The TALnet software supports the standard MIB-II as specified in RFC 1213, “Management Information Base for Network Management of TCP/IP-based internets: MIB-II.” TALnet also includes a proprietary TAL MIB. This chapter contains a sample proprietary MIB. Contact TAL to obtain a copy of the latest proprietary MIB.

The TAL proprietary MIB describes the variables that are implemented for TALnet. The MIB relies on RFC 1155, “Structure and Identification of Management Information for TCP/IP-based Internets,” and uses the format described in RFC 1212, “Concise MIB Definitions.”

**Note** Some network management tools might require modifications before they can compile this MIB properly.

### B.1 General Definitions

This section includes general MIB definitions.

```plaintext
TAL-MIB DEFINITIONS ::= BEGIN

IMPORTS
  MODULE-IDENTITY, OBJECT-TYPE, TimeTicks, enterprises
  FROM SNMPv2-SMI
  DisplayString, PhysAddress
  FROM SNMPv2-TC
  MODULE-COMPLIANCE
  FROM SNMPv2-CONF;

tal MODULE-IDENTITY
  LAST-UPDATED "9512130017Z"
  ORGANIZATION "Tetherless Access Ltd."
  CONTACT-INFO "Thorsten Lockert
  Tetherless Access Ltd.
  930 East Arques Avenue
  Sunnyvale, CA 94086-4552
  Phone: (408) 523 8000"
```
TAL Products

Fax : (408) 523 8001

Email: tholo@tetherless.com"

DESCRIPTION     "The MIB module for TAL equipment"
 ::= { enterprises 1110 }

products          OBJECT IDENTIFIER ::= { tal 1 }
local             OBJECT IDENTIFIER ::= { tal 2 }
talk              OBJECT IDENTIFIER ::= { local 1 }

Some network management tools such as HP OpenView cannot read the previous
MODULE-IDENTITY section. If you are using such a tool, replace that section (beginning with
the line tal MODULE-IDENTITY and ending with the line ::= { enterprises 1110 }) with the
following text:

tal OBJECT IDENTIFIER ::= { enterprises 1110 }

B.2 TAL Products

The following is the product section of the TAL-proprietary MIB. The product section contains
the different product’s object identifiers. Each product has a unique object identifier allocated
from this section which is referenced by the sysObjectID variable from RFC 1156,
“Management Information Base for Network management of TCP/IP-based internets.” New
products will be added at the end of this list.

subspace-2001     OBJECT IDENTIFIER ::= { products 1 }

B.3 TAL Local Variables

The following is the variable section of the TAL-proprietary MIB. The variable section
describes the local variables within the TAL product line. Groups might or might not be present
depending on the software options present in the managed device.

talkNumber OBJECT-TYPE
SYNTAX    INTEGER
ACCESS    read-only
STATUS    mandatory
DESCRIPTION  "Number of TALK interfaces configured."
 ::= { talk 1 }
B.4 TALtalk Radio Table

The following is the TALtalk radio table:

```
talkRadioTable OBJECT-TYPE
   SYNTAX  SEQUENCE OF TalkRadioEntry
   ACCESS  not-accessible
   STATUS  mandatory
   DESCRIPTION
      "List of TALK interfaces on the system."
   ::= { talk 2 }

talkRadioEntry OBJECT-TYPE
   SYNTAX  TalkRadioEntry
   ACCESS  not-accessible
   STATUS  mandatory
   DESCRIPTION
      "Collection of objects specific to a TALK interface."
   INDEX { talkRadioIndex }
   ::= { talkRadioTable 1 }

TalkRadioEntry ::= SEQUENCE {
   talkRadioIndex
      INTEGER,
   talkRadioName
      DisplayString,
   talkRadioAddr
      PhysAddress,
   talkRadioDataRate
      Gauge,
   talkRadioMaxDialog
      INTEGER,
   talkRadioMaxLatency
      INTEGER,
   talkRadioSlotTime
      INTEGER,
   talkRadioCrowd
      Gauge,
   talkRadioInputHellos
      Counter,
   talkRadioOutputHellos
      Counter,
   talkRadioRssSwitch
      INTEGER
}

talkRadioIndex OBJECT-TYPE
   SYNTAX  INTEGER
   ACCESS  read-only
   STATUS  mandatory
   DESCRIPTION
      "Interface index of this TALK interface."
   ::= { talkRadioEntry 1 }
```
TALtalk Radio Table

talkRadioName OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION
"Symbolic name of the radio interface"
::= { talkRadioEntry 2 }

talkRadioAddr OBJECT-TYPE
SYNTAX PhysAddress
ACCESS read-only
STATUS mandatory
DESCRIPTION
"Link-level address of this TALK interface."
::= { talkRadioEntry 3 }

talkRadioDataRate OBJECT-TYPE
SYNTAX Gauge
ACCESS read-only
STATUS mandatory
DESCRIPTION
"Data rate of this TALK interface in bps"
::= { talkRadioEntry 4 }

talkRadioMaxDialog OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
"Maximum time this TALK interface will attempt to send a packet."
::= { talkRadioEntry 5 }

talkRadioMaxLatency OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
"Maximum processing delay for a packet to enter and leave the router."
::= { talkRadioEntry 6 }

talkRadioSlotTime OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
"Interval to wait before attempting radio transmission."
::= { talkRadioEntry 7 }

talkRadioCrowd OBJECT-TYPE
SYNTAX Gauge
ACCESS read-only
STATUS mandatory
DESCRIPTION
"Number of adjacent radios that have sent data in the
last 10 second sampling period."
::= { talkRadioEntry 8 }

**talkRadioInputHellos** OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION "Number of HELLO messages received from nearby stations."
::= { talkRadioEntry 9 }

**talkRadioOutputHellos** OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION "Number of HELLO messages broadcast from this TALK radio interface."
::= { talkRadioEntry 10 }

**talkRadioRssSwitch** OBJECT-TYPE
SYNTAX INTEGER {
   true(1),
   false(2)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION "TRUE if RSS sampling feature for this TALK Radio interface is enabled"
::= [ talkRadioEntry 11 ]

### B.5 TALtalk Neighbor Table

The following is the TALtalk neighbor table:

**talkNeighborTable** OBJECT-TYPE
SYNTAX SEQUENCE OF TalkNeighborEntry
ACCESS not-accessible
STATUS mandatory
DESCRIPTION "List of adjacent TALK neighbors."
::= { talk 3 }

**talkNeighborEntry** OBJECT-TYPE
SYNTAX TalkNeighborEntry
ACCESS not-accessible
STATUS mandatory
DESCRIPTION "Collection of objects specific to TALK neighbors."
INDEX { talkNeighborAddress, talkNeighborRadioIndex }
::= { talkNeighborTable 1 }
TalkNeighborEntry ::=  
    SEQUENCE {
      talkNeighborAddress   
        PhysAddress,   
      talkNeighborRadioIndex   
        INTEGER,   
      talkNeighborStatus   
        INTEGER,   
      talkNeighborLastChange   
        TimeTicks,   
      talkNeighborLastDialog   
        TimeTicks,   
      talkNeighborOutOctets   
        Counter,   
      talkNeighborOutDialogRequests   
        Counter,   
      talkNeighborOutDialogFails   
        Counter,   
      talkNeighborOutConfirmTimeout   
        Counter,   
      talkNeighborOutAckTimeout   
        Counter,   
      talkNeighborInOctets   
        Counter,   
      talkNeighborInDialogRequests   
        Counter,   
      talkNeighborInDialogOKs   
        Counter,   
      talkNeighborInDataTimeouts   
        Counter,   
      talkNeighborSuspectCount   
        Counter   
      talkNeighborRssResult   
        INTEGER,   
      talkNeighborRssData   
        INTEGER
    }

talkNeighborAddress OBJECT-TYPE
  SYNTAX  PhysAddress
  ACCESS  read-only
  STATUS  mandatory
  DESCRIPTION
    "Link-level TALK address of this neighbor."
  ::= { talkNeighborEntry 1 }

talkNeighborRadioIndex OBJECT-TYPE
  SYNTAX  INTEGER
  ACCESS  read-only
  STATUS  mandatory
  DESCRIPTION
    "Neighbor index of this neighbor entry."
  ::= { talkNeighborEntry 2 }
talkNeighborStatus OBJECT-TYPE
SYNTAX INTEGER {
    candidate(1), -- Possible adjacency
    good(2), -- Adjacent
    suspect(3), -- Unstable
    dead(4) -- Declared dead
}
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Enumeration:
    1 - Candidate: Possible adjacency detected; verifying
    2 - Good: Adjacency established
    3 - Suspect: Adjacency unstable
    4 - Dead: Adjacency declared dead"
::= { talkNeighborEntry 3 }

talkNeighborLastChange OBJECT-TYPE
SYNTAX TimeTicks
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Time elapsed since last neighbor status change."
::= { talkNeighborEntry 4 }

talkNeighborLastDialog OBJECT-TYPE
SYNTAX TimeTicks
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Time elapsed since last completed TALK dialog with this neighbor."
::= { talkNeighborEntry 5 }

talkNeighborOutOctets OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Number of octets sent to this neighbor."
::= { talkNeighborEntry 6 }

talkNeighborOutDialogRequests OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Number of packets sent to this neighbor."
::= { talkNeighborEntry 7 }

talkNeighborOutDialogFails OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
TALtalk Neighbor Table

DESCRIPTION
"Number of TALK dialogs with this neighbor that failed

to complete."
::= { talkNeighborEntry 8 }

talkNeighborOutConfirmTimeout OBJECT-TYPE
SYNTAX  Counter
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
"Number of TALK bandwidth reservation requests that
went unanswered."
::= { talkNeighborEntry 9 }

talkNeighborOutAckTimeout OBJECT-TYPE
SYNTAX  Counter
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
"Number of TALK data transmissions that went un-
acknowledged."
::= { talkNeighborEntry 10 }

talkNeighborInOctets OBJECT-TYPE
SYNTAX  Counter
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
"Number of octets received from this neighbor, directed to us."
::= { talkNeighborEntry 11 }

talkNeighborInDialogRequests OBJECT-TYPE
SYNTAX  Counter
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
"Number of bandwidth reservation requests received from this
neighbor, directed to us."
::= { talkNeighborEntry 12 }

talkNeighborInDialogOKs OBJECT-TYPE
SYNTAX  Counter
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
"Number of packets received from this neighbor, directed
to us."
::= { talkNeighborEntry 13 }

talkNeighborInDataTimeouts OBJECT-TYPE
SYNTAX  Counter
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
"Number of reservation requests that were not followed by
valid data packets.
 ::= { talkNeighborEntry 14 }

talkNeighborSuspectCount OBJECT-TYPE
 SYNTAX  Counter
 ACCESS  read-only
 STATUS  mandatory
 DESCRIPTION
 "Number of times this neighbor's status has been marked 'suspect'."
 ::= { talkNeighborEntry 15 }

talkNeighborRssResult OBJECT-TYPE
 SYNTAX  INTEGER {
   data_ok(0), -- Last test ok
   turned_off(1), -- Rss sampling is turned off
   too_old(2), -- Data is expired
   no_data(3) --Not enough data collected
 }
 ACCESS  read-only
 STATUS  mandatory
 DESCRIPTION
 "The return value of a RSS sample query. Values are:
   DATA_OK: Everything is fine;
   TURNED_OFF: Sampling is turned off;
   TOO_OLD: Data is too old to calculate;
   NO_DATA: Not enough samples collected;"
 ::= { talkNeighborEntry 16 }

talkNeighborRssData OBJECT-TYPE
 SYNTAX  INTEGER
 ACCESS  read-only
 STATUS  mandatory
 DESCRIPTION
 "Receive Signal Strength of this neighbor."
 ::= { talkNeighborEntry 17 }

B.6 TALtalk Channel Table

The following is the TALtalk channel table:

talkChannelTable OBJECT-TYPE
 SYNTAX  SEQUENCE OF TalkChannelEntry
 ACCESS  not-accessible
 STATUS  mandatory
 DESCRIPTION
 "List of radio channels which may be used by TALK."
 ::= { talk 4 }

talkChannelEntry OBJECT-TYPE
 SYNTAX  TalkChannelEntry
 ACCESS  not-accessible
 STATUS  mandatory
 DESCRIPTION
TALtalk Channel Table

"Collection of objects specific to a TALK radio channel."
INDEX { talkChannelIndex, talkChannelRadioIndex }
::= { talkChannelTable 1 }

TalkChannelEntry ::= SEQUENCE {
  talkChannelIndex
    INTEGER,
  talkChannelRadioIndex
    INTEGER,
  talkChannelName
    DisplayString,
  talkChannelPower
    INTEGER,
  talkChannelFixed
    TruthValue,
  talkChannelNumber
    INTEGER,
  talkChannelPNCode
    INTEGER
}

talkChannelIndex OBJECT-TYPE
SYNTAX  INTEGER
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
  "Index of this channel"
::= { talkChannelEntry 1 }

talkChannelRadioIndex OBJECT-TYPE
SYNTAX  INTEGER
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
  "Index of associated radio table entry"
::= { talkChannelEntry 2 }

talkChannelName OBJECT-TYPE
SYNTAX  DisplayString
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
  "Symbolic name assigned to this channel."
::= { talkChannelEntry 3 }

talkChannelPower OBJECT-TYPE
SYNTAX  INTEGER (0..100)
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
  "Power output of this channel, expressed as a whole percentage of maximum power."
::= { talkChannelEntry 4 }
talkChannelFixed OBJECT-TYPE
SYNTAX  INTEGER {
    true(1),
    false(2)
}
ACCESS  read-only
STATUS  mandatory
DESCRIPTION  "TRUE if the power output of this channel is fixed."
::= { talkChannelEntry 5 }

talkChannelNumber OBJECT-TYPE
SYNTAX  INTEGER
ACCESS  read-only
STATUS  mandatory
DESCRIPTION  "Channel number (radio specific) used for transmitting on this channel."
::= { talkChannelEntry 6 }

talkChannelPNCode OBJECT-TYPE
SYNTAX  INTEGER (1..8)
ACCESS  read-only
STATUS  mandatory
DESCRIPTION  "Pseudo-Noise code used for transmitting on this channel."
::= { talkChannelEntry 7 }