

The following instructions cover basic network configuration for operation of the XP-DSM using a single IP address. Additional information is available in the XP-DSM Technical Manual available at www.alpha.com.

To prepare your network to read incoming data from field installed XP-DSMs, complete the following steps:

Step 1: Prepare a DOCSIS Configuration File

Prepare a type-length-value configuration file for the cable modem. The file should include the modem's community strings settings. If a DSM Setup File is going to be used to distribute transponder settings (see step 5), then the parameter docsDevSwServer must be set in the DOCSIS Configuration File with the IP address of the TFTP server on which the DSM Setup File is saved. This entry may be defined as either type 21 or type 11.

	Example File
Sets Read-Write Community string. Set the IP addresses and community strings to fit your system.	SNMP MIB Object (11) [Len=21]:docsDevNmAccessStatus.1/4 SNMP MIB Object (11) [Len=21]:docsDevNmAccessIp.1/10.56.21.0 SNMP MIB Object (11) [Len=21]:docsDevNmAccessIpMask.1/255.255.255.0 SNMP MIB Object (11) [Len=25]:docsDevNmAccessCommunity.1/"RW STRING" SNMP MIB Object (11) [Len=21]:docsDevNmAccessControl.1/3
Sets Read-Only Community string. Set the IP addresses and community strings to fit your system.	SNMP MIB Object (11) [Len=21]:docsDevNmAccessStatus.2/4 SNMP MIB Object (11) [Len=21]:docsDevNmAccessIp.2/10.56.21.0 SNMP MIB Object (11) [Len=21]:docsDevNmAccessIpMask.2/255.255.255.0 SNMP MIB Object (11) [Len=25]:docsDevNmAccessCommunity.2/"RO STRING" SNMP MIB Object (11) [Len=21]:docsDevNmAccessControl.2/2
Specifies location of DSM Setup File atidoc01.cfg	SNMP MIB Object (11) [Len=21]:docsDevSwServer.0/10.20.30.40



NOTE:

The XP-DSM will inherit the cable modem community string settings provided by the DOCSIS configuration file. If the cable modem is left unsecured, the XP-DSM uses the default community strings AlphaSet and AlphaGet.

Step 2: Provision the DHCP Server with the XP-DSM's RF MAC Address

On the DHCP Server, assign the RF MAC Address the DOCSIS Configuration File created in Step 1. The RF MAC Address is located on front of the XP-DSM. The XP-DSM accepts either a static or dynamic IP address assignment.

Step 3: Install the XP-DSM Hardware

Refer to the XP-DSM Hardware Installation Quick Start or the XP-DSM Technical Manual, both available at www.alpha.com.

Step 4: Compile the MIB files on the SNMP Management Server

Download the Alpha MIB (ATI-TABLES-MGMT-MIB) from www.alpha.com; type XP-DSM in the search box to bring up the file. The Alpha MIB is used to set DSM specific settings. The SCTE-HMS MIB files are required for the SNMP management server to collect data from the transponders. The files are available on the Society of Cable Telecommunications (SCTE) Web site (www.scte.org). They must be compiled in the following order: SCTE-ROOT, SCTE-HMS-ROOTS, SCTE-HMS-PROPERTY-MIB, SCTE-HMS-ALARMS-MIB, SCTE-HMS-PS-MIB, SCTE-HMS-GEN-MIB.

Step 5: Set Communication Options

There are three ways to set the XP-DSM communication options: using SNMP in a MIB Browser, using the Local port, and using a DSM Setup File. Before proceeding, verify UDP ports 161, 162, and TCP port 80 are not blocked.

Transponder Communications Parameters					
SNMP Parameter	Local Port Parameter	Type	Description	Value	
atiCibDiscTable 1.3.6.1.4.1.926.1.2.1.1	[Discretes] TRAP ON NORMAL	Integer	Send SNMP trap when alarmed condition returns to normal state	0 = Disabled (default) 1 = Enabled	
atiMgmtSnmptTrapTable OID: 1.3.6.1.4.1.926.1.3.1.1	[Text] SNMP TRAP TARGET	IP Address	SNMP Trap Table (up to four entries)	0.0.0.0 (default)	
atiMgmtSysHttpAccess OID: 1.3.6.1.4.1.926.1.3.2.2.1	[Discretes] HTTP SERVER	Integer	HTTP Web Server	SNMP	Local Port
				1 = Disable	1 = Enable (default)
				2 = Enable (default)	0 = Disable
atiCibDiscTable OID: 1.3.6.1.4.1.926.1.2.1.1	[Discretes] BLOCK CPE	Integer	Access Mode(Single IP/Dual IP)	0 = Dual IP 1 = Single IP (default)	0 = Dual IP 1 = Single IP (default)

See the XP-DSM Technical Manual available at www.alpha.com for complete Alpha MIB parameter definitions.

Setting Options Locally

The local port allows a technician to monitor and set XP-DSM parameter values directly using a personal computer and a Local Port Adapter Cable (Alpha P/N 745-826-21). Terminal emulation software is necessary (HyperTerminal is recommended). Serial communication settings are:

Baud:	19200	Data Bits:	8	Parity:	None	Stop Bits:	1	Flow Control:	None
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To change settings:

1. Launch the terminal emulation software and hit ENTER to display the menu of CIB tables.
2. Enter >[first three letters of table] and ENTER to display the contents of a table.
3. To set a parameter value, enter: >[table] [subsystem] [Index] [Value], and hit ENTER.

NOTE: Entries in the TEXT Table do not have subsystems. Example: To set a SNMP Trap Target to 10.20.30.40 Enter Command: >tex 20 10.20.30.40 and hit ENTER.

Example Command

To disable the HTTP Server, which appears in the DISCRETE Table as:

SYS-1	10	HTTP SERVER	1	ENABLED	YES
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Enter: >dis sys 1 10 0 and hit ENTER. The result will be:

SYS-1	10	HTTP SERVER	0	DISABLED	YES
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Setting Options with a DSM Setup File

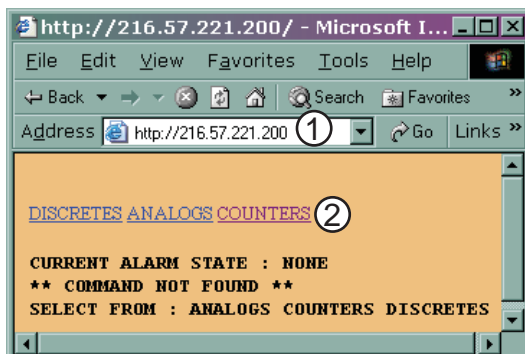
An optional DSM Setup File, **atidoc01.cfg**, distributes settings automatically to XP-DSMs on a network. The XP-DSM is programmed to look for **atidoc01.cfg** at initialization and after every twenty-four hours of operation. If the file is not present the XP-DSM will retain its settings. To build a DSM Setup File, enter SNMP parameters from the Alpha MIB and their desired values inside a TLV file using a TLV editor. The entry **atiMgmtSysDownloadCfgCheckProgress** with the value of **3** is the file marker that the XP-DSM looks for to begin reading entries and must be the first entry in the file. Name the file **atidoc01.cfg** and place it in the Root Directory of the TFTP Server specified by the docsDevSwServer parameter in the DOCSIS Configuration File. See the XP-DSM Technical Manual for complete instructions on building a DSM Setup File and for Alpha MIB parameter definitions.

Step 6: Test the Connection

There are two methods to test whether a connection has been established:

Method One: ① Type the IP address of the transponder into a Web browser.

② Click a link to see the associated power supply data.



Example of the Analogs power supply window

ANALOGS						
DEV	A	IX	NAME	VALUE	ENM/UNIT	SET
BSS-1	00	STRING	1 BATT 1	13.30	VDC	NO
BSS-1	01	STRING	1 BATT 2	13.50	VDC	NO
BSS-1	02	STRING	1 BATT 3	13.40	VDC	NO
BSS-1	03	STRING	1 BATT 4	13.30	VDC	NO
BSS-1	04	STRING	2 BATT 1	0.00	VDC	NO
BSS-1	05	STRING	2 BATT 2	0.00	VDC	NO
BSS-1	06	STRING	2 BATT 3	0.00	VDC	NO
BSS-1	07	STRING	2 BATT 4	0.00	VDC	NO
BSS-1	08	TOTAL	BAT VOLTS	53.40	VDC	NO
XM2-1	00	INPUT	VOLTAGE	122.40	Vac	NO
XM2-1	01	INPUT	FREQ	60.00	Hz	NO
XM2-1	02	OUTPUT	VOLTAGE	87.00	Vac	NO
XM2-1	03	OUTPUT	1 CURR	0.00	A	NO

Method Two: To check connectivity and verify power supply data, the XP-DSM can be accessed with SNMP. Check data within the psldent MIB branch of the SCTE-HMS Tree by performing an SNMP MIB walk to the SCTE-HMS-MIB branch 1.3.6.1.4.1.5591.1. Verify that power supply data measurements are present.



NOTE:

See the XP-DSM Technical Manual available at www.alpha.com for extensive network configuration and option setting instructions, including MIB parameter definitions.

For more information visit www.alpha.com

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