MobileAccess™ 850

Installation and Configuration Guide

UM 850, Rev 1.2

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MobileAccess tests and inspects all its products to verify their quality and reliability. MobileAccess uses every reasonable precaution to ensure that each unit meets their declared specifications before shipment. Customers should advise their incoming inspection, assembly, and test personnel about the precautions required in handling and testing our products. Many of these precautions can be found in this manual.

The products are covered by the following warranties:

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MobileAccess warrants to the original purchaser all standard products sold by MobileAccess to be free of defects in material and workmanship for one (1) year from date of shipment from MobileAccess. During the warranty period, MobileAccess will repair or replace any product that MobileAccess proves to be defective. This warranty does not apply to any product that has been subject to alteration, abuse, improper installation or application, accident, electrical or environmental over-stress, negligence in use, storage, transportation or handling.

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In the event that it is necessary to return any product against above warranty, the following procedure shall be followed:

1. Return authorization is to be received from MobileAccess prior to returning any unit. Advise MobileAccess of the model, serial number, and discrepancy. The unit may then be forwarded to MobileAccess, transportation prepaid. Devices returned collect or without authorization may not be accepted.

2. Prior to repair, MobileAccess will advise the customer of our test results and any charges for repairing customer-caused problems or out-of-warranty conditions etc.

3. Repaired products are warranted for the balance of the original warranty period, or at least 90 days from date of shipment.

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REPORTING DEFECTS

The units were inspected before shipment and found to be free of mechanical and electrical defects.

Examine the units for any damage that may have been caused in transit. If damage is discovered, file a claim with the freight carrier immediately. Notify MobileAccess as soon as possible.

NOTE: Keep all packing material until you have completed the inspection

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WARNING: To comply with FCC RF exposure compliance requirements, antennas used for this product must be fixed mounted on indoor permanent structures, providing a separation distance of at least 20 cm from all persons during normal operation.

WARNING: Antenna gain should not exceed 10dB.

WARNING: Each individual antenna used for this transmitter must be installed to provide a minimum separation distance of 20 cm or more from all persons and must not be co-located with any other antenna for meeting RF exposure requirements.

WARNING:

Compliance with RF safety requirements:

MobileAccess™ products have no inherent significant RF radiation.

The RF level on the down link is very low at the remote hub unit downlink ports. Therefore, there is no dangerous RF radiation when the antenna is not connected.

The design of the antenna installation needs to be implemented in such a way so as to ensure RF radiation safety levels and non- environmental pollution during operation.

CERTIFICATION

MobileAccess products have met the approvals of the following certifying organizations:

ISO 9001:2000 (from March 15, 2004)

For US: FCC 47 CFT part 15

Preface

This user guide provides all the information necessary to install and configure the MobileAccess 850 systems.

Revision History

The revision history for this document is shown in Table 1-1.

Table 1-1: Revision history

Version	Date	Description
1.0	February 2, 2004	Preliminary version.
1.1	May, 2004	Final editing for initial version.
1.2	2-Aug,2004	FCC remarks

Table of Contents

Chapter 1. Introduction

1.1   About MobileAccess 850™

MobileAccess 850 provides *secure* and *centralized* connection for 802.11a/b/g Access Points. It significantly expands 802.11 coverage and enables distributing data and voice services over a single coax and antenna infrastructure that supports other MobileAccess products.

MA 850 enables concentrating the 802.11a/b/g APs on each floor or coverage area in one location in the telecommunication closet or shaft where the MA 850 is also mounted. The APs, along with voice services from another MA remote unit can all be connected to the MA 850 to which the antennas are also connected.

MA 850 can be easily configured (through intuitive GUI) to distribute the AP signals to selected antennas in order to provide the best coverage for a specific area. Several configurations are available. As a result, less APs are required. As capacity needs grow, more APs can simply connected to the MA 850. *The number of APs and channels can be optimized according to capacity needs and not according to coverage area.*

MA 850 can be installed in the following configurations:

- Standalone – to provide coverage only for 802.11a/b/g services
- Add-on to ModuLite MRC – to converge data services with the voice services supported by the housed MRUs.
- Add-on to a MobileAccess 1000 series RHU
- Add-on to a MobileAccess 1200 RHU

The following illustration shows the MA 850 unit. Its dimensions and exact specifications are described in section **Error! Reference source not found.**.

Figure 1-1. MobileAccess 850 view

MA 850 Features and Capabilities

- Supports *simultaneous* extension and distribution of:
  - 1 to 4 802.11b/g APs user selected via intuitive graphical interface
  - 1 to 4 802.11a APs
  - Mobile services from MobileAccess 1000, ModuLite or Litenna RHUs
- Simplifies installation and maintenance:
  - All active elements are in the telecom shaft or closet
  - All data and voice services distributed via a common coax cabling and broadband antennas
- Expanded coverage and reduced interference, significantly reduces the number of necessary Access Points and saves on channel allocation
- Scalable: Additional APs connected as needed
- AP signal distribution remotely configured from any Web Browser through intuitive GUI
- Remote monitoring through a standard MIB browser

Chapter 2. System Description

2.1   Unit Description

802.11a/b/g service ports and the Ethernet port for remote management are located at the rear panel, while the antenna and MA RHU connections are at the front panel. The unit is configured locally by connecting to the front panel Local connector.

Two monitoring options are provided (both located at the rear):

- Control connector to an MA RHU unit, enabling MA 850 to send SNMP control signals through the RHU.

- Ethernet connection enabling direct remote monitoring

The following figure shows the MA 850 front panel, while Figure 2-2 shows the rear panel.

Antenna ports

Connections to corresponding antenna ports of MA RHUs

Power

Local RS232 connection for configuration

Figure 2-1. MobileAccess 850 Front Panel View

| Front Panel	Description
Antenna Ports	Four n-type female antenna connections
Mobile Services	Four SMA female connections to antenna ports of MA RHUs (MA 1000, Litenna or Modulite).
	To be terminated with 50 ohm terminations when not in use
Local	Local connection for setup
DC	Power connection: 20V to 48V from a standard power supply

Figure 2-2. MobileAccess 850 Rear Panel View

Rear Panel	Description
802.11b,g APs	Connection to up to four 802.11**b/g** APs, where associated LED light under the following conditions: • Green: indicates where AP should be connected after configuration • Green flickering: Link with AP established but no data is received • Red: AP transmitting data
802.11a APs	Connection to up to four 802.11**a** APs
Connection to control	Connection to MobileAccess RHU RS232 connector for viewing antenna status
Ethernet port	Connection to network for configuration

2.2   Block Diagram

MA 850 consists of the following main *functional* units:

- **Programmable selection mechanism:** Determines, according to user definitions, the antenna outputs to which the 802.11b/g inputs will be routed. (Only 802.11b/g APs routing can be user defined; 802.11a APs routing is not currently configurable).

- **Gain control mechanism:** Amplifies the 802.11b/g signals.

- **Combining and separating mechanism:** On the downlink, combines the amplified 802.11b/g signals with the 802.11a AP signals and the voice services signals. On the uplink, separates the signals and routes them to the corresponding outputs.

- **Monitoring and control:** Provides access to local RS232 configuration options and to remote SNMP monitoring and configuration options.
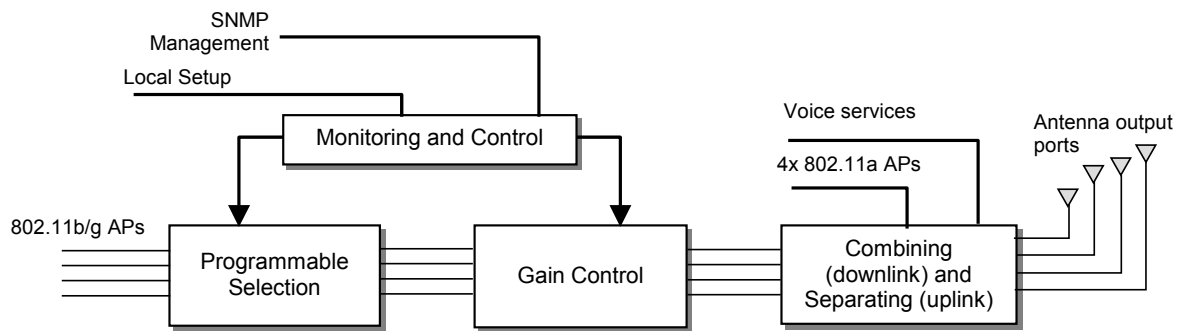
Figure 2: MobileAccess 850 Functional Block Diagram

NOTE: If the MobileAccess 850 is operated without cellular service, it is required to connect **50 Ω termination** points to each of the remote connectors in the unit. A 50 Ω termination is also required on each unused AP port.

Chapter 3. Infrastructure Preparation

3.1 Installation Requirements

> **NOTE:** To support services between 800 Mhz to 6 Ghz (Cellular, PCS, 802.11a/b/g), the installed antennas must be of a broadband type that support all the mentioned services.

The infrastructure preparation consists of two main phases:

A. **Floor Planning:** Planning the distribution of the antennas on each floor to provide the required coverage. This phase varies depending on whether the coverage is only for WLAN or includes voice coverage and on the existing infrastrucutre:

- **For WLAN coverage only:** only WLAN antennas are required.

- **For voice and WLAN coverage – no exisitng infrastructure:** broadband antennas are required.

- **For voice and WLAN coverage – existing infrastructure:** verify the coverage takes into account the extended coverage provided by MA 850 and the simplified infrastructure that supports both voice and WLAN services.

B. **Telecom Closet Planning:** Planning the layout of the devices and cables in the telecom closet or shaft. This includes the MA 850, 802.11 Access Points, cabling and other voice service distribution systems such as MA 1000 that are relevant to the specific installation.

3.2 Coaxial Cable Connections

3.2.1 General Cable Installation Procedures

The general cable installation procedures in accordance with the building codes in your area should be observed. The building code requires that all cabling be installed above ceiling level (where applicable). Each length of cable from the risers to each antenna must be concealed above ceiling.

The cable must be properly supported and maintained straight. This is either by tie wraps or cable trays and clamps or hangers every 10 feet (where practical above ceiling level). Where this is not obtainable, the following should be observed:

- The minimum bending radius of the supplied ½" coax cable should be 7".

- Cable that is kinked or has a bending radius smaller than 7" must be replaced.

- Cable runs that span less than two floors should be secured to suitably located mechanical structures.

- The cables should be supported only from the building structure.

3.2.2   Additional Information

- Use coax ½", 50ohm, male-to-male N-type, (6-7dB for 1Ghz, 11dB for 2Ghz) for connecting to MRC ports.

- Use VSWR meter (Site Master) for checking coax cables, including the antennas. (<2).

- Unconnected **MA 850** ports should be terminated with a 50 ohm load.

3.3   In-building Antennas

The in-building antennas are connected to the coaxial cable distribution system by jumper cables at various points. The antennas will be mounted on the ceiling tiles and should be exposed. All in-building antenna installations will be such that it will not interfere with indoor traffic and will not enable any person to touch the antennas.

- Wideband antennas omni/directional – up to 2.5GHz to support 802.11b/g, up to 6GHz to support 802.11a

- 50 ohm impedance

> **NOTE:** The following vendor antennas have been verified. Although most other broadband antennas can be used, it is recommended to contact your MobileAccess representative to verify that your antennas are suitable for use with your installed MobileAccess system.

Antennas:

Vendor	Catalog number	Gain [dBi]
Mars Antennas	MA-CM36-15	2 low band 3-4 high band 5 WLAN 802.11b
Cellwave	A08818DC00-28T0	2.1
Antenna Specialists	ASP-3561	2

3.3.1 Antenna Connections

- 50 Ω, 1/2" or 3/8" Plenum coax cables

- Max cable length (typically): 150'

- 50 ohm terminator on unused connections

- For short jumpers (to MRC antenna ports): RG223 2 ft or 10 ft male-to-male coax jumpers

3.4 Access Points

> **NOTE:** The following vendor APs have been verified and approved in the FCC filing. In order to meet the FCC requirement 15.204 it is required to put a new FCC ID label that will cover the original label.

Access Points:

Vendor	Catalog number
Cisco	AIR-AP1200 series AIR-MP20B

3.5 Power Connections

The power connections vary according to the MA 850 installation topology.

The following power supplies are recommended for local power configuration:

> **NOTE:** Power can also be supplied using remote power supply configurations.

- Standalone (WLAN only) – dedicated power supply (i.e. LPS-48-40W – refer to the Power Supplies Manual).

- Mounted to the ModuLite™ MRC – same as standalone. Dedicated power supply (i.e. LPS-48-40W – refer to the Power Supplies Manual).

- As an add-on to the MA 1000 RHU – recommended PS: LPS-48-100W (100W, 48V PS) which supplies both modules.

Chapter 4. Installation

4.1 Acessory Kits

Verify that the supplied accessory kit corresponds to your installation. The accessory kits include a bracket, the required cables and accessories.

AK-850-1000	Accessory kit for 850 with 1000
AK-850-1200	Accessory kit for 850 with 1200
AK-850-MDLT	Accessory kit for 850 with Modulite
AK-850-2000	Accessory kit for 850 with 2000
AK-850-SA	Accessory kit for 850 stand alone

4.2 Positioning the Unit

MobileAccess 850 is typically installed in the communication shaft or cabinet of each floor to which WLAN coverage is to be supported. The accessories, mounting and installation procedures vary depending on the configuration.

The following devices and cabling are connected to the MA 850:

- 802.11a/b/g APs: Ethernet (LAN) and power connections. Take into account additional APs that may be required in the future.

- MA 850: power and coax connections

- MobileAccess remotes for voice services: MA 1000 or ModuLite MRC

The following figure shows a simplified illustration of the positioning of MA 850, along with the APs, cables, and MA 1000 RHU. The example represents MA 850 as add-on to MA 1000.
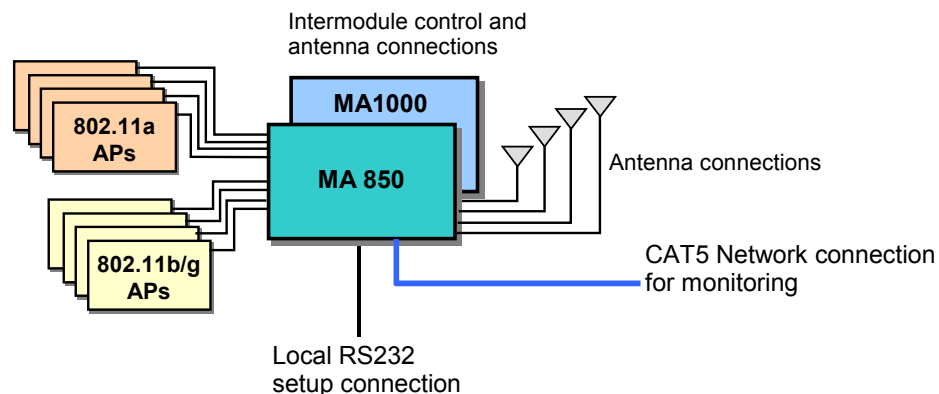

Figure 4-1.Example of MA 850 connections layout

4.3   MA 850 Installation and Connections

MA 850 may be installed in the following configurations:

- Wall mount standalone – mounted on the wall with four screws
- Wall mount as add-on to MA 1000 RHU
- Wall mount as add-on to MA 1200 RHU
- As add-on to a ModuLite Remote Control (MRC)

NOTE: It is recommended to record the location of the units according to the MAC addresses on the sticker at the rear of the units near the Ethernet port.

In a wall-mount standalone configuration, MA 850 is mounted to the wall using four screws. When connected to another MA remote (MRC, MA 1000 or MA 1200), a special **bracket** and set of accessories is used. A different bracket and set of accessories is used for each type of installation.

Note: Use SMA wrench for the SMA connectors, **do not** over tighten the connectors.

4.3.1   Wall Mount Standalone

NOTE: Cable **705102101** supplied with the MA 850 module is for use when MA 850 is installed in an add-on configuration. Although it is not required for a stand-alone installation, it is recommended to set is aside. You will need it if you want to upgrade your system to provide additional coverage options.

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1. Mount the MA 850 on the wall using four screws. When mounting, take into account:

   - That the type of screws used must suit the type of wall construction (cement, bricks, etc.) so that the mount is secure.
   - The position of the APs and required cable connections.

2. Connect the **power** and coax **antenna** cables to the MA 850 unit.

3. **Configure** the unit and connect the **APs** according to section 4.4.

4. Fit 50 ohm terminators on all unconnected SMA, AP and antenna ports.

4.3.2   Wall Mount as Add-on to MA 1000

1. Mount the MA 850 unit on the wall using four screws inserted in the four side holes.

2. Secure the supplied bracket to the top cover of the MA 850 through the six holes.

3. Assemble the MA 1000 RHU on top of the bracket.

4. Connect between **MA 850** and **MA 1000** as follows:

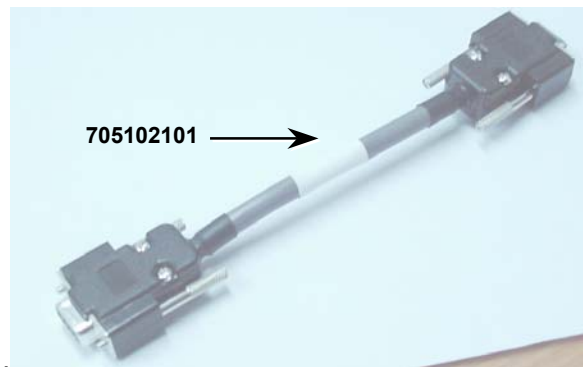   - Connect between the **Control** connectors at the rear of both units using cable **705102101**

Figure 4-2. Control connector

   - Connect the **MA 1000 antenna** ports and the **MA 850 Mobile Services** ports using the four SMA to N-type cables *supplied in the accessory kit*. *Be sure the connectors are closed at a 45 degree angle so as not to place stress on the cables.*

Figure 4-3. Antenna to SMA Connections

5. Connect the **power** and coax **antenna** cables to the MA 850 unit.

6. Configure the MA 850 unit and connect the **APs** according to section 4.4.

7. Fit **50 ohm** terminators on all unconnected SMA, AP and antenna ports.

4.3.3   Add-on to MA 1200 and MA 1000

The installation varies depending on whether the MA 850 is to be added to an existing installation of MA 1200 and MA 1000 or if this is a new installation: if this is a new installation, install the MA 850 first and mount the MA 1000 and MA 1200 on top of the MA 850. Otherwise, install the MA 850 on top of the MA 1200.

As a new installation

1. Mount **MA 850** on the wall using four screws inserted in the four side holes.

2. Secure the supplied bracket to the top cover of the MA 850 through the six holes.

3. Assemble the **MA 1000 RHU** on top of the bracket.

4. Assemble the **MA 1200 RHU** on top of the **MA 1000 RHU.**

5. Connect the **MA 1000 antenna** ports and the **MA 850 Mobile Services** ports using the four SMA to N-type cables *provided in the accessory kit. Be sure the connectors are closed at a 45 degree angle so as not to place stress on the cables.*

6. Connect between the MA 1200 RHU Add-on connector (at the rear) to the MA 850 Add-on connector (at the rear) using cable 705102101.

7. Connect the power and coax cables to the MA 850 unit.

8. Configure the unit and connect according to section 4.4.

9. Fit 50 ohm terminators on all unconnected SMA, AP and antenna ports.

4.3.4   Assembling to the Side of a ModuLite Cabinet

Mount MA 850 on the side of a Modulite Remote Cabinet (MRC) using the supplied "L" bracket and the two screws.

1. Loosen and remove the two screws on the MRC top panel, on the side on which the MA 850 module will be mounted. Loosely insert the two screws provided by MobileAccess (this is to verify that the used screws are long enough to accommodated the additional height).

Replace these two screws – do not tighten.

2. Fit the "L" bracket on the side of the cabinet – so it fits on the two screws and tighten the screws.
3. Assemble the MA 850 onto the 'L' bracket and secure with the screws.

Figure 4-4. Assembly to the side of a ModuLite Cabinet

4.4   AP Configuration and Connections

802.11b/g connections must be configured in order to optimize AP coverage and customize it to the specific area.

NOTE: 802.11a AP connections do not require software configuration: each connection is routed directly to a specific antenna. The configuration can be modified anytime, either locally according to the following procedure, or remotely according to the procedure described in Chapter 5 Remote Management 802.11b/g Connections and Configuration

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Before connecting the devices and cables to the MA 850, configure the unit with the connected APs. For ***one, three*** and ***four*** AP connections, the services are routed to specific antennas – no choice is available to the user. For ***two*** AP connections, the user may select from several configurations the antennas to which the services will be routed.

After the configuration is completed, the appropriate LED indicating the valid connection points for the APs will be lit.

To configure the MA 850

1. Install the 850 MA Setup application on your computer.
2. Locally connect to the MA 850 **Local** connector using the RS232 9-pin cable provided with the MA 850
3. Launch the application on the computer. The following dialog appears.
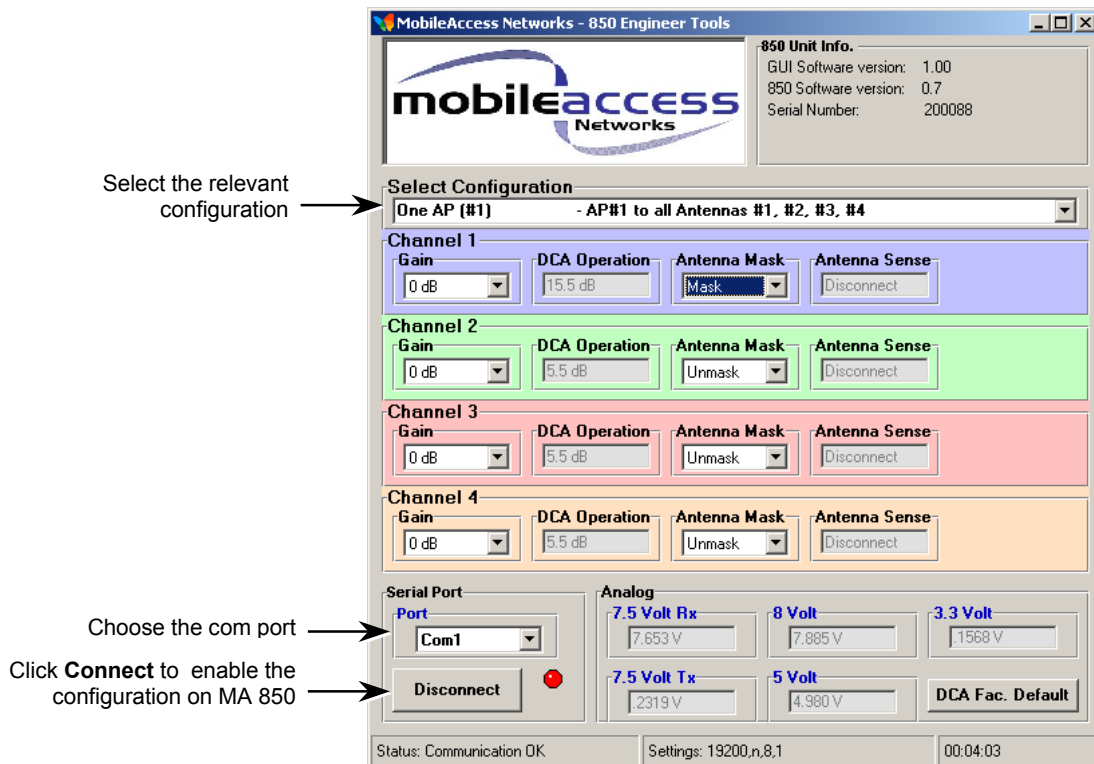
Figure 4-5. MA 850 Setup Dialog

4. Select the **com** port and click **Connect**.

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5. In **Select Configuration,** choose the configuration corresponding to the number of APs that will be connected. **The MA 850 ports to which APs can be connected will be indicated by lit LEDs.**

Note that APs must be connected to specific ports according to the number of APs. For example, a single AP is always connected to Port-1, and three APs are connected to the corresponding ports 1 through 3.

In configurations with two APs, select the antennas to which services will be routed so that the coverage is optimized.

# of 802.11b/g APs	802.11b/g Connections	Output to Antenna Ports
1 AP	Port #1	1,2,3,4
2 APs	Ports #2, #3	**User configurable:** 1. Port-2: Antennas 2,3; Port-3: Antennas 3,4 2. Port-2: Antennas 2,3,4; Port-3: Antenna 1 3. Port-2: Antennas 1,3,4; Port-3: Antenna 2 4. Port-2: Antennas 1,2,4; Port-3: Antenna 2 5. Port-2: Antennas 1,2,3; Port-3: Antenna 4
3 APs	Ports #1, #2, #3	AP1 to Antenna 1 AP2 to Antenna 2 AP3 to Antennas 3,4
4 APs	Ports #1, #2, #3, #4	AP1 to Antenna 1 AP2 to Antenna 2 AP3 to Antenna 3 AP4 to Antenna 4

4.4.1   802.11a AP Connections

Antenna ports provide coverage to the parallel 802.11a AP ports. *Therefore, when connecting the 802.11 APs, keep in mind the area to be covered.*

For example, connecting 802.11a APs to 802.11a inputs 2 and 3, will distribute these signals though antenna ports 2 and 3. Connecting the 802.11a APs to 802.11a inputs 1, 2 and 3, will distribute the signals over antenna ports 1, 2 and 3.

NOTE: All coverage is combined. The antennas to which 802.11a signals are routed may, at the same time, provide coverage for 802.11b/g and to voice services.

The following example shows that AP connections to 802.11a ports 2 and 3, provides 802.11a coverage to areas covered by antennas 2 and 3 (the 802.11a service connected to these ports is not covered by antennas 1 and 4).
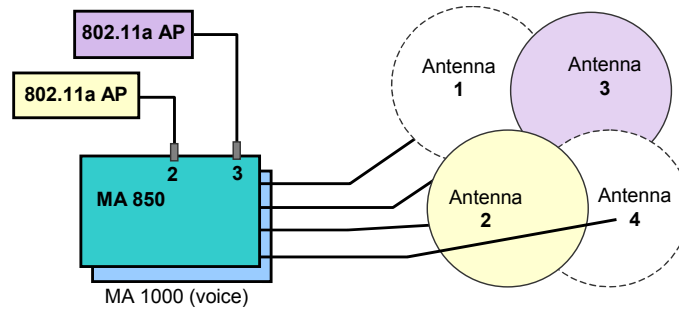
4.4.2   Connecting MobileAccess Remote Units

- Use short 50 Ω Coax cables w/N-Type connectors

4.4.3   Connection to Antennas

- 50 Ω, N-type male to male, 1/2" or 3/8" Plenum coax cables

- Max cable length (typically): 150'

- 50 ohm terminator on unused connections

- For short jumpers (to MRC antenna ports): RG223 2 ft or 10 ft male-to-male coax jumpers

Figure 4-6. Antenna Connections

4.4.3.1 Connection to Power

Connect the DC power supply…..20 VDC to 48 VDC

Chapter 5. Remote Management

MA 850 whose SNMP parameters are defined may be connected to the network through an Ethernet connection and assigned addresses either through dynamic (DHCP) or static address assignment methods. The MA 850 units may then be remotely managed from any Web Browser by connecting to the IP Address of the specific MA 850 unit or through any Network Operating Center (NOC) using SNMP.

The following operations may be performed remotely through a Web browser:

- View the current Access Point configuration and make changes

- View alarms

- View and change the current gain setting
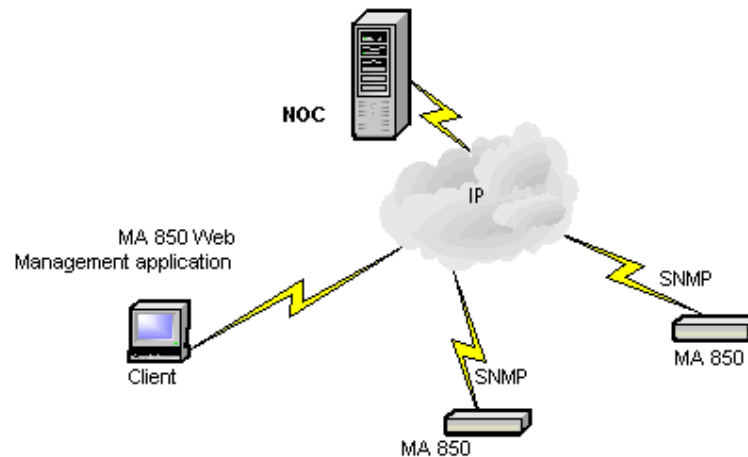
Figure 5-1. MA 850 Remote Management

5.1   IP Configuration Procedure

MA 850 units connected to the network may be assigned either dynamic IP Addresses through DHCP or static IP addresses (for networks without DHCP). The addresses may be assigned from a single location using the **Lantronixs DeviceInstall** application supplied with the units.

The IP configuration procedure consists of the following steps:

- Installing and launching the **Lantronixs DeviceInstaller** application on your computer.

- Connecting to the network

- Performing auto-discovery

- For networks without DHCP – assigning IP Addresses manually

- Setting the SNMP parameters

5.1.1   Connecting to the Network

Connect each MA 850 units first to the to the network and *then* to the power cable.

NOTE: It is recommended to record the location of the units according to the MAC addresses on the sticker at the rear of the units near the Ethernet port.

5.1.2   Installing and Launching Lantronixs DeviceInstaller

5.1.3   Performing Auto-Discovery

1. Install and launch the **Lantronixs DeviceInstaller** application on your computer.
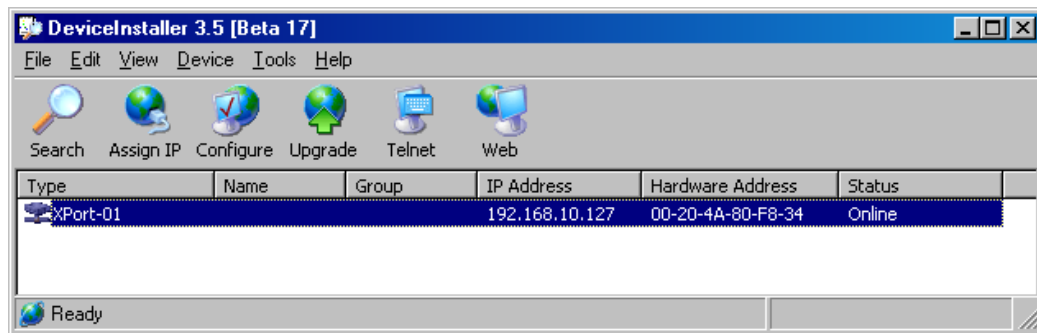
Figure 5-2. DeviceInstaller dialog

2. In the **DeviceInstaller** main window toolbar**,** click **Search** to perform auto-discovery**.** The MA 850 units currently in the network will be identified and listed in the window according to their MAC addresses (in the **Hardware Address** column).

3. **For networks with DHCP:**

    • The dynamically assigned IP Address will also be listed in the **IP Address** column.

4. **For networks without DHCP:**

    • Disregard the data displayed in the **IP Address** column and manually assign a Static IP address.

What next ?

Define the SNMP parameters.

5.1.4 Assigning a Static IP Address

NOTE: This procedure requires the MAC address of the MA 850, which is found on the label located at the rear of the unit.

Perform the following procedure for each of the MA 850 units listed in the Lantronix DeviceInstaller main window which are to be manually assigned IP Addresses.

1. Select the MA 850 unit and click the icon **Assign IP** in the toolbar.
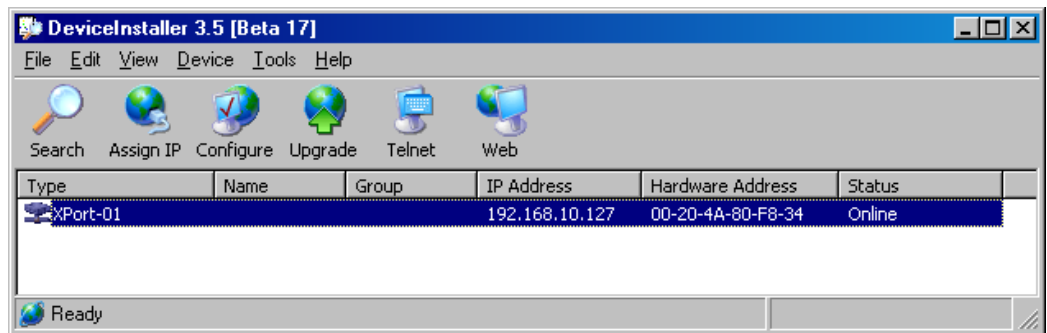
Figure 5-3. Assigning Static IP Address

2. The Device Identification window appears, showing the MAC address of the selected MA 850 unit.
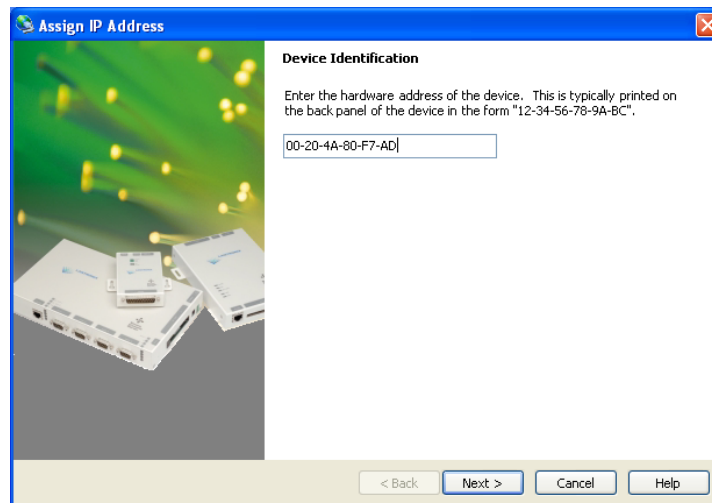
Figure 5-4. MAC Address

3. Click **Next.** The IP Address Assignment Method window appears.
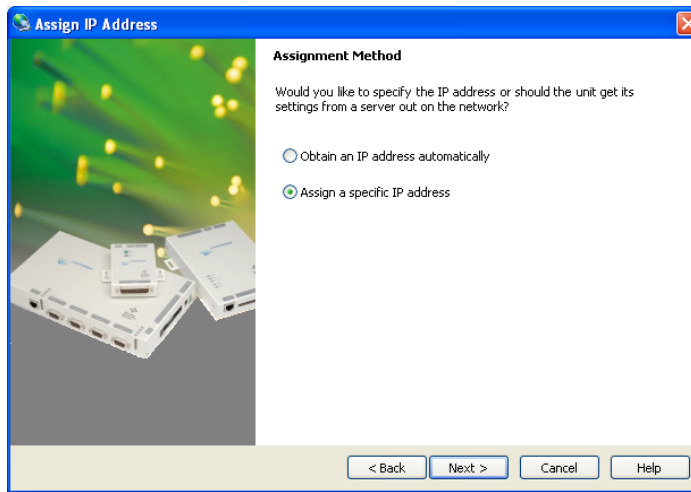
Figure 5-5. Static IP Address

4. Select **Assign a specific IP address;** then, click **Next.** The IP Settings window appears.
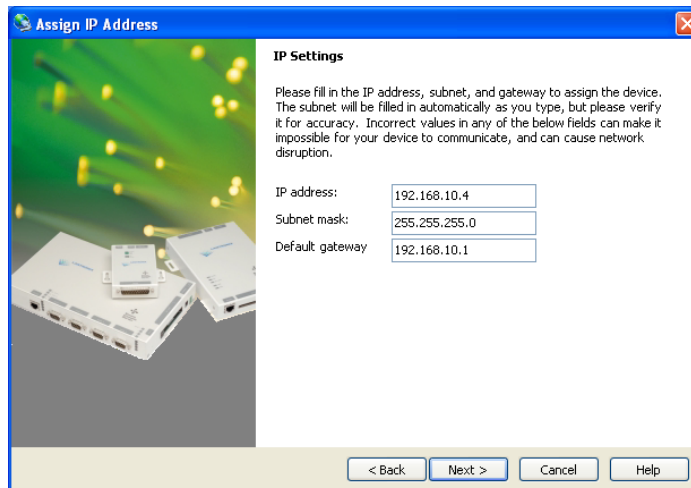
Figure 5-6. Static IP Address Definition

5. Enter the **IP Address**, **Subnet Mask** and **Default Gateway** values; then, click **Next.** The Assignment window appears.
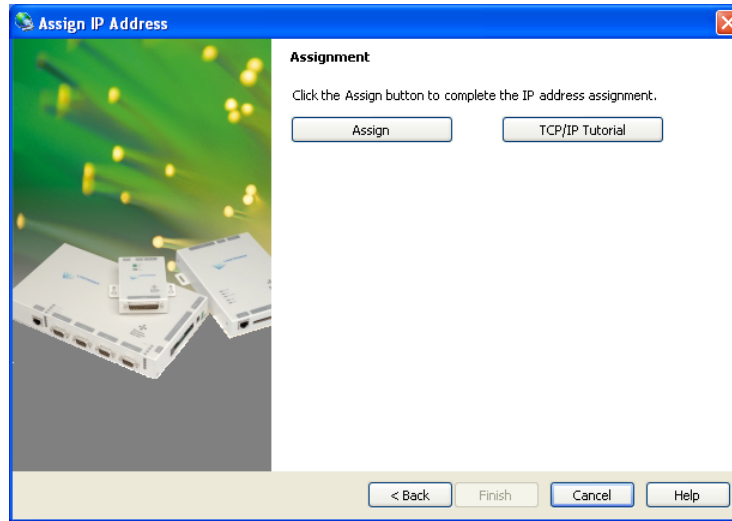
Figure 5-7. Assignment Window

6. Click **Assign** to assign the MA 850 unit the defined parameters.

Once the parameters have been assigned, the message 'Completed Successfully' appears and the **Finish** button is enabled.
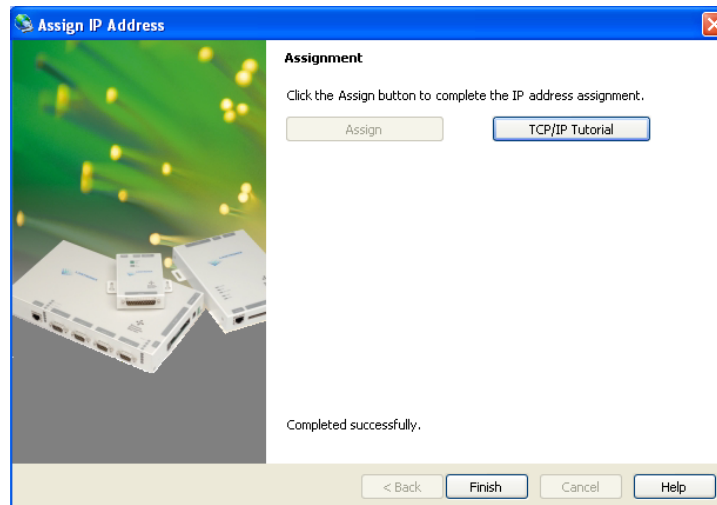
Figure 5-8. Finish Static IP Address Definition

7. Click **Finish.** The **Device Installer** Main window reappears and the installed unit will be listed in the window.

What next?

Define the SNMP parameters.

5.1.5   Configuring the SNMP Parameters

Configure the SNMP Community and Trap destination addresses according to the instructions in this section.

NOTE: The required communication parameters are pre-set for each MA 850 unit. However if you do not succeed in connecting to the Telnet application, verify the communication parameters.

---

1. Select the MA 850 unit which will be configured (may be identified according to its MAC address value) and click the **Telnet** button in the toolbar.

2. The Telnet dialog shows the IP address of the currently connected MA 850 unit.
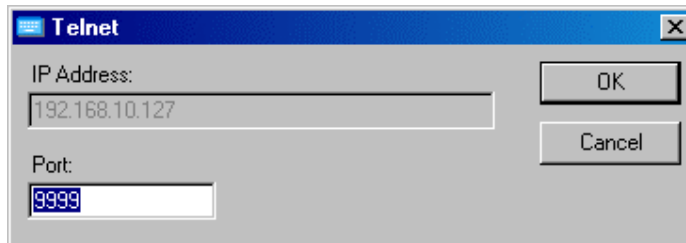
Figure 5-9. Telnet IP Address window

3. Click **OK** and immediately press **Enter** to go into Setup Mode. The current settings will be displayed, followed by the **Change Setup** menu.

```
Change Setup:
  0 Server configuration
  1 Channel 1 configuration
  3 SNMP configuration
  7 factory defaults
  8 exit without save
  9 save and exit                 Your choice ?
```

4. Enter **3** (SNMP Configuration).

5. Set the SNMP Read and Write community names and the SNMP traps destination addresses (up to three addresses can be defined) by responding with **Y** to the prompt **Set the Gateway IP Address** and defining the Address (as illustrated below).

```
SNMP community name for read (): public
SNMP community name for write (): private
Enter IP addresses for SNMP traps:
    1: (000) 192.(000) 168.(000) 10.(000) 22
    2: (000) .(000) .(000) .(000)
    3: (000) .(000) .(000) .(000)
```

6. Press **Enter** to run through the rest of the parameters. When the Setup Menu is displayed again, select **9 – Save and Exit.**

5.1.6   Configuring Serial Parameters

This section describes how to verify and configure the serial communication parameters for each MA 850 unit.

1. From the **DeviceInstaller** Main window, select the MA 850 unit to be configured and click the **Configure** button the toolbar. The Configure Device dialog appears.
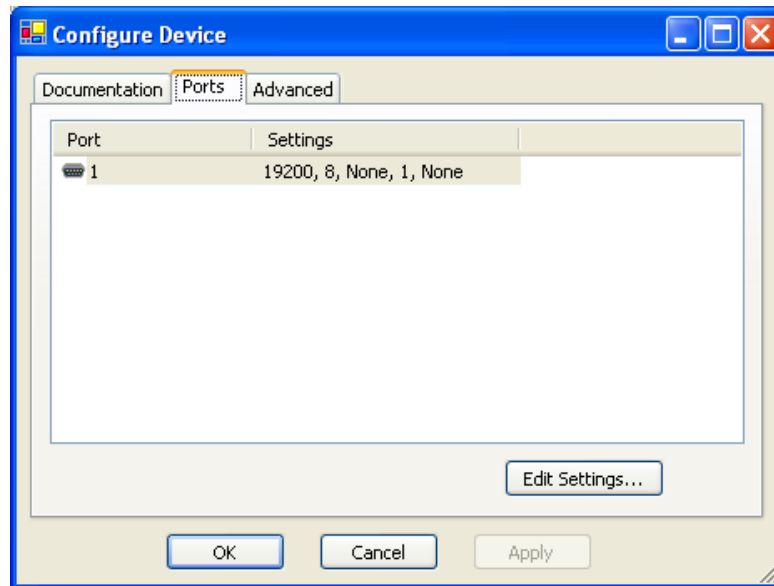
Figure 5-10. Current Serial Port Parameters

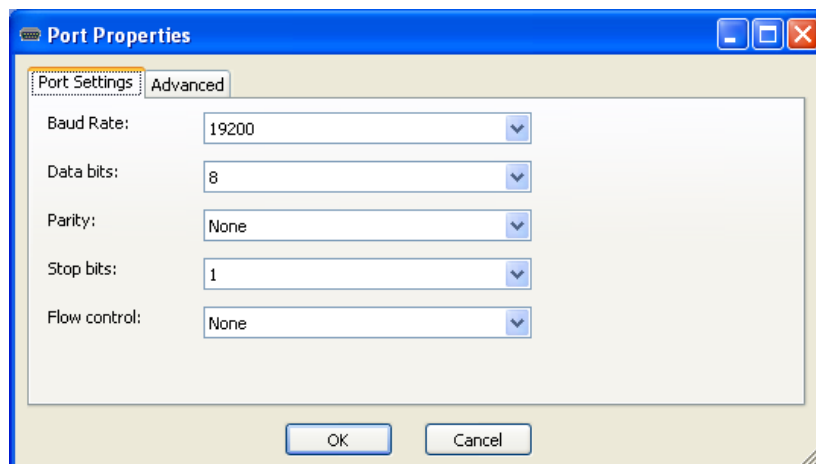2. Click the **Ports** tab and then the **Edit Settings…** button. The Port Properties dialog appears.

Figure 5-11. Port Properties

3. Set the parameters as follows: Baud Rate 19200, Data Bits 8, Parity None, Stop Bits 1, Flow Control None; then, click **OK.** The DeviceInstaller Main window appears.

5.2 Login to the Configuration Application

To login to the MA 850 configuration application

1. Run a Web Browser application (i.e. Internet Explorer).

2. Enter the IP Address of the MA 850 unit to be configured. (i.e. **http://192.168.10.127**). The Login dialog appears.
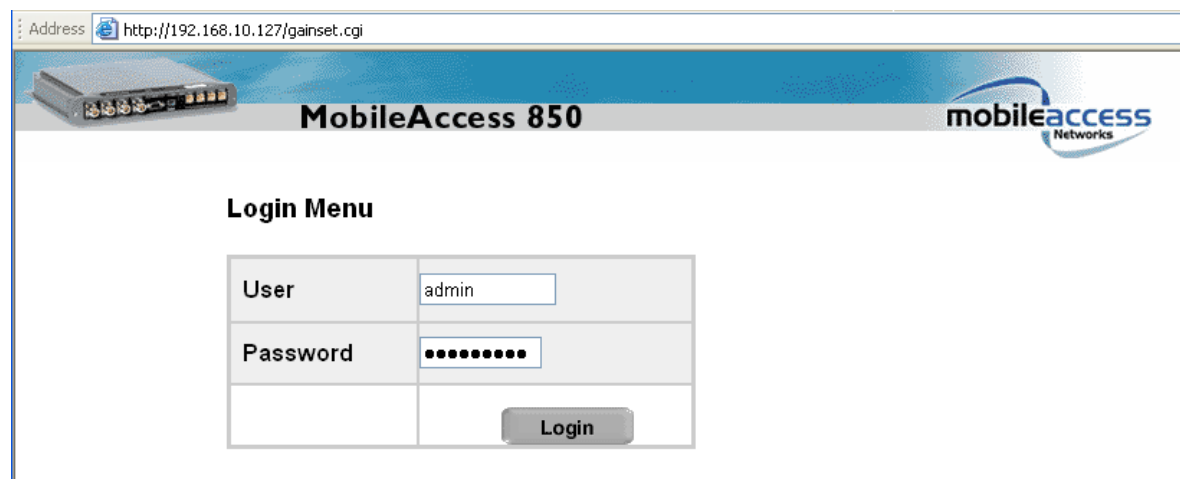
3. Select the **User** as **Admin** or **Guest**; where Admin has configuration privileges and Guest (default password **= guestpass**) may only view the current configuration. Enter the **Password** and click **Login.** The Main configuration window appears. The window shows the current configuration (**Active Configuration**) and provides configuration and monitoring options. The Main window is described in the following section.

5.3   Main Window

The Main window is displayed upon login. The available options vary depending on whether login was performed through Admin or through Guest authentication level.
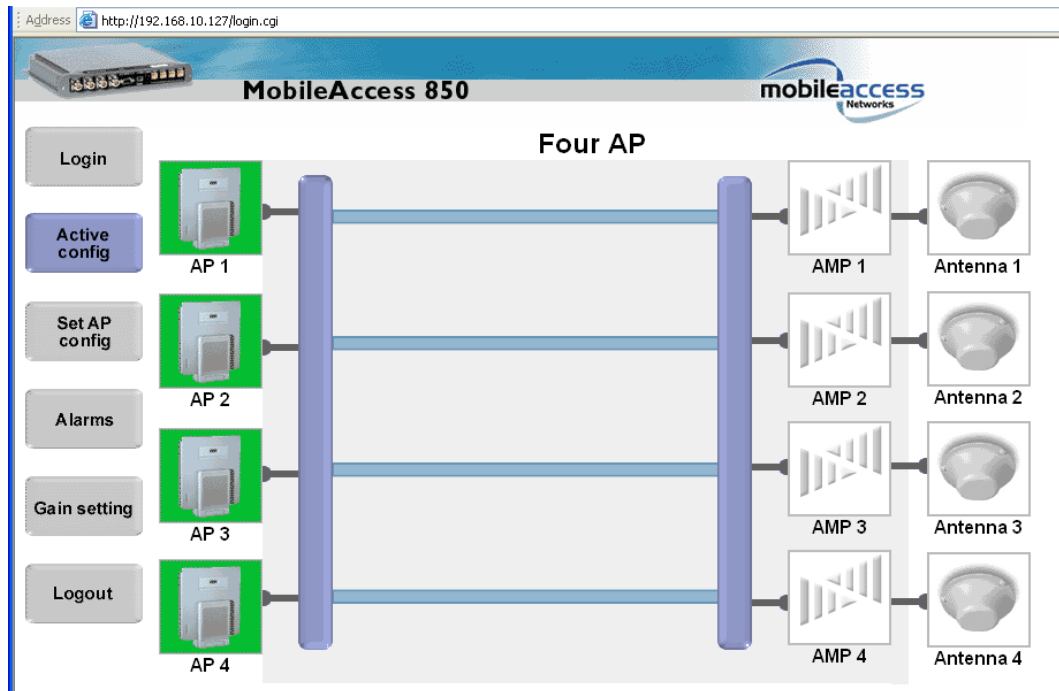
The following options are available:

- **Login –** click to login using a different authentication level
- **Active config –** displays the current AP configuration
- **Set AP config –** modify the current AP configuration
- **Alarms –** displays any alarms from the connected MA 850
- **Gain setting –** modifies gain setting (default = 0)
- **Logout –** exit application and close connection

5.3.1   Changing AP Configuration

1. Click the **Set AP Config** in the Main window to display the **Set AP Config** window.

2. Select the desired configuration. The corresponding image, displaying the selected configuration appears.

3. Click **Accept** to upload the new configuration to the MA 850 unit.

5.3.2   Monitoring Alarms

MA 850 provides the following alarms, which may be viewed by clicking the **Alarms** button in the Main window:

- **Access Point Sense –** senses the connection of configured APs

- **Low power –** sense the power level at each AP input

- **Antenna sense –** senses connected antennas. This option can be disabled for antennas that are not connected
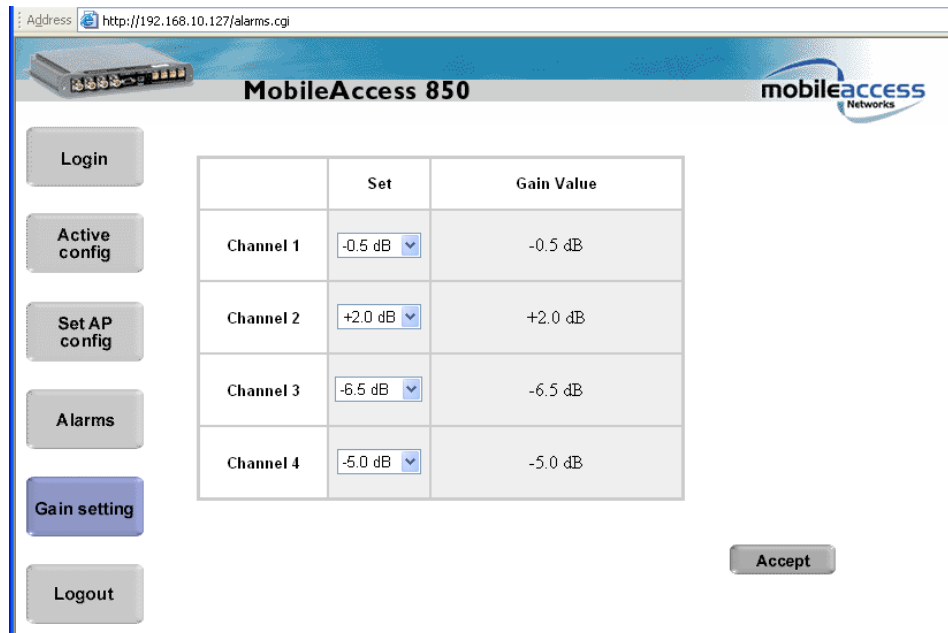
5.3.3   Gain Setting

MA 850 enables the authorized user (**Admin** level) to adjust the gain for every channel to counteract changes in the environment.

The Gain Setting dialog is accessed by clicking the **Gain Setting** button in the Main window.

Chapter 6. SNMP Management Using Any Standard SNMP Manager

The MA 850 packages provide MIBSs that enable standard SNMP managers such as HP OpenView to view event traps sent by the MA 850 unit and to configure the unit.

One MIB file is provided: MA-XPORT850-MIB– describes the architecture of the managed elements and contains the events in the system

NOTE: These traps provide a general indication of the type of failure. The MA 850 enables identifying the source of the problem and system monitoring parameters.

To view the traps using any standard SNMP manager

NOTE: It is assumed that the IP Address of at least one destination is already defined.

Load the two MIB files to the SNMP manager. The following figure shows the MIB tree that includes the loaded MobileAccess 850 file.
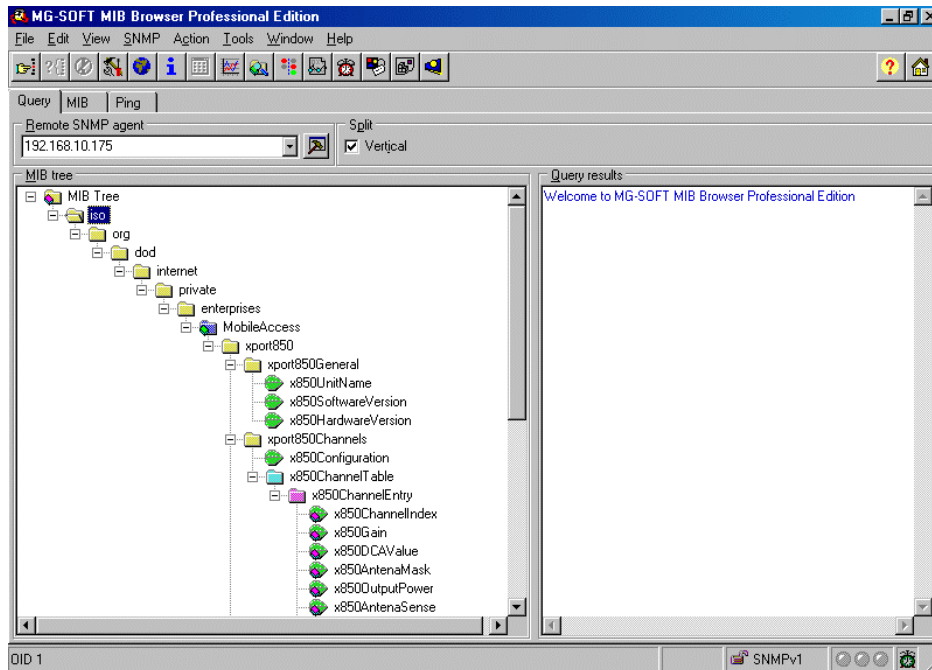

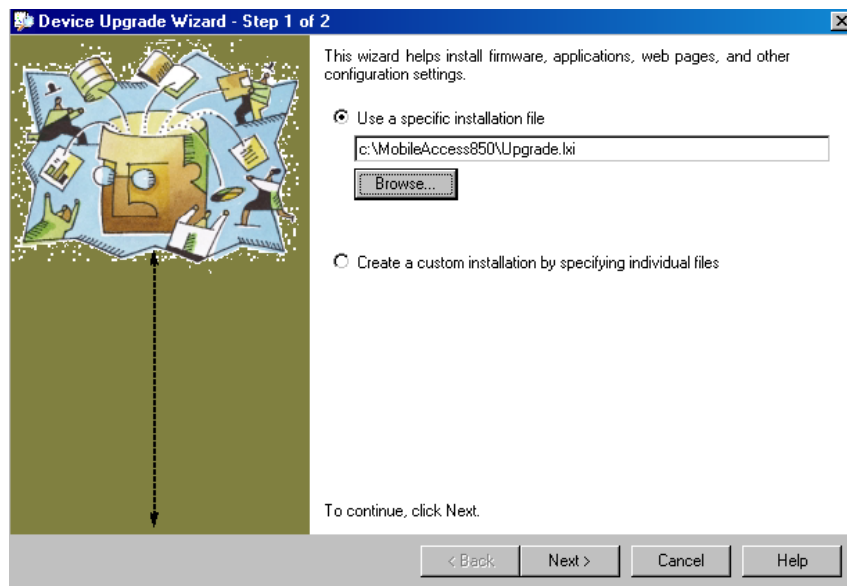**Figure 6-1. MIB Tree with Loaded MobileAccess 850 Files**

Chapter 7. Upgrading MA 850

Use the procedure described in this chapter to upgrade the MA 850 software.

7.1.1   Upgrading the Management Application

1. From the **DeviceInstaller** Main window, select the MA 850 unit to be upgraded and click on the **Upgrade** icon in the toolbar. The Installation type dialog appears.
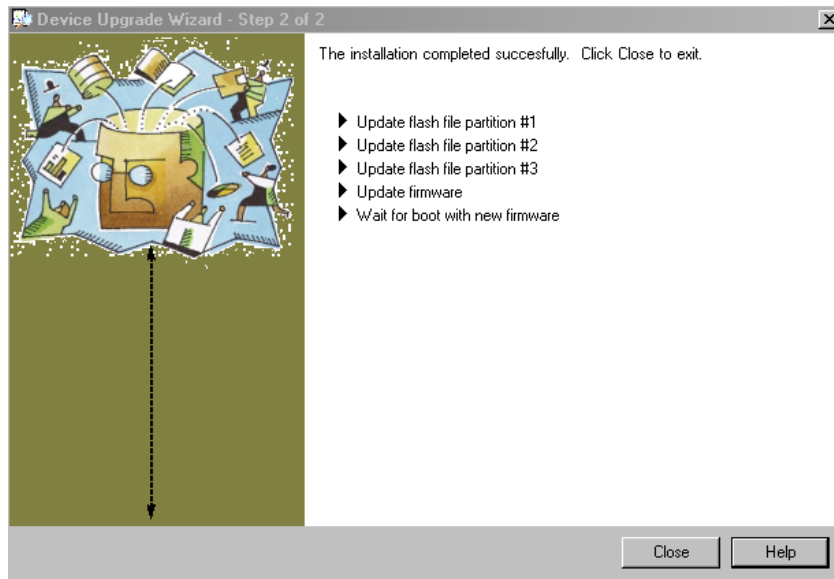

2. Select **Use a specific installation file**, browse for the file and click **Next.**

The update procedure begins.
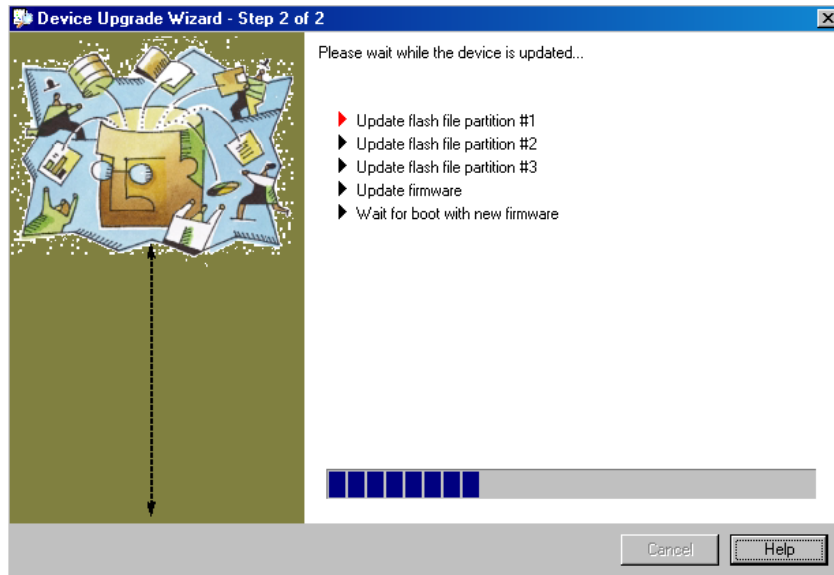
3. Once completed, the following window appears.

4. Click **Close** to complete the procedure.