 15 minutes
performance
        data collection period, which cause the SNMP agent
        to send an adslAtucUasLThreshTrap. One trap will
be
        sent per interval per interface. A value '0' will
        disable the trap."
 ::= { adslAlarmConfProfileExtEntry 3 }

-- trap definitions

adslExtTraps OBJECT IDENTIFIER ::= { adslExtMibObjects 24 }

adslExtAtucTraps OBJECT IDENTIFIER ::= { adslExtTraps 1 }

adslAtucFailedFastRThreshTrap      NOTIFICATION-TYPE
    OBJECTS { adslAtucPerfCurr15MinFailedFastR }
    STATUS current
    DESCRIPTION
        "Failed Fast Retrains 15 minutes threshold reached."
 ::= { adslExtAtucTraps 0 1 }

adslAtucSesLThreshTrap      NOTIFICATION-TYPE
    OBJECTS { adslAtucPerfCurr15MinSesL }
    STATUS current
    DESCRIPTION
        "Severed errored seconds 15 minutes threshold

```

Expires September 2000

[Page 23]

```
reached."
 ::= { adslExtAtucTraps 0 2 }

adslAtucUasLThreshTrap      NOTIFICATION-TYPE
    OBJECTS { adslAtucPerfCurr15MinUasL }
    STATUS    current
    DESCRIPTION
        "Unavailable seconds 15 minutes threshold reached."
 ::= { adslExtAtucTraps 0 3 }

-- conformance information

adslExtConformance OBJECT IDENTIFIER ::= { adslExtMIB 2 }

adslExtGroups OBJECT IDENTIFIER ::= { adslExtConformance 1 }
adslExtCompliances OBJECT IDENTIFIER ::= { adslExtConformance 2 }

-- ATU-C agent compliance statements

adslExtLineMibAtucCompliance MODULE-COMPLIANCE
    STATUS    current
    DESCRIPTION
        "The compliance statement for SNMP entities which
manage ADSL ATU-C interfaces."

MODULE -- this module
MANDATORY-GROUPS

    {
        adslExtLineGroup,
        adslExtLineConfProfileControlGroup,
        adslExtLineAlarmConfProfileGroup
    }

GROUP          adslExtAtucPhysPerfRawCounterGroup
DESCRIPTION
    "This group is optional.  Implementations which
    require continuous ATU-C physical event counters
    should implement this group."

GROUP          adslExtAturPhysPerfRawCounterGroup
DESCRIPTION
    "This group is optional.  Implementations which
    require continuous ATU-R physical event counters
    should implement this group."

OBJECT          adslAtucThreshold15MinFailedFastR
MIN-ACCESS      read-write
DESCRIPTION
```





"Read-write access is applicable when  
static profiles are implemented."

OBJECT adslAtucThreshold15MinSesL

MIN-ACCESS read-write

DESCRIPTION

"Read-write access is applicable when  
static profiles are implemented."

OBJECT adslAtucThreshold15MinUasL

MIN-ACCESS read-write

DESCRIPTION

"Read-write access is applicable when  
static profiles are implemented."

OBJECT adslLineConfProfileDualLite

MIN-ACCESS read-only

DESCRIPTION

"Read-only access is applicable when static  
profiles are implemented."

::= { adslExtCompliances 1 }

-- units of conformance

adslExtLineGroup OBJECT-GROUP

OBJECTS {

adslLineConfProfileDualLite,  
adslLineTransAtucCap,  
adslLineTransAtucConfig,  
adslLineTransAtucCapActual,  
adslLineGlitePowerState

}

STATUS current

DESCRIPTION

"A collection of objects providing configuration  
information about an ADSL Line."

::= { adslExtGroups 1 }

adslExtAtucPhysPerfRawCounterGroup OBJECT-GROUP

OBJECTS {

adslAtucPerfStatFastR, adslAtucPerfStatFailedFastR,  
adslAtucPerfCurr15MinFastR,  
adslAtucPerfCurr15MinFailedFastR,  
adslAtucPerfCurr1DayFastR,  
adslAtucPerfCurr1DayFailedFastR,  
adslAtucPerfPrev1DayFastR,  
adslAtucPerfPrev1DayFailedFastR,  
adslAtucPerfStatSesL, adslAtucPerfStatUasL,

Expires September 2000

[Page 25]

```
        adslAtucPerfCurr15MinSesL,
adslAtucPerfCurr15MinUasL,
        adslAtucPerfCurr1DaySesL,  adslAtucPerfCurr1DayUasL,
        adslAtucPerfPrev1DaySesL,  adslAtucPerfPrev1DayUasL,
        adslAtucIntervalFastR, adslAtucIntervalFailedFastR,
        adslAtucIntervalSesL, adslAtucIntervalUasL
    }
```

STATUS current

DESCRIPTION

"A collection of objects providing raw performance counts on an ADSL Line (ATU-C end)."

::= { adslExtGroups 2 }

adslExtAturPhysPerfRawCounterGroup OBJECT-GROUP

OBJECTS {

```
    adslAturPerfStatSesL,
    adslAturPerfStatUasL,
    adslAturPerfCurr15MinSesL,
    adslAturPerfCurr15MinUasL,
    adslAturPerfCurr1DaySesL,
    adslAturPerfCurr1DayUasL,
    adslAturPerfPrev1DaySesL,
    adslAturPerfPrev1DayUasL,
    adslAturIntervalSesL, adslAturIntervalUasL
```

}

STATUS current

DESCRIPTION

"A collection of objects providing raw performance counts on an ADSL Line (ATU-C end)."

::= { adslExtGroups 3 }

adslExtLineConfProfileControlGroup OBJECT-GROUP

OBJECTS {

```
    adslConfProfileLineType
```

}

STATUS current

DESCRIPTION

"A collection of objects providing profile control for the ADSL system."

::= { adslExtGroups 4 }

adslExtLineAlarmConfProfileGroup OBJECT-GROUP

OBJECTS {

```
    adslAtucThreshold15MinFailedFastR,
    adslAtucThreshold15MinSesL,
    adslAtucThreshold15MinUasL
```

}

STATUS current

Expires September 2000

[Page 26]

## DESCRIPTION

"A collection of objects providing alarm profile control for the ADSL system."

::= { adslExtGroups 5 }

## adslExtNotificationsGroup NOTIFICATION-GROUP

## NOTIFICATIONS {

adslAtucFailedFastRThreshTrap,  
adslAtucSesLThreshTrap,  
adslAtucUasLThreshTrap

}

STATUS current

## DESCRIPTION

"The collection of ADSL 2 notifications."

::= { adslExtGroups 6 }

END

## 9. Acknowledgments

This document is a product of the ADSL MIB Working Group.

## 10. References

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- [9] Chris Hansen, ITU "White Paper submission of Recommendation  
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