TOTAL CONTROL

PARAMETER
REFERENCE

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Chapter 1
Modem Card Parameters

Programmed Settings

Call Control Options

TCM Name	MIB Name	AT Command	Description	Settings	Default
Additional Answer Tone Time	mdmCcAddnlAnswToneDur	S49	Sets extra answer tone time, in msec., transmitted in answer mode. The modem normally transmits 1000 msec. Allowable values are 0–30, so the answer tone can be increased to 4000 msec. Values greater than 30 are treated as 30. Default is 16 for an answer tone of 2600 msec.	0..30	16
Packet Bus Answer Only	mdmCcNoPbNoConnEna		Enable this feature when you want the call to be routed over the Packet Bus to a Gateway card.	Disable Enable	Disable
Answer in Originate Mode	mdmCcAnswerInOrgMode	S13.1	Enables Auto Answer in Originate mode.	Disable Enable	Disable
ARQ Negotiation	mdmCcErrorCntlMode	&Mn	If set to None, allows async connections without error control. When set to Sync Mode, allows synchronous connections. If set to Normal ARQ (default), the local modem attempts to connect under error control, but will connect without if it can't be negotiated. If set to ARQ Only, the local modem attempts to use error connection for async calls and hangs up if the remote modem is not using error correction.	None Sync Mode Normal ARQ ARQ Only V.25 bis Characters V.25 bis Bits	Normal ARQ
ARQ Result Codes	mdmCcArqResultCodeMode	&An	The ARQ Codes Suppressed/Displayed option toggles off and on the codes that indicate a successful error-control connection has been made. The Include HST, V.32 option enables the display of HST/V.32 modulation codes in addition to the ARQ codes. The Include Protocol option enables the display of all ARQ and protocol codes.	ARQ Results Disabled ARQ Results Enabled Include HST, V.32 Include Protocol	ARQ Results Enabled
AT Command Recognition	mdmCcAtRecognition	Dip Switch 8	When set to Enable All, all DTE commands may be issued by the DTE user. When set to Ignore, no AT commands may be issued by the DTE user. When set to Query Only, only those AT commands that do not change a modem's configuration settings may be issued by the DTE user.	Ignore Query Only Enable All	Enable All

TCM Name	MIB Name	AT Command	Description	Settings	Default
Auto Dial on Power Up	mdmCcAutoDialOnPwrUpEna	S13.4	If this function is enabled, the modem dials the number stored in position 0 of the modem's NVRAM when the modem is powered on or reset. When it is disabled, the number is not dialed when the modem is powered on or reset.	Disable Enable	Disable
ANI/DNIS Call Init Strings	mdmCcCallIntStrBase	S13.1	Determines if the calling init strings (enabled in the Call Init String parameter) are based upon DNIS or ANI.	DNIS base ANI base	DNIS base
Billing Delay Timer	mdmCcBillingDelayPeriod	S50	Sets the billing delay period, in fiftieths of a second. This defines a period of silence between the time the modem goes off-hook and when it begins the answer sequence.	0..255	100
Blacklist Restriction	mdmCcIntBlackListDis	S40.1	Used to disable blacklist operation, which sets a limit of 12 failed call attempts in a row. Required primarily for international modems.	Enable Disable	Enable
Call Init Strings	mdmCcT1CallIntStrUse		Determines if calling init strings are used or not. Applies to ANI/DNIS calls.	Enable Disable	Enable
T1 Call Setup	mdmCcT1CallSetupProc		Determines T1 call setup procedures used: 'normal' or 'none'. None assumes a dedicated (leased) DS0 is assigned to the modem.	Normal Setup No Setup	Normal Setup
Carrier Detect Delay (sec)	mdmCcWaitForCarrier	S7	Sets the duration, in seconds, that the local modem waits to detect a carrier signal from the remote modem.	0..255	60
Data/Fax Mode	mdmCcDataFaxMode	FCLASS=	Sets a compatible fax modem to the correct mode for data or fax transmission.	Data Mode Fax Class 1 Mode Data Fax Class 1 Mode Fax Class 2 Mode Data Fax Class 2 Mode	Data Mode
Default Phone Number	mdmCcPhoneString0	&Z0	Phone dial string stored in the modem's NVRAM at position 0, used by default when either the Dial on DTR Active or Auto Dial on Power Up options are enabled.	Display String	Null
ANI-Based Incoming Call Digits	mdmCcT1DialInAniDig	S62	Sets the number of ANI (Automatic Number Indication) digits allowed on dial-in calls.	0..12	0
DNIS-Based Incoming Call Digits	mdmCcDialInDnisDig	S63	Sets the number of DNIS (Dialed Number Identification Service)/DID (Direct Inward Dial) digits allowed on dial-in calls.	0..12	0
Dial on DTR Active	mdmCcAutoDialOnDtrEna	S13	If enabled, the modem dials the number stored in position 0 of the modem's NVRAM when DTR is raised. When disabled, no number is dialed when DTR is raised.	Disable Enable	Disable
T1 Tone Type	mdmCcT1DialToneType	S47.1	Sets MF (Multi-Frequency) or DTMF (Dual Tone Multi-Frequency) tones to be used for T1 dialout signaling.	MF tones DTMF tones	MF tones

TCM Name	MIB Name	AT Command	Description	Settings	Default
DTR Low Before Ready	mdmCcGhostPortLockEna	S27.6	When enabled, the modem requires that DTR go low before it will accept another call. The modem also implements a Fast Connect in Native Mode, which asserts CD before the link negotiation process is complete. Reserved for a private, custom application and is not recommended for general usage.	Disable Enable	Disable
Inactivity Timer (min)	mdmCcInactivityTimer	S19	If the value of this function is set greater than 0, the Inactivity Timer is activated when there is no data activity in either the transmit or receive direction. If no data activity is detected by the timeout period (specified in minutes), the modem hangs up.	0..255	0
Dial Sequence Tone Encapsulation	mdmCcT1KpStMfTones		Determines the usage of KP and ST MF tone encapsulation of the dial sequence. Required for ANI/DNIS	Disable Enable	Disable
Mgt System Result Codes	mdmCcMgmtsysMsgDis		When enabled, the modem may send various management system messages to the DTE in response to AT commands; these messages are similar to modem result codes. When disabled, the modem will not transmit management system messages.	Disable Enable	Enable
MI/MIC Closure for Call Detection	mdmCcMiMic	S34.5	Allows you to disable the MI/MIC (Mode Indicate/Mode Indicate Common) closure function required by some PBXs.	Disable Enable	Enable
MNP/V.42 @ 1200 bps	mdmCcMnpWith1200	S51.0	Makes it possible to exclude MNP/V.42 from link negotiations at 1200 bps, by selecting the Disable setting. The default setting includes these negotiations.	Disable Enable	Enable
MNP/V.42 @ 2400 bps	mdmCcMnpWith2400	S51.1	Makes it possible to exclude MNP/V.42 from link negotiations at 2400 bps, by selecting the Disable setting. The default setting includes these negotiations.	Disable Enable	Enable
MNP/V.42 @ 9600 bps	mdmCcMnpWithV32	S51.2	Makes it possible to exclude MNP/V.42 from link negotiations at 9600/14,400 bps (both V.32 and V.32 bis), by selecting the Disable setting. The default setting includes these negotiations.	Disable Enable	Enable
MNP/V.42 Link Request Timeout (sec)	mdmCcMnpTimeout	S52	Stores the duration of the timeout, in seconds, when the modem is negotiating an MNP/V.42 link request for 1200/2400 answer mode.	0..14	5
Off-Hook Restriction	mdmCcOffHookRestrict	S40.2	Used to disable off-hook restriction, which controls the pause durations between failed call attempts. Required primarily for international modems.	Disable Enable	Enable

TCM Name	MIB Name	AT Command	Description	Settings	Default
Response to +++	mdmCcEscCodeRsp	+++, DIP Switch 9	Determines the modem's response to an escape code sequence. When set to Go On Hook, this sequence terminates the connection and the modem enters command mode. When set to Enter Command Mode, an escape code puts the modem into online command mode without terminating the connection. In this mode, AT commands may be given to the modem. To return to the session, send the modem the ATO command. If set to Ignore Escape Code, the modem ignores the escape sequence and passes it through as normal data.	Go On Hook Enter Command Mode Ignore Escape Code	Enter Command Mode
Verbal/Numeric Result Codes	mdmCcResponseMode	Vn, DIP Switch 2	When set to Verbal, this function displays modem result codes as words. When set to Numeric, this function displays modem result codes as numbers.	Numeric Verbal	Verbal
Result Code Groups	mdmCcResultCodeOptions	Xn	Selects one of the eight optional result code subsets shown in Table 1. Result Code descriptions can be found in Table 2.	0..7 (equivalent to X0 through X7)	1
V.32 300/600 Hz Tone Times	mdmCcV32ToneDuration	S28	Sets the duration, in tenths of a second, of the EIA-specified Multimode Training sequence for V.32 modems, which includes U.S. Robotics Dual Standard modems set to answer V.32 calls (set to B0). The delay gives V.32 modems additional time to connect with most U.S./Canada modems at 9600 bps before falling back to attempt a V.21 connection (to answer overseas calls, 300 bps) or a V.23 connection (some United Kingdom modems, 1200 bps with a 75-bps back channel). The fallback occurs only if the modem is set for V.21 (S27, bit 0 enabled) and/or V.23 (S34, bit 3 enabled).	0..255	8
Result Codes	mdmCcQuietResultCodes	Qn, DIP Switch 3, DIP Switch 7	Enables or disables the modem's result code messages, such as OK and CONNECT, to the modem's DTE. With Originate Only, the modem only displays result codes when placing a call.	Display Result No Result Originate Only	No Result
Rings for Auto Answer	mdmCcAutoAnswer	S0, DIP Switch 5	Sets the number of rings on which to answer incoming calls when the modem is in Auto Answer mode. Setting to 0 disables the modem's Auto Answer feature.	0..255	1
Stored Phone Number 1	mdmCcPhoneString1	&Z1	A phone number dial string of up to 40 characters stored in the modem's NVRAM at position 1.	Display String	Null
Stored Phone Number 2	mdmCcPhoneString2	&Z2	A phone number dial string of up to 40 characters stored in the modem's NVRAM at position 2.	Display String	Null

TCM Name	MIB Name	AT Command	Description	Settings	Default
Stored Phone Number 3	mdmCcPhoneString3	&Z3	A phone number dial string of up to 40 characters stored in the modem's NVRAM at position 3.	Display String	Null
Dial Tone Delay (sec)	mdmCcDialDelay	S6	Sets the number of seconds the modem waits to dial after detecting a dial tone.	0..255	2
V.21 to V.23 Fallback Time	mdmCcV21V23FallBackTimer	S29	Sets the duration, in tenths of a second, of the V.21/V.23 fallback timer.	0..255	20
V.23 Handshake Timer	mdmCcV23Timeout	S45	Sets the duration, in tenths of a second, of the V.23 handshake timer for the multimode training sequence. When set to 0 the V.23 answer tones are disabled, resulting in faster connect times on modems capable of Bell 208B operation. The default setting should be appropriate for most installations.	0..255	0
T1 Idle Disconnect Pattern	mdmCcIdleDiscPatt	S71	Allows you to change the idle/disconnect pattern used over the chassis TDM bus between the modem and a T1 card during call setup and teardown. Change this setting ONLY in situations where stray in-band characters from T1 DS0s are frequently misinterpreted by the modem as the idle/disconnect pattern, causing unexpected modem disconnects. **Reserved Patterns**: 0, 2, 3, 4, 5, 6, 121, 128, 129, 130, 133, 134, and 255 **WARNING**: The T1 card must be set for the same value. Do not change this value without also setting the T1 card for the same value. Requires a T1 card compatible with this feature.	0..255	1
Originate MNP10	mdmCcMnp10	S61.4	Originate MNP10EC must be set to disabled, otherwise the modem originates MNP10EC.	Enable Disable	Disable
Originate MNP10EC	mdmCcMnp10Ec	S61.5	Originates using MNP10EC. Falls back to MNP10 if answering modem does not support MNP10EC. MNP10 *Enhanced Cellular* (MNP10EC) provides more robust data transmission over adverse cellular conditions than MNP10. MNP10EC is automatically negotiated when MNP10 Negotiation is enabled (S60.0=1) and the modem receives an MNP10EC call.	Enable Disable	Disable
ATZ Handling over Packet Bus	mdmCcAtzPbHandling	S72	Allows you to determine how the modem will respond to an AT Z (reset) command sent via gateway cards over the packet bus.	NormalAtz atzPbIgnored atzPbNvram	NormalAtz

Table 1. Result Code Options

Setting Result Codes	X0	X1	X2	X3	X4	X5	X6	X7
0/OK	↔	↔	↔	↔	↔	↔	↔	↔
1/CONNECT	↔	↔	↔	↔	↔	↔	↔	↔
2/RING	↔	↔	↔	↔	↔	↔	↔	↔
3/NO CARRIER	↔	↔	↔	↔	↔	↔	↔	↔
4/ERROR	↔	↔	↔	↔	↔	↔	↔	↔
5/CONNECT 1200		↔	↔	↔	↔	↔	↔	↔
6/NO DIAL TONE			↔		↔		↔	↔
7/BUSY				↔	↔	↔	↔	↔
8/NO ANSWER				↔	↔	↔	↔	↔
9/RESERVED								
10/CONNECT 2400		↔	↔	↔	↔	↔	↔	↔
11/RINGING						↔	↔	↔
12/VOICE						↔	↔	
13/CONNECT 9600		↔	↔	↔	↔	↔	↔	↔
18/CONNECT 4800		↔	↔	↔	↔	↔	↔	↔
20/CONNECT 7200		↔	↔	↔	↔	↔	↔	↔
21/CONNECT 12000		↔	↔	↔	↔	↔	↔	↔
25/CONNECT 14400		↔	↔	↔	↔	↔	↔	↔
43/CONNECT 16800		↔	↔	↔	↔	↔	↔	↔
85/CONNECT 19200		↔	↔	↔	↔	↔	↔	↔
91/CONNECT 21600		↔	↔	↔	↔	↔	↔	↔
99/CONNECT 24000		↔	↔	↔	↔	↔	↔	↔
103/CONNECT 26400		↔	↔	↔	↔	↔	↔	↔
107/CONNECT 28800		↔	↔	↔	↔	↔	↔	↔
Functions								
Adaptive Dialing			↔	↔	↔	↔	↔	↔
Wait for 2nd Dial Tone (W)				↔	↔	↔	↔	↔
Wait for Answer (@)				↔	↔	↔	↔	↔
Fast Dial			↔		↔		↔	↔

Table 2. Result Code Definitions

Result Code	Meaning
0/OK	Command has been executed.
1/CONNECT	Connection established with another modem; if set to X0, connection may be at 300, 1200, 2400 or 9600 bps; if X1 or higher, connection is at 300 bps.
2/RING	Incoming ring detected.
3/NO CARRIER	Carrier detect has failed or carrier has been dropped due to disconnect.
4/ERROR	Command is invalid.
5/CONNECT 1200	Connection established with another modem at 1200 bps.
6/NO DIAL TONE	Dial tone not detected during the normal 2 seconds, set in Register S6.
7/BUSY	Busy signal detect; modem hangs up.
8/NO ANSWER	After waiting 5 seconds for an answer, modem hangs up; returned instead of NO CARRIER when the @ option is used.
10/CONNECT 2400	Connection established with another modem at 2400 bps.
11/RINGING	The modem has dialed; remote phone line is ringing.
12/VOICE	Voice answer at remote site; modem hangs up.
13/CONNECT 9600	Connection established at reported rate. Same meaning for results of 4800 (18), 7200 (20), 12K (21), 14.4K (25), 16.8K (43, HST only), 19.2K (85), 21.6K (91), 24K (99), 26.4K (103) and 28.8K (107).
Adaptive Dialing	The modem attempts to use tone dialing and, if that doesn't work on the line, reverts to rotary dialing.
Wait for Another Dial Tone (W)	The modem continues dialing as soon as it detects another dial tone.
Wait for an Answer (@)	The modem continues dialing when it detects 5 seconds of silence on the line.
Fast Dial	The modem dials immediately on dial-tone detect, instead of waiting the normal 2 seconds, set in Register S6.

Data Compression Settings

TCM Name	MIB Name	AT Command	Description	Settings	Default
Data Compression	mdmDcDataCompression	&Kn	Allows the modem to negotiate V.42 bis, then MNP level 5 data compression for an ARQ (error control) call, when the modem's DTE rate is higher than the call's connection rate. When the DTE rate is equal to the connection rate, the modem disables compression. The Enabled option allows data compression regardless of the modem's DTE rate. The MNP without Compression option is available to users transferring already-compressed files, because MNP5 compression degrades throughput for those files. (V.42 bis works very well with already-compressed files.) The None option disables all data compression.	None Auto Enable Enable MNP without Compression	Auto Enable

DNIS Access Codes

TCM Name	MIB Name	AT Command	Description	Settings	Default
DNIS Group 1	mdmCcCarrierAccessCode1		A user-defined number from one to 10 digits. Also known as a DNIS Carrier Access Code Number, it is compared against the phone number dialed by an incoming call. If there is a match, the modem is configured with DNIS Init String 1 before the call is answered.	Display String	Null
DNIS Init String 1	mdmCcCallingInitStri1		A user-defined string from 1 to 30 characters. This init string is used to configure a modem when an incoming call matches DNIS Group 1.	Display String	Null
DNIS Group 2	mdmCcCarrierAccessCode2		A user-defined number from one to ten digits. Also known as a DNIS Carrier Access Code Number, it is compared against the phone number dialed by an incoming call. If there is a match, the modem is configured with DNIS Init String 2 before the call is answered.	Display String	Null
DNIS Init String 2	mdmCcCallingInitStr2		A user-defined string from 1 to 30 characters. This init string is used to configure a modem when an incoming call matches DNIS Group 2.	Display String	Null
DNIS Group 3	mdmCcCarrierAccessCode3		A user-defined number from one to 10 digits. Also known as a DNIS Carrier Access Code Number, it is compared against the phone number dialed by an incoming call. If there is a match, the modem is configured with DNIS Init String 3 before the call is answered.	Display String	Null
DNIS Init String 3	mdmCcCallingInitStr3		A user-defined string from 1 to 30 characters. This init string is used to configure a modem when an incoming call matches DNIS Group 3.	Display String	Null
DNIS Default String	mdmCcCallingInitStr4		A user-defined string from 1 to 30 characters. This init string is used to configure a modem when an incoming call does not match any of the defined DNIS groups.	Display String	Null

DTE Interface Settings

TCM Name	MIB Name	AT Command	Description	Settings	Default
Pause before Result Code	mdmDiResultCodePauseDis	S13.2	When Enabled, a 250-millisecond pause precedes the transmission of modem result codes.	Enable Disable	Enable
Appletalk InterBridge Network	mdmDiInterbridgeEna	S15.7	Should be enabled only when connecting with an AppleTalk InterBridge Network	Disable Enable	Disable
AT Command Interface	mdmDiAtString		Provides an interface for issuing AT commands to the modem. This object can be stored in NVRAM and subsequently configured during power-up.	Display String	Null
Backspace Functionality	mdmDiDelAsBackspace	S15.5	Determines the operation of the Delete key. When set to Delete, the Delete key erases the character at the cursor. When set to Backspace, the Delete key deletes the key to the left of the cursor.	Delete Backspace	Delete
Break Handling Methods	mdmDiBreakHandling	&Yn	Selects one of the methods for sending a break to abort a data transfer without disconnecting from the data link. Destructive breaks flush the modem's transmit data buffer. Expedited breaks are sent immediately to the remote system. Not Sent indicates that the break is not sent to the remote modem; this can be used to clear data from the transmit buffer without passing on the break to the remote modem.	Destructive Not Sent Destructive Expedited Non-destructive Expedited Non-destructive Not Sent	Destructive Expedited
Break Length (10 ms)	mdmDiBreakLen	S21	Sets the duration of breaks, in 10-millisecond increments, sent by the modem to the DTE when in ARQ (error control) mode.	0..255	10
Busy Out	mdmDiBusyClock		Specifies whether the modem will support either the current transmit clock or a busy-out feature.	Ext Clock 1 Busy Out	Ext Clock 1
Assert CD at Connect	mdmDiCdOverride	&Cn, DIP Switch 6	When this function is set to Enable, the modem asserts CD when it connects with a remote modem, and drops CD when it disconnects. When set to Disable, CD remains true (high) until the modem is reset.	Enable Disable	Disable
Sync RTS Delay before CTS	mdmDiRtsCtsDelay	S26	Sets the duration, in 10-millisecond increments, of the delay between the DTE's assertion of RTS and the modem's assertion of CTS. Valid only for synchronous communications when the Hardware Flow Control parameter is set to CTS Delayed after RTS.	0..255	1
Backspace Character	mdmDiBackspaceChar	S5	Stores the ASCII decimal value of the backspace character. A value of 128 through 255 disables the key's delete function.	0..255	8
Carriage Return Character	mdmDiCarriageRetChar	S3	Stores the ASCII decimal value of the carriage return character.	0..255	13
Line Feed Character	mdmDiLineFeedChar	S4	Stores the ASCII decimal value of the line feed character.	0..255	10

TCM Name	MIB Name	AT Command	Description	Settings	Default
Modem Escape Character	mdmDiLocalEscChar	S2	Stores the ASCII decimal value of the escape code character, used to escape to online command mode. The default character is + (plus sign). A value of 128 through 255 disables the escape code.	0..255	43
XOFF Flow Control Character	mdmDiXoffChar	S23	Stores the ASCII decimal value of the XOFF character.	0..255	19
XON Flow Control Character	mdmDiXonChar	S22	Stores the ASCII decimal value of the XON character.	0..255	17
Default DTE Data Rate	mdmDiDefaultDteDataRate	&Bn	Allows the operator to set a default DTE data rate in applications where the DTE doesn't send AT commands to the modems. The modems typically use AT commands to automatically set the DTE data rate; if they don't detect AT commands, they will default to the rate set with this function.	bps =110, 300, 600,1200, 4800, 7200, 9600 Kbps = 19, 38, Unknown, 57, 115	9600
DSR Functionality	mdmDiDsrOverride	&Sn	Required by some systems to enable the modem to signal the DTE when the modem is ready to answer a call. DSR signaling is normally overridden. Some systems require one of the pulsed DSR options. When set to Modem Controlled, the modem controls DSR. When set to Pulsed CTS Follows CD, the modem sends a three-second pulsed DSR signal on loss of carrier, and Clear to Send (CTS) follows Carrier Detect (CD). The Pulsed option is the same, but CTS does not follow CD.	DSR Overridden Modem Controlled Pulsed CTS Follows CD Pulsed DSR Equals CD Normal CTS Follows CD	DSR Over-ridden
DTE NVRAM Lock	mdmDiDteNvramLock	R&W	When Enabled, the modem's NVRAM settings and stored phone numbers are read-only and cannot be changed by the modem's DTE user. This setting is not saved, and will be lost on the next reset or power cycle.	Disable Enable	Disable
DTE Rate Mode	mdmDiDteDataRateMode	&Bn	When this function is set to the default, Follows Link Rate, the modem switches its DTE speed to match the connection (link) rate. With the Fixed setting, the modem's serial port automatically detects the incoming DTE speed on every AT command and stays at that speed regardless of the connection (link) speed. With the ARQ Fixed/Non-ARQ Follows setting, the modem's serial port reverts to the fixed mode for ARQ (error-corrected) calls, or Follows Link Rate for non-ARQ (non-error-corrected) calls.	Follows Link Rate Fixed ARQ Fixed/Non-ARQ Follows	Follows Link Rate

TCM Name	MIB Name	AT Command	Description	Settings	Default
DTR Override	mdmDiDtrOverrride	&Dn, DIP Switch 1	Determines how the modem interprets the Data Terminal Ready (DTR) signal from the DTE. When set to Disable, the modem always assumes that DTR is true (high). When set to Enable, DTR is not overridden: the computer must assert DTR for the modem to accept incoming calls and AT commands, and dropping DTR terminates a call.	Enable Disable	Disable
Echo DTE Data	mdmDiCmdLocalEchoEnable	En, DIP Switch 4	Enables or disables the echo of typed AT commands to the modem's DTE when the modem is in command mode.	Disable Enable	Disable
Escape Code Guard Time	mdmDiEscCodeGuardTime	S12	Defines the guard time, in 50ths of a second, for the modem escape code sequence.	0..255	50 (1 second)
Half Duplex DTE Echo	mdmDiDataModeEchoEna	Fn	Defines whether or not the DTE's transmitted data is echoed back during a half duplex connection.	Enable Disable	Disable
Hardware Flow Control	mdmDiHardwareRxFlowCntl	&Rn	Disables received data hardware flow control, not usually required for asynchronous communications. Some synchronous systems require a delay between the RTS signal from the DTE and the modem's Clear to Send response; use the RTS/CTS Delayed option for systems requiring this setting. When set to Data on RTS High, the modem stops passing received data to the DTE when the DTE drops RTS and resumes when the DTE raises RTS.	RTS/CTS Delayed RTS Ignored Data on RTS High	RTS Ignored
Result Codes above 9600	mdmDiHiSpeedResCodeEna	S27.7	Determines if, on establishment of a connection, result codes above 9600 are sent to the DTE. The higher codes should be disabled if there is a communications software incompatibility, and 9600 will be displayed in place of the higher codes.	Enable Disable	Enable
Modem Reset on DTR Drop	mdmDiResetonDtrEna	S13.0	When Enabled, the modem hangs up and is reset when DTR drops. When Disabled, the modem does not reset when DTR drops.	Disable Enable	Disable
Modem Unavailable Message for Busy DTE	mdmDiRemAccessMsg	S34.6	Controls a Modem Unavailable message returned by the modem to the DTE if the DTE tries to send data to the modem while the modem is engaged in a remote access session. Provided so that the message can be disabled if it causes problems with the communications software at the DTE.	Enable Disable	Enable
DSR Mode Pulse Length (20 ms)	mdmDiDsrPulseTime	S24	Determines the length of a pulse, in 20-millisecond increments, during which DSR is high, when pulsed DSR mode has been selected.	0..255	150

TCM Name	MIB Name	AT Command	Description	Settings	Default
Default DTE Data Format	mdmDiSerialFormat		Allows the operator to set a default DTE data format in applications where the DTE doesn't send AT commands to the modems. The modems typically use AT commands to automatically set the DTE data format; if they don't detect AT commands, they default to the format set with this function.	8 bits No Parity 7 bits Even Parity 7 bits Odd Parity 7 bits Mark Parity	8 bits No Parity
DTE Interface Slot	mdmDiSlot		Specifies the slot address as the DTE interface source when the Source of DTE Interface parameter is configured for Packet Bus.	1..16	
Software Flow Control	mdmDiSoftwareRxFlowCntl	&In	None: Used when hardware flow control not supported XON/XOFF Local/Remote: Allows modem to act on XON/XOFF signals from the DTE; passes signals to remote computer. Note, signals to remote may interfere with XON/XOFF signaling. Use in ARQ mode only. XON/XOFF Local: Same as above but does not pass on to remote computer. This ensures that remote does not confuse your XON/XOFF signals with those from its attached modem. Recommended for ARQ mode. HP Host Mode: Used when modem connects to HP host and remote DTE using the ENQ/ACK protocol. Use in either ARQ or non-ARQ mode. Transmit Flow Control Mode must be disabled or set to hardware. HP Terminal Mode: Same as above except used when modem is attached to an HP terminal. Local Incoming XON/XOFF: Operates as XON/XOFF Local, but in non-ARQ mode the modem checks the phone line and acts on XON/XOFF characters.	None XON/XOFF Local/Remote XON/XOFF Local HP Host Mode HP Terminal Mode Local Incoming ON/XOFF	None
DTE Interface Source	mdmDiSrc		Specifies either NIC or Packet Bus as the source for the DTE interface.	NIC Packet Bus	NIC

TCM Name	MIB Name	AT Command	Description	Settings	Default
Transmit Flow Control Mode	mdmDiTransmitFlowCntl	&Hn	Disables/enables one of the transmit data flow control options, required when the modem is set for error control or the DTE interface speed is higher than the link speed. None means that no flow control is used. The Hard-ware setting is recommended: the modem raises/lowers the Clear to Send (CTS) signal at the RS-232 interface, which requires communication software that supports CTS. The Software setting requires software support of XON/XOFF signaling. The Hardware and Software setting is provided for users who are unsure of what their equipment supports; with this option, both methods are attempted.	None Hardware Software Hardware and Software	None
Default V.25 bis DTE Data Rate	mdmDiDteDataRate	%Nn	Establishes the default DTE rate for V.25 bis synchronous mode.	bps = 1200, 2400, 4800, 7200, 9600 Kbps = 12, 14, 16, 19 21, 24, 26, 28	9600 bps
DTR Recognition Time	mdmDiDtrRecognitionTime	S25	When DTR makes a transition from off to on, this setting determines how quickly the modem reacts (in 100ths of a second). A value of 0 means the modem will react immediately.	0..255	20

Hub Security

TCM Name	MIB Name	AT Command	Description	Settings	Default
Dial In Enable	mdmHsDialInEnable		Allows the modem to be configured for dial-in security. Enabling this effectively disables the modem's built-in Link Security operation.	No dial in security will be negotiated Connection allowed when no NMC present No calls answered when no NMC present Hold phone line busy when no NMC present	No dial in security will be nego-tiated
Dial Out Enable	mdmHsDialOutEnable		Allows the modem to be configured for dial-out security. Enabling this effectively disables the modem's built-in Link Security operation.	No dial out security will be negotiated No call attempted when no NMC present Connection allowed when no NMC present	No dial in security will be nego-tiated
DTR DCD Delay	mdmHsDtrDcdDelay		Allows configuration of a time delay, in 100ths of a second, between receipt of DTR and assertion of DCD when the user on an incoming security call has successfully completed the security dialog. Only applies to modems using an RS-232-like interface.	0..255	1
DTR DSR Delay	mdmHsDtrDsrDelay		Allows configuration of a time delay, in 100ths of a second, between detection of DTR and assertion of DSR when an incoming security call has successfully completed security negotiation.	0..255	1

Line Interface Options

TCM Name	MIB Name	AT Command	Description	Settings	Default
2100 Hz Answer Tone (V.42)	mdmLiAnswerTone	S27.3	Allows the operator to disable the 2100 Hz answer tone, allowing V.42 modems to connect more quickly and/or eliminating problems with older 2400-bps modems that do not recognize this tone.	Enable Disable	Enable
Carrier Detect Delay (.1 sec)	mdmLiCarrierRecDel	S9	Sets the duration, in tenths of a second, that the remote modem's carrier signal must be present before the local modem recognizes the signal. Ignored at speeds above 2400.	0..255	6
RX Delay after CD (.1 sec)	mdmLiDteRxDataDelay	S35, S27.6	When S35 is set to a number greater than 0, and the Custom Connect/Disconnect Mode is enabled (S27.6), the modem inserts an RX character transmission delay. The number selected for the delay represents 10 millisecond units between CD and the first received character. Reserved for a private, custom application and is not recommended for general usage.	0..255	0
Pulse/Tone Dial	mdmLiDialMode	P, T	Determines whether the modem uses pulse or tone for dialing when initiating outgoing calls.	Tone Pulse	Tone
Dial Pause Delay (sec)	mdmLiDialPause	S8	Sets the duration, in seconds, for the pause (,) option in the Dial command (ATD) and for the pause between dialing attempts with automatic redialing (> or A>) commands.	0..255	2
Guard Tone Frequency	mdmLiGuardTone	&Gn	Required for modems to answer calls originating from sites outside of North America. The modems must be operating at 1200 or 2400 bps and the Handshake option must be set to the V.32 ITU-T answer sequence. When European is selected, the modem sends a 550 Hz guard tone after the answer tone; when U.K. is selected, the modem sends a 1800 Hz guard tone after the answer tone. (See Pulse Dialing Country.)	None European, 550 Hz U.K., 1800 Hz	None
Leased Line Restore Delay after CD Loss (sec)	mdmLiLeasedLineRestDelay	S44	Sets the duration, in seconds, of the amount of time the modem waits between when it senses loss of carrier and when it attempts to restore a leased-line connection. The default setting of 15 should be appropriate for most installations. (See Leased Line Operation.)	0..255	15

TCM Name	MIB Name	AT Command	Description	Settings	Default
Leased Line Operation	mdmLiLeasedLine	&Ln	Enables or disables leased line operation. When enabled, the local and remote modems make a continuous connection without dialing. Should the connection be broken, the modems will attempt to automatically reestablish it. (See Leased Line CD Loss to Reset Delay.) NOTE: USR modems are designed to operate with two-wire leased lines. For four-wire lines a converter is required, which can usually be obtained from your local telephone company.	Disable Enable	Disable
Line Interface Source	mdmLiSrc	%Dn	Specifies either NIC (the Network Interface Card installed behind the modem) or TDM (the Time Division Multiplexed Bus) as the source for the line interface.	NIC TDM	NIC
Carrier Loss Detect Delay (.1 sec)	mdmLiCarrierLoss	S10	Sets the duration, in tenths of a second, that the modem waits after the loss of the remote modem's carrier signal before hanging up. This setting allows the modem to distinguish between a momentary lapse due to line quality and a true disconnect by the remote modem. If this value is set to 255, the modem does not hang up on loss of carrier. It hangs up only when DTR is dropped or if it receives the +++ escape code sequence and returns to command mode. Note that the exact action taken by the modem on receipt of the escape sequence depends on the setting of the Response to +++ parameter. When Response to +++ is set to Ignore or Enter Online Command Mode, the ATH command must be used to hang up the modem.)	0..255	7
Modem Transmitter	mdmLiTransmitter	Cn	Allows you to enable or disable the modem's transmitter. When an additional DTE and modem share a phone line for monitoring, the transmitter of the second modem is placed in Receive Only state by selecting Disable. This feature should be used only at 1200 or 300 bps.	Enable Disable	Enable
Pulse Dialing Country	mdmLiPulseMakeBreak	&Pn	Sets the ratio of the off-hook/on-hook interval for North American or British Commonwealth pulse dialing.	North America British Commonwealth	North America
Remote Access Attempt Limit	mdmLiRemAccessLimit	S41	Stores the number of login attempts the modem will accept for a remote access session. The default value of 0 disables remote access. If a user exceeds the number of attempts, the normal online session resumes and the user is blacklisted from further remote access attempts for that session.	0..255	0

TCM Name	MIB Name	AT Command	Description	Settings	Default
Remote Access CONFIG Password	mdmLiRemPassword1	%P1	Allows you to define a password of up to eight alphanumeric characters that must be entered by a user during a remote access login. It grants rights both to query the modem for status and to reconfigure the modem. If left undefined, no password is needed for view/configure privileges. (See Remote Access Attempt Limit.)	Password	
Remote Access Escape Code	mdmLiRemoteEscChar	S42	Stores the ASCII decimal value of the remote access escape code character. The default is the decimal value for the tilde (~). (See Remote Access Escape Guard Time.)	0..255	126
Remote Access Escape Guard Time (20 ms)	mdmLIRemoteescGuardTime	S43	Sets the duration, in 20 millisecond increments, of the guard time that the modem requires for the remote access escape sequence. (See Remote Access Escape Code.)	0..255	200 (4 sec.)
Remote Parameter VIEW Password	mdmLiRempassword	%P0	Allows you to define a password of up to eight alphanumeric characters that must be entered during a remote access login. It grants rights to query the modem and view modem status. If left undefined, no password is needed for view-only privileges. (See Remote Access Attempt Limit.)	Password	
Tone Dial Spacing (ms)	mdmLiToneDialTiming	S11	Sets the duration and spacing, in milliseconds, of dialed touch tones.	0..255	70
Transmitter Level (dB)	mdmLiTransmitLevel		Allows you to set the decibel level of the modem's transmitter.	9..20 (analog) 3..30 (digital)	9

Link Security Configuration

TCM Name	MIB Name	AT Command	Description	Settings	Default
Autopass Password	mdmLsAutoPassPassword	%V=	Stores the Autopass Password that is used to establish Link Security during call negotiation.	Display String	0
Dialback Prompting	mdmLsDialBackEnable	%A=	When enabled, after successful password validation, the modem disconnects and dials out to the originating modem.	Enable Disable	Disable
Fallback Password	mdmLsAccountPasswd	%A=	Stores the Fallback Password that must be entered if the Autopass Password is not satisfied.	Display String	
Fallback Password Prompting	mdmLsFallbackPromptEnable	S53.1	Enable/disables the prompting by the called modem when the Autopass Password supplied by the caller fails, or if no password is supplied at all.	Enable Disable	Disable
Forced Password Prompting	mdmLsForcePromptEnable	S53.3	When enabled, the modem prompts the remote user for a password whether or not the modem has succeeded in negotiating the Autopass Password.	Enable Disable	Disable
Link Security Enable	mdmLsSecurityEnable	S53.0	Enables/disables the link security feature in the modem.	Enable Disable	Disable
Local Access Password	mdmLsLocalAccessPasswd	%L=	Stores the Local Access Password used when accessing any security setting when the Local Access Password Enable parameter is enabled.	Display String	
Local Access Password Enable	mdmLsLocalAccPasswdEnable	S53.2	TEnables/disables the Local Access Password feature used to establish security check when accessing any security setting.	Enable Disable	Disable

Modem Error Control Settings

TCM Name	MIB Name	AT Command	Description	Settings	Default
MNP Level 3 Error Correction	mdmEcMnp3Dis	S13.6	Used to disable MNP level 3 so that MNP level 2 can be tested.	Enable Disable	Enable
MNP Level 4 Error Correction	mdmEcMnp4Dis	S15.4	Used to enable or disable MNP level 4. It may be necessary to disable this function when poor line conditions are expected.	Enable Disable	Enable
Special 2400 bps MNP	mdmEcMnpUnusual	S15.6	Used to enable connections with earlier non-U.S. Robotics 2400-bps modems that are not fully compatible with the MNP protocol.	Disable Enable	Disable
V.42/MNP Negotiation Method	mdmEcV42MnpHandshake	S27.4-5	Determines the error control handshaking mode. The default allows full error-control handshaking: the modem attempts to connect under V.42 error control and, if that fails, tries to connect under MNP error control. When set to disable either V.42 or MNP, the modem will only attempt to negotiate the enabled protocol. When set to disable the V.42 Detect Phase, this phase is skipped during the handshaking process, allowing for faster connections between V.42 modems.	Enable All Enable V.42 Disable MNP Disable V.42 Enable MNP Disable Detection Phase	Enable All
ARQ Buffer Reset Delay (sec)	mdmCcArqBufWait	S38	Sets the duration, in seconds, before a forced hang-up and clearing of the Transmit buffer when DTR drops during an ARQ call. Allows time for a remote modem to acknowledge receipt of all transmitted data. If the modem is in Smart mode and receives the ATH command to hang up, it ignores this setting and hangs up immediately.	Integer	0

Modem Identification

TCM Name	MIB Name	AT Command	Description	Settings	Default
Modem Model (RO)	mdmIDModel		The model name of the modem that is installed in this slot of the chassis.	Unknown V.32 bis Dual Standard HST V.32 bis V.32 bis PLUS Dual Standard V.32 bis PLUS V.32 bis PLUS Fax V.34 Dual Standard V.34 V.34 Fax	
Serial Number (RO)	mdmIDHardwareSerNum		The modem's hardware serial number as stored in EEPROM.	Display String	
Hardware Revision (RO)	mdmIDHardwareRev		The hardware revision level of the modem as stored in EEPROM.	Display String	
Software Version (RO)	mdmIDSupervisorSWRev		The revision level of the software being executed by the modem's processor.	Display String	

TCM Name	MIB Name	AT Command	Description	Settings	Default
Operational Status (RO)	mdmCsStatus		Indicates the operation condition that currently exists on the modem.	Idle Off Hook Dialing Ringing Ring Received Link Negotiation Online Originate Online Answer Local Command Mode Remote Command Mode Line Busied Out Testing ROM Testing RAM Testing NVRAM Analog Loopback Local Digital Loopback Remote Digital Loopback Self-Test Phone Test Non-managed Device Slot Empty Modem Disabled Failed Non-manageable Device MIU Failed	

TCM Name	MIB Name	AT Command	Description	Settings	Default
Country of Operation (RO)	mdmIDCountry		The country of origin of the modem. International standards may affect the defaults programmed into a modem.	Unknown North America Japan Finland Sweden UK Norway Switzerland Netherlands South Africa Italy New Zealand Czech Belgium Denmark Australia France Germany CCITT Austria Ireland	
State of the DTE's EIA Signals (RO)	mdmDiEiaLineStatus		Provides a mechanism for the console to determine the current state of the DTE's EIA signals. Indicates the current state of the following signals: Ring Indicate, Data Set Ready, Clear to Send, Carrier Detect, Data Terminal Ready, and Request to Send.	High Low	

Signal Converter Settings

TCM Name	MIB Name	AT Command	Description	Settings	Default
Bell 208	mdmScBell208	B2	Allows Bell 208 modems to include Bell 208 in link negotiation. (See High Speed Modulation Handshaking.)	Disable Enable	Disable
Buffer RX During MNP Negotiation	mdmScNonMnpDataCapture	S37.0	Provides for applications where remote modems that are not MNP-compatible call in to rack modems that expect to go through MNP call negotiation. The remote non-MNP modem may start sending data during what the rack modem expects to be the MNP negotiating period. When Enabled, the rack modem buffers received data on the link until it either times out waiting for the MNP request (about six seconds), or determines that the first character received on the link is a ^M (carriage return). When either of these conditions is met, the rack modem aborts the MNP negotiation phase, completes the call, and releases the buffered data received from the link.	Disable Enable	Disable
High Speed Handshaking	mdmScHiSpeedModulation	Bn	Determines whether a Dual Standard modem negotiates for V.32, HST, or whether a compatible modem negotiates for Bell 208. To answer calls originating overseas, leave this function at its V.32 default and change the Guard Tone parameter to an appropriate setting. The HST setting allows a compatible modem to negotiate for a connection using U.S. Robotics' proprietary HST modulation. The Bell 208 setting allows a compatible modem to negotiate for a 4800 bps synchronous connection. **NOTE**: Both V.34 and V.FC modulations preemp HST if both originate and answer modems support those protocols. If you want to originate HST to a remote USR V.34 modem, V.FC and V.8 must both be disabled.	V.32 (V.32 originate/V.25 answer) HST (HST originate/Bell answer) Bell 208 (Bell 208 originate and answer)	V.32

TCM Name	MIB Name	AT Command	Description	Settings	Default
HST Mode Lower Speed	mdmScBackChanRate	S15.2	Determines the back channel rate in HST mode. Under HST mode, data flow is asymmetrical: the connection speed in one direction is 14.4 or 16.8 Kbps, and in the other direction (called the back channel) it is 450 bps or 300 bps. The modems switch the fast and slow channels when the volume of data flow changes. The default setting of 450 bps is correct for most HST modems; the 300 bps setting is available for compatibility with earlier HST modems.	450 bps 300 bps	450 bps
HST Modulation	mdmScHstMod	S13.5	Allows an operator to disable HST mode so that a Dual Standard modem may be tested for V.32 or V.32 bis mode.	Enable Disable	Enable
Link Rate Speed Select	mdmScLinkRateSelect	&Nn	Determines the link rate. Variable means the link rate varies according to the connection sequence. With a fixed rate of 30028,800 bps, the modem connects only if the remote modem is operating at the same rate.	bps = 300, 1200, 2400, 4800, 7200, 9600 Kbps = 12, 14, 16, 19, 21, 24, 26, 28, 31.2, 33.6	Variable
Modem Equalization	mdmScHiFreqEq	S15.0	Enables or disables high-frequency equalization, a process that compensates for line distortions at high frequencies. Available for Dual modems in HST mode only.	Enable Disable	Enable
Non-ARQ Transmit Buffer Size	mdmScNonArqBufSize	S15.3	Sets the size of the non-ARQ mode Transmit buffer. The smaller value is designed for bulletin boards, to accommodate callers with slower modems so that they can control received data scrolling up and off the screen.	128 bytes 1500 bytes	1500 bytes
V.21 Modulation	mdmScV21Mod	S27.0	When this function is enabled, the modem answers both Bell 103 and V.21 overseas calls at 300 bps, but only originates V.21 300-bps calls.	Disable Enable	Disable
Fallback	mdmScFallback		Defines whether or not the modem will be allowed to change protocols if it detects a significant change in line characteristics. If the modem is unable to maintain transmission with the current modulation technique, it falls back to a lower speed. If the line then improves, the modem upshifts to a higher speed.	Enable Disable	Enable
Sync Timing Source	mdmSCSyncTimingSource	&Xn	Specifies the clock source when the modem is operating in synchronous mode.	Internal External Receive Link Clock	Internal
V.23 Call Negotiation	mdmScV23	S34.3	Allows the modem to negotiate a V.23 connection (used in U.K.) at 1200 bps after failing to negotiate a higher rate.	Disable Enable	Disable
V.32 bis Modulation	mdmScV32Bis	S34.0	Allows an operator to disable V.32 bis modulation, which may be necessary for some testing or troubleshooting.	Enable Disable	Enable

TCM Name	MIB Name	AT Command	Description	Settings	Default
V.32 Enhanced Mode	mdmScV32BisEnhance	S34.1	Allows an operator to disable U.S. Robotics' enhanced V.32 bis mode of operation. Allows asymmetrical speed switching and downshifts without retraining. The Disable option may be necessary for some testing or troubleshooting.	Enable Disable	Enable
V.32 Fast Retrain	mdmScV32QuickRetain	S34.2	Allows an operator to disable the faster retrains that occur with U.S. Robotics' enhanced V.32 bis mode of operation. The Disable option may be necessary for some testing or troubleshooting.	Enable Disable	Enable
V.32 Modulation	mdmScV32Mod	S27.2	Allows an operator to disable V.32 modulation so that a Dual Standard modem's HST modulation may be tested.	Enable Disable	Enable
V.32 Terbo Modulation	mdmScV32TerboModeEnable	S34.7	Enables or disables V.32 terbo mode, which permits connection rates up to 21.6 Kbps with compatible modems.	Enable Disable	Enable
V.32 Unencoded Modulation	mdmV32UnencodedMod	S27.1	Enables or disables unencoded modulation in V.32 mode, an option that is part of the ITU-T V.32 recommendation but is rarely used.	Disable Enable	Disable
V.34 Modulation	mdmScV34ModeEnable	S56.6	Enables or disables V.34 mode, which permits connection rates up to 28.8 Kbps with compatible modems.	Disable Enable	Enable
V8 Call Indicator	mdmScV8CallIndicator	S54.6	Allows the V.8 call indicator to be enabled on V.34 modems.	Disable Enable	Disable
V8 Mode	mdmScV8	S54.7	Allows V.8 mode to be disabled on V.34 modems.	Disable Enable	Enable
8S-2D Mapping	mdmScVFC8S2DMapping	S55.0	Allows the 8S-2D mapping to be disabled on V.FC/V.34 modems.	Disable Enable	Enable
16S-4D Mapping	mdmSc16S4DMapping	S55.1	Allows the 16S-4D mapping to be disabled on V.FC/V.34 modems.	Disable Enable	Enable
32S-2D Mapping	mdmSc32S2	S55.2	Allows the 32S-2D mapping to be disabled on V.FC/V.34 modems.	Disable Enable	Enable
64S-4D Mapping	mdmScVFC64S4DMapping	S55.3	Allows the 64S-4D mapping to be disabled on V.FC/V.34 modems.	Disable Enable	Enable
V.FC Modulation	mdmScVFCModeEnable	S56.7	Allows V.FC mode to be disabled in order to troubleshoot a connection.	Disable Enable	Enable
Non-linear Coding	mdmScVFCNonLinearCoding	S56.0	Allows the non-linear coding to be disabled on V.FC/V.34 modems.	Disable Enable	Enable
Precoding	mdmScVFCPreCoding	S56.3	Allows the precoding to be disabled on V.FC/V.34 modems.	Disable Enable	Enable
Pre-emphasis	mdmScVFCPreEmphasis	S56.2	Allows the pre-emphasis to be disabled on V.FC/V.34 modems.	Disable Enable	Enable

TCM Name	MIB Name	AT Command	Description	Settings	Default
Shaping	mdmScVFCShaping	S56.4	Allows the shaping to be disabled on V.FC/V.34 modems.	Disable Enable	Enable
2400 Symbol Rate	mdmScVFCSymRate2400	S54.0	Allows the 2400 symbol rate to be disabled on V.FC/V.34 modems.	Disable Enable	Enable
2473 Symbol Rate	mdmScVFCSymRate2743	S54.1	Allows the 2743 symbol rate to be disabled on V.FC/V.34 modems.	Disable Enable	Enable
2800 Symbol Rate	mdmScVFCSymRate2800	S54.2	Allows the 2800 symbol rate to be disabled on V.FC/V.34 modems.	Disable Enable	Enable
3000 Symbol Rate	mdmScVFCSymRate3000	S54.3	Allows the 3000 symbol rate to be disabled on V.FC/V.34 modems.	Disable Enable	Enable
3200 Symbol Rate	mdmScVFCSymRate3200	S54.4	Allows the 3200 symbol rate to be disabled on V.FC/V.34 modems.	Disable Enable	Enable
3429 Symbol Rate	mdmScVFCSymrate3429	S54.5	Allows the 3429 symbol rate to be disabled on V.FC/V.34 modems.	Disable Enable	Enable
TX Level Deviation	mdmScVFCTxLevelDeviation	S56.1	Allows the transmit level deviation to be disabled on V.FC/V.34 modems.	Disable Enable	Enable
300 Baud	mdmSc300	S48.0	Indicates if 300bps transmission has been disabled on the modem.	Enable Disable	Disable
1200 Baud	mdmSc1200	S48.1	Indicates if 1200bps transmission has been disabled on the modem.	Enable Disable	Disable
2400 Baud	mdmSc2400	S48.2	Indicates if 2400bps transmission has been disabled on the modem.	Enable Disable	Disable
High Speed	mdmScHighSpeed	S48.3	Indicates if V.32*bis* and HST transmissions have been disabled on the modem.	Enable Disable	Disable
V.42 Selective Reject	mdmScSelectiveReject	S51.6	Selective Reject works under V.42 error control and offers significant throughput improvements over noisy lines. The number of retransmitted blocks due to block errors (blers) is reduced because a specific data packet will be NAKed, rather than all packets received since the last ACKed packet.	Enable Disable	Enable
Phone Exclusion Delay	mdmScPhExclusionDel	S51.7	Handset disabled for a period of 6 seconds before going off hook. Rarely used setting.	Enable Disable	Disable

Cellular Configuration

The parameters in this NMC configuration group apply only to cellular calls. The settings do not affect normal connections.

TCM Name	MIB Name	AT Command	Description	Settings	Default
ETC Max. Link Rate	mdmCeDceBitraLim	S64	Sets maximum DCE rate, preventing modems from connecting or falling forward to link rates higher than specified. Lowering the maximum link rate to 9600 bps can provide more stability for cellular calls under adverse conditions. However, higher throughput is sacrificed for calls over stronger cellular links that can support higher link rates.	Max DCE Rate bps = 4800, 7200, 9600 Kbps = 12, 14.4	Max DCE Rate
ETC Transmit Level	mdmCeDceTxLev	S65	Allows a Cellular modem to control the DCE transmit level (default) or permits a specific decibel level to be imposed for a cellular operation. A reduced transmit level is required for data transfer across cellular links. When ETC is established for a call, the modem automatically reduces its transmit (TX) level to the value specified by this parameter. With the default setting, the modem sets the TX level according to ETC specifications based on whether it is transmitting over T1 or analog lines and whether the modem is set for fixed site or mobile. We do not recommend changing this setting.	Modem control TX level dBm = 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25	Modem control TX level
ETC Negotiation	mdmCeV42EtcDis	S66.0	Controls whether or not the modem will use ETC in response to the ETC calling tone.	Disable Enable	Disable
ETC Fixed/Mobile Site	mdmCeV42CellSite	S66.1	Determines whether a Cellular modem will use a fixed site or mobile site cellular profile. The cellular profile sets transmit levels based on ETC specifications. With the exception of certain nautical and aerospace applications, most Total Control installations are fixed site.	Fixed site Mobile site	Fixed site
ETC Calling Tone	mdmCeV42EtcCallToneDis	S66.2	Determines whether or not the ETC calling tone is sent out by a Cellular modem during link establishment, telling the answering modem to use ETC settings. Enable the ETC calling tone when originating calls from the mobile side (cell side) of a cellular link. Disable calling tone only if you experience problems when originating calls to non-cellular modems.	Disable Enable	Disable

TCM Name	MIB Name	AT Command	Description	Settings	Default
Force ETC Settings	mdmCeV42EtcTxLevConDis	S66.3	If ETC negotiation is enabled, this setting forces ETC transmit level control for all incoming calls. Some callers may wish to negotiate ETC using the earlier 1.0 version, which does not generate the ETC calling tone used in version 1.1. In order for the modem to implement ETC when answering calls from modems with the earlier 1.0 version, it must be set to force ETC for every call it receives. (In this circumstance, the system administrator may wish to dedicate some modems for cellular calls only.)	Disable Enable	Disable
ETC DCE Start-up Rate	mdmCeDceStartRate	S66.4 and S66.5	Permits selection of the DCE start-up rate for a Cellular modem. Some cellular links may be so poor that calls are dropped even before the modems can initialize modulation and error control negotiation. To reduce the number of dropped calls, the modem should be set to a 9600 bps startup rate. The modems negotiate at the lower and more stable link rate, and after ETC has been implemented, raise the link rate to the higher levels afforded by ETC.	Auto 4800 bps 9600 bps	Auto
ETC Transmit De-emphasis	mdmCeV42DceTxDemDis	S66.6	Permits selection of DCE transmit de-emphasis for a Cellular modem. Transmit de-emphasis is recommended when connecting over a cellular link, whether the modem is on the fixed site or mobile site. When enabled, transmit de-emphasis is automatically implemented whenever the modem receives an ETC call.	Disable Enable	Disable
Do not Originate with ETC	mdmCeDbNoEtcDis	S66.7=1	Use the “disable” setting to disable ETC when originating calls to a non-cellular modem, yet allows ETC negotiation in answer mode. If the modem is used to place outgoing calls to non-cellular modems, use this setting to disable ETC during originate mode.	Disable Enable	Disable
MNP10 Negotiation	mdmCeMnp10Dis	S60.0	Enabling this option for a Cellular modem allows a Cellular modem to connect using MNP10.	Disable Enable	Disable
MNP Extended Services	mdmCeMnpxDis	S60.1	Extended Services (MNPX) allows the modems to negotiate MNP10 as a part of the V.42 negotiation process. If the connecting modem does not support either V.42 or MNPX, MNP10 is negotiated under MNP. With MNPX disabled, modems can not negotiate MNP10 under V.42. **NOTE:** If MNPX is disabled, calls from modems using MNPX and V.42 connect without MNP10.	Disable Enable	Disable

TCM Name	MIB Name	AT Command	Description	Settings	Default
MNP10 Compression Type	mdmCeComp	S60.2	Applies to a Cellular modem for which data compression has been enabled. With the V.42 *bis* setting, the modem decides which type of compression engine to use on a case-by-case basis. Selecting MNP5 allows only that type of compression to be used on a cellular call; if unsuccessful, no compression is used in the connection. Used for testing purposes only.	MNP5 V.42 bis	MNP5
MNP10 Cellular	mdmCeOperDis	S60.3	Uses Dynamic Transmit Level Adjustment (DTLA). With the default, non-cellular setting, DTLA is only used if the originating modem is set for an MNP10 cellular call. Enable only when originating from a cellular link.	Disable Enable	Disable
MNP10 Link Speed	mdmCeLinkSpeed	S60.4	Forces a V.22 1200 bps link rate for MNP10 connections. Use the 1200 bps option to provide stability and reliability for extremely noisy MNP10 link conditions.	Link at High Speed Link at 1200 bps (V.22)	Link at High Speed
MNP10 Fallback	mdmCeMnp10FallbackDis	S60.5	When enabled, prevents the modem from falling back to lower speeds during MNP10 connections. Used for testing purposes only.	Enable Disable	Disable
MNP10 Fall Forward	mdmCeMnp10FallforDis	S60.6	Prevents the modem from falling forward to higher speeds during MNP10 connections. Used for testing purposes only.	Enable Disable	Disable
MNPX Detection Pattern	mdmCeMnpxDetPhaEna	S60.7	The MNPX pattern expedites MNP10 negotiation when connecting to other modems that support MNPX. The MNPX detection pattern can cause problems when dialing to modems without MNPX—they connect, but without MNP10. Disable the MNPX detection pattern if you experience this problem when dialing to modems without MNPX. In answer mode, the MNPX detection pattern should always be enabled.	Enable Disable	Enable
MNP10 V.42 bis Short Form Negotiation Rules	mdmCeShortFormRules	S61	Provides V.42*bis* compatibility when originating to some older MNP10 modems that do not have MNPX capabilities. The short from assumes that the maximum string length is 32 octets and the direction of compression is always bi-directional. When disabled, V.42 *bis* is negotiated with MNPX.	Disable Form 1 Code Words 512 Form 2 Code Words 1024 Form 3 Code Words 2048	

Modem Event Thresholds

TCM Name	MIB Name	AT Command	Description	Settings	Default
DTE Idle Timeout Limit (min)	mdmEtDteIdleThresh		Defines the length of time for the modem to wait before reporting a DTE Transmit Data Idle event. There must be no activity for the specified number of minutes. (See On DTE Idle Timeout.)	0..255	0
Connection Timeout Limit (min)	mdmEtConnTimeLimit		Defines the number of minutes that a call may be connected before the NMC will report that a Connection Timeout Limit event has occurred. A value of 0 for this parameter means that no time limit is to be observed. (See On Connection Timeout.)	0..255	0
DTR False Event Timeout (sec)	mdmEtDtrFalseThresh		Defines the number of seconds that will be used by the modem to qualify a DTR False event. (See On DTR False.)	0..255	0
DTR True Time Limit (sec)	mdmEtDtrTrueThresh		Defines the number of seconds that will be used by the modem to qualify a DTR True event. (See On DTR True.)	0..255	0
Block Errors Limit	mdmEtBlerThresh		Defines the number of block errors that will be used to qualify a BLER Count at Threshold event for a given call. (See On Block Error Count.)	0..255	0
Fallback Limit	mdmEtFallbackThresh		Defines the number of line fallbacks that will be used to qualify a Fallback Count at Threshold event for a given call. (See On Fallback Count.)	0..255	0

Trap Enables

TCM Name	MIB Name	AT Command	Description	Settings	Default
On Connection Failure	mdmTeConnAttemptFailure		Enables an SNMP trap upon detection of a connect attempt failure event on the specified modem. This does not include those connect attempt failures that are reported due to no dial tone and no loop current.	enableTrap disableAll enableLog enableAll	disable-All
On Connection Timeout	mdmTeConnLimitExpired		Enables an SNMP trap upon detection of the expiration of the connection time limit on the specified modem. (See Connection Timeout Limit.)	enableTrap disableAll enableLog enableAll	disable-All
On DTR False	mdmTeDtrFalse		Enables an SNMP trap upon detection of a DTR false event on the specified modem. (See DTR False Event Timeout.)	enableTrap disableAll enableLog enableAll	disable-All
On DTR True	mdmTeDtrTrue		Enables an SNMP trap upon detection of a DTR True event on the specified modem. (See DTR True Time Limit.)	enableTrap disableAll enableLog enableAll	disable-All
On Incoming Call	mdmTeInConnEstablished		Enables an SNMP trap upon detection of an incoming connection established on the specified modem.	enableTrap disableAll enableLog enableAll	disable-All
On Incoming Termination	mdmTeInConnTerminated		Enables an SNMP trap upon detection of an incoming call termination on the specified modem.	enableTrap disableAll enableLog enableAll	disable-All
On Outgoing Call	mdmTeOutConnEstablished		Enables an SNMP trap upon detection of an outgoing connection established by the specified modem.	enableTrap disableAll enableLog enableAll	disable-All
On Outgoing Termination	mdmTeOutConnTerminated		Enables an SNMP trap upon detection of an outgoing connection terminated by the specified modem.	enableTrap disableAll enableLog enableAll	disable-All

TCM Name	MIB Name	AT Command	Description	Settings	Default
On DTE Issued Reset	mdmTeResetByDTE		Enables an SNMP trap upon detection of a reset by the DTE on the specified modem.	enableTrap disableAll enableLog enableAll	disable-All
On Block Error Count	mdmTeBlerCountAtThresh		Enables an SNMP trap upon detection of the BLER count reaching the threshold on the specified modem. (See Block Errors Limit.)	enableTrap disableAll enableLog enableAll	disable-All
On Fallback Count	mdmTeFallbkCountAtThresh		Enables an SNMP trap upon detection of the fallback count reaching the threshold on the specified modem. (See Fall Back Limit.)	enableTrap disableAll enableLog enableAll	disable-All
On Missing Dial Tone	mdmTeNoDialTone		Enables an SNMP trap upon detection of missing dial tone on the specified modem.	enableTrap disableAll enableLog enableAll	disable-All
On Missing Loop Current	mdmTeNoLoopCurrent		Enables an SNMP trap upon detection of missing loop current on the specified modem.	enableTrap disableAll enableLog enableAll	disable-All
On DTE Idle Timeout	mdmTeDteXmitDataIdle		Enables an SNMP trap upon detection of DTE transmit data idle on the specified modem. (See DTE Idle Timeout Limit.)	enableTrap disableAll enableLog enableAll	disable-All
Dial Out Call Duration	mdmTeDialOutCallDur		Enables an SNMP trap upon detection that a dial out call (from the NMC) has ended.	enableTrap disableAll enableLog enableAll	disable
Dial In Call Duration	mdmTeDialInCallDur		Enables an SNMP trap upon detection that a dial in call (to the NMC) has ended.	enableTrap disableAll enableLog enableAll	disable
Packet Bus Active	mdmArPacketBusActive		Enables an SNMP trap on detection that a packet bus link is active.	enable disable	disable
Packet Bus Lost	mdmArPacketBusLost		Enables an SNMP trap on detection that a packet bus link has been lost.	enable disable	disable

TCM Name	MIB Name	AT Command	Description	Settings	Default
DTE Ring No Answer Trap	mdmTeDteRingNoAns		Enable or disable the DTE Ring No Answer event. Used to detect a "dead-air" or "ring-no-answer" situation. It is sent if one of the following conditions occur: The Quad modem receives a digital call, sends an incoming call message to the NetServer, but does not receive an answer call message within 60 seconds. The Quad modem receives a digital call, sends an incoming call message to the NetServer, but does not receive an answer call message before another call arrives. The Quad modem receives an analog call, sends an incoming call message to the NetServer, but does not receive an answer call message before it detects a specified number of rings. The number of rings can be selected by setting S-Register 0.	enableTrap disableAll enableLog enableAll	disable-All

Performance

Call Statistics

TCM Name	MIB Name	AT Command	Description	Settings	Default
Status	mdmCsStatus		Displays the current status of the modem.	Idle offHook dialing ringing ringRcvd linkNegotiation onlineOriginate onlineAnswer localCommandMode remoteCommandMode lineBusiedOut tonTest responderTest105 responderTest102 failed testingROM testingRAM testingNvram anlogLoopback localDigitalLoopback remoteDigitalLoopback selfTest phoneTest nonManagedDevice slotEmpty modemDisabled notResponding nonManageable Device miuFailed	

TCM Name	MIB Name	AT Command	Description	Settings	Default
Last Calling Party Num			An ASCII string representing the current or last party calling this modem. Only used in ANI (Answering Number Indicate) applications.	Display String	
Last Number Dialed Out	mdmCsLastNumberDialedOut		An ASCII string representing the last phone number dialed by the modem.	Display String	
Last Number Dialed In	mdmCsLastNumberDialedIn		An ASCII string representing the last number dialed in (if known). This is the DNIS (Dialed Number Identification Service) number.	Display String	
Sync Async Mode Used			Displays whether the current or last call was synchronous or asynchronous.	Asynchronous Synchronous	
Originate Answer	mdmCsOriginateAnswer		Displays whether the last or current call was originated or answered.	Originate in Originate Mode Originate in Answer Mode Answer in Originate Mode Answer in Answer Mode	
Rings			Displays the number of rings detected before the DTE answered with DTR on the last incoming call.	Integer	
Disconnect Reason	mdmCsDisconnectReason		Displays the reason that the last call was terminated.	(See List on Following Page)	

Modem Disconnect/ Connect Fail Reasons

DTR Drop
Escape Sequence
ATH Command
Carrier Loss
Inactivity Timeout
MNP Incompatible
Undefined
Remote Password
Link Password
Retransmit Limit
Link Disconnect Msg Received
No Loop Current
Invalid Speed
Unable to Retrain
Management Command
No Dial Tone
Keypress Abort
Line Busy
No Answer
Voice
No Answer Tone
No Carrier
Undetermined
V.42 Sabme Timeout
V.42 Break Timeout
V.42 Disconnect Command
V.42 ID Exchange Fail
V.42 Sabme Timeout
V.42 Break Timeout
V.42 Disconnect Command
V.42 ID Exchange Fail
V.42 Bad Setup
V.42 Invalid Code Word
V.42 String too Long
V.42 Invalid Command
None
V.32 Cleardown
Dial Security
Remote Access Denied
Loop Loss
DS0 Teardown
Prompt Not Enabled
No Prompting In Sync
Non-ARQ Mode
Mode Incompatible
No Prompt In Non-ARQ
Dialback Link
Link Abort
Autopass Failed
Packet Bus Generic Error
Packet Bus Link Error Tx Pre ACK
Packet Bus Link Error Tx Tardy ACK
Packet Bus Transmit Bus Timeout
Packet Bus Receive Bus Timeout
Packet Bus Link Error Tx TAL
Packet Bus Link Error Rx TAL
Packet Bus Transmit Master Timeout
Packet Bus Clock Missing
Packet Bus Received Ls While Link Up
Packet Bus Out Of Sequence Frame
Packet Bus Bad Frame
Packet Bus ACK Wait Timeout
Packet Bus Received ACK Sequence Error
Packet Bus Receive Overflow RNR Failed
Packet Bus Receive Msg Buffer Overflow
Gateway Disconnect Command Received
Class II Fax Hang-up Command
MNP Protocol Violation
HST Speed Switch Timeout
Token Passing Timeout
DSP Interrupt Timeout
MNP Unpacked LM!s
Remote Digital Loopback Timer Expired
T1 Glare

TCM Name	MIB Name	AT Command	Description	Settings	Default
Connect Fail Reason	mdmCsConnectFailReason		Displays the last call attempt failure reason.	See List Above	
Initial Link Rate	mdmCsInitialTxLinkRate mdmCsInitiaqlRxLinkRate		The speed at which the modem initially connected on its last or current call.	bps = 75, 110, 450, Unknown, 300, 600, 1200, 2400, 4800, 7200, 9600 Kbps = 12, 14, 16, 19, 21, 24, 26, 28, 31, 33, 38, 57	
Final Link Rate	mdmCsFinalTxLinkRate mdmCsFinalRxLinkRate		The current link rate of a connection, or the ending link rate of the last connection.	bps = 75, 110, 450, Unknown, 300, 600, 1200, 2400, 4800, 7200, 9600 Kbps = 12, 14, 16, 19, 21, 24, 26, 28, 31, 33, 38, 57	

TCM Name	MIB Name	AT Command	Description	Settings	Default
Modulation Type	mdmCsModulationType		Specifies the current or last call modulation type.	U.S. Robotics HST ITU-T V.32 ITU-T V.22 bis Bell 103 ITU-T V.21 Bell 212 ITU-T V.32 bis ITU-T V.23 Negotiation Failed Bell 208B V.21 Fax Class 1 V.27 Fax Class 1 V.29 Fax Class 1 V.17 Fax Class 2 V.32 Terbo V.34 V.FC V.34 PLUS	
MNP Settings			Specifies the MNP error control settings in the current or last call (long format).	Integer	
V.42 Settings			Specifies the active V.42 data compression and error control settings in the current or last call (long format).	Integer	
Error Control Type	mdmCsErrorControlType		Specifies the error control settings in the current or last call (short form).	None MNP Level 3 MNP Level 4 ITU-T V.42 U.S. Robotics HST None - Synchronous MNP Level 2 MNP Level 10 V.42 Enhanced Throughput Cellular	
Compression Type	mdmCsCompressiontype		Specifies the data compression used in the current or last call (short format).	None ITU-T V.42 bis MNP Level 5	
Equalization Type	mdmCsEqualizationType		Specifies the equalization used in the current or last call.	Long Short	
Fallback Enabled	mdmCsFallbackEnable		Specifies whether line speed fallbacks were negotiated on the current or previous call	Disable Enable	

TCM Name	MIB Name	AT Command	Description	Settings	Default
Chars Sent	mdmCsCharsSent		Specifies the number of characters sent on the current or previous call.	Integer	
Chars Received	mdmCsCharsReceived		Specifies the number of characters received in the current or previous call.	Integer	
Octets Sent	mdmCsOctetSent		Specifies the number of octets sent in the current or previous call.	Integer	
Octets Received	mdmCsOctetsReceived		Specifies the number of octets received in the current or previous call.	Integer	
Blocks Sent	mdmCsBlocksSent		Specifies the number of blocks sent in the current or previous call.	Integer	
Blocks Received	mdmCsBlocksReceived		Specifies the number of blocks received in the current or previous call.	Integer	
Blocks Resent	mdmCsBlocksResent		Specifies the number of blocks the modem has had to retransmit due to block errors or timeouts in the current or previous call.	Integer	
Retrains Requested	mdmCsRestrainsRequested		Specifies the number of retrains requested in the current or previous call.	Integer	
Retrains Granted	mdmCsRestrainsGranted		Specifies the number of retrains granted in the current or previous call.	Integer	
HST Line Reversal Qty	mdmCsLinereversalQty		Specifies the number of times the HST high and low speeds directions have been reversed in the current or previous call.	Integer	
Chars Lost	mdmCsCharslost		Specifies the number of characters lost on the current or previous call. Not meaningful on synchronous calls.	Integer	
Back Channel Rate	mdmCsBackChannelRate		Specifies the negotiated HST back channel speed on the current or previous call.	300 bps 450 bps none	
Blerr Qty	mdmCsBlerQty		Specifies the number of block errors received on the link in the current or last call.	Integer	
Link Timeout Qty	mdmCsLinkTimeoutQty		Specifies the number of link protocol timeouts on the current or previous call.	Integer	
Fallback Qty	mdmcsFallbackQty		Specifies the quantity of link speed fallbacks that occurred on the current or previous call.	Integer	
Upshift Qty	mdmCsUpshiftQty		Specifies the number of link speed upshifts have occurred in the current or previous call.	Integer	
Link NAK Qty	mdmCsLinkNAKQty		Specifies the quantity of negative acknowledgments sent in response to errored blocks received on the link in the current or previous call.	Integer	
Gain Hit Count	mdmCsGainHitCount		The modem calculates the gain that is required to adjust the received signal to the ideal. This defines the number of times that the gain was recalculated during the current or previous call.	Integer	

Modem Events

TCM Name	MIB Name	AT Command	Description	Settings	Default
Watchdog Timeouts			Number of times that a watchdog timeout has been detected for this modem.	Counter	
DTE IdleTimeouts	mdmEvDteIdleTimouts		Number of times that the modem has registered no DTE activity for the specified time.	Counter	
InConnectEstabs			Number of times that the modem has reported an incoming connection established event.	Counter	
OutConnectEstabs	mdmEvOutConnectEstabs		Number of times that the modem has reported an outgoing connection established event.	Counter	
InConnectTerms			Number of times the modem has reported an incoming connection terminated event.	Counter	
OutConnectTerms			Number of times the modem has reported an outgoing connection termination event.	Counter	
ConnectAttempt-Fails			Number of times the modem has reported a connect attempt failure. This does not include those connect attempt failures reported due to no dial tone and loop current.	Counter	
ConnectTimeouts			Number of times that the NMC has detected a call that has a duration in excess of the defined threshold.	Counter	
MgmtBusFailures			Number of times the NMC is unable to get a response from the modem to requests on the management bus.	Counter	
ResetByDTEs			Number of times that the modem has been reset by the DTE via the ATZ command or by DTR drop.	Counter	
DTRFalses	mdmEvDtrFalses		Number of times the modem has reported DTR False events.	Counter	
DTRTrues	mdmEvDtrTrues		Number of times the modem has reported DTR True events.	Counter	
NoTones	mdmEvNoTones		Number of times the modem reported no tones.	Counter	
NoLoops	mdmEvNoLoops		Number of times the modem reported no loop current.	Counter	
BLERs	mdmEvBlers		Number of modem-reported block errors.	Counter	
Fallbacks			Number of modem-reported fallbacks.	Counter	
Security User Name			The last security user that initiated a call. This object is not saved to NVRAM.	Display String	

Chapter 2
Modem Analog Network Interface Card Parameters

Programmed Settings

NIC Identification

TCM Name	MIB Name	AT Command	Description	Settings	Default
NIC Description	uchasEntityDescr		Displays the name of the NIC.	Display String	
NIC Revision	uchasEntityVersion		Displays the NIC revision level.	Display String	
Operational Status	uchasEntityOperStatus		Displays the current operational status.	Other Out of Service Testing Operational Failed Loading	
NIC Line Status (RO)	anicCfgLineStatus		Displays the current line status.	Normal Busy	

Faults

Trap Enables

TCM Name	MIB Name	AT Command	Description	Settings	Default
Modem Ring No Answer Event	anicCfgMdmRingNATrapEna		Enable or disable the Modem Ring No Answer event.	enableTrap disableAll enableLog enableAll	disable-All
DTE Ring No Answer Event	anicCfgDteRingNATrapEna		Enable or disable the DTE Ring No Answer event. This event is used to detect a "dead-air" or "ring-no-answer" situation. It is sent if one of the following conditions occur: The Quad modem receives a digital call, sends an incoming call message to the NetServer, but does not receive an answer call message within 60 seconds. The Quad modem receives a digital call, sends an incoming call message to the NetServer, but does not receive an answer call message before another call arrives. The Quad modem receives an analog call, sends an incoming call message to the NetServer, but does not receive an answer call message before it detects a specified number of rings. The number of rings can be selected by setting S-Register 0.	enableTrap disableAll enableLog enableAll	disable-All

NIC Event Thresholds

TCM Name	MIB Name	AT Command	Description	Settings	Default
Ring No Answer Events Threshold	anicCfgRingThresh		Set up the threshold for the number of rings allowed before triggering a Ring No Answer event.	Integer (0..255)	

Chapter 3
Network Management Card Parameters

Programmed Settings

NMC Identification

TCM Name	MIB Name	Description	Settings	Default
Operational Status (RO)	uchasEntityOperStatus	Indicates the operation condition that currently exists on the Network Management Card.	Other Out of Service Testing Operational Failed Loading	
Serial Number (RO)	uchasSlotModuleSerialNumber	The Network Management Card's hardware serial number as stored in EEPROM.	Display String	
Hardware Revision (RO)	uchasSlotModuleVersion	The hardware revision level of the Network Management Card as stored in EEPROM.	Display String	
Software Version (RO)	uchasEntityVersion	The revision level of the software being executed by the Network Management Card's processor.	Display String	
General NMC Status (RO)	nmcStatStatus	Indicates the general status or health of the Network Management Card.	Other OK Non-critical Failure	
DRAM Installed (KB) (RO)	uchasSlotRamInstalled	Indicates the amount of dynamic RAM currently installed on the Network Management Card, expressed in kilobytes.	Integer	
NVRAM Installed (KB) (RO)	nmcStatNVRAMInstalled	Indicates the amount of nonvolatile RAM currently installed on the Network Management Card, expressed in kilobytes.	Integer	
Chassis Temp (Deg. C) (RO)	nmcStatTemperature	Indicates the current temperature in the Total Control chassis, as detected by the Network Management Card, expressed in degrees Celsius.	Integer	
Number of Power Up Failures (RO)	nmcStatPowerUpTstFailures	Indicates the number of power-up tests that failed during power up of the NMC.	Counter	
Software Compatibility Version (RO)	nmcStatCompSwVer	Indicates the version of Total Control Manager/SNMP with which the NMC is compatible.	Display String	

TCM Name	MIB Name	Description	Settings	Default
DIP Switch Settings (RO)	uchasSlotSwitchSettings	Displays the current DIP switch settings on the selected NAC. To interpret the integer displayed, convert into binary and read in a right-to-left fashion. **Example:** *TCM* value = 1; Binary conversion = 0000000001 All DIP switches OFF, except DIP switch 1, which is ON.	INTEGER	
DRAM Installed (RO)	uchasSlotRamInstalled	Number of Kbytes of DRAM on the Card.	0..4294967295	
ROM Installed (RO)	uchasSlotFlashInstalled	Number of Kbytes of FLASH ROM on the Card.	0..4294967295	
Packet Bus Clocking Source	nmcStatPktBusClkSrc	Identifies the source of the backplane packet bus clock. When the backplane clock fails for one NAC, the backplane is still the source. But if the clock fails for more than one NAC, the NMC takes over as the clock source. A value of Not Applicable can mean there is no NMC clocking daughtercard (verified by the hardware revision level) or that the card is installed in a chassis that doesn't have backplane clocking.	notApplicable backplaneActive backplaneActive1ClkFail nmcActive	

Configuration Group

TCM Name	MIB Name	Description	Settings	Default
System Time	nmcCfgSystemTime	Reflects the current local time kept by the real-time clock on the NMC. Has the capability to maintain the correct time for short durations without power. The time is displayed in the format HH:MM:SS.	Display String	
System Date	nmcCfgSystemDate	Used to set and read the current date kept by the NMC's real-time clock. The date is displayed in the format MM/DD/YY.	Display String	
Greenwich Mean Time	nmcGmtime	Reflects the current time in Greenwich Mean Time. The value of this object is sent with any SNMP trap messages for use by the receiving Management Stations.	Integer	
Time Zone	nmcTimeZone	Allows you to specify the time zone where the chassis is installed. It is used in the conversion from local time to Greenwich Mean Time. Zones are defined by their variance from GMT. There are options for GMT plus and minus 12 to allow for the International Date Line. GMT minus 12 indicates a position east of the International Date Line, while GMT plus 12 indicates a position west of the International Date Line.	easternUsagmtPlus5 centralUsagmtPlus6 mountainUsagmtPlus7 pacificUsagmtPlus8 gmtPlus9 gmtPlus10 gmtPlus11 gmtPlus12 gmtMinus12 gmtMinus11 gmtMinus10 gmtMinus9 gmtMinus8 gmtMinus7 gmtMinus6 gmtMinus5 gmtMinus4 gmtMinus3 gmtMinus2 gmtMinus1 gmtPlus0 gmtPlus1 gmtPlus2 gmtPlus3 gmtPlus4	gmtPlus0

TCM Name	MIB Name	Description	Settings	Default
Daylight Savings Time	nmcDaySavingTime	Allows you to specify whether or not the NMC will honor Daylight Savings Time when converting from local time to Greenwich Mean Time (GMT).	Enable Disable	Enable
Auto Config on Card Initialization	nmcPowerAutoCfgEnable	Specifies whether or not the NMC should configure cards automatically when they are inserted into the chassis or when the chassis is powered on. If enabled, the values used to configure the card are those that were last saved to the NMC's NVRAM. If a different type of card has been installed in the slot than was there when settings were last stored in the NMC's NVRAM, default values are used to configure the card.	Disable Enable	Disable
Chassis Name	uchasDescr	The operator-defined name assigned to the chassis.	Display String	U.S. Robotics Nas Chassis
NMC LED Display	uchasDisplayName	The operator-defined value (up to four alphanumeric characters) that will be displayed in the Hub Number/Status field on the front panel of the NMC.	Display String	USR

Dial Out Configuration

TCM Name	MIB Name	Description	Settings	Default
AT Init String	nmcCfgAtString	Initialization string the software will send to a connected modem before dialing the phone number of a remote WAN connection.	Display String	AT&FE0Q0&H1&R2&B1V1
WAN Connect Number	nmcCfgWanDialOutPhoneNum	The phone number that the NMC will use to dial a modem connected to the WAN port if there is no existing connection when the NMC tries to send an IP datagram out that port. When configuring this parameter with a modem dial string, the user must begin the string with the appropriate AT dial commands, e.g., ATDT.	Display String	0
WAN Dial-Out Attempt Limit	nmcCfgNumWanRetries	Specifies the number of attempts that are made to send a packet out of the WAN port during a dial-up connection. The default of 0 means that the number of retries is disabled and the NMC will continue trying to transmit the packet until it succeeds.	Integer	Null
Pause Between Retries (sec)	nmcCfgWanRetryPause	The amount of time, in seconds, that the NMC pauses between attempts to transmit a packet.	Integer	20
Retry Suspension Interval	nmcCfgWanRetrySuspendTime	The period, in seconds, for which the WAN port should suspend its efforts to send out a packet. This period applies when the number of failures has reached the maximum specified in the Failures Before Suspending Retries parameter.	Integer	300
Connection Failure Limit	nmcCfgNumFailBefSuspend	Number of connection failures to allow before suspending retries. (See also Retries Suspend Time.)	Integer	3

NMC Tests

TCM Name	MIB Name	Description	Settings	Default
A/D Converter (RO)	nmcStatTestResult	Displays Pass or Fail for the latest test status.		
EEPROM CRC (RO)	nmcStatTestResult	Displays Pass or Fail for the latest test status.		
Flash Program VPP (RO)	nmcStatTestResult	Displays Pass or Fail for the latest test status.		
Power Supply Presence (RO)	nmcStatTestResult	Displays Pass or Fail for the latest test status.		
File System CRC (RO)	nmcStatTestResult	Displays Pass or Fail for the latest test status.		
Mgt Bus Slot 1 to 16 (RO)	nmcStatPowerUpTstFailBMap	Displays Pass or Fail for the latest test status.		
Mgt Bus NIC Test (RO)	nmcStatPowerUpTstFailBMap	Displays Pass or Fail for the latest test status.		
Power-Up A/D Converter (RO)	nmcStatPowerUpTstFailBMap	Displays Pass or Fail for the latest test status.		
Power-Up EEPROM CRC (RO)	nmcStatPowerUpTstFailBMap	Displays Pass or Fail for the latest test status.		
Power-Up Flash Program VPP (RO)	nmcStatPowerUpTstFailBMap	Displays Pass or Fail for the latest test status.		
Power-Up Power Supply Presence (RO)	nmcStatPowerUpTstFailBMap	Displays Pass or Fail for the latest test status.		

Hub Security

TCM Name	MIB Name	Description	Settings	Default
User Name Prompt	nmcHsDialInOutNamePrompt	First prompt to appear when users establish a connection with a security modem. Consists of up to 80 characters, and identifies the system and prompts users to enter their names. (See Dial In/Out Password Prompt.)	Display String	^J^MU.S. ROBOTICS TOTAL CONTROL ^J^MUSERNAME:
User Password Prompt	nmcHsDialInOutPsswdPrompt	Appears after a valid response has been received to a User Name Prompt. Consists of up to 80 characters, and prompts users to enter their password. (See Dial In/Out name Prompt.)	Display String	^J^MPASSWORD:
Dial Back Name Prompt	nmcHsDialBackNamePrompt	Only appears when users are configured for dial back security (dialing back to either a stored or an entered number), and may consist of up to 80 characters. In addition, the Request Login Validation on Dial Back field must be enabled for the user in the RADIUS user database. (See Dial Back Password Prompt.)	Display String	^J^MU.S. ROBOTICS TOTAL CONTROL DIAL BACK ^J^ MUSERNAME:
Dial Back Password Prompt	nmcHsDialBackPsswdPrompt	Appears after a valid response has been supplied to the Dial Back Name Prompt. Consists of up to 80 characters.	Display String	^J^MPASSWORD:
Dial Back Number Prompt	nmcHsDialBackPhonePrompt	Only appears if a user has been configured for Dial Back Entered mode in the RADIUS user database. It may consist of up to 80 characters, and prompts users to enter a number at which the system can call them back.	Display String	^J^MENTER YOUR DIAL BACK PHONE NUMBER:
Dial Back Pending Prompt	nmcHsDialBackPendprompt	Only appears if a user has been configured for Dial Back mode (to either a stored or an entered number) in the RADIUS user database. Consists of up to 80 characters. Confirms to users that they have logged in successfully; lets them know that the system has reserved a modem to call them back.	Display String	^J^MSUCCESSFUL LOGIN, DIAL BACK PENDING.
Modem Select Prompt	nmcHsMdmSelectPrompt	Only appears if a user is configured for Dial Back mode in the RADIUS user database and has enabled the Request Dial Back Modem Selection field. The system displays a list of allowed dial back modems that have been entered for this user. Users must enter the number that appears on the menu next to the modem of their choice. This prompt may consist of up to 80 characters.	Display String	^J^MENTER YOUR DIAL BACK MODEM:

TCM Name	MIB Name	Description	Settings	Default
Login Failed Message	nmcHsLoginFailedMsg	Appears when users fail to enter a valid name/password combination. Consists of up to 80 characters.	Display String	^J^MINVALID LOGIN ATTEMPT.
Restricted Number Prompt	nmcHsPhoneRestrictPrompt	Appears when a user has been prompted to enter a dial back phone number and the entered number violates the allowed numbers specified in the Call Restriction List. Consists of up to 80 characters.	Display String	^J^MRESTRICTED PHONE NUMBER.
Invalid Modem Select Message	nmcHsInvalidMdmSelecMsg	Appears when users that are configured for both Dial Back mode as well as Request Dial Back Modem Selection select a modem to which they are not allowed access, as defined in the list of allowed Dial Back modems. This message may consist of up to 80 characters.	Display String	^J^MINVALID MODEM.
No Modems Available Message	nmcHsNoMdnsAvailMsg	Appears when the system is unable to reserve a modem for dial back that was either selected by the user or defined in the list of Allowed Dial Back Modems. Consists of up to 80 characters.	Display String	^J^MSELECTED MODEM UNAVAILABLE.
Connect Success Message	nmcHsConnectSuccessMsg	Confirms that users have successfully completed their login and may proceed with either their dial-in or dial-out call. Consists of up to 80 characters.	Display String	^J^MSECURITY CONNECTION SUCCESSFUL.
New Password Message	nmcHsNewPasswordPrompt	Appears when a user's password has expired. It follows the Change Password Message, and is issued once for the new password and then again to confirm the new password. Consists of up to 80 characters.	Display String	^J^MNEW PASSWORD:
Change Password Message	nmcHsChangePasswordMsg	Appears during name/password authentication when the user's password has expired. Consists of up to 80 characters. This message is immediately followed by the New Password Message.	Display String	^J^MPASSWORD EXPIRED
Response Timeout	nmcHsPromptRspTimeout	Represents the number of seconds that users have in which to respond to system prompts. Users failing to respond within the specified time are disconnected, and a Dial Security login failure trap is generated. Any login failures of this type also apply to the User Blacklist function if a valid user name has been entered. This field takes precedence over a modem's inactivity timer during a security login.	10..255	30

TCM Name	MIB Name	Description	Settings	Default
Response Attempt Limit	nmcHsPromptRspAttempts	Represents the number of tries a user is allowed per prompt during any one security session. If this number is reached, the call is terminated. For purposes of this parameter, user name and password are treated as a single prompt. This means that if a valid name and an invalid password are entered, the failure is counted against both the Prompt Response Attempt Limit and the Failed Logins Before Blacklist.	1..16	1
Response Echo Enable	nmcHsPromptRspEchoEna	When enabled, this option instructs the NMC to echo the user's typed responses back to the user's screen. Password responses are echoed as X's.	Disable Enable	Disable
Dial Back Delay	nmcHsDialBackDelay	Defines the number of seconds to wait between successive dial back attempts, that is, how long the NMC waits before attempting the next dial back when it is unable to connect.	1..100	30
Dial Back Attempt Limit	nmcHsDialBackAttempts	Defines the number of times that the NMC will attempt to dial back a user that is configured for dial back if an initial dial back attempt fails.	1..100	1
Security Server IP Address	nmcHsSecuritySrvrAddr	Identifies the IP address of the RADIUS security server where the NMC RADIUS client sends requests.	IP address	
Security Server UDP Port	nmcHsSecuritySrvrPort	Identifies the UDP port where the NMC's RADIUS client issues requests to the RADIUS security server.	1645	
Security Server Retries	nmcHsSecuritySrvrRetries	Defines the number of attempts that the NMC's RADIUS client will make when attempting to send requests to a RADIUS security server.	1..3	1
Modem Attempt Limit	nmcHsMdmAttemptLimit	Represents the number of times an attempt can be made to log in on any one modem without success. If this value is exceeded, the Login Attempt Limit Exceeded trap is generated if it has been enabled.	1..16	3
Security Server Unavailable	nmcHsServerUnavailable	Specifies whether to deny or allow a call when a dial security server is unreachable.	denyCall allowCall	denyCall

System Group

TCM Name	MIB Name	Description	Settings	Default
Chassis Type (RO)	sysDescr	Defines the type of chassis in which the NMC is installed.	U.S. Robotics 7-slot chassis U.S. Robotics 17-slot chassis	
USR Object ID (RO)	sysObjectID	Displays the object ID assigned by U.S. Robotics, containing the proprietary U.S. Robotics Enterprise ID.		
System Up Time (ms) (RO)	sysUpTime	Displays the amount of time, in milliseconds, that the system has been up and operational.		

User Interface Configuration

TCM Name	MIB Name	Description	Settings	Default
LAN IP Address	nmcUiCfglanIpAddr	IP address of the LAN interface port on the NMC Network Interface Card.	IP address	
LAN Subnet Mask	nmcUiCfgLanSubnetMask	Subnet mask for the IP address of the LAN interface port on the NMC Network Interface Card.	IP address	
WAN IP Address	nmcUiCfgWanIpAddr	IP address of the WAN interface port on the NMC Network Interface Card.	IP address	
WAN Subnet Mask	nmcUiCfgWanSubnetMask	Subnet mask for the IP address of the WAN interface port on the NMC Network Interface Card.	IP address	
Default Gateway IP Address	nmcUiCfgDefaultGwyIp	IP address of the Gateway to which the system will forward packets whose net ID does not match the net ID of either the LAN or WAN interface port on the NMC Network Interface Card.	IP address	
NMC NIC LAN Interface	nmcUiCfgLanifEnable	Permits enable/disable of the NMC Network Interface Card's LAN interface.	Enable Disable	Disable

Auto Response Timer 1-4 Groups

TCM Name	MIB Name	Description	Settings	Default
Timer Enable	uchasArTimerEna	Allows you to enable or disable Auto Response timers.	Disable Enable	Disable
Start Date	uchasArTimerStartDate	Date the timer becomes active.	Display string (MM/DD/YY)	
Stop Date	uchasArTimerStopDate	Date the timer becomes passive (stops firing).	Display string (MM/DD/YY)	
Start Time	uchasArTimerStartTime	Time (GMT) the timer becomes active.	Display string (HH:MM:SS)	
Stop Time	uchasArTimerStopTime	Time (GMT) the timer becomes passive (stops firing).	Display string (HH:MM:SS)	
Timer Interval	uchasArTimerInterval	Rate at which the timer is to fire between start/stop time/date. Measured in seconds.	0	
Current Timer State (RO)	uchasArTimerState	Indicates whether the timer is operational, currently active or currently passive.	init passive active	
Times Timer Triggered (RO)	uchasArTimerTriggers	Indicates the number of timer triggers that have occurred.	Counter	

Logging Group

TCM Name	MIB Name	Description	Settings	Default
Event Logging Server	nmcCfgLogSrvrSelect	Parameter is used to select/indicate which RADIUS accounting server is to be used for event logging.	primary secondary none	none
Primary Log Server IP Address	nmcCfgLogPriSrvrAddr	Specifies the IP address of the primary RADIUS accounting server.	IP Address	
Secondary Log Server IP Address	nmcCfgLogSecSrvrAddr	Specifies the IP address of the secondary RADIUS accounting server.	IP Address	
Log Server's UDP Port	nmcCfgLogUdpPortNum	UDP port number of the RADIUS accounting server.	1646	
Logging Client TX Retry	nmcCfgLogRetryCnt	No response re-transmission count that the NMC logging client observes for messages sent to the RADIUS server.	3	

TCM Name	MIB Name	Description	Settings	Default
Log Group Selection	nmcCfgLogCallStatGrpSel	Allows you to specify what information will be sent by the NMC to the server. You can then the control traffic level and send only that information likely to be included in the logs kept by the server. Group 1 is always sent, but you may also send another group or combination of groups. The groups are as follows: Group 1 Usage Statistics (always sent) User Name Call Start Date/Time Call End Date/Time Call Termination Reason Number Dialed--OUTGOING ONLY ANI--INCOMING ONLY DNIS--INCOMING ONLY Call Duration Group 2 Data Transfer Statistics Characters Sent Characters Received Octets Sent Octets Received Blocks Sent Blocks Received Blocks Resent Characters Lost Line Reversals Group 3 Performance Statistics Block CRC Errors Link NAKs Link Fallbacks Link Upshifts Link Timeouts Initial Link TX Rate Final Link TX Rate Initial Link RX Rate Final Link RX Rate Retrains Requested Retrains Granted Group 4 Operating Mode Statistics Sync/Async Mode Modulation Type Originate/Answer Mode Error Control Type Data Compression Type HST Back Channel Rate Default DTE Data Rate High Freq Equali	none group2 group3 group4 group23 group24 group34 all	none

Added Cost Features

TCM Name	MIB Name	Description	Settings	Default
Auto Response	uchasSlotStatFeEna	Indicates if the feature is enabled or disabled in the chassis (NMC).	Disable Enable	
Cellular	uchasSlotStatFeEna	Indicates if the feature is enabled or disabled in the chassis (NMC).	Disable Enable	
HUB Security	uchasSlotStatFeEna	Indicates if the feature is enabled or disabled in the chassis (NMC).	Disable Enable	

Faults

Chassis Trap Enables

TCM Name	MIB Name	Description	Settings	Default
Card Inserted	uchasModuleInsertedTrapEna	Enables a trap when a card is inserted into the chassis. This parameter is effective across all slots in the chassis.	enableTrap disableAll enableLog enableAll	enableTrap
Card Removed	uchasModuleRemovedTrapEna	Enables a trap when a card is removed from the chassis. This parameter is effective across all slots in the chassis.	enableTrap disableAll enableLog enableAll	enableTrap
Power Supply Out-of-Range	uchasPSUWarningTrapEna	Enables a trap when a power supply enters a warning state, such as one or more output voltages being out of range. This parameter is effective across all PSUs in the chassis.	enableTrap disableAll enableLog enableAll	enableTrap
Power Supply Failed	uchasPSUFailureTrapEna	Enables a trap when a power supply fails and is automatically shut down due to overvoltage, overcurrent, etc. This parameter is effective across all PSUs in the chassis.	enableTrap disableAll enableLog enableAll	enableTrap
High Temperature Detected	uchasTempWarningTrapEna	Enables a trap when the NMC detects the temperature in the chassis to be excessive.	enableTrap disableAll enableLog enableAll	enableTrap
Fan Failure Detected	uchasFanFailureTrapEna	Enables a trap when the fan in the chassis is not rotating with sufficient speed to cool the power supplies.	enableTrap disableAll enableLog enableAll	enableTrap
Generate Watchdog Traps	uchasEntityWatchdogTrapEna	Enables a trap when a logical networking entity in the chassis undergoes a watchdog timeout event, indicating a software failure.	enableTrap disableAll enableLog enableAll	enableTrap

TCM Name	MIB Name	Description	Settings	Default
NMC Communication Error	uchasEntityMgtBusFailTrapEna	Enables a trap when the SNMP proxy agent in the NMC is not able to communicate properly with a logical networking entity in the chassis.	enableTrap disableAll enableLog enableAll	enableTrap

NMC Trap Enables

TCM Name	MIB Name	Description	Settings	Default
Authentication Failure	nmcCfgAuthFailTrapEnable	Indicates whether or not the SNMP Proxy Agent running in the NMC should send a trap upon reception of an SNMP message that was not properly authenticated. MIB-I and II require a mechanism for enabling/disabling generation of this trap.	Enable Disable	Enable

Hub Security Traps

TCM Name	MIB Name	Description	Settings	Default
Dial Out Login Fail Trap	nmcTeDialOutLoginFail	Enables/disables a trap when a dial out login security session has failed.	enableTrap disableAll enableLog enableAll	disableAll
Dial In Login Fail Trap	nmcTeDialInLoginFail	Enables/disables a trap when a dial in login security session has failed.	enableTrap disableAll enableLog enableAll	disableAll
Dial Back Restrict Number Trap	nmcTeDialOutRestrictNum	Enables/disables a trap when a dial back security session has failed as a result of attempting to dial a restricted phone number.	enableTrap disableAll enableLog enableAll	disableAll
User Blacklist Trap	nmcTeUserBlacklist	Enables/disables a trap when a security user has reached their final failed login attempt limit and is now being blacklisted.	enableTrap disableAll enableLog enableAll	disableAll
Response Attempt Limit Exceeded Trap	nmcTeRespAttemptLimExceed	Enables/disables a trap when a security user has failed to issue a valid response to a particular security prompt before the configured limit.	enableTrap disableAll enableLog enableAll	disableAll
Login Attempt Limit Exceeded Trap	nmcTeLoginAttemptLimExceed	Enables/disables a trap when a security session has failed because the indicated user does not appear in the security user database.	enableTrap disableAll enableLog enableAll	disableAll
Security Server Lost	nmcTeSecSrvrLoss	Enables/disables the trap generated when communication is lost with the Security Server.	enable disable	disable

Logging Traps

TCM Name	MIB Name	Description	Settings	Default
Logging Server Lost Trap	nmcTeLogSrvrLoss	Enables/disables the trap generated when communication is lost with the logging server.	Enable Disable	Disable

Packet Bus Traps

TCM Name	MIB Name	Description	Settings	Default
Single Packet Bus Clock Fail	nmcTeSinglePbClockFail	Enables/disables the trap generated when the NMC detects that there is a packet bus clock failure in a single slot.	Enable Disable	Disable
Packet Bus Clock Switch	nmcStatPktBusClkSrc	Enables/disables the trap generated when the NMC detects that there is a packet bus clock failure in multiple slots and the NMC has assumed the role of clock master.	Enable Disable	Disable
Packet Bus Clock Fail	nmcTePbClockFail	Enables/disablesthe trap generated when the NMC detects that the packet bus clock on the NMC daughter board has failed. Check status of the Packet Bus Clocking Source (nmcStatPktBusClkSrc) in the NMC Identification group to determine if the NMC was acting as clock master.	Enable Disable	Disable

Performance

Status Group

TCM Name	MIB Name	Description	Settings	Default
Status	nmcStat	Indicates the general status or health of the Network Management Card.	Other OK Non-critical Failure	
DRAM Installed	nmcStatDramInstalled	Indicates the currently installed dynamic RAM on the Network Management Card, expressed in kilobytes.	Integer	
NVRAM Installed	nmcStatNVRAMInstalled	Indicates the amount of Nonvolatile RAM currently installed on the Network Management Card, expressed in kilobytes.	Integer	
Event ID	nmcStatEventId	Increments once for each network management event detected by the Network Management Card. It is used to correlate SNMP traps with events that occur in the system.	Integer	
Temperature	nmcStatTemperature	Reflects the current temperature in the chassis as detected by the Network Management Card, expressed in degrees Celsius.	Integer	

IP (Internet Protocol) Group

TCM Name	MIB Name	Description	Settings	Default
IP Forwarding	ipForwarding	Indicates whether or not this entity is acting as an IP router, or gateway.		
IP Default TTL	ipDefaultTTL	Default value inserted in the IP header's time-to-live field.		
IP In Receives	ipInReceives	Total number of input datagrams received.		
IP In Hdr Errors	ipInHdrErrors	The number of input datagrams discarded due to errors in their IP headers.		
IP In Addr Errors	ipInAddrErrors	Number of input datagrams discarded because the IP address in the IP header's destination field was not a valid address to be received at this entity.		
IP Forw Datagrams	ipForwDatagrams	Number of IP datagrams that were forwarded to another entity because this entity was not their final destination.		
IP In Unknown Protos	ipInUnknownProtos	Number of datagrams received but discarded because of an unknown or unsupported protocol.		
IP In Discards	ipInDiscards	Number of input datagrams received but discarded for reasons other than errors.		
IP In Delivers	ipInDelivers	Total number of IP datagrams successfully delivered to IP user protocols, including ICMP.		
IP Out Requests	ipOutRequests	Total number of IP datagrams that local IP user protocols (including ICMP) supplied to IP in request for transmission.		
IP Out Discards	ipOutDiscards	Number of output IP datagrams that were discarded for reasons other than errors.		
IP Out No Routes	ipOutNoRoutes	Number of output IP datagrams discarded because no route could be found to transmit them to their destination.		
IP Reasm Timeout	ipReasmTimeout	Maximum number of seconds that received fragments are held while they are awaiting reassembly at this entity.		
IP Reasm Reqds	ipReasmReqds	Number of IP fragments received that need to be reassembled at this entity.		
IP Reasm OKs	ipReasmOKs	Number of IP datagrams successfully reassembled.		
IP Reasm Fails	ipReasmFails	Number of failures detected by the IP reassembly algorithm.		
IP Frag OKs	ipFragOKs	Number of IP datagrams that have been successfully fragmented at this entity.		
IP Frag Fails	ipFragFails	Number of IP datagrams that have been discarded at this entity because they could not be fragmented.		
IP Frag Creates	ipFragCreates	Number of IP datagram fragments that have been created as a result of fragmentation at this entity.		

ICMP (Internet Control Message Protocol) Group

TCM Name	MIB Name	Description	Settings	Default
ICMP In Msgs	icmpInMsgs	Total number of ICMP messages that the entity received.		
ICMP In Errors	icmpInErrors	Number of ICMP messages that the entity received but determined as having ICMP-specific errors.		
ICMP In Dest Unreachs	icmpInDestUnreachs	Number of ICMP Destination Unreachable messages received.		
ICMP In Time Excds	icmpInTimeExcds	Number of ICMP Time Exceeded messages received.		
ICMP In Parm Probs	icmpInParmProbs	Number of ICMP Parameter Problem messages received.		
ICMP In Src Quenchs	icmpInSrcQuenchs	Number of ICMP Source Quench messages received.		
ICMP In Redirects	icmpInRedirects	Number of ICMP Redirect messages received.		
ICMP In Echos	icmpInEchos	Number of ICMP Echo (request) messages received.		
ICMP In Echo Reps	icmpInEchoReps	Number of ICMP Echo Reply messages received.		
ICMP In Timestamps	icmpInTimestamps	Number of ICMP Timestamp (request) messages received.		
ICMP In Timestamp Reps	icmpInTimestampReps	Number of ICMP Timestamp Reply messages received.		
ICMP Out Msgs	icmpOutMsgs	Total number of ICMP messages that this entity attempted to send.		
ICMP Out Errors	icmpOutErrors	Number of ICMP messages that this entity did not send because of ICMP-related problems.		
ICMP Out Dest Unreachs	icmpOutDestUnreachs	Number of ICMP Destination Unreachable messages sent.		
ICMP Out Time Excds	icmpOutTimeExcds	Number of ICMP Time Exceeded messages sent.		
ICMP Out Parm Probs	icmpOutParmProbs	Number of ICMP Parameter Problem messages sent.		
ICMP Out Src Quenchs	icmpOutSrcQuenchs	Number of ICMP Source Quench messages sent.		
ICMP Out Redirects	icmpOutRedirects	Number of ICMP Redirect messages sent.		
ICMP Out Echos	icmpOutEchos	Number of ICMP Echo (request) messages sent.		
ICMP Out Echo Reps	icmpOutEchoReps	Number of ICMP Echo Reply messages sent.		
ICMP Out Timestamps	icmpOutTimestamps	Number of ICMP Timestamp (request) messages sent.		
ICMP Out Timestamp Reps	icmpOutTimestampReps	Number of ICMP Timestamp Reply messages sent.		
ICMP Out Addr Masks	icmpOutAddrMasks	Number of ICMP Address Mask Request messages sent.		
ICMP Out Addr Mask Reps	icmpOutAddrMaskReps	Number of ICMP Address Mask Reply messages sent.		

TCP (Transmission Control Protocol) Group

TCM Name	MIB Name	Description	Settings	Default
TCP Rto Algorithm	tcpRtoAlgorithm	The algorithm used to determine the timeout value used for retransmitting unacknowledged octets.		
TCP Rto Min	tcpRtoMin	The minimum value (in milliseconds) permitted by a TCP implementation for the retransmission timeouts.		
TCP Rto Max	tcpRtoMax	The maximum value (in milliseconds) permitted by a TCP implementation for the retransmission timeouts.		
TCP Max Conn	tcpMaxConn	Limit on the total number of TCP connections the entity can support.		
TCP Active Opens	tcpActiveOpens	Number of times TCP connections have made a transition to the SYN-SENT state from the CLOSED state.		
TCP Passive Opens	tcpPassiveOpens	Number of times TCP connections have made a direct transition to the SYN-REVD state from the LISTEN state.		
TCP Attempt Fails	tcpAttemptFails	Number of failed connection attempts.		
TCP Estab Resets	tcpEstabResets	Number of resets that have occurred.		
TCP Curr Estab	tcpCurrEstab	Number of TCP connections having a current state of either ESTABLISHED or CLOSE-WAIT.		
TCP In Segs	tcpInSegs	Total number of segments received.		
TCP Out Segs	tcpOutSegs	Total number of segments sent.		
TCP Retrans Segs	tcpRetransSegs	Total number of segments retransmitted.		

UDP (User Datagram Protocol) Group

TCM Name	MIB Name	Description	Settings	Default
UDP In Datagrams	udpInDatagrams	Total number of UDP datagrams delivered to UDP users.		
UDP No Ports	udpNoPorts	Total number of received UDP datagrams for which there was no application at the destination port.		
UDP In Errors	udpInErrors	Number of received UDP datagrams that could not be delivered for reasons other than the lack of an application at the destination port.		
UDP Out Datagrams	udpOutDatagrams	Total number of UDP datagrams sent from this entity.		

Chapter 4
T1 Card Parameters

Programmed Settings

T1 Identification

TCM Name	MIB Name	Description	Settings	Default
Operational Status (RO)	uchasEntityOperStatus	Indicates the operation condition that currently exists on the T1 Card.	Other Out of Service Testing Operational Failed Loading	
Serial Number (RO)	dt1IdHardwareSerNum	Hardware serial number as stored in EEPROM.	Display String	
Hardware Revision (RO)	dt1IdHardwareRev	Hardware revision level as stored in EEPROM.	Display String	
Software Version (RO)	dt1IdSoftwareRev	Revision level of the software being executed by the T1 Card's processor.	Display String	

T1 Programmed Settings

TCM Name	MIB Name	Description	Settings	Default
Line A Timing Source	dt1CfgSpanATmgSrcPrio	Specifies the priority of the Line A timing source. The timing source with the highest priority clocks data on the T1 span line and drives the TDM bus. Priority assignment of timing sources allows switching to the next highest priority timing source if the current source fails. Any timing source can be disabled by assigning the value Not Allowed. If not disabled, two or more timing sources cannot be assigned the same priority.	Not Allowed High Medium High Medium Low	High
Line B Timing Source	dt1CfgSpanBTmgSrcPrio	Specifies the priority of the Line B timing source. The timing source with the highest priority clocks data on the T1 span line and drives the TDM bus. Priority assignment of timing sources allows switching to the next highest priority timing source if the current source fails. Any timing source can be disabled by assigning the value Not Allowed. If not disabled, two or more timing sources cannot be assigned the same priority.	Not Allowed High Medium High Medium Low	Medium High
Internal Timing Source	dt1InternTmgSrcPrio	Specifies the priority of the internal timing source. The timing source with the highest priority clocks data on the T1 span line and drives the TDM bus. Priority assignment of timing sources allows switching to the next highest priority timing source if the current source fails. Any timing source can be disabled by assigning the value Not Allowed. If not disabled, two or more timing sources cannot be assigned the same priority.	Not Allowed High Medium High Medium Low	Not Allowed
TDM Bus Timing Source	dt1TdmBusTmgSrcPrio	**NOTE:** The TDM Bus as a timing source is NOT ALLOWED. This parameter may be set in the system but it will be ignored. *Description:* Specifies the priority of the TDM bus timing source. The timing source with the highest priority clocks data on the T1 span line and drives the TDM bus. Priority assignment of timing sources allows switching to the next highest priority timing source if the current source fails. Any timing source can be disabled by assigning Not Allowed. Two or more timing sources cannot have the same priority.	Not Allowed High Medium High Medium Low	Not Allowed

TCM Name	MIB Name	Description	Settings	Default
T1 Presence in Chassis	dt1CfgNumT1TypeNacs	Indicates the number of T1 and/or T1/E1 PRI NACs in the chassis.	NotSupported single multiple	NotSupported
T1 Idle Disconnect Pattern	dt1CfgIdleDiscPatt	Allows you to change the idle/disconnect pattern used over the chassis TDM bus between the modem and a T1 card during call setup and teardown. Change this setting ONLY in situations where stray in-band characters from T1 DS0s are frequently misinterpreted by the modem as the idle/disconnect pattern, causing unexpected modem disconnects. **Reserved Patterns**: 0, 2, 3, 4, 5, 6, 121, 128, 129, 130, 133, 134, and 255 **WARNING**: The Modem card must be set for the same value. Do not change this value without also setting the Modem card for the same value. Requires a T1 card compatible with this feature.	0..255	1

T1 Tests

TCM Name	MIB Name	Description	Settings	Default
RAM Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
ROM Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
Watchdog Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
NMI Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
EEPROM CRC Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
User Interface Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
Management Bus UART Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
Framer 1/2 Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
Time/Space Switch Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
CSU 1/2 Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
NIC Presence Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
Internal Timing Source Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
TDM Bus Timing Source Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	

DS0 <--> Modem Configuration

When you select this parameter group, the Total Control Manager - DS0 <--> Modem Configuration Window is launched.

DS1 Trunk Settings

TCM Name	MIB Name	Description	Settings	Default
Framing Mode	ds1LineType	Describes the DS1 line type implemented on this circuit. The line type affects the bits per second the circuit can carry, as well as how usage/error statistics are interpreted.	DS1 ESF AT&T Extended SuperFrame format. DS1 D4. AT&T D4 format. DS1 ANSI-ESF. ANSI Extended SuperFrame format. DS1 G704. ITU-T Recommendation G.704 section 2.1.3.2. DS1 G704-CRC. ITU-T Recommendation G.704 section 2.1.3.1. Other	DS1 D4
Line Coding Options	uds1CfgZeroCoding	Select a line coding scheme, or Alternate Mark Inversion (AMI), for T1 span lines 1 and 2, individually. A line coding scheme ensures a sufficient density of 1's in the bit stream, required by the T1 standard for clock synchronization. In selecting AMI (no line coding), you risk losing data. **IMPORTANT:** Usually the TELCO specifies the Framing Mode and Line Coding of the T1 line. Make sure the options are set in accordance with the type of T1 line purchased.	Other ZCS (Zero Code Suppression) B8ZS (Binary 8 Zero Suppression) AMI (Alternate Mark Inversion)	AMI
Response to Remote Loopback	uds1CfgRespToRemoteLoopbk	Configures the T1 Card to either ignore or respond to remotely initiated loopback requests on the selected DS1.	Ignore Respond	Ignore
Jitter Attenuation	uds1CfgJitterAttenuation	The T1 NIC hardware provides a 193-bit frame buffer to compensate for low frequency jitter with the synchronization to the T1 network. This buffer can be placed in either the receive or transmit data path. The default setting is the transmitter. The transmitter is recommended when the T1 card is using internal timing instead of timing from the span line.	Attenuate Jitter on Receiver Attenuate Jitter on Transmitter	Attenuate Jitter on Transmitter
Transmitter Attenuation	uds1CfgXmitLineBuildOut	Used to configure the amount of transmitter attenuation that is to be applied to the transmit signal in order to eliminate crosstalk problems when the transmitter energy causes errors on the low amplitude receive line.	0 dB 7 dB 15 dB 22 dB	0 dB
Automatic Busy Out	uds1CfgAutoBusyEnable	Can be set to enable or disable the automatic busy out feature for all timeslots on the specified trunk(s), based on the availability of the corresponding modem channel. If enabled, when a modem is considered idle and that modem is not sending the idle pattern to the T1 Card on the TDM bus, the timeslot is busied out.	Disabled Enabled	Disabled

TCM Name	MIB Name	Description	Settings	Default
Dial In Address	uds1CfgDialInAdr	Identifies whether or not address information (DNIS and ANI numbers) will be transferred as part of the call setup for the specified T1 line.	No Address DNIS ANI-DNIS ANI	DNIS
Dial-in/Dial-out Trunk Signal Start	uds1CfgDialInOutTrunkSt	Specifies whether Wink, Immediate, or Dial Tone will be used for start supervision on dial-in and dial-out calls on the specified DS1.	Wink Immediate Dial Tone	Wink
Dial-in/Dial-out Trunk Type	uds1CfgDialInOutTrunkType	Sets the type of trunk to be used for dial-in and dial-out calls. E&M Type II is the standard for Wink and Immediate Start trunks.	E&M Type II Loop Start Ground Start	E&M Type II
Acknowledgment Wink	uds1CfgDialInAdrAckWinkEn	Enables or disables an acknowledgment wink after dial-in address information has been received for the specified DS1.	Disabled Enabled	Disabled
Delay Sending Address Info.	uds1CfgDialOutAdrDly	Allows an adjustable delay in sending out address information from the T1 NAC to the TELCO.	Integer (70..3000)	70
Stuffed Byte Sent to TELCO	uds1CfgStuffByteValue	Allows an adjustable “stuffed byte” to be sent to the TELCO in order to maintain a sufficient density of 1’s for a fractional T1 application.	Integer (0..255)	254 (FE Hex)

DS0 Time Slots

TCM Name	MIB Name	Description	Settings	Default
DS0s 1-24	ds0CfgTimeSlot	Each DS0 may be switched to a different TDM Bus time slot from 0 (unused) to 256.	0-256	

DS0 Configuration Types

TCM Name	MIB Name	Description	Settings	Default
DS0s 1-24	ds0CfgType	Currently, allows a connection to either the TDM Bus, Span Line 1 or Span Line 2.	Connect to the TDM Bus Connect to Span Line 1 Connect to Span Line 2	

DS0 Configuration States

TCM Name	MIB Name	Description	Settings	Default
DS0s 1-24	ds0CfgState	For each DS0 channel on the T1 Card, sets the configuration state.	Normal State Busied Out Transparent State Unused State	

Faults

Trap Enables (Card Level)

TCM Name	MIB Name	Description	Settings	Default
Trap on Timing Source Change	dt1TrapEnaTxTmgSrcSwitch	Enables the SNMP proxy agent to generate a trap upon detection of the T1 Card switching to an alternate transmit timing source.	enableTrap disableAll enableLog enableAll	disableAll

Trap Enables (DS1)

TCM Name	MIB Name	Description	Settings	Default
Trap on Alarm Ind Signal	uds1TrapEnaAlarmIndSignal	Indicates to the remote end a loss of the received signal. It is also known as a blue alarm. AIS occurs when a stream of 1's is received. This alarm indicates to the remote end a loss of the received signal. It is also known as a blue alarm. AIS occurs when a stream of 1's is received.	enableTrap disableAll enableLog enableAll	Disable
Trap on Loss of Signal	uds1TrapEnaLossOfSignal	Occurs when 175 consecutive 0's are detected in the NIC. The signal is recovered if the density of 1's reaches 12.5%, that is, four 1's are received within a 32-bit period.	enableTrap disableAll enableLog enableAll	Disable
Trap on Red Alarm	uds1TrapEnaRedAlarm	Indicates that a receiver has reframed on a new framing pattern it has synchronized at a new frame alignment due to an Out of Frame (OOF) condition.	enableTrap disableAll enableLog enableAll	Disable
Trap on Yellow Alarm	uds1TrapEnaYellowAlarm	Indicates that an OOF (Out of Frame) condition has occurred at the remote end. It is also known as a Remote Frame Alarm (RFA).	enableTrap disableAll enableLog enableAll	Disable
Trap on Yellow Alarm Cleared	yellowAlarmClear	Indicates that an OOF (Out of Frame) condition—also known as a Remote Frame Alarm (RFA)—has cleared at the remote end.	enableTrap disableAll enableLog enableAll	disableAll
Trap on Red Alarm Cleared	redAlarmClear	Indicates that an Out of Frame (OOF) condition has been cleared.	enableTrap disableAll enableLog enableAll	disableAll
Trap on Loss of Signal Cleared	lossOfSignalClear	Indicates the signal is recovered and the density of 1's has reached 12.5%; that is, four 1's were received within a 32-bit period.	enableTrap disableAll enableLog enableAll	disableAll
Trap on AIS Cleared	alarmIndicationSignalClear	Indicates an Alarm Indicate Signal has been cleared and the remote end has been notified that the signal is being received.	enableTrap disableAll enableLog enableAll	disableAll

Performance

DS0 Stats

TCM Name	MIB Name	Description	Settings	Default
Stat DS0	ds0StatDs0	Indicates the current status of the specified timeslot. The status values change dynamically with system operation.	Specified DS0 doesn't match anything Specified DS0 is idle Incoming call is dialing Outgoing call is dialing Incoming call is connected Outgoing call is connected Soft Busy Out DS0 Auto Busy Out DS0 Modem Busy Out DS0 This DS0 is ignoring incoming calls Modem Call Ignore This DS0 is under test This DS0 is in an alarm state DS0 unavailable DS0 state for modem tone tests DS0 is not connected to TDM or any DS0 Configured for busy out state Unsubscribed DS0 on Frac T1 line Drop and insert mode	
Stat Modem	ds0StatModem	Identifies whether the modem connected to the specified timeslot is available or not. A modem is considered available if the T1 Card identifies the modem's presence on the TDM bus.	Corresponding modem is in other state Corresponding modem is unavailable Corresponding modem is available Corresponding modem in busy out Corresponding modem in tone test Corresponding modem is unused Modem is connected to transparent Cfg. DS0	

T1 Call Statistics

TCM Name	MIB Name	Description	Settings	Default
Time Elapsed	ds1TimeElapsed	Number of seconds that have elapsed since the beginning of the current error-measurement period.	Integer	
Valid Intervals	ds1ValidIntervals	Number of previous intervals for which valid data was collected. The value is 96 unless the interface was brought online within the last 24 hours, in which case the value is the number of complete 15-minute intervals since the interface has been online.	Integer	
Loopback	ds1Loopback	Indicates whether or not the selected DS1 is in a loopback state, and what type of loopback.	Ds1NoLoop ds1LocalLoopback-LocalSide ds1LocalLoopback- RemoteSide ds1RemoteLoopback- LocalSide ds1RemoteLoopback- RemoteSide	
Send Code	ds1SendCode	Indicates what type of code is being sent across the DS1 interface.	Ds1OtherTest sending a test pattern other than those described by this parameter ds1SendNoCode sending looped or normal data ds1SendSetCode sending a request for a loopback ds1SendResetCode sending a loopback termination request ds1SendQRSS sending a Quasi- Random Signal test pattern	
Yellow Alarm	ds1Yellow Alarm	Indicates whether or not the selected DS1 is in a yellow alarm condition. This indicates that an OOF (Out of Frame) condition has occurred at the remote end. It is also known as a Remote Frame Alarm (RFA).	Ds1NoYellowAlarm ds1YellowAlarm	
Red Alarm	ds1RedAlarm	Indicates whether or not the selected DS1 is in a red alarm condition. A red alarm identifies when the framing pattern for the specified T1 line has been lost and data cannot be properly extracted.	Ds1NoRedAlarm ds1RedAlarm	
Circuit Identifier	ds1CircuitIdentifier	Contains the transmission vendor's circuit identifier, for the purpose of facilitating troubleshooting.	Display String	
Stat Receiver Gain	uds1StatReceiverGain	Identifies the amount of gain applied to boost the receive signal level to an appropriate operating level.	0 dB 7 dB 15 dB 22 dB	
Stat Out of Frame	uds1StatOutOfFrame	Identifies when the framing pattern for the specified T1 line has been lost and data cannot be properly extracted. This condition is also known as red alarm.	False True	

TCM Name	MIB Name	Description	Settings	Default
Stat Loss of Signal	uds1StatLossOfSignal	Indicates when 175 consecutive 0's have been detected. The signal is considered recovered if the density of 1's reaches 12.5% (that is, four 1's within a 32-bit period).	False True	
Stat Receiving AIS	uds1StatReceivingAIS	Identifies when the remote end of the specified T1 line has lost its receive signal and is transmitting a stream of all 1's to the local end. This AIS condition is also known as blue alarm.	False True	

DS1 Interval Group (15-minute Intervals)

TCM Name	MIB Name	Description	Settings	Default
Interval BPVs	ds1IntervalBPVs	Number of bipolar violations on the selected DS1 for the chosen interval.	Counter	
Interval ESs	ds1IntervalESs	Number of Errored Seconds encountered by the DS1 interface in one of the previous 96 15-minute intervals.	Counter	
Interval SESs	ds1intervalSESs	Number of Severely Errored Seconds encountered by the DS1 interface in one of the previous 96 15-minute intervals.	Counter	
Interval SEFSs	ds1IntervalSEFSs	Number of Severely Errored Framing Seconds encountered by the DS1 interface in one of the previous 96 15-minute intervals.	Counter	
Interval UASs	ds1intervalUASs	Number of Unavailable Seconds encountered by the DS1 interface in one of the previous 96 15-minute intervals.	Counter	
Interval CSSs	ds1IntervalCSSs	Number of Controlled Slip Seconds encountered by the DS1 interface in one of the previous 96 15-minute intervals.	Counter	
Interval CVs	ds1IntervalCVs	Number of Coding Violations encountered by the DS1 interface in one of the previous 96 15-minute intervals.	Counter	
Interval Number	ds1ValidIntervals	Number from 1 to 96, where 1 is the most recently completed 15-minute interval and 96 is the least recently completed 15-minute interval (assuming that all 96 intervals are valid). This allows statistics to be displayed on a rolling 24-hour basis.	Integer	
Interval Bursty Errored Seconds	uds1IntBurstyErrSeconds	Number of seconds in which there were more than 2 and less than 320 CRC errors in one of the previous 96 15-minute intervals.	Counter	
Interval Frame Bit Errors	uds1IntFrameBitErrors	A specific bit pattern is used for the T1 receiver to determine frame alignment. Counts the number of incorrectly received framing bits in one of the previous 96 15-minute intervals.	Counter	
Interval Delta Frame Aligns	uds1IntDeltaFrameAlligns	Counts the number of times the specified T1 receiver has reframed on a new framing pattern (for example, because of an Out of Frame condition) during the specified 15-minute interval.	Counter	
Interval Excess CRC Errors	uds1IntExcessCRCErrors	Counts how often 32 out of any 33 consecutive CRCs are in error for the specified T1 line during the specified 15-minute interval. The counter is only valid in ESF format.	Counter	

DS1 Current Group (15 minutes)

TCM Name	MIB Name	Description	Settings	Default
Current ESs	ds1CurrentESs	Number of Errored Seconds encountered by the DS1 interface in the current 15-minute interval.	Counter	
Current SESs	ds1CurrentSESs	Number of Severely Errored Seconds encountered by the DS1 interface in the current 15-minute interval.	Counter	
Current SEFSs	ds1CurrentSEFSs	Number of Severely Errored Framing Seconds encountered by the DS1 interface in the current 15-minute interval.	Counter	
Current UASs	ds1IntervalUASs	Number of Unavailable Seconds encountered by the DS1 interface in the current 15-minute interval.	Counter	
Current CSSs	ds1CurrentCSSs	Number of Controlled Slip Seconds encountered by the DS1 interface in the current 15-minute interval.	Counter	
Current BPVs	ds1CurrentBPVs	Number of Bipolar Violations encountered by the DS1 interface in the current 15-minute interval.	Counter	
Current CVs	ds1CurrentCVs	Number of Coding Violations encountered by the DS1 interface in the current 15-minute interval.	Counter	
Current Bursty Errored Seconds	uds1CurrBurstyErrSeconds	Number of seconds in the current 15-minute interval in which there were more than 2 and less than 320 CRC errors.	Counter	
Current Frame Bit Errors	uds1CurrFrameBitErrors	Specific bit pattern is used for the T1 receiver to determine frame alignment. Counts the number of incorrectly received framing bits in the current 15-minute interval.	Counter	
Current Delta Frame Aligns	uds1CurrFrameBitErrors	Counts the number of times the specified T1 receiver has reframed on a new framing pattern (for example, because of an Out of Frame condition) during the current 15-minute interval.	Counter	
Current Excess CRC Errors	uds1CurrExcessCRCErrors	Counts how often 32 out of any 33 consecutive CRCs are in error for the specified T1 line during the current 15-minute interval.	Counter	

DS1 Total Group (24 hours)

TCM Name	MIB Name	Description	Settings	Default
Total ESs	ds1TotalESs	Number of Errored Seconds encountered by the DS1 interface during the previous 24-hour interval.	Counter	
Total SESs	ds1TotalSESs	Number of Severely Errored Seconds encountered by the DS1 interface during the previous 24-hour interval.	Counter	
Total SEFSs	ds1TotalSEFSs	Number of Severely Errored Framing Seconds encountered by the DS1 interface during the previous 24-hour interval.	Counter	
Total UASs	ds1TotalSEFSs	Number of Unavailable Seconds encountered by the DS1 interface during the previous 24-hour interval.	Counter	
Total CSSs	ds1TotalCSSs	Number of Controlled Slip Seconds encountered by the DS1 interface during the previous 24-hour interval.	Counter	
Total BPVs	ds1TotalBPVs	Number of Bipolar Violations encountered by the DS1 interface during the previous 24-hour interval.	Counter	
Total CVs	ds1TotalCVs	Number of Coding Violations encountered by the DS1 interface during the previous 24-hour interval.	Counter	
Total Bursty Errored Seconds	uds1TotBurstyErrSeconds	Number of seconds over the last 24-hour period in which there were more than 2 and less than 320 CRC errors.	Counter	
Total Frame Bit Errors	uds1TotFrameBitErrors	A specific bit pattern is used for the T1 receiver to determine frame alignment. Counts the number of incorrectly received framing bits over the last 24-hour period.	Counter	
Total Delta Frame Aligns	uds1TotDeltaFrameAlligns	Counts the number of times the specified T1 receiver has reframed on a new framing pattern (for example, because of an Out of Frame condition) during the last 24-hour period.	Counter	
Total Excess CRC Errors	uds1TotExcessCRCErrors	Counts how often 32 out of any 33 consecutive CRCs are in error for the specified T1 line during the last 24-hour period. The counter is only valid in ESF format.	Counter	

T1 Card Performance

TCM Name	MIB Name	Description	Settings	Default
Current Timing Source	dt1StatCurrentTmgSrc	Identifies which clock is currently being used as the T1 Card transmit timing source.	SpanLineA spanLineB internalClock tdmBusClock	

Chapter 5
PRI Card Parameters

Programmed Settings

PRI Identification

TCM Name	MIB Name	Description	Settings	Default
Operational Status (RO)	uchasEntityOperStatus	Displays the current operational status.	Other Out of Service Testing Operational Failed Loading	
Serial Number (RO)	uchasSlotModuleSerialNumber	The Card's hardware serial number, as stored in EEPROM.	Display String	
Hardware Revision (RO)	uchasSlotModuleVersion	The Card's hardware revision level, as stored in EEPROM.	Display String	
Software Version (RO)	uchasEntityVersion	The revision level of the software being executed by the Card's processor.	Display String	
DIP Switch Settings (RO)	uchasSlotSwitchSettings	Displays the current DIP switch settings on the selected NAC. To interpret the integer displayed, convert into binary and read in a right-to-left fashion. **Example:** *TCM* value = 1; Binary conversion = 0000000001 All DIP switches OFF, except DIP switch 1, which is ON.	INTEGER	
DRAM Installed (RO)	uchasSlotRamInstalled	Number of Kbytes of DRAM on the Card.	0..4294967295	
ROM Installed (RO)	uchasSlotFlashInstalled	Number of Kbytes of FLASH ROM on the Card.	0..4294967295	

PRI Configuration

TCM Name	MIB Name	Description	Settings	Default
Line A Timing Source	dt1CfgSpanATmgSrcPrio	Specifies the priority of the Line A timing source. The timing source with the highest priority clocks data on the PRI span line and drives the TDM bus. Priority assignment of timing sources allows switching to the next highest priority timing source if the current source fails. Any timing source can be disabled by setting the "Not Allowed" value. Two or more timing sources cannot be assigned the same priority.	Not Allowed High Medium High Medium Low	High
Line B Timing Source	dt1CfgSpanBTmgSrcPrio	Specifies the priority of the Line B timing source. The timing source with the highest priority clocks data on the PRI span line and drives the TDM bus. Priority assignment of timing sources allows switching to the next highest priority timing source if the current source fails. Any timing source can be disabled by assigning the value Not Allowed. If not disabled, two or more timing sources cannot be assigned the same priority.	Not Allowed High Medium High Medium Low	Medium High
Internal Timing Source	dt1CfgInternTmgSrcPrio	Specifies the priority of the internal timing source. The timing source with the highest priority clocks data on the PRI span line and drives the TDM bus. Priority assignment of timing sources allows switching to the next highest priority timing source if the current source fails. Any timing source can be disabled by assigning the value Not Allowed. If not disabled, two or more timing sources cannot be assigned the same priority.	Not Allowed High Medium High Medium Low	Not Allowed
TDM Bus Timing Source	dt1CfgTdmBusTmgSrcPrio	**NOTE**: The TDM Bus as a timing source is NOT ALLOWED. This parameter may be set in the system but it will be ignored. Specifies the priority of the TDM bus timing source. The timing source with the highest priority clocks data on the PRI span line and drives the TDM bus. Priority assignment of timing sources allows switching to the next highest priority timing source if the current source fails. Any timing source can be disabled by assigning Not Allowed. Two or more timing sources cannot have the same priority.	Not Allowed High Medium High Medium Low	Not Allowed

TCM Name	MIB Name	Description	Settings	Default
ISDN-GW Slot	idt1CfgAssgndISDNGateway	Identifies the chassis slot of the Gateway Card assigned to this PRI ISDN card. **NOTE:** Not applicable for the E1/PRI card.	0..16	0
Analog Modem Calls	idt1CfgMdmCallsAllowedEna	If this parameter is enabled, this PRI ISDN card will accept calls from the modems and the NETServer. If disabled, calls will only be accepted from the NETServer. **T1/PRI:** Always disabled, unless the card is in Slot 1. **E1/PRI:** Always enabled on the E1/PRI card.	Enable Disable	Enable

PRI Tests

TCM Name	MIB Name	Description	Settings	Default
RAM Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
ROM Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
Watchdog Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
NMI Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
EEPROM CRC Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
User Interface Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
Management Bus UART Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
Framer 1/2 Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
Time/Space Switch Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
CSU 1/2 Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
NIC Presence Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
Channel 1 of HDLC Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
Channel 2 of HDLC Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	
Flash ROM Test (RO)	dt1StatSelfTest	Latest status of the test.	Pass Fail	

PRI Call Routing Group

TCM Name	MIB Name	Description	Settings	Default
Inbound Phone Number	idt1CrInboundPhNum	One of 48 phone numbers (one for each modem channel) that allows inbound access to the chassis. This number and the Inbound Call Type are used together to route the inbound call. **NOTE:** Not applicable for the E1/PRI card.	Display String	
Inbound Call Type	idt1CrInboundCallType	Call type of one of the inbound calls. It is used in conjunction with the Inbound Phone Number to route the inbound call.	Analog digital	

PRI Trunk Settings

TCM Name	MIB Name	Description	Settings	Default
Framing Mode	ds1LineType	This describes the type of framing implemented on this circuit. The framing affects the bits per second the circuit can carry, as well as how usage/error statistics are interpreted.	DS1 ESF.: Extended SuperFrame format. DS1 D4.: D4 format. DS1 ANSI-ESF.: ANSI Extended SuperFrame format. DS1 G704.: ITU-T Recommendation G.704 section 2.1.3.2. Corresponds to CEPT CCS without CRC4 in the E1/PRI User Interface. G704-CRC.: ITU-T Recommendation G.704 section 2.1.3.1. Corresponds to CEPT CCS with CRC4 in the E1/PRI User Interface. Other: N/A	*T1/PRI Default:* DS1-ESF *E1/PRI Default:* G704-CRC
Line Coding Options	uds1CfgZeroCoding	Select a line coding scheme for PRI span. A line coding scheme ensures a sufficient density of 1's in the bit stream, required for clock synchronization. **IMPORTANT:** Usually the TELCO specifies the Framing Mode and Line Coding of the PRI line. Make sure the options are set in accordance with the type of PRI line purchased.	Other ZCS (Zero Code Suppression) B8ZS (Binary 8 Zero Suppression) HDB3 (High Density Bipolar 3 Zeros) ZBTSI (Zero Byte Time Slot Interchange) AMI (Alternate Mark Inversion)	*T1/PRI Default:* B8ZS *E1/PRI Default:* HDB3
Response to Remote Loopback	uds1CfgRespToRemoteLoopbk	Configures the PRI Card to either ignore or respond to remotely initiated loopback requests on the selected span. Not applicable for the E1/PRI card.	Ignore Respond	Ignore
Jitter Attenuation	uds1CfgJitterAttenuation	The NIC hardware provides a 193-bit frame buffer to compensate for low frequency jitter with the synchronization to the network. This buffer can be placed in either the receive or transmit data path. The default setting is the transmitter. The transmitter is recommended when the PRI Card is using internal timing instead of timing from the span line.	Attenuate Jitter on Receiver Attenuate Jitter on Transmitter	*T1/PRI Default:* Attenuate Jitter on Transmitter *E1/PRI Default:* Attenuate Jitter on Receiver
Transmitter Attenuation	uds1CfgXmitLineBuildOut	Configures the amount of transmitter attenuation that is to be applied to the transmit signal in order to eliminate crosstalk problems when the transmitter energy causes errors on the low amplitude receive line. **NOTE:** Transmitter attenuation is not applicable to the E1/PRI card.	0 dB 7 dB 15 dB 22 dB	0 dB

TCM Name	MIB Name	Description	Settings	Default
The Primary Switch Type Set	uds1CfgPriSwitchType	Indicates the primary switch type on the PRI span. The setting takes after the card has been reset. See your TELCO for the appropriate parameter value.	PriSw4ESS priSw5ESS priSwDMS100 priSwICTR4 priSwVn4	*T1/PRI Default:* priSw5ESS *E1/PRI Default:* priSwICTR4
The Idle Byte Pattern	uds1CfgIdleByte	This sets the idle byte pattern for the PRI line. The setting takes after the card has been reset. **NOTE**: When configured via the RS-232 User Interface, the setting is in Hex format. This is the digital translation of that Hex string.	0..255	

Faults

Trap Enables (Card Level)

TCM Name	MIB Name	Description	Settings	Default
Trap on Timing Source Change	dt1TrapEnaTxTmgSrcSwitch	This enables the SNMP proxy agent to generate a trap upon detection of the PRI Card switching to an alternate transmit timing source.	Disable Enable	Disable

Trap Enables (Span Level)

TCM Name	MIB Name	Description	Settings	Default
On Yellow Alarm	yellowAlarm	This indicates that an OOF (Out of Frame) condition has occurred at the remote end. It is also known as a Remote Frame Alarm (RFA).	enableTrap disableAll enableLog enableAll	Disable
On Red Alarm	redAlarm	This alarm indicates that a receiver has reframed on a new framing pattern it has synchronized at a new frame alignment due to an Out of Frame (OOF) condition.	enableTrap disableAll enableLog enableAll	Disable
On Loss of Signal	lossOfSignal	This occurs when 175 consecutive 0's are detected in the NIC. The signal is recovered if the density of 1's reaches 12.5%; that is, four 1's are received within a 32-bit period. **E1/PRI**: Corresponds to the physical layer state F3, which is an indication of OOF (Out of Frame) or LOS (Loss of Signal).	enableTrap disableAll enableLog enableAll	Disable
On Alarm Ind Signal	alarmIndicationSignal	Indicates to the management station (trap destination) that there has been a loss of the received signal. It is also known as a blue alarm. AIS occurs when a stream of 1's is received. **E1/PRI**: Corresponds to the physical layer state F4, which is Received Alarm Indication of AIS (Alarm Indication Signal).	enableTrap disableAll enableLog enableAll	Disable
On CRC	contCrcAlarm	Indicates that a continuous CRC error condition has occurred on the span. Corresponds to physical layer state F5, which is an indication of CRC errors. **NOTE:** This parameter is applicable to E1/PRI only.	enableTrap disableAll enableLog enableAll	Disable
On Physical State Change	phyStateChng	Indicates that a physical state change has occurred on the span. **NOTE:** This parameter is applicable to E1/PRI only.	enableTrap disableAll enableLog enableAll	Disable
On Yellow Alarm Cleared	yellowAlarmClear	Indicates that an OOF (Out of Frame) condition—also known as a Remote Frame Alarm (RFA)—has cleared at the remote end.	enableTrap disableAll enableLog enableAll	Disable
On Red Alarm Cleared	redAlarmClear	Indicates that an Out of Frame (OOF) condition has been cleared.	enableTrap disableAll enableLog enableAll	Disable

TCM Name	MIB Name	Description	Settings	Default
On Loss of Signal Cleared	lossOfSignalClear	Indicates the signal is recovered and the density of 1's has reached 12.5%; that is, four 1's were received within a 32-bit period.	enableTrap disableAll enableLog enableAll	Disable
On AIS Cleared	alarmIndicationSignalClear	Indicates an Alarm Indicate Signal has been cleared and the remote end has been notified that the signal is being received.	enableTrap disableAll enableLog enableAll	Disable
On CRC Cleared	contCrcAlarmClear	Indicates a continuous CRC error condition has cleared on the SPAN.	enableTrap disableAll enableLog enableAll	Disable

Chapter 6
NETServer PRI Configurable Parameters

Programmed Settings

NETServer Identification or ISDN Direct Gateway

TCM Name	MIB Name	Description	Settings	Default
Serial Number (RO)	uchasSlotModuleSerialNumber	Card's hardware serial number, as stored in EEPROM.	Display String	
Hardware Revision (RO)	uchasSlotModuleVersion	Card's hardware revision level, as stored in EEPROM.	Display String	
Software Version (RO)	uchasEntityVersion	Revision level of the software being executed by the Card's processor.	Display String	
Operational Status (RO)	uchasEntityOperStatus	Displays the current operational status.	Other Out of Service Testing Operational Failed Loading	
DIP Switch Settings (RO)	uchasSlotSwitchSettings	Displays the current DIP switch settings on the selected NAC. To interpret the integer displayed, convert into binary and read in a right-to-left fashion. **Example:** *TCM* value = 1; Binary conversion = 0000000001 All DIP switches OFF, except DIP switch 1, which is ON.	INTEGER	
DRAM Installed (RO)	uchasSlotRamInstalled	The number of Kbytes of DRAM on the Card.	0..4294967295	
ROM Installed (RO)	uchasSlotFlashInstalled	The number of Kbytes of FLASH ROM on the Card.	0..4294967295	

Packet Bus Sessions

TCM Name	MIB Name	Description	Settings	Default
Slot Session Assignment (RO)	pbSessionDestSlot	Identifies the slot to which a packet bus session has been assigned.	0..16	
Channel Session Assignment (RO)	pbSessionDestChan	Identifies a particular entity to which a packet bus session has been assigned.	1..3	
Session Request Status (RO)	pbSessionReqStatus	Used to assign or delete a session between entities. A connect request an issuance of a packet bus session link start; a disconnect request is an issuance of a packet bus session link terminate.	Disconnected connected	disconnected
Availability for Packet Bus Session (RO)	pbSessionRowState	Indicates if a packet bus row is available for assignment to a packet bus session.	Free used	free
Session Assignment between Entities (RO)	pbSessionReqStatus	Used to assign or delete a session between entities specified by the table indices. Connected means a packet bus session link start has been requested, and disconnected means a packet bus session link termination has been requested.	Disconnected connected	disconnected
Session Status (RO)	pbSessionStatus	Displays the current status of the packet bus session. A status of Unassigned coupled with a state of used indicates that a packet bus failure has occurred.	Unassigned assigned connected	
Last Packet Communication Type (RO)	pbSessionLastRequest	Indicates the packet type last sent over the packet bus.	Unknown open close listen dial disconnect transmit receive setMode query flush kill reserve answer attach disconnected connected	
Session Tx Packet Count (RO)	pbSessionPktSent	Counter that indicates number of packets that have been sent.	Counter	

TCM Name	MIB Name	Description	Settings	Default
Session Rx Packet Count (RO)	pbSessionPktRcvd	Counter that indicates number of packets that have been received.	Counter	
Session Packet Size (RO)	pbSessionPktSize	Number that indicates the packet size of the current or last established session.	0..4294967295	0
Session Packet Timeout Count (RO)	pbSessionBusTimeOut	Counter that indicates number of packet bus timeout that have occurred.	Counter	

TCM Name	MIB Name	Description	Settings	Default
Session Error Status (RO)	pbSessionErrorStatus	Indicates the error status of the packet bus session.	NoError invalidParm socketNotOpened noMoreSocket connectionExist connectionfailed noMoreConnObj noActiveConn ackWaitTimeout hwNakRcvd otherBusError linkStartRcvd outOfSeqFrame noMemory nullPointer invalidBlock notInitialized failedToRecv invalidMsgType exceedMaxSends connectionReset socketClosed uiReqPending heartbeatTimeout remoteBusy localBusy noResponse linkdownNoTx nodataToTx txPreAck txTardyAck txBusTimeout rxBusTimeout txTAL rxTAL txMasterTimeout clkVanished clkReturned shutdown frameerror xIDTimeout recvLSinInfoTransferState recvIFrameWithWrongSeq (cont'd on next page)	

TCM Name	MIB Name	Description	Settings	Default
			rxMsgBufferOverflow linkDown listenFailed listenRcvFailed dtrDrop answerFailed openFailed closeFailed readFailed writeFailed autoParityFailed setmodeFailed badDataBase padStreamsError padError	

NETServer Configuration

When you select this parameter group, the *NETServer Manager* configuration program is launched.

Faults

Packet Bus Traps

TCM Name	MIB Name	Description	Settings	Default
Packet Bus Active Session Trap	dt1TrapEnaTxTmgSrcSwitch	Enables a trap when a packet bus session becomes active.	enableTrap disableAll enableLog enableAll	disable
Packet Bus Congestion Trap	pbTrapEnaPktBusCongest	Enables a trap when a valid packet bus session is in progress but either the Modem or the Gateway packet bus driver is experiencing a congestion problem.	enableTrap disableAll enableLog enableAll	disable
Packet Bus Session Lost Trap	pbTrapEnaPktBusSessLost	Enables a trap when a valid Packet Bus session has been lost.	enableTrap disableAll enableLog enableAll	disable
Packet Bus Session Inactive Trap	pbTrapEnaSessionInactive	Enables a trap when a request is made to change a packet bus session from the active to inactive state.	enableTrap disableAll enableLog enableAll	disable
Packet Bus Session Error Trap	pbTrapEnaSessionError	Enables a trap when an error occurs during a packet bus session.	enableTrap disableAll enableLog enableAll	disable

Chapter 7
X.25 PAD Card Parameters

Programmed Settings

Gateway Identification

This configuration group contains parameters that identify the X.25 PAD in the chassis.

TCM Name	MIB Name	Description	Settings	Default
Serial Number (RO)	x25gwIdHardwareSerNum	Hardware serial number as stored in EEPROM.	Display String	
Hardware Revision (RO)	x25gwIdHardwareRev	Hardware revision level as stored in EEPROM.	Display String	
Software Version (RO)	x25gwIdSoftwareRev	Revision level of the software being executed by the T1 Card's processor.	Display String	
CPU Type	x25gwIdCpuType	CPU type in the selected X.25 PAD Card.	80386 80486	
RAM Installed	x25gwIdRamInstalled	Number of DRAM Kbytes on the X.25 PAD Card.	0..4294967295	
FLASH Installed	x25gwIdFlashInstalled	Number of FLASH ROM Kbytes on the X.25 PAD Card.	0..4294967295	
Database Status	x25wIdOperCfgSts	Operation condition that currently exists on the database.	Operating NVRAM: The card's Oerating and Administrative configurations match. Administrative Changed: The Administrative configuration has been changed but it has not yet been saved to NVRAM and the card has not yet been reset. Administrative NVRAM: The Administrative configuration has been changed and saved to NVRAM, but the card has not yet been reset.	
User Interface Status	x25gwIdMgmtConnect	Displays the current status of the EIA-232 (formerly RS-232) User Interface. If active, the UI port is available for EIA-232 configuration. If inactive, DIP switch 5 has been set to the OFF position the port for EIA-232 configuration and enable Management Over X.25 (MOX).	active inactive	

TCM Name	MIB Name	Description	Settings	Default
DIP Switch Settings (RO)	uchasSlotSwitchSettings	Displays the current DIP switch settings on the selected NAC. To interpret the integer displayed, convert into binary and read in a right-to-left fashion. **Example:** *TCM* value = 1; Binary conversion = 0000000001 All DIP switches OFF, except DIP switch 1, which is ON.	INTEGER	
DRAM Installed (RO)	uchasSlotRamInstalled	Number of Kbytes of DRAM on the Card.	0..4294967295	
ROM Installed (RO)	uchasSlotFlashInstalled	Number of Kbytes of FLASH ROM on the Card.	0..4294967295	

Configuration Group

TCM Name	MIB Name	Description	Settings	Default
User Interface Port	x25gwCfgUiPort	Indicates if you want the X.25 PAD to Manage Over X.25 (MOX) via special cabling to the NMC or you plan to use normal management from the local NMC over the Management Bus. **NOTE**: This parameter is for Future use.	normal mox	normal
System Date	x25gwCfgSysDate	Used to set and read the current date kept by the NMC's real-time clock. It should be set to the local date where the chassis is physically located. The date is displayed in the format MM/DD/YY.	Display String	
System Time	x25gwCfgSysTime	Current time kept by the real-time clock on the NMC. It has the capability to maintain the correct time for short durations without power. The time is displayed in the format HH:MM:SS.	Display String	

Management Over X.25 (MOX)

TCM Name	MIB Name	Description	Settings	Default
Routing Type	x25gwCfgRoutingType	Type of call routing configured for outgoing calls. This setting should be configured the same for the PADs at both ends of the connection.	none: If you set the parameter to this value, all calls will be treated as regular X.25 calls. A MOX call will not be recognized and may be rejected altogether. subAddr: If you set the parameter to this value, the PAD will look at all X.25 calls for network subaddressing (last two digits of the X.121 called address) before routing the call. If the digits match those configured by the X.121 Subaddress parameter, the call is routed to the NMC as a MOX call. callUserData: If you set the parameter to this value, the remote (answering) PAD will look at the call user data in every call request packet before routing the call. If the CUD begins with “at” and there is a CUD match in the database, the call is treated like a MOX call and is routed to the NMC. Mgt Only: If you set the parameter to this value, the PAD will treat all calls like MOX calls. both: If you set the parameter to this value, the PAD will look at both the subaddress and the CUD to determine the call type and route it appropriately	none
Call User Data String	x25gwCfgCudRout	This 12 character alphanumeric string is compared to the incoming X.25 call request CUD. If they match, the call is routed to the NMC. If the Routing Type parameter is configured for Mgt Only, configuring the Call User Data is unnecessary. The CUD string must begin with an “at.”	String	

TCM Name	MIB Name	Description	Settings	Default
X.121 Subaddress	x25gwCfgX121SubAddr	This two-digit number is compared to the subaddress identifier (digits 14 and 15) in the incoming X.25 call address. If they match, the call is routed to the NMC. If the Routing Type parameter for the PAD is configured for Mgt Only, configuring the X.121 Subaddress parameter is unnecessary.		00

Tests

TCM Name	MIB Name	Description	Settings	Default
RAM Test (RO)	x25gwIdSelfTestResult	Latest status of the test.	Pass Fail	
ROM Test (RO)	x25gwIdSelfTestResult	Latest status of the test.	Pass Fail	
Watchdog Test (RO)	x25gwIdSelfTestResult	Latest status of the test.	Pass Fail	
NMI Test (RO)	x25gwIdSelfTestResult	Latest status of the test.	Pass Fail	
EEPROM CRC Test (RO)	x25gwIdSelfTestResult	Latest status of the test.	Pass Fail	
User Interface Test (RO)	x25gwIdSelfTestResult	Latest status of the test.	Pass Fail	
Management Bus UART Test (RO)	x25gwIdSelfTestResult	Latest status of the test.	Pass Fail	
NIC Diagnostic Self Test	x25gwIdSelfTestResult	Latest status of the test.	Pass Fail	

Packet Bus Sessions

TCM Name	MIB Name	Description	Settings	Default
Slot Session Assignment	pbSessionDestSlot	Identifies the slot to which a packet bus session has been assigned.	1..17	
Channel Session Assignment	pbSessionDestChan	Identifies a particular entity to which a packet bus session has been assigned.	1..4	
Availability for Packet Bus Session	pbSessionRowState	Indicates if a packet bus row is available for assignment to a packet bus session.	free used	free
Session Request Status	pbSessionReqStatus	Used to assign or delete a session between entities. A connect request an issuance of a packet bus session link start; a disconnect request is an issuance of a packet bus session link terminate.	disconnected connected	
Session Assignment between Entities	pbSessionReqStatus	Used to assign or delete a session between entities specified by the table indices. Connected means a packet bus session link start has been requested, and disconnected means a packet bus session link termination has been requested.	disconnected connected	disconnected
Session Status	pbSessionStatus	Displays the current status of the packet bus session. A status of Unassigned coupled with a state of used indicates that a packet bus failure has occurred.	unassigned assigned connected disconnected	disconnected
Last Packet Communication Type	pbSessionLastRequest	Indicates the packet type last sent over the packet bus.	unknown open close listen dial disconnect transmit receive setMode query flush kill reserve answer attach disconnected connected	
Session Tx Packet Count	pbSessionPktSent	Counter that indicates number of packets that have been sent.	Counter	

TCM Name	MIB Name	Description	Settings	Default
Session Rx Packet Count	pbSessionPktRcvd	Counter that indicates number of packets that have been received.	Counter	
Session Packet Size	pbSessionPktSize	Number that indicates the packet size of the current or last established session.	0..4294967295	0
Session Packet Timeout Count	pbSessionBusTimeOut	Counter that indicates number of packet bus timeout that have occurred.	Counter	
Session Error Status	pbSessionErrorStatus	Indicates the error status of the packet bus session.	noError invalidParm socketNotOpened noMoreSocket connectionExist connectionfailed noMoreConnObj noActiveConn ackWaitTimeout hwNakRcvd otherBusError linkStartRcvd outOfSeqFrame noMemory nullPointer invalidBlock notInitialized failedToRecv invalidMsgType exceedMaxSends connectionReset socketClosed uiReqPendingheartbeatTimeout remoteBusy localBusy noResponse linkdownNoTx nodataToTx (cont'd on next page)	

TCM Name	MIB Name	Description	Settings	Default
			txPreAck txTardyAck txBusTimeout rxBusTimeout txTAL rxTAL txMasterTimeout clkVanished clkReturned shutdown frameerror xIDTimeout recvLSinInfoTransferState recvIFrameWithWrongSeq rxMsgBufferOverflow linkDown listenFailed listenRcvFailed dtrDrop answerFailed openFailed closeFailed readFailed writeFailed autoParityFailed setmodeFailed badDataBase padStreamsError padError	

X25 PAD Configuration

When you select this group from the *TCM* Configuration window, the *X.25 PAD Configurator* program is launched.

WAN Configuration

NOTE: X.25 PAD parameter values are provided for both read-write and read-only parameters. Read-write parameters may be altered in the interface, but they will not take effect until the card has been reset. Once the card has been reset, the read-write values become the read-only values, as well. The read-only value is the value currently operating in the X.25 PAD's database.

READ-ONLY is called **Operational**; READ-WRITE is called **Administrative**.

TCM Name	MIB Name	Description	Settings	Default
Options		This parameter is not currently implemented.		
Max. Frame Size	x25wanAdminMaxFrameSize x25wanOperMaxFrameSize	The maximum number of bytes allowed in each frame. **NOTE**: Frame size should always be larger than packet size.	133..519	300
Baud Rate of Internal Clock Source	x25wanAdminClockSource x25wanOperClockSource	The baud rate of the clock generated internally.	0..393216	57600
Physical Interface Type	x25wanAdminType x25wanOperType	The type of physical interface between the PAD and the WAN.	rs232 v35	v35
Interface Monitoring Using DCD	x25wanAdminLinkAvailable x25wanOperLinkAvailable	Affects the handling of RS-232 signaling by telling the PAD if it should look at DCD (in addition to DSR) to determine if a line is operational.	Enable Disable	Disable
Clock Source	x25wanAdminClockSource x25wanOperClockSource	Selects the transmission timing source.	dceRxTx = Receive timing from Host for transmit and receive dceRxOnly = Receive timing from Host for transmit only Internal = Use internal clock source	Internal

LAPB Configuration

NOTE: X.25 PAD parameter values are provided for both read-write and read-only parameters. Read-write parameters may be altered in the interface, but they will not take effect until the card has been reset. Once the card has been reset, the read-write values become the read-only values, as well. The read-only value is the value currently operating in the X.25 PAD's database.

READ-ONLY is called **Operational**; READ-WRITE is called **Administrative**.

TCM Name	MIB Name	Description	Settings	Default
N2--Max. Number of PDU Transmissions	ulpbAdmnN2RxmitCount ulpbOperN2RxmitCount	The maximum number of times that a PDU (packet data unit) is sent following the expiration of the Acknowledgment timer, P-Bit (Poll Bit) timer, or Reject timer. It also limits the number of times a Receive Ready with P-Bit set message is sent when the remote host is busy and the Busy timer expires.	1..255	2
T1--Acknowledgment Timer	ulpbAdmnT1AckTimer ilpbOperT1AckTimer	Time (in tenths of a second) during which the LAPB protocol layer in the X.25 PAD expects to receive an acknowledgment of an outstanding IPDU (information packet data unit) or an unexpected response to a sent unnumbered PDU.	1..3000	70
P-Bit Response Timer	ulpbAdmnTpfVal ulpbOperTpfVal	Time (in tenths of a second) during which LAPB expects to receive a PDU (packet data unit) with the F-Bit (Final bit) set to 1 in response to a command with P-Bit (Poll bit) set to 1.	1..3000	10
Reject Response Timer	ulpbAdmnTrejVal ulpbOperTrejVal	Time (in tenths of a second) during which LAPB expects to receive a reply to a sent REJ TPDU (reject timer packet data unit).	1..10000	25
Busy-State Timer	ulpbAdmnTbusyVal ulpbOperTbusyVal	Time (in tenths of a second) during which LAPB waits for an indication of the clearance of a busy condition at the other LAPB.	1..30000	100
Link Idle Timer	ulpbAdmnLinkIdleTime ulpbOperLinkIdleTime	Time (in tenths of a second) during which the LAPB expects to receive a PDU (packet data unit) from the other LAPB. If it expires, the Poll/Final (P/F) cycle is initiated, which may result in link disconnection. A value of zero disables this function.	0..32000	250
Max. Delay before Sending RR	ulpbAdmnT2AckDelayTime ilpbOperT2AckDelayTime	Maximum delay (in tenths of a second) before transmitting a delayed RR (receiver ready). The PAD will send an RR, based on this timer, even if there is no data forthcoming. Never set this to a larger value than the *T1 Acknowledgment Timer* value or the call will be dropped when the T1 timer expires.	1..3000	4
Max. Number of Unacknowledged IPDUs	ulpbAdmnRecKWindowSz ulpbOperRecKWindowSz	Maximum number of unacknowledged IPDUs (information packet data units) that can be received before the RR (receiver ready) acknowledging them all must be sent.	1..127	3

TCM Name	MIB Name	Description	Settings	Default
Transmit Window Size	ulpbAdmnXmitKWindowSz ulpbOperXmitKWindowSz	Number of unacknowledged sequenced PDUs (packet data units) that may be sent at one time. Normal mode = 1 to 7 (Modulo 8 sequence numbering is used). Extended mode = 1 to 127 (Modulo 128 sequence numbering is used).	1..127	7
Transmit Probe	ulpbAdmnLocProbe ulpbOperLocProbe	The position in the data stream, before the window is closed, at which an IPDU (information packet data unit) is sent with the P-Bit (poll bit) set to ask for an acknowledgment from the receiver. Normal mode = 1 to 7 (Modulo 8 sequence numbering is used). Extended mode = 1 to 127 (Modulo 128 sequence numbering is used).	1..127	0
Maximum Size of LAPB I Frame	ulpbAdmnMaxRecFrameSz ulpbOperMaxRecFrameSz	This parameter defines the maximum Information (I) frame size, comprised of: max user data size + X.25 header length + LAPB header length. One Information (I) Frame  LAPB requires all incoming I frames above a certain size to be rejected by a FRMR (frame reject).	133..263, 517..519	261
Ignore any UA Frames Received	ulpbAdmnIgnUaError ulpbOperIgnUaError	This parameter instructs LAPB to ignore any UA (unnumbered acknowledgment) frames received when the connection is in an ERROR state (an indecipherable frame has been received).	enable disable	disable
Retransmit Frame Reject	ulpbAdmnFrmrFrmrError ulpbOperFrmrFrmrError	Instructs LAPB to retransmit a frame reject if one is received when the connection is in an ERROR state (an indecipherable frame has been received).	enable disable	disable
Transmit Frame Reject	ulpbAdmnFrmrInvrspErrror ulpbOperFrmrInvrspError	Instructs LAPB to transmit a frame reject if an invalid response is received when the connection is in an ERROR state (an indecipherable frame has been received).	enable disable	disable
Reject S-Frame without P-Bit Set	ulpbAdmnSframePbit ulpbOperSframePbit	Instructs LAPB to send a frame reject if a Supervisor frame is received without the P-Bit (poll bit) set.	enable disable	disable
Send DM on Entry to ADM State	ulpbAdmnDmOnAdm ulpbOperDmOnAdm	Instructs LAPB to transmit a Diagnostic Message when the PAD enters administrative state.	enable disable	disable

PLP Network Identification

NOTE: X.25 PAD parameter values are provided for both read-write and read-only parameters. Read-write parameters may be altered in the interface, but they will not take effect until the card has been reset. Once the card has been reset, the read-write values become the read-only values, as well. The read-only value is the value currently operating in the X.25 PAD's database.

READ-ONLY is called **Operational**; READ-WRITE is called **Administrative**.

TCM Name	MIB Name	Description	Settings	Default
Network Protocol Mode	ux25AdmnNetMode ux25OperNetMode	This parameter allows the user to select a specific network protocol to be used.	accunet austpac datanet datapac datapak datex_p dcs ddn ddx_p f_datapac finpac itapac luxpac pacnet pss telenet telepac transpac tymnet venus_p x25_80 x25_84 x25_88 x25_llc	x25_84
X.25 Version	ux25AdmnProtocolVersion ux25OperProtocolVersion	The version of the X.25 protocol being used over the network. The NetWare mode of X25_LLC overrides any value in this field to the 1984 standard.	80 84 88	84

TCM Name	MIB Name	Description	Settings	Default
Packet Level Protocol Mode	ux25AdmnInterfaceMode ux25OperInterfaceMode	Indicates the DTE/DCE nature of the link. The DXE (DTE or DCE) parameter is resolved using ISO 8208 for DTE-DTE operation. **NOTE:** The physical layer of the PAD is always a DTE; this parameter only applies to the X.25 protocol level.	dce dte dxe	dxe

PLP Virtual Circuit Ranges

NOTE: Subnetworks A and B can both use the same logical channel numbers, but each incoming call will be routed to the highest available channel. If you want calls routed differently, depending on the subnetwork, carefully select appropriate logical channel numbers when configuring the virtual circuit range for each subnetwork. If the wrong logical channel is selected for a call, and the call is dropped, subsequent calls will not go through (on that channel) until the*T21 Call Request Response Timer* has expired.

NOTE: X.25 PAD parameter values are provided for both read-write and read-only parameters. Read-write parameters may be altered in the interface, but they will not take effect until the card has been reset. Once the card has been reset, the read-write values become the read-only values, as well. The read-only value is the value currently operating in the X.25 PAD's database.

READ-ONLY is called **Operational**; READ-WRITE is called **Administrative**.

TCM Name	MIB Name	Description	Settings	Default
Lowest PVC	ux25AdmnLowestPVCVal ux25OperLowestPVCVal	Establishes the low end of the permanent virtual circuit range.	0..4095	0
Highest PVC	ux25AdmnHighestPVCVal ux25OperHighestPVCVal	Establishes the high end of the permanent virtual circuit range.	0..4095	0
Lowest Incoming Logical Channel	ux25AdmnChannelLIC ux25OperChannelLIC	Establishes the low end of the one-way incoming logical channel.	0..4095	0
Highest Incoming Logical Channel	ux25AdmnChannelHIC ux25OperChannelHIC	Establishes the high end of the one-way incoming logical channel.	0..4095	0
Lowest Two-Way Logical Channel	ux25AdmnChannelLTC ux25OperChannelLTC	Establishes the low end of the two-way incoming logical channel.	0..4095	1024
Highest Two-Way Logical Channel	ux25AdmnChannelHTC ux25OperChannelHTC	Establishes the high end of the two-way incoming logical channel.	0..4095	1087
Lowest Outgoing Logical Channel	ux25AdmnChannelLOC ux25OperChannelLOC	Establishes the low end of the one-way outgoing logical channel.	0..4095	0
Highest Outgoing Logical Channel	ux25AdmnChannelHOC ux25OperChannelHOC	Establishes the high end of the one-way outgoing logical channel.	0..4095	0

PLP Packet & Window Sizes

NOTE: X.25 PAD parameter values are provided for both read-write and read-only parameters. Read-write parameters may be altered in the interface, but they will not take effect until the card has been reset. Once the card has been reset, the read-write values become the read-only values, as well. The read-only value is the value currently operating in the X.25 PAD's database.

READ-ONLY is called **Operational**; READ-WRITE is called **Administrative**.

TCM Name	MIB Name	Description	Settings	Default
Sequence Numbering Option	ux25AdmnPktSequencing ux25OperPktSequencing	Indicates whether Modulo 8 or 128 sequence numbering operates on the network.	8 128	8
Max. Local Packet Size	ux25AdmnLocMaxPktSize ux25OperLocMaxPktSize	The maximum acceptable size of packets in the direction local-to-remote. That is, on any incoming call, a value for the packet size parameter greater than this value will be negotiated down to an acceptable size when the call is accepted	128 256 512	256
Max. Remote Packet Size	ux25AdmnRemMaxPktSize ux25OperRemMaxPktSize	The maximum acceptable size of packets in the direction remote-to-local. That is, on any incoming call, a value for the packet size parameter greater than this value will be negotiated down to an acceptable size when the call is accepted.	128 256 512	256
Default Local Packet Size	ux25AdmnLocDefWinSize ux25OperLocDefWinSize	Specifies, on a particular subnetwork, the value of the default packet size for the direction local-to-remote. May be nonstandard, provided the value is agreed on by all communicating parties on the LAN or between the DTE and DCE.	16 32 64 128 256 512	256
Default Remote Packet Size	ux25AdmnRemDefWinSize ux25OperRemDefWinSize	Specifies, on a particular subnetwork, the value of the default packet size for the direction remote-to-local. May be nonstandard, provided the value is agreed on by all communicating parties on the LAN or between the DTE and DCE.	16 32 64 128 256 512	256
Max. Local Window Size	ux25AdmnLocMaxWinSize ux25OperLocMaxWinSize	The largest acceptable window size on the local network. **NOTE**: 127 only allowed for Modulo 128 networks.	2..127	7
Max. Remote Window Size	ux25AdmnRemMaxWinSize ux25OperRemMaxWinSize	The largest acceptable window size on the remote network. **NOTE**: 127 only allowed for Modulo 128 networks.	2..127	7

TCM Name	MIB Name	Description	Settings	Default
Default Local Window Size	ux25AdmnLocDefWinSize ux25OperLocDefWinSize	Specifies, on a particular subnetwork, the value of the default window size. May be nonstandard, provided the value is agreed on by all communicating parties on the LAN between the DTE and DCE. Most networks use a value of 2. **NOTE**: The sequence of the numbering scheme affects the range of this parameter.	1..127	7
Default Remote Window Size	ux25AdmnRemDefWinSize ux25OperRemDefWinSize	Specifies, on a particular subnetwork, the value of the default window size. May be nonstandard, provided the value is agreed on by all communicating parties on the LAN between the DTE and DCE. Most networks use a value of 2. **NOTE**: The sequence of the numbering scheme affects the range of this parameter.	1..127	7
Max. NSDU Length	ux25AdmnMaxNSDULimit ux25OperMaxNSDULimit	Specifies a default maximum length of the Network Service Data Unit, beyond which concatenation will be stopped and the data currently held will be passed to the Network Service user.	0..32000 octets	256

PLP Timers (0.1 sec) & Retransmission Values

NOTE: X.25 PAD parameter values are provided for both read-write and read-only parameters. Read-write parameters may be altered in the interface, but they will not take effect until the card has been reset. Once the card has been reset, the read-write values become the read-only values, as well. The read-only value is the value currently operating in the X.25 PAD's database.

READ-ONLY is called **Operational**; READ-WRITE is called **Administrative**.

TCM Name	MIB Name	Description	Settings	Default
Acknowledgment Delay--Withhold Pending RR	ux25AdmnAckDelay ux25OperAckDelay	Specifies the maximum number of ticks (0.1 second units) for which a pending acknowledgment is withheld	0..32000	5
T20--Restart Request Response Timer	ux25AdmnRstrtTime ux25OperRstrtTime	Specifies in ticks (0.1 second units) the time the DTE waits before responding to a restart request.	0..32000	1800
T21--Call Request Response Timer	ux25AdmnCallTime ux25OperCallTime	Specifies in ticks (0.1 second units) the time the DTE waits for a response after a clear request has been issued.	0..32000	2000
T22--Reset Request Response Timer	ux25AdmnRstTime ux25OperRstTime	Specifies in ticks (0.1 second units) the time the DTE waits before responding to a reset request.	0..32000	1800
T23--Clear Request Response Timer	ux25AdmnClrTime ux25OperClrTime	Specifies in ticks (0.1 second units) the time the DTE waits before responding to a clear request.	0..32000	1800
Status Transmission Timer	ux25AdmnWinStatTime ux25OperWinStatTime	This parameter is related, but does not correspond exactly, to the DTE Window Status Transmission Timer, T24. It specifies in ticks (0.1 second units) the maximum time during which acknowledgments of data received from the remote transmitter will be withheld. When the timer expires, any withheld acknowledgments will be carried by an X.25 level 3 "Receiver Not Ready" control packet.	0..32000	750
T25--Window Rotation Timer	ux25AdmnWinRotTime ux25OperWinRotTime	Specifies in ticks (0.1 second units) the DTE will wait for a packet acknowledgment. If no ACK is received within this timeframe, the DTE sends a reset request and the DTE/DCE packet counters are reset to 0.	0..32000	1500
T26--Interrupt Response Timer	ux25AdmnIntrptTime ux25OperIntrptTime	Not currently implemented.		
Link-Level Hold Time	ux25AdmnIdleValue ux25OperIdleValue	Not used by the U.S. Robotics X.25 PAD.	0..32000	0
DTE/DCE Resolution Timer	ux25AdmnConnectValue ux25OperConnectValue	Specifies the number of ticks (0.1 second units) for which the DTE/DCE resolution phase must be completely implemented in order to prevent the (unlikely) event that two packet level entities cannot resolve their DTE/DCE nature. If this time allowance expires without resolution, the link connection will be disconnected and all pending connections aborted.	0..32000	2000

TCM Name	MIB Name	Description	Settings	Default
R20--DTE Restart Request Retransmit Count	ux25AdmnRstrtCnt ux25OperRstrtCnt	Specifies the number of times a DTE restart request may be retransmitted.	1..255	1
R22--DTE Reset Request Retransmit Count	ux25AdmnRstCnt ux25OperRstCnt	Specifies the number of times a DTE reset request may be retransmitted.	1..255	1
R23--DTE Clear Request Retransmit Count	ux25AdmnClrCnt ux25OperClrCnt	Specifies the number of times a DTE clear request may be retransmitted.	1..255	1

PLP Transit Delay

NOTE: X.25 PAD parameter values are provided for both read-write and read-only parameters. Read-write parameters may be altered in the interface, but they will not take effect until the card has been reset. Once the card has been reset, the read-write values become the read-only values, as well. The read-only value is the value currently operating in the X.25 PAD's database.

READ-ONLY is called **Operational**; READ-WRITE is called **Administrative**.

TCM Name	MIB Name	Description	Settings	Default
Local Delay (msecs)	ux25AdmnLocalDelay ux25OperLocalDelay	Specifies (in milliseconds) the transit delay attributable to internal processing.	0..32000	5
Access Delay (msecs)	ux25AdmnAccessDelay ux25OperAccessDelay	Specifies (in milliseconds) the transit delay attributable to the line transmission rate.	0..32000	5

PLP Throughput Class

NOTE: X.25 PAD parameter values are provided for both read-write and read-only parameters. Read-write parameters may be altered in the interface, but they will not take effect until the card has been reset. Once the card has been reset, the read-write values become the read-only values, as well. The read-only value is the value currently operating in the X.25 PAD's database.

READ-ONLY is called **Operational**; READ-WRITE is called **Administrative**.

TCM Name	MIB Name	Description	Settings	Default
Max. Local Throughput Class	ux25AdmnLocMaxThruPutClass ux25OperLocMaxThruPutClass	Sets the maximum supported value of the throughput class Quality of Service parameter. According to ISO 8208, this parameter is bound in the range of 3 to 12, corresponding to a range of 75 to 48000 bps. However, the valid range supported here is 0 to 15. This caters to nonstandard X.25 implementations, which use the *Throughput Class Window/Packet Parameters*	0 .. 15	12
Max. Remote Throughput Class	ux25AdmnRemMaxThruPutClass ux25OperRemMaxThruPutClass	This parameter sets the maximum supported value of the throughput class Quality of Service parameter. According to ISO 8208, this parameter is bound in the range of 3 to 12, corresponding to a range of 75 to 48000 bps. However, the valid range supported here is 0 to 15. This caters to nonstandard X.25 implementations, which use the *Throughput Class Window/Packet Parameters.*	0 .. 15	12
Default Local Throughput Class	ux25AdmnLocDefThruPutClass ux25OperLocDefThruPutClass	In some networks, such as TELENET, negotiation of throughput class is restricted to a configured default throughput class. In other PSDNs, this value should be set equal to the value of the *Maximum Local Throughput Class.*	0 .. 15	12
Default Remote Throughput Class	ux25AdmnRemDefThruPutClass ux25OperRemDefThruPutClass	In some networks, such as TELENET, negotiation of throughput class is restricted to a configured default throughput class. In other PSDNs, this value should be set equal to the value of the *Maximum Local Throughput Class.*	0 .. 15	12
Min. Local Throughput Class	ux25AdmnLocMinThruPutClass ux25OperLocMinThruPutClass	According to ISO 8208, the throughput class parameter is defined in the range of 3 to 12. Some PSDNs may provide different mapping, in which case this parameter is the minimum value.	0 .. 15	12
Min. Remote Throughput Class	ux25AdmnRemMinThruPutClass ux25OperRemMinThruPutClass	According to ISO 8208, the throughput class parameter is defined in the range of 3 to 12. Some PSDNs may provide different mapping, in which case this parameter is the minimum value.	0 .. 15	3

PLP Closed User Groups

NOTE: X.25 PAD parameter values are provided for both read-write and read-only parameters. Read-write parameters may be altered in the interface, but they will not take effect until the card has been reset. Once the card has been reset, the read-write values become the read-only values, as well. The read-only value is the value currently operating in the X.25 PAD's database.

READ-ONLY is called **Operational**; READ-WRITE is called **Administrative**.

TCM Name	MIB Name	Description	Settings	Default
With Incoming and Outgoing Access	ux25AdmnSubCugIaoa ux25OperSubCugIaoa	Specifies whether or not this DTE subscribes to one or more Closed User Groups with Outgoing and Incoming Access. Outgoing access means the DTE can make calls outside the CUG; incoming access means the DTE will accept calls from outside the CUG.	disable enable	enable
Preferential	ux25AdmnSubCugPref ux25OperSubCugPref	Specifies whether or not this DTE subscribes to a Preferential Closed User Group. If enabled, this parameter implies that the DTE belongs to more than one CUG and has outgoing access. If your network provider uses preferential CUGs, enable this parameter.	enable disable	disable
With Outgoing Access	ux25AdmnSubCugoa ux25OperSubCugoa	Specifies whether or not this DTE subscribes to one or more Closed User Groups with Outgoing Access. The DTE belongs to a CUG, but can place calls outside the CUG, as well. Enable this parameter if your network provider offers you a choice of whether or not you want to use a *Preferential CUG*	enable disable	disable
With Incoming Access	ux25AdmnSubCugia ux25OperSubCugia	Specifies whether or not this DTE subscribes to Closed User Groups with Incoming Access. The DTE belongs to a CUG, but will accept calls from outside the CUG.	enable disable	disable
Basic or Extended Format	ux25AdmnCugFormat ux25OperCugFormat	Defines the maximum number of Closed User Groups to which this DTE subscribes. This will be one of two ranges: Basic (100 or fewer) or Extended (between 101 and 1000).	basic extended	basic
Reject Incoming Calls	ux25AdmnBarInCug ux25OperBarInCug	Provides the means to reject incoming calls in which a CUG is identified in the call request (which is necessary in some networks, such as DDN). If this parameter is disabled, incoming calls specifying a CUG will be ignored.	enable disable	disable

PLP Subscription Options

NOTE: X.25 PAD parameter values are provided for both read-write and read-only parameters. Read-write parameters may be altered in the interface, but they will not take effect until the card has been reset. Once the card has been reset, the read-write values become the read-only values, as well. The read-only value is the value currently operating in the X.25 PAD's database.

READ-ONLY is called **Operational**; READ-WRITE is called **Administrative**.

TCM Name	MIB Name	Description	Settings	Default
Subscribe to Extended Call Packets	ux25AdmnSubExtended ux25OperSubExtended	Allows you to indicate if the PAD subscribes to extended call packets (window and packet size negotiation permitted) in both directions.	enable disable	disable
Bar Incoming Extended Call Packets	ux25AdmnBarExtended ux25OperBarExtended	Allows the PAD to treat window and packet size negotiation in incoming packets as a procedure error.	enable disable	disable
Fast Select No Restriction	ux25AdmnSubFstSelNoRstrct ux25OperSubFstSelNoRstrct	Allows you to indicate if your setup subscribes to fast select with no restriction on response (the PAD will allow extended data).	enable disable	disable
Fast Select with Restriction	ux25AdmnSubFstSelWthRstrct ux25OperSubFstSelWthRstrct	Allows you to indicate if your setup subscribes to fast select with restriction on response (the PAD will clear any extended data with a reject response).	enable disable	disable
Reverse Charging	ux25AdmnAccptRvsChrgng ux25OperAccptRvsChrgng	Allows you to indicate if the PAD will accept incoming calls that specify the reverse charging facility.	enable disable	disable
Local Charging Prevention	ux25AdmnSubLocChargePrevent ux25OperSubLocChargePrevent	Allows you to indicate if the PAD subscribes to local charging prevention.	enable disable	disable
Subscribe to TOA/NPI Address Format	ux25AdmnSubToaNpiFormat ux25OperSubToaNpiFormat	Allows you to indicate if the PAD subscribes to Type of Access/Network Provider Interface address format.	enable disable	disable
Bar Incoming TOA/NPI Address Format	ux25AdmnBarToaNpiFormat ux25OperBarToaNpiFormat	Allows the PAD to bar incoming call setup and clearing packets that use Type of Access/Network Provider Interface address format.	enable disable	disable
NUI Override	ux25AdmnSubNuiOverride ux25OperSubNuiOverride	Allows you to indicate if the PAD subscribes to Network User Identifier Override.	enable disable	disable
Bar Incoming Calls	ux25AdmnBarInCall ux25OperBarInCall	Allows the PAD to bar incoming calls (calls to the PAD).	enable disable	disable
Bar Outgoing Calls	ux25AdmnBarOutCall ux25OperBarOutCall	Allows the PAD to bar outgoing calls (calls from the PAD).	enable disable	disable

PLP Localization Information

NOTE: X.25 PAD parameter values are provided for both read-write and read-only parameters. Read-write parameters may be altered in the interface, but they will not take effect until the card has been reset. Once the card has been reset, the read-write values become the read-only values, as well. The read-only value is the value currently operating in the X.25 PAD's database.

READ-ONLY is called **Operational**; READ-WRITE is called **Administrative**.

TCM Name	MIB Name	Description	Settings	Default
Allow Omission of Diagnostic Byte	ux25AdmnAccNoDiagnostic ux25OperAccNoDiagnostic	Allows the PAD to omit the diagnostic byte in incoming restart, clear, and reset indication packets.	enable disable	disable
Use Diagnostic Packets	ux25AdmnUseDiagnosticPacket ux25OperUseDiagnosticPacket	Allows the PAD to use diagnostic packets.	enable disable	disable
ITU-T Clear Length Restriction	ux25AdmnItutClearLen ux25OperItutClearLen	Allows the PAD to restrict the length of a clear indication to 5 bytes and a clear confirm to 3 bytes.	enable disable	disable
Allow Incoming Diagnostic Packets	ux25AdmnBarDiagnosticPacket ux25OperBarDiagnosticPacket	Allows the PAD to allow incoming diagnostic packets.	enable disable	disable
Discard Diagnostic Packets on Non-Zero LCN	ux25AdmnDiscNzDiagnostic ux25OperDiscNzDiagnostic	Allows you to indicate if the PAD discards diagnostic packets on a nonzero Logical Channel Number.	enable disable	disable
Allow Hex Digits in DTE Address	ux25AdmnAcceptHexAdd ux25OperAcceptHexAddr	Determines whether DTE addresses may contain hexadecimal digits.	enable disable	disable
Bar Non-Privileged Listen	ux25AdmnBarNonPrivilegeListen ux25OperBarNonPriviliegeListen	Allows you to bar a non-privileged user (*i.e.*, one without superuser privilege) from listening for incoming calls.	enable disable	disable
International Call Recognition	ux25AdmnIntlAddrRecognition ux25OperIntlAddrRecognition	Determines whether outgoing international calls will be accepted. The main use of this field is in conjunction with the *International Call Priority* field.	Not Distinguished Examine DNIC One Prefix Zero Prefix	Not Distinguished
Data Network Identification Code	ux25AdmnDnic ux25OperDnic	This four-digit ID identifies the network carrying the call.	Any four digits	0000
International Call Priority	ux25AdmnIntlPrioritized ux25OperIntlPrioritized	Determines whether some prioritizing method is to be used for international calls.	enable disable	disable
Priority Encode Control	ux25AdmnPrtyEncodeCtrl ux25OperPrtyEncodeCtrl	Describes how the priority request is to be encoded for this PSDN.	X2588 76 DATAPAC 80 DATAPAC	X2588

TCM Name	MIB Name	Description	Settings	Default
Priority Packet Forced Value	ux25AdmnPrtyPktForcedVal ux25OperPrtyPktForcedVal	Determines if priority call requests and priority incoming calls should have the associated packet size parameter forced to a particular value. A value of prioPktSz0 accepts the non-priority packet size.	0, 4–12	0
Source Address Control	ux25AdmnSrcAddrCtrl ux25OperSrcAddrCtrl	Provides a means to override or set the calling address in outgoing call requests for this PSDN (Packet Switched Data Network).	OmitDte = Force omission of the calling DTE address, even if the network service user supplied one. useLocal = Use the DTE address configured in the Address Template (LOCAL_ADDRESS) even if the network service user does NOT supply a DTE address. forceLocal = Force the calling DTE address to that contained in LOCAL_ADDRESS even if the network service user supplied one. Nothing = No special action; calling DTE addresses are encoded as if provided by the network service user.	Nothing

PLP D-Bit Control

NOTE: X.25 PAD parameter values are provided for both read-write and read-only parameters. Read-write parameters may be altered in the interface, but they will not take effect until the card has been reset. Once the card has been reset, the read-write values become the read-only values, as well. The read-only value is the value currently operating in the X.25 PAD's database.

READ-ONLY is called **Operational**; READ-WRITE is called **Administrative**.

TCM Name	MIB Name	Description	Settings	Default
D-Bit Accept In	ux25AdmnDbitInAccept ux25OperDbitInAccept	Defines the action to take when a Call Accept is received with the D-bit (delivery confirmation bit) set and there is no local D-bit support.	leaveDbit zeroDbit clearCall	clearCall
D-Bit Accept Out	ux25AdmnDbitOutept ux25OperDbitOutept	Defines the action to take when a remote user sends a Call Accept with the D-bit (delivery confirmation bit) set when the local user did not request use of the D-bit.	leaveDbit zeroDbit clearCall	clearCall
D-Bit Data In	ux25AdmnDbitInData ux25OperDbitInData	Defines the action to take when a data packet is received with the D-bit (delivery confirmation bit) set and the local user did not request use of the D-bit.	leaveDbit zeroDbit clearCall	clearCall
D-BitData Out	ux25AdmnDbitOutData ux25OperDbitOutData	Defines the action to take when the local user sends a data packet with the D-bit (delivery confirmation bit) set, but the remote user has not indicated D-bit support.	leaveDbit zeroDbit clearCall	clearCall

PLP Throughput Class Windows & Packets

NOTE: X.25 PAD parameter values are provided for both read-write and read-only parameters. Read-write parameters may be altered in the interface, but they will not take effect until the card has been reset. Once the card has been reset, the read-write values become the read-only values, as well. The read-only value is the value currently operating in the X.25 PAD's database.

READ-ONLY is called **Operational**; READ-WRITE is called **Administrative**.

TCM Name	MIB Name	Description	Settings	Default
Throughput Negotiation	ux25AdmnThclassNegToDef ux25OperThclassNegToDef	Determines if throughput class negotiation will be used for certain network procedures.	enable disable	disable
Type	ux25AdmnThclassType ux25OperThclassType	Defines the means by which throughput class encodings can be used to assign packet and window sizes. Some implementations of X.25 do not use the X.25 packet and window negotiation and rely on mapping the throughput class to these parameters.	lowNibble highNibble bothNibbles Nothing	Nothing
Window Mapping	ux25AdmnThclassWinMap ux25OperThclassWinMap	Consists of 16 integers (0 to 15) mapped between throughput class (both RX and TX directions) and a window size parameter. The 16 integers are separated by periods (full stops). An integer from 1 to 127 between full stops will alter the default setting for the subnetwork; 0 accepts the default value.	1 to 127	0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0
Packet Mapping	ux25AdmnThclassPackMap ux25OperThclassPackMap	Consists of integers (0 to 15) mapped between throughput class (both RX and TX directions) and a packet size parameter. The 16 integers are separated by periods (full stops). An integer from 4 to 9 between full stops will alter the default setting for the subnetwork; 0 accepts the default value.	4 to 9 (2^4 through 2^9)	0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0

Faults

Packet Bus Traps

TCM Name	MIB Name	Description	Settings	Default
Packet Bus Active Session Trap	pbTrapEnaSessActive	Enables a trap when a packet bus session becomes active.	enableTrap disableAll enableLog enableAll	disable
Packet Bus Congestion Trap	pbTrapEnaPktBusCongest	Enables a trap when a valid packet bus session is in progress but either the Modem or the Gateway packet bus driver is experiencing a congestion problem.	enableTrap disableAll enableLog enableAll	disable
Packet Bus Session Lost Trap	pbTrapEnaPktBusSessLost	Enables a trap when a valid Packet Bus session has been lost.	enableTrap disableAll enableLog enableAll	disable
Packet Bus Session Inactive Trap	pbTrapEnaSessionInactive	Enables a trap when a request is made to change a packet bus session from the active to inactive state.	enableTrap disableAll enableLog enableAll	disable
Packet Bus Session Error Trap	pbTrapEnaSessionError	Enables a trap when an error occurs during a packet bus session.	enableTrap disableAll enableLog enableAll	disable

X.25 Subnet Traps

TCM Name	MIB Name	Description	Settings	Default
WAN status change to out of service	x25wanTrapEnaOutOfSvc?	Enables generation of a trap when the WAN port status changes from Link Active to Out Of Service.	enable disable	disable
WAN status change to link active	x25wanTrapEnabIndex	Unique value for each X.25 Subnet in the chassis. The value of this object matches the value of the index of the corresponding X.25 Subnet's entry in the entity table of the chassis MIB.	enable disable	disable

X.25 Traps

TCM Name	MIB Name	Description	Settings	Default
Report NAC Resets	x25gwTrapEnaUiReset	Enables reporting of NAC Reset by user interface command traps.	enable disable	disable

Performance

WAN Connection Statistics

TCM Name	MIB Name	Description	Settings	Default
x25wanStatsGood-FramesTx	x25wanStatsGoodFramesTx	Number of good frames transmitted since this entity was initialized.		
x25wanStatsGood-FramesRx	x25wanStatsGoodFramesRx	Count of the good frames received since this entity was initialized.		
x25wanStatsTx-Underruns	x25wanStatsTxUnderruns	Number of transmit underruns that have been seen by this entity since initialization.		
x25wanStatsRx-Underruns	x25wanStatsRxUnderruns	Number of received underruns that have been seen by this entity since initialization.		
x25wanStatsRx-CrcErrs	x25wanStatsRxCrcErrs	Number of received CRC errors since this entity was initialized.		
x25wanStatsRx-FrameNoBuf	x25wanStatsRxFrameNoBuf	Number of times this entity has received data without a buffer to place it into.		
x25wanStats-UnrecoveredRx	x25wanStatsUnrecoveredRx	Number of overrun frames that the entity was unable to recover.		
x25wanStatsRx-Aborts	x25wanStatsRxAborts	Number of receive frame aborts seen by this entity since initialization.		
x25wanStatsRx-TooLong	x25wanStatsRxTooLong	Number of frames received that exceeded the defined maximum receive frame size.		
x25wanStatsTx-TooShort	x25wanStatsTxTooShort	Number of frames received that were smaller than the minimum frame size.		
x25wanStatsTx-BadPackets	x25wanStatsTxBadPackets	Number of bad packets that the WAN interface received for transmission from the upper layers of the X.25 protocol stack.		
x25wanStatsTx-RingQFull	x25wanStatsTxRingQFull	Number of times the circular buffer used for transmission was full when a transmission was attempted by the upper layers of the X.25 protocol stack.		
x25wanStatsRx-RingQSize	x25wanStatsRxRingQSize	Number that indicates the received circular queue size on the X.25 WAN.		
x25wanStatsDSR	x25wanStatsDSR	X.25 WAN interface DSR signal status.		
x25wanStatsCTS	x25wanStatsCTS	X.25 WAN interface CTS signal status.		
x25wanStatsDCD	x25wanStatsDCD	X.25 WAN interface DCD signal status.		
x25wanStatsRx-Overflows	x25wanStatsRxOverflows	Number of receive buffer overflows seen by this entity since initialization.		

LAPB Interface Statistics

TCM Name	MIB Name	Description	Settings	Default
ulpbStatDISC-CmdsRcvd	ulpbStatDISCCmdsRcvd	Number of DISC commands received.		
ulpbStatDISC-CmdsTrnsmt	ulpbStatDISCCmdsTrnsmt	Number of DISC commands transmitted.		
ulpbStatDMRsps-Rcvd	ulpbStatDMRspsRcvd	Number of DM responses received.		
ulpbStatDMRsps-Trnsmt	ulpbStatDMRspsTrnsmt	Number of DM responses transmitted.		
ulpbStatFRMR-RspsRcvd	ulpbStatFRMRRspsRcvd	Number of FRMR responses received.		
ulpbStatFRMR-RspsTrnsmt	ulpbStatFRMRRspsTrnsmt	Number of FRMR responses transmitted.		
ulpbStatIFrame-CmdsRcvd	ulpbStatIFrameCmdsRcvd	Number of I-frame command received.		
ulpbStatIFrame-CmdsTrnsmt	ulpbStatIFrameCmdsTrnsmt	Number of I-frame commands transmitted.		
ulpbStatREJCmds-Rcvd	ulpbStatREJCmdsRcvd	Number of REJ commands received.		
ulpbStatREJCmds-Trnsmt	ulpbStatREJCmdsTrnsmt	Number of REJ commands transmitted.		
ulpbStatREJRsps-Rcvd	ulpbStatREJRspsRcvd	Number of REJ responses received.		
ulpbStatRNR-CmdsRcvd	ulpbStatRNRCmdsRcvd	Number of RNR commands received.		
ulpbStatRNR-CmdsTrnsmt	ulpbStatRNRCmdsTrnsmt	Number of RNR commands transmitted.		
ulpbStatRNRRsps-Rcvd	ulpbStatRNRRspsRcvd	Number of RNR responses received.		
ulpbStatRNRRsps-Trnsmt	ulpbStatRNRRspsTrnsmt	Number of RNR responses transmitted.		
ulpbStatRRCmds-Rcvd	ulpbStatRRCmdsRcvd	Number of RR commands received.		
ulpbStatRRCmds-Trnsmt	ulpbStatRRCmdsTrnsmt	Number of RR commands transmitted.		
ulpbStatRRRsps-Rcvd	ulpbStatRRRspsRcvd	Number of RR response received.		
ulpbStatRRRsps-Trnsmt	ulpbStatRRRspsTrnsmt	Number or RR response transmitted.		

TCM Name	MIB Name	Description	Settings	Default
ulpbStatSABM-CmdsRcvd	ulpbStatSABMCmdsRcvd	Number of SABM commands received.		
ulpbStatSABM-CmdsTrnsmt	ulpbStatSABMCmdsTrnsmt	Number of SABM commands transmitted.		
ulpbStatUARsps-Rcvd	ulpbStatUARspsRcvd	Number of UA response received.		
ulpbStatUARsps-Trnsmt	ulpbStatUARspsTrnsmt	Number of UA response transmitted.		

Interface Operations Statistics

TCM Name	MIB Name	Description	Settings	Default
ux25StatCallsRcvd	ux25StatCallsRcvd	Number of incoming calls.		
ux25StatCalls-RcvdEstab	ux25StatCallsRcvdEstab	Number of incoming calls established.		
ux25StatCallsSent	ux25StatCallsSent	Number of outgoing calls.		
ux25StatCallsSent-Estab	ux25StatCallsSentEstab	Number of outgoing calls established.		
ux25StatDataPkts-Rcvd	ux25StatDataPktsRcvd	Number of data packets received.		
ux25StatDataPkts-Sent	ux25StatDataPktsSent	Number of data packets sent.		
ux25StatDiagPkts-Rcvd	ux25StatDiagPktsRcvd	Number of diagnostic packets received.		
ux25StatDiagPkts-Sent	ux25StatDiagPktsSent	Number of diagnostic packets sent.		
ux25StatIntrpt-PktsRcvd	ux25StatIntrptPktsRcvd	Number of interrupt packets received.		
ux25StatIntrpt-PktsSent	ux25StatIntrptPktsSent	Number of interrupt packets sent.		
ux25StatPVCs-InDatTrnsfrState	ux25StatPVCsInDatTrnsfrState	Number of PVCs in Data Transfer State.		
ux25StatRcvrNot-RdyRcvd	ux25StatRcvrNotRdyRcvd	Number of receiver not ready received.		
ux25StatRcvrNot-RdySent	ux25StatRcvrNotRdySent	Number of receiver not ready sent.		
ux25StatRcvrRdy-Sent	ux25StatRcvrRdySent	Number of receiver ready sent.		
ux25StatRcvrRdy-Rcvd	ux25StatRcvrRdyRcvd	Number of receiver ready received.		
ux25StatResetsRcvd	ux25StatResetsRcvd	Number of resets received.		
ux25StatResets-Sent	ux25StatResetsSent	Number of resets sent.		
ux25StatRestarts-Rcvd	ux25StatRestartsRcvd	Number of restarts received.		
ux25StatRestarts-Sent	ux25StatRestartsSent	Number of restarts sent.		
ux25StatSVCsIn-DatTrnsfrState	ux25StatSVCsInDatTrnsfrState	Number of SVCs in Data Transfer State.		

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