Aditus 2 Line Remote Access Unit Installation Guide

ADICOM WIRELESS

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Safety Notes **The following safety notes are used throughout this manual. Familiarize yourself with each of the notes and its meaning before installation.**

Caution Caution denotes a hazard. It calls attention to a procedure that if not correctly performed or adhered to, would result in damage or destruction to the product. Do not proceed beyond a caution sign until the indicated conditions are fully understood and met.

Warning **Warning denotes a hazard. It calls attention to a procedure which, if not correctly performed or adhered to, could result in injury or loss of life. Do not proceed beyond a warning note until the indicated conditions are fully understood and met.**

Product Marking Product markings and caution and warning labels are used on Adicom products. Be sure to observe all cautions and warnings.

Warning/Caution Symbol

The warning/caution symbol. The product is marked with this symbol when it is necessary for the user to pay close attention to the instruction in the manual.

General Safety Considerations

Cover Warning No operator serviceable parts inside. Refer servicing to qualified personnel. To prevent electrical shock, do not remove cover.

Fuse Warning For continued protection against fire hazard, replace line fuse only with same type and rating. The use of another type of fuse or material is prohibited.

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1.0 Introduction

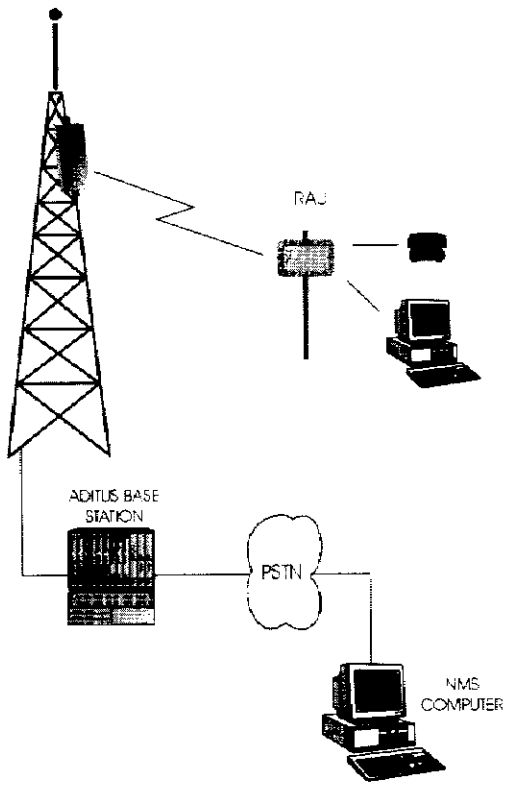
1.1 Scope

The purpose of this manual is to provide planning and installation personnel with the appropriate procedures to plan and install the Remote Access Unit (RAU) at sites within the Aditus Wireless Local Loop Network.

1.2 Overview of the Aditus Wireless Local Loop (WLL) System

The Aditus WLL Network is a radio-based access network, which allows subscriber connections to the local telephone exchange of the Public Switch Telephone Network (PSTN), without the need for cabling between the local telephone exchange and the user locations. Figure 1-1 depicts the Aditus WLL architecture.

Figure 1-1. Aditus Wireless Local Loop Architecture



The Aditus system consists of three elements:

1) Base Stations that can be either connected directly to the local exchange switch or connected remotely over landlines, radio or optical fiber links to the local exchange switch. Each Base Station supports a variety of analog and digital interfaces to the local exchange switch.

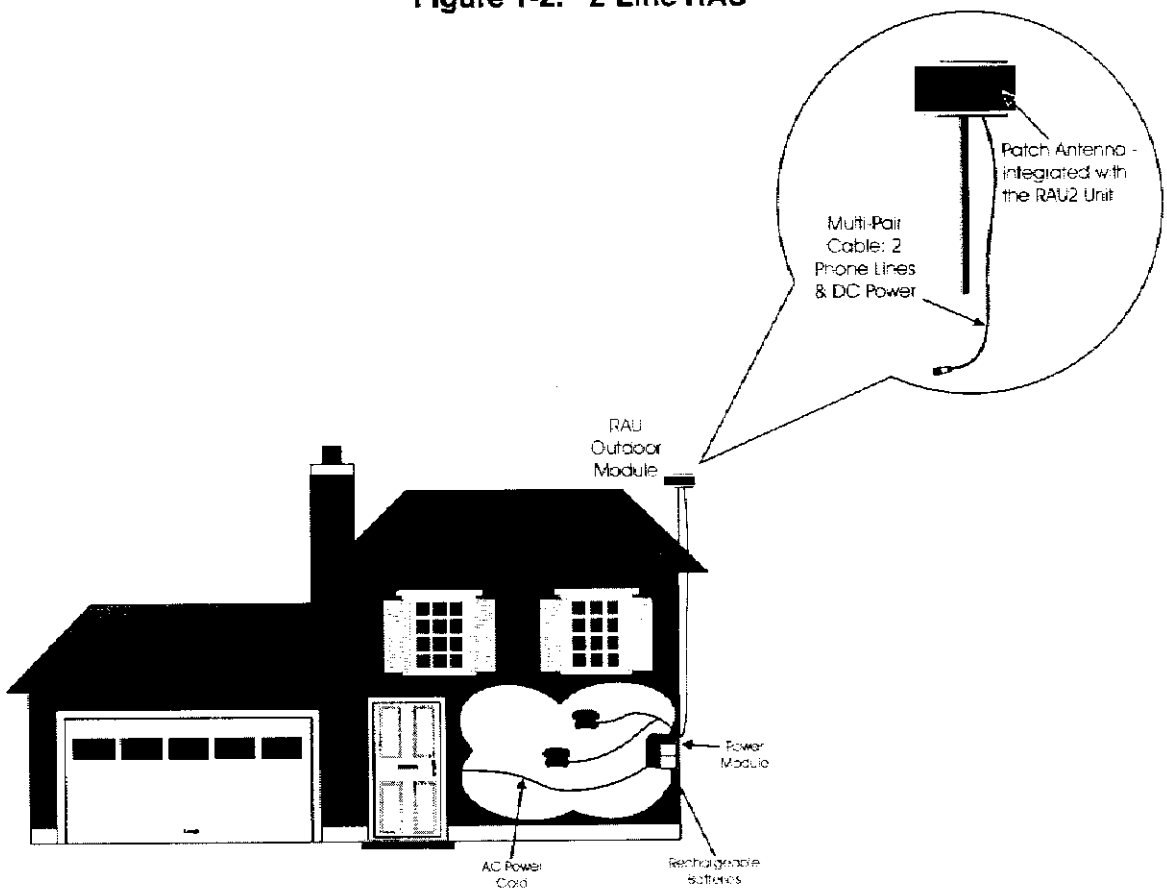
2) Remote Access Units (RAU) that serve up to 32 subscribers each. Each subscriber can use standard telephones, fax machines, and data modems. An RAU communicates to the BS using AdiCom's proprietary Advance-Code Division Multiple Access™ (A-CDMA) technology.

3) Network Management System (NMS) which controls and monitors all Base Stations, RAUs, air interfaces and subscriber wire drops.

1.3 2-Line RAU

The 2-line RAU is shown in figure 1-2.

Figure 1-2. 2-Line RAU



The 2-line RAU subsystems are:

1) RAU
2) RAU power supply

The RAU contains all the electronics necessary to communicate with the base station and deliver two standard telephone connections to the user. The antenna is included in the same enclosure with the electronics. D.C. power and telephone connections to the RAU are made through a standard 6-pair cable.

The RAU power supply converts AC main power to nominally 12 volts D.C. to power the RAU. The power supply contains a battery that is automatically switched in when main power is lost. The power supply also acts as a connection point for the two phone lines from the RAU. There is

a terminal strip within the power supply to which the external phone connections can be made.

1.4 Safety Regulations and Standards

Safety is always the most important consideration when performing an installation. Each country has specific safety regulations and standards as to how telephone equipment must be installed. Installation personnel must take the responsibility and adhere to all local safety regulations and standards. Do not install the RAU system during weather conditions where lightning strikes could be a threat.

1.5 Other Aditus Documents

Other Aditus publications that relate to this RAU Installation Guide are:

Base Station Installation Guide
Base Station Antenna System Installation Guide
NMS Operations Manual
Aditus WLL Equipment Operations and Maintenance Manual

1.6 Training Courses

Training Courses are available from AdiCom. They can be specifically designed to meet the customer's needs and can be held at AdiCom's Training Center or at other locations worldwide.

1.7 How to use this RAU Installation Guide

Planning and installation personnel are required to read this guide completely before they begin the actual planning and installation procedures. Once they are thoroughly familiar with the procedures, this manual may be used as a reference.

2.0 2-line RAU Installation

2.1 Review the Pre-Installation Plan

For each RAU site review the results of the pre-installation planning:

1) The location for the RAU site installation.

2) Location for the RAU.

3) Antenna pointing directions based on maps and/or diagrams with compass bearings.

4) Location for the RAU power supply.

5) Packing List of the items shipped to install the RAU site.

6) Contact information for questions or problems that the RAU installers may have.

7) Other miscellaneous information concerning the installation, such as special installation mounts and tools needed or special test equipment.

2.2 Installation Tools, and Test Equipment

The installation technician will need various tools and test equipment to install the 2-line RAU.

2.2.1 General Tools

The following lists the installation tools that are normally needed:

- Hammer
- Drill Motor
- Drill bits – multi-purpose
- Drill bits - masonry drill bits
- Screwdrivers - assorted
- Needle-nose pliers
- Standard pliers
- Wrenches
- Staple-gun
- Wire cutters
- Tape measure
- Carpenter's level
- Vinyl electrical tape for coax connectors, 3m #2228 or equivalent

2.2.2 Installer's Kit

The install pack is a small module that plugs into a connector accessible through the 2-Line RAU access panel. The install pack is not shipped with the RAU, but is available separately provided by Adicom as a tool for the installer.

The install pack contains the following features:

- Reset/Test Mode switch
- LEDs for antenna pointing aid
- 2 RJ11 phone jacks (used for audible antenna pointing tones in test mode, and normal phone operation in operating mode)
- Rechargeable battery for powering the RAU.
- RS232 DB9 connector for diagnostics (requires special software)

The main purpose of the install pack is as an aid to the installer for pointing the RAU optimally towards the base station. The use of the install pack for this purpose is described in the next section. The diagnostics port is normally not needed and may only be used in the field under the direction of Adicom personnel.

2.2.3 Test Equipment

The following lists the test equipment that is generally needed:

- ❑ Handheld GPS
- ❑ Compass
- ❑ Pocket transit
- ❑ Digital Multimeter

2.3 Inventory Check

The installation technician must take the packing list and perform a complete inventory check. Any items that disagree with what is on the packing list or that have been damaged must be reported immediately.

The following shows the RAU system equipment that is generally (but not always) on the packing list:

- ❑ RAU Outdoor Unit (Antenna Integrated)
- ❑ Power Supply Unit
- ❑ 6 Pair Cable

- Installation Materials
  - Power Cord
  - Bracket
  - Mounting Materials
- Battery
- SIB (Subscriber Interface Box) with Options 2 and 3

2.4 RAU Installation

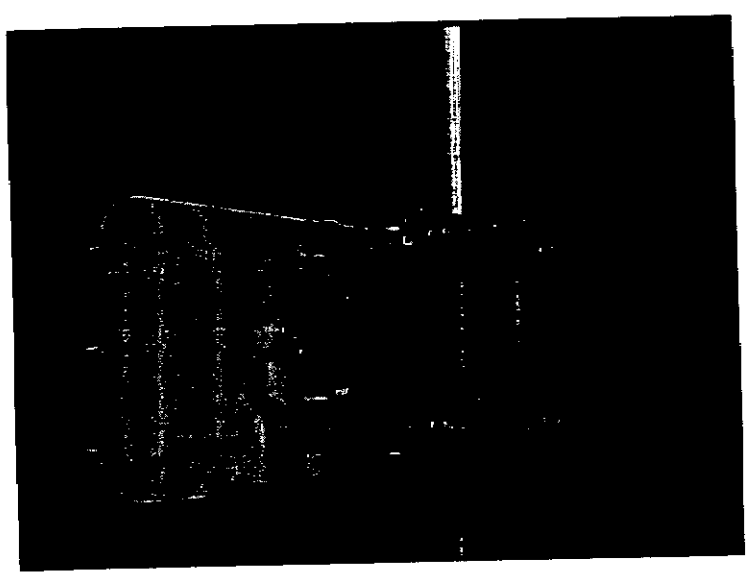
The installation of the 2-line RAU unit requires the same considerations as that of the multi-line antenna.

The survey of the RAU site determined if any special antenna mounting structure is needed. In cases where significant support structure is required, installation drawings and specific instructions will be supplied with the support structure.

1. Install the mounting bracket on the RAU.

If the RAU is to be mounted to the side of a wall, this is all that is needed. The bracket may then be mounted directly to the wall using 4 fasteners appropriate for the particular type of wall. If the RAU is mounted to a mast, use the additional two bracket pieces to accomplish this. The bracket is designed to mount to a number of mast diameters. See the figures below for mounting details.

Figure 2-1. 2-Line RAU Mounting Bracket

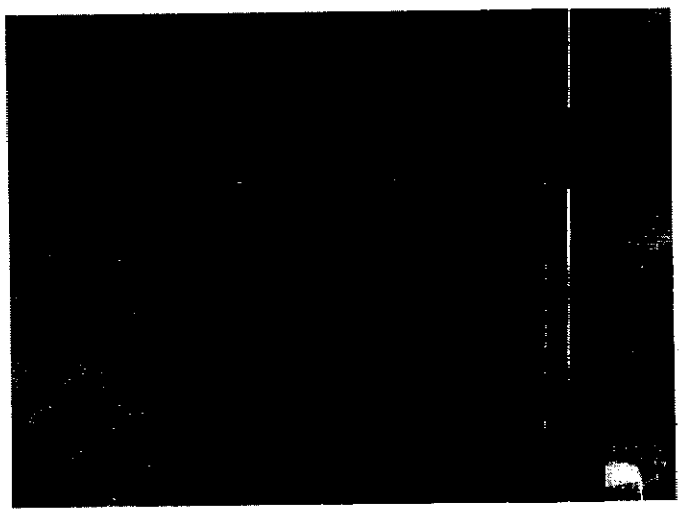


> **NOTE:** If customer provides the mounting bracket, it must be capable of rotating horizontally for antenna pointing.

2. Wall mount configuration.

The figure below depicts a typical wall mount configuration.

Figure 2-2. 2 Line RAU wall mount configuration

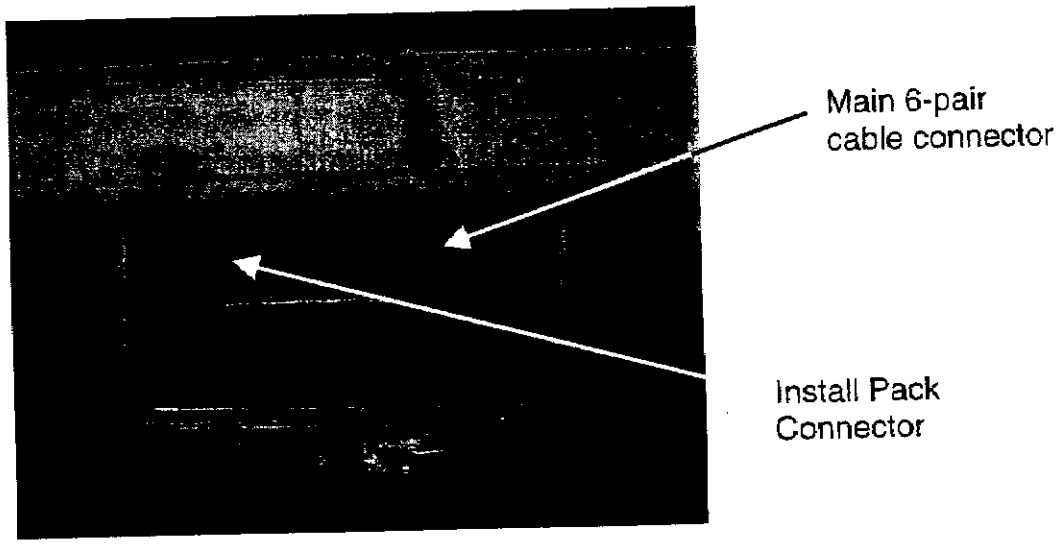


3. Antenna Installation

Using the direction bearings taken during the RAU site survey aim the RAU antenna to the BS antenna using a compass or use the built-in antenna pointing aid.

The built-in antenna pointing aid is only available with the install pack plugged in. The install pack is capable of powering the RAU, so the main cable to the RAU need not be installed when the install pack is used to point the RAU. The install pack has one connector that plugs into the RAU through the access panel. The connector plugs into the receptacle just beside the larger connector that the main 6-pair cable plugs into. See the figure below.

Figure 2-3. Main/Install Pack connector locations



An audible signaling method is provided to help the installer point the RAU antenna in the right direction toward the base station. Variable pitch tones are emitted on the tip and ring lines (available at the install pack RJ11 connectors) which are proportional to relative signal strength. An installer can hear these tones by clipping a standard telephone onto either tip-and-ring pair and putting the test switch (found on the install pack) in the test position, which puts the RAU in test mode. In this mode, the microprocessor causes tones to be put out on the tip-and-ring lines. Normal voice communications are not possible in this mode.

The tones that are emitted guide the installer by raising the pitch when the RSSI level is increasing. This tells the installer that he is moving the antenna in the right direction. When the RSSI level begins to drop again, the pitch is lowered indicating that the antenna is being moved in the wrong direction. This "getting warmer" scheme should allow the installer to get the base station signal within the 1 dB beamwidth of the RAU antenna.

To ensure that the RAU is receiving the correct base station signal, the RAU must register before antenna pointing begins. In test mode, the RAU emits a tone, which indicates that acquisition, and registration is in progress. If the unit cannot register, the tone begins to pulse. This signals to the installer that the antenna must be moved by at least 90 degrees. The installer must then move the antenna the appropriate amount and reset the RAU.

The reset/test switch is a 3-position toggle switch. In one direction the switch is spring loaded. Moving the switch in this direction resets the RAU. The other position of the toggle switch puts the RAU in test mode.

In addition to the audible pointing aid, there are LEDs visible from the back of the RAU, which convey the same information as the tones. A red LED lights constantly when the RAU is acquiring and registering. This LED flashes when registration has failed. A green LED represents the "signal present" tone. A yellow LED indicates that the signal level has increased by at least 1 dB.

Once the RAU orientation has been optimized, tighten the mounting bolts to the bracket. Disconnect the install pack from the RAU and plug in the main cable. Attach the access plate to the RAU with the three captive screws. Route the cable down from the RAU leaving a service loop.

2.5 2-Line RAU Cable Assembly (Option 1)

The 2-Line RAU connects to the power supply through a standard 6-pair shielded cable. The cable is terminated at either end with a "plugable" terminal strip. This is a single-row connector with screw terminal connections for the cable wires.

2.5.1 Cable assembly procedure, RAU side

The best procedure to follow in assembling this cable is as follows:

1. Push one end of the cable through the strain relief device on the 2-Line RAU access plate.

2. Strip back about 35 centimeters of the cable outer jacket and shield. Remove the white streamer and clear plastic covering. This reveals the pairing of the wires.

3. Install the Scotchlok™ 4460-D shield connector to the cable shield. Follow the instructions included with the shield connector.

4. Separate the wires for termination to the connector as described below:

   The standard cable pairs are colored as follows:

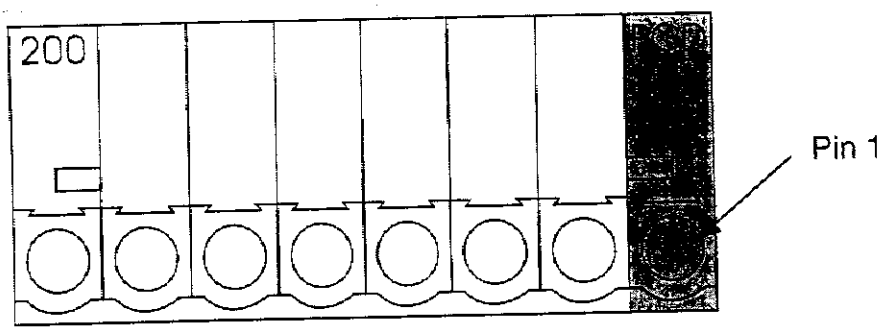
   White/Blue
   White/Orange
   White/Green
   White/Grey
   White/Brown
   Red/Blue

NOTE: It is important to keep this pairing intact since all the white wires look the same. The wire color assignment is as follows:

Wire color	Function	Connector Pin Number
Blue (from the White/Blue pair)	Tip 0	1
White (from the White/Blue pair)	Ring 0	2
Orange	Tip 1	3
White (from the White/Orange pair)	Ring 1	4
Red/Blue(both wires)	Battery back-up signal	5
	Not used	6
White/Green	+12V	7
White (from the White/Brown pair)	+12V	7
White/Grey (both wires)	Ground	Cable ground lug
Brown	Ground	Cable ground lug
Black ground lead	Ground	8/Cable ground lug

Pin 1 on the connector is identified as "PCD" shown in the diagram below. Note that the surface of pin 1 is slightly darker and appears shiny.

Figure 2-4. Main 6 Pair Cable Connector



The black ground lead connects from the 6-pair cable shield to pin 8 of the connector.

5. With the wires identified, cut them to a length of about 10 centimeters from the cable jacket. Strip the end of each wire back about 1 cm from the end.

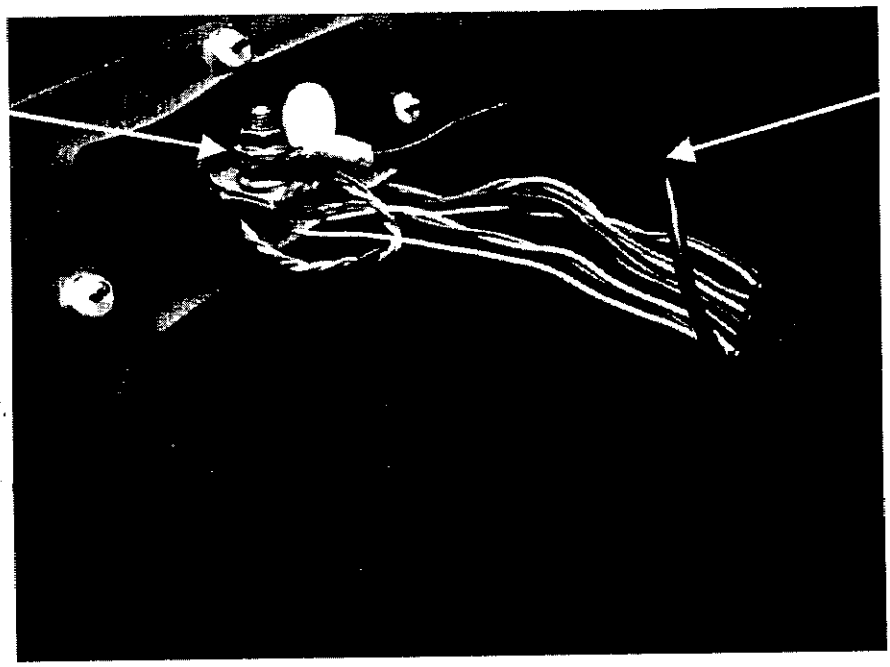
6. Attach the wires to the connector as in the table above.

7. Pull the cable back through the strain relief until there is about 2 cm left on the inside of it.

8. Tighten the strain relief.

When the connector is properly wired and attached to the access plate, the assembly should look as shown in the figure below:

Figure 2.5. RAU2 Cable Assembly



With this procedure complete, the cable is ready to be attached to the RAU2 unit.

2.5.2 Cable Assembly Procedure Power Supply Side

The best procedure to follow in assembling this cable is as follows:

1. Strip back about 35 centimeters of the cable outer jacket and shield. Remove the white streamer and clear plastic covering. This reveals the pairing of the wires.

2. Install the Scotchlok™ 4460-D shield connector to the cable shield. Follow the instructions included with the shield connector.

3. Separate the wires for termination to the connector as described below:

The standard cable pairs are colored as follows:

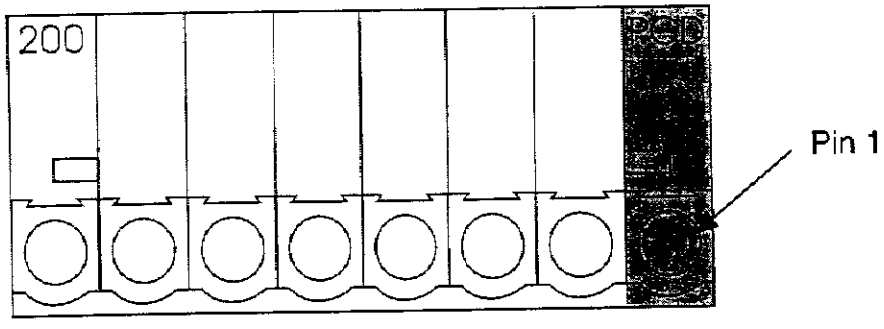
White/Blue
White/Orange
White/Green
White/Grey
White/Brown
Red/Blue

NOTE: It is important to keep this pairing intact since all the white wires look the same. The wire color assignment is as follows:

Wire color	Function	Connector Pin Number
Blue (from the White/Blue pair)	Tip 0	1
White (from the White/Blue pair)	Ring 0	2
Orange	Tip 1	3
White (from the White/Orange pair)	Ring 1	4
Red/Blue(both wires)	Battery back-up signal	5
	Not used	6
White/Green	+12V	7
White (from the White/Brown pair)	+12V	7
White/Grey (both wires)	Ground	8
Brown	Ground	8

Pin 1 on the connector is identified as "PCD" shown in the diagram below. Note that the surface of pin 1 is slightly darker and appears shiny.

Figure 2-6. Main 6 Pair Cable Connector

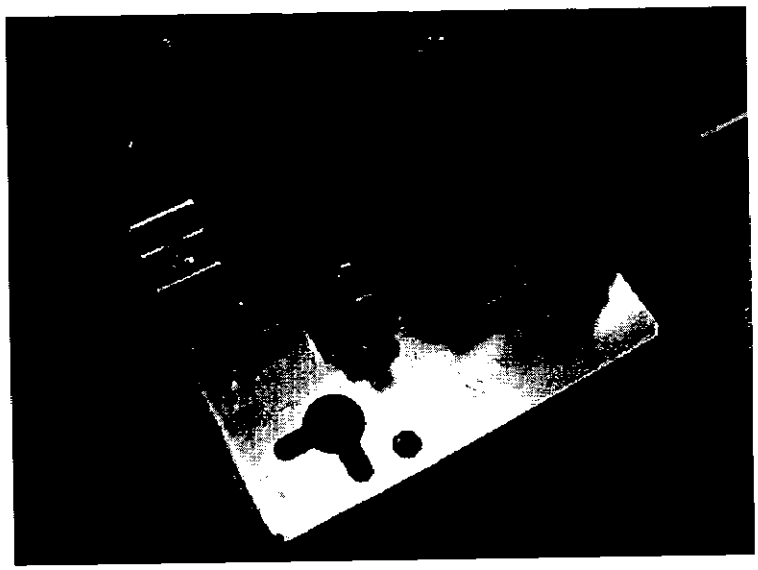


5. With the wires identified, cut them to a length of about 10 centimeters from the cable jacket. Strip the end of each wire back about 1 cm from the end.

6. Attach the wires to the connector as in the table above.

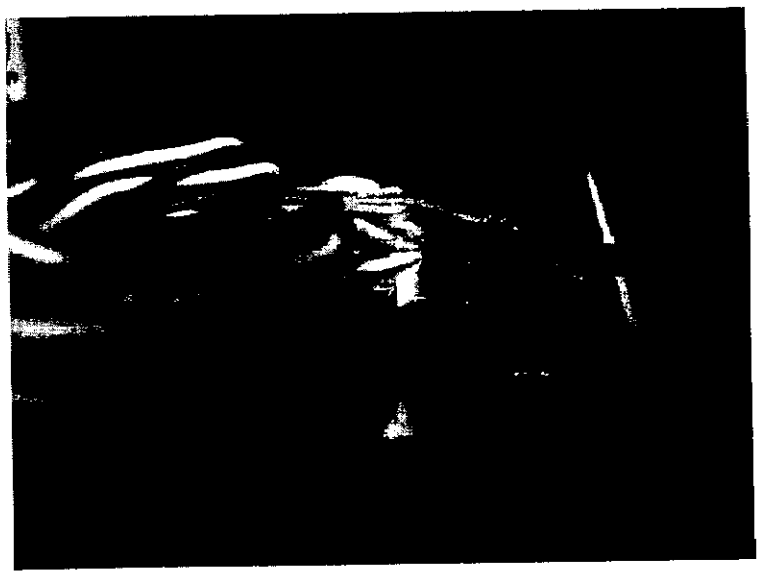
7. The 6-pair cable should be terminated on the same connector as at the RAU with the same pin-out. The same Scotchlok shield connector is used on this end of the cable as well. Once the Scotchlok shield connector is installed on the cable, the cable should be mounted to the ground tab in the power supply as shown in the figure below:

Figure 2-7. 6 Pair Shielded Cable mounted to ground tab



The Scotchlok shield connector is easier to install on the cable if a small slit is made on the opposite side of the cable as shown below:

Figure 2-7. Scotchlok shield connection

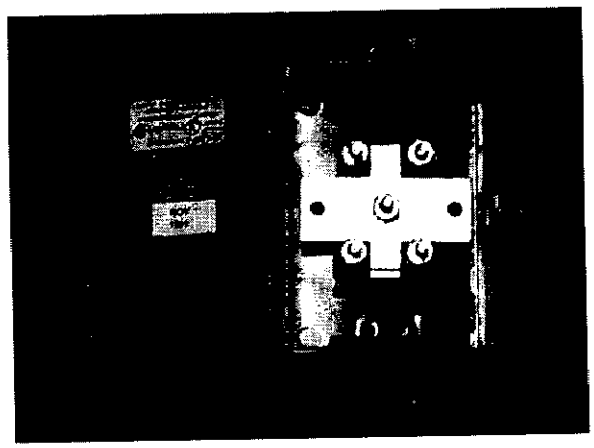


3.0 Optional Installation

3.1 Subscriber Interface Block (SIB)

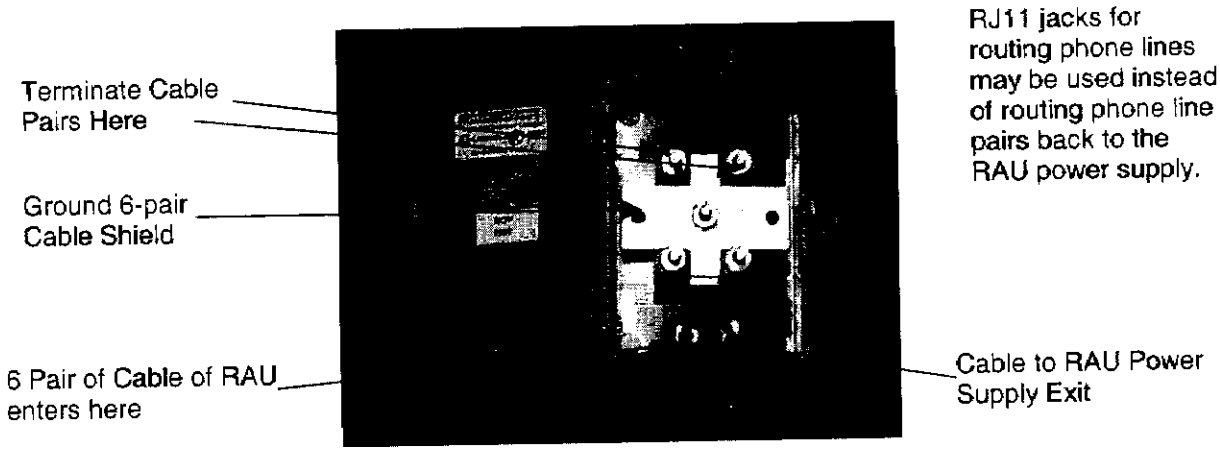
Install the SIB at the location determined in the RAU site survey. See Figure 3-1 Inside the Subscriber Interface Block.

Figure 3-1 Subscriber Interface Block



The wires from the RAU cable will be passed through the SIB before going on to the RAU power supply. Each function will be lightning protected within the SIB. This requires 4 dual lightning protectors to be installed in the SIB. Follow the instructions included with the SIB for the routing of the cable wires.

Figure 3-2. Subscriber Interface Block Wiring



3.2 Other Wiring Configurations

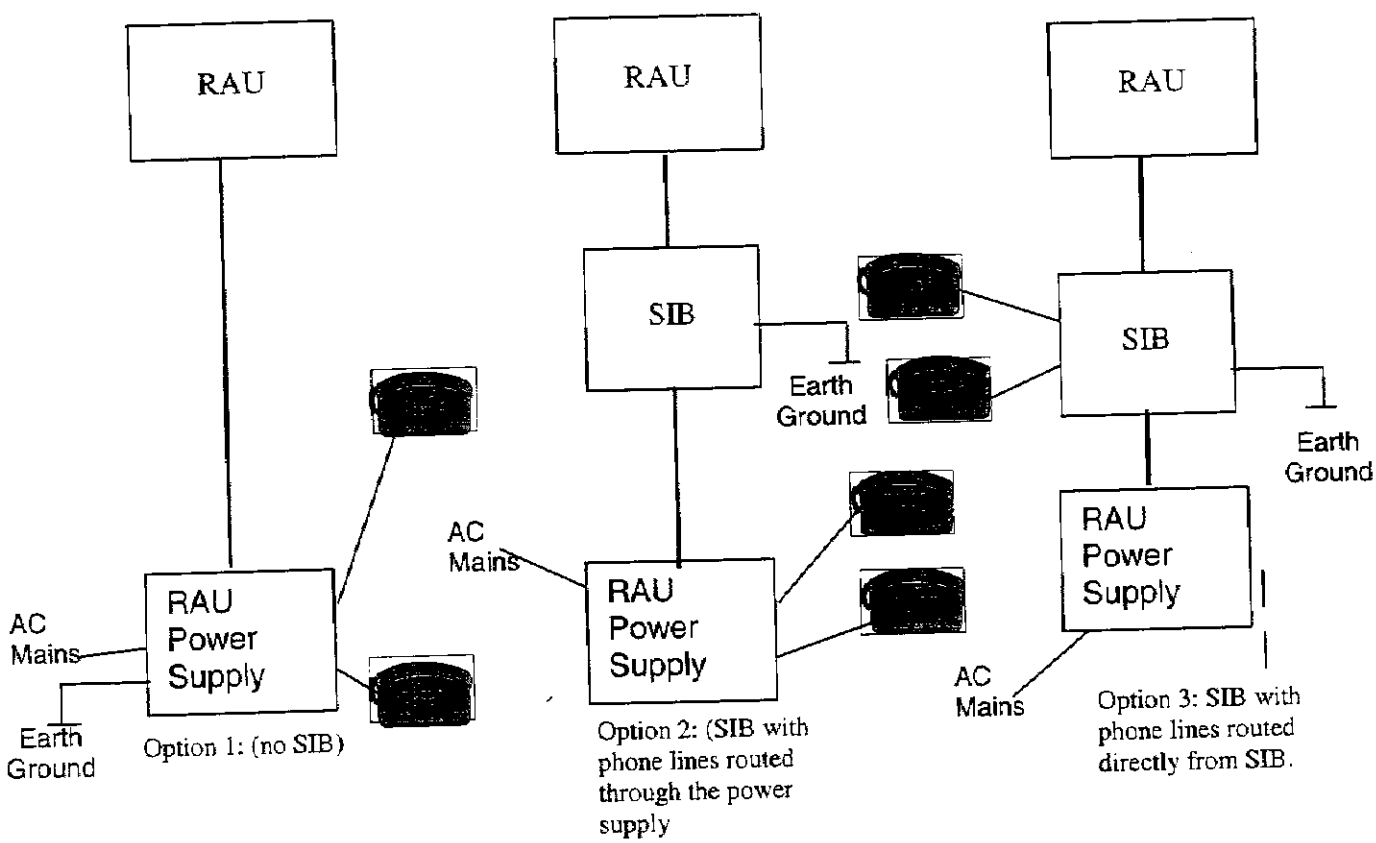
The connection diagrams below detail the three possible wiring configurations.

Option 1: This configuration connects the RAU directly through to the power supply using the shielded 6-pair cable. If chosen, the power supply ground should be connected to a good earth ground.

Option 2: In this configuration, the connections from the RAU are routed through the SIB and the phone lines are routed all the way through the power supply. In this case, the same shielded 6-pair cable should be used on both sides of the SIB. The earth ground should be connected at the SIB, which is usually mounted at the cable entry point to the home or office.

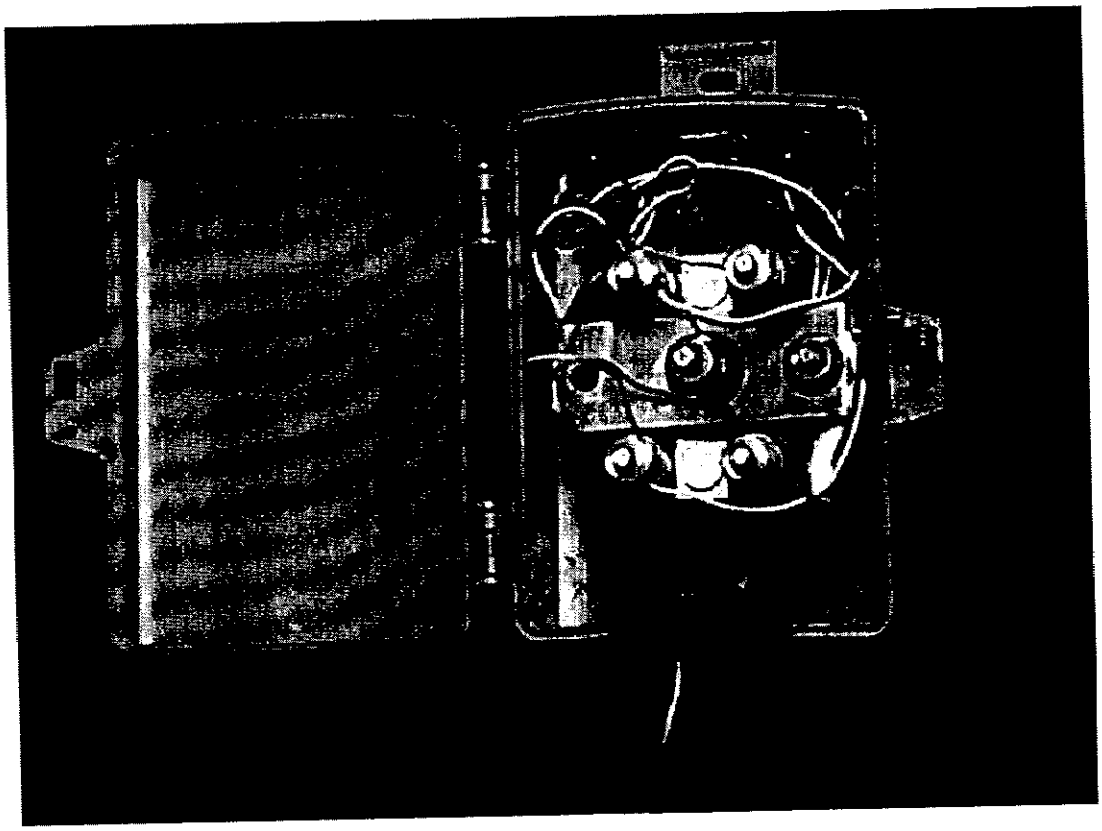
Option 3: This is the same as option 2 except that the phone lines are broken out at the SIB. In this case, the cable from the SIB to the power supply may be a standard 4 pair 22 gauge cable without a shield. The shielded 6-pair cable may also be used.

Figure 3-3. Wiring Configuration



The figure below shows a completed SIB installation using wiring configuration option 3. Shown in the figure is a 4-pair cable which proceeds on to the RAU power supply. The table below the figure shows the splicing scheme for mating this cable to the 6-pair cable.

Figure 3.4 SIB Installation (option 3)



6-pair to 4-pair cable splice

6-pair wire color (RAU Connector)	Function	4-pair wire color (Power Supply)	Tip & Ring Service 4 Pair Wire Code
Green #7	+12V	Green/White #7	
White #7	+12V	White/Green #7	
Brown # Grd Lug	Ground	Brown/White #8	
White # 7	+12V	White/Brown #7	
Blue # 6	Not used	Blue/White #6	
Red # 5	Battery Backup	White/Blue #5	
Gray # Grd	Ground	Orange/White #8	
White # Grd	Ground	White/Orange #8	
Blue # 1	Tip 0		Blue/White
White Blue # 2	Ring 0		White/Blue
Orange #3	Tip 1		Orange/White
White Orange #4	Ring 1		White/Orange

4.0 2-Line RAU Power Supply Installation

The 2-Line RAU either mounts on a wall or may rest on the floor or any other surface. If mounted on the wall, two screws are needed spaced to fit the key-holes on the bottom of the power supply.

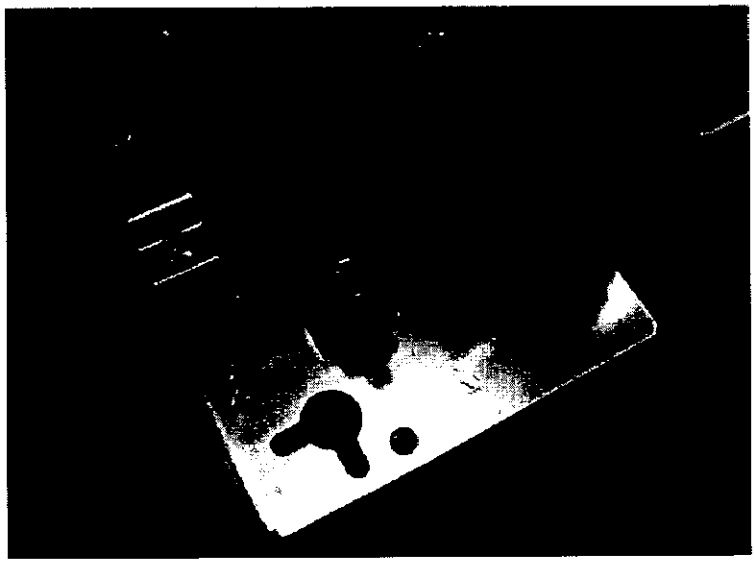
AC power is applied to the unit with any power cord using an IEC-320 plug. See figure below:

Figure 4-1. IEC-320 Plug

Depending on the particular situation, the other end of the power cord may be either an AC plug compliant with the local requirements or open wires for connection directly into a fuse box.

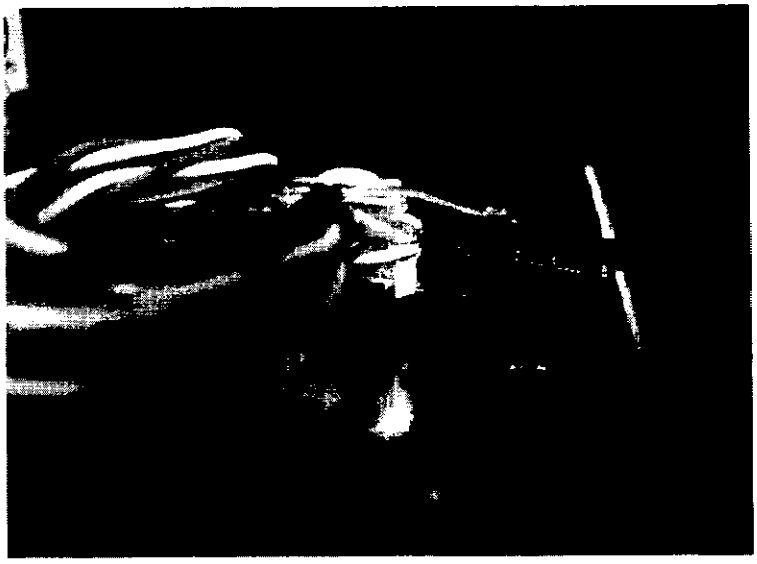
The 6-pair cable should be terminated on the same connector as at the RAU with the same pin-out. The same Scotchlok shield connector is used on this end of the cable as well. Once the Scotchlok shield connector is installed on the cable, the cable should be mounted to the ground tab in the power supply as shown in the figure below:

Figure 4-2. 6 Pair Shielded Cable mounted to ground tab



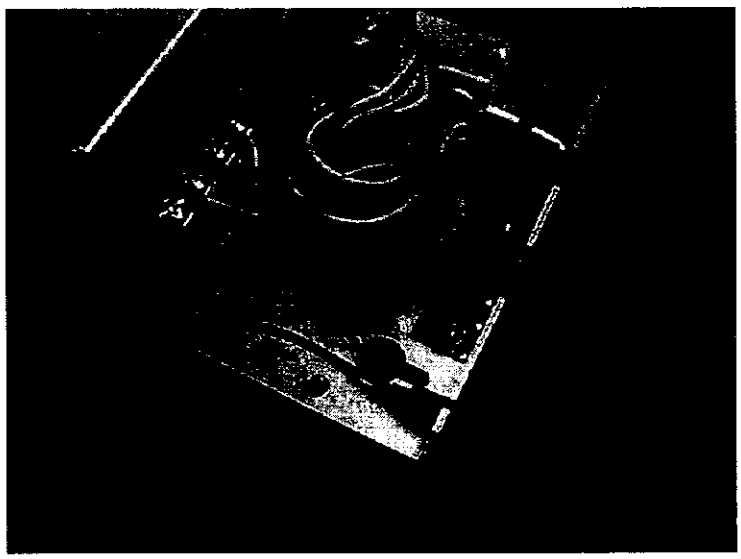
The Scotchlok shield connector is easier to install on the cable if a small slit is made on the opposite side of the cable as shown below:

Figure 4-3. Scotchlok shield connection



If the option to connect the phone lines through the power supply is chosen, the connections are made as shown below:

Figure 4-4. 2 Pair Phone Line Connection through Power Supply



The cables shown in the figure are standard Category 1 2-pair station wire. They are strain relieved as shown with the padded clamp held down by two screws. The connections for the phone lines are identifiable by the label just behind the screw terminals.

This concludes the Aditus 2-Line Remote Access Unit Installation Guide

Adicom Wireless, Inc.

Subject:	Document Number:
Aditus Network Management System Installation	**95-000180-00**

Document Location:
\\Awl\SQA\Docs\NMS_Installation.doc

Revision History:

Revision History			
Revision	**Date**	**Description**	**Author**
1.0	June 17, 1998	First Version	Vipul Gore, Info Objects, Inc.
1.1	July 1, 1998	Version with changes (SCR fixes)	Vipul Gore, Info Objects, Inc.
1.2	July 7, 1998	Version with more changes (SCR fixes)	Vipul Gore, Info Objects, Inc.
1.3	July 15, 1998	Version after Review	Vipul Gore, Info Objects, Inc.
1.4	Aug 19, 1998	Version after new context to root map	Ravi C. Kondamuru, Info Objects, inc.
1.5	Sept 24, 1998	Added a section on installing NMS in standalone mode(PC & Base station connects to the hub only).	Nagalatha Srivatsa
1.6	Dec 4, 1998	Added installation for Oracle8. Added "NoGeneric" property to all OVW maps.	Cecilia Muaddi
1.7	Jan 5, 1999	Modified Aditus NMS installation	Cecilia Muaddi
1.8	Feb 1, 1999	This doc reflects the new installation procedure	Nagalatha Srivatsa
1.9	Apr 1, 1999	Modified Oracle installation (a new database is used rather than using the sample one created during Oracle installation)	Sandra Yu
1.10	Apr 26, 1999	Added the procedure to modify the Oracle database installation when Oracle Net8 Assistant is not running on the machine	Nagalatha Srivatsa
1.11	July 17, 1999	Added the procedure to start the Openview services before starting the Oracle Srevices	Nagalatha Srivatsa
1.12	Aug 2, 1999	Moved the procedure to modify database installation when	Nagalatha Srivatsa

		ORACLE Net8 Assistant is not running on the machine, into Appendix A	
1.13	Nov 23, 1999	Added procedure to install license, frequency and to start SNMP emanate process before Oracle. This reflects the installation with the new release NMS 2.3.0.2	Nagalatha Srivatsa
1.14	Jan 31, 2000	Removed section on RAS connections. Added section to install remote desktop software.	Nagalatha Srivatsa
1.15	May 22, 2000	Modified Oracle installation to Reflect Oracle 8.0.5.	John Slater
1.16	June 6, 2000	Added RAS setup information after SNMP.	Elijah Meeks
2.0	10/06/2000	Changed document to reflect the NMS InstallShield enhancements	Ron Yun
2.1	10/10/00	Added section on Initial NMS Setup	Ron Yun
2.2	10/12/00	Updates after installation test	Ron Yun
2.3	10/17/00	Specify that NMS Disk1 and Disk2 need to be in the root directory. Other updates	Ron Yun

Table of Contents

1. Introduction

This document is the Administration Document for Aditus 200 Network Management System (NMS).

The intended audience of this document is Adicom test teams and Adicom field support team.

This chapter describes the scope, purpose and objective of the Administration Document. It also describes the structure of the remainder of the document.

1.1. Scope

The Administration Document is developed and intended to outline administrative procedures for installing and maintaining the Aditus NMS system as described by the Aditus NMS Functional Specification.

1.2. Purpose and Objective

The Administration section specifies how the Aditus NMS system will be administered. It describes detailed procedures for following administrative tasks:

System Configuration

NMS Installation

NMS Software Upgrade

System Startup and Shutdown

Initial setup of a Cell in Aditus NMS

User Administration

1.3. Document Structure

This document starts with an introduction, and progressively goes into the description of detailed procedures for above tasks. The chapters are organized as follows:

Chapter 1 - Introduction

> This chapter provides introduction to the Aditus NMS Administration Document. It outlines the scope, purpose and document structure of the rest of the document

Chapter 2 - System Configuration

> This chapter provides an overview of the System Configuration of the Aditus NMS system. It details configuration procedures for configuring the NT system for installing and executing the Aditus NMS system in different operational modes.

1.3.1. Chapter 2.3.4 - Installing Remote Desktop Software

This section installs Mcaffee Remote Desktop 32, version 2.12.

Close all windows.

Insert the CD containing Remote desktop software into your CD ROM drive.

NT will automatically begin installation. If installation doesn't automatically being, click "Start" on the taskbar, choose "Settings", and then choose Control Panel. Next, double click "Add/Remove Programs", then click "Install"

Make sure the only check-box selected is "Controller Component Only". Uncheck all others.

An installation wizard will be displayed to help guide you through the installation. Enter all default options until you hit the "Finish" button.

After you click on the "Finish" button, the user is asked to restart the computer. Click on the button "Reboot Computer"

You have completed the installation of the Remote desktop software.

Aditus NMS Installation

This chapter describes the installation procedure and software upgrade procedure for the Aditus NMS software

Chapter 4 - Aditus NMS Administration

This chapter describes the general procedures for Aditus NMS administration such as system startup, system shutdown and user administration,

Chapter 5 -

This chapter lists the References used in developing the Acceptance Test Plan for the Aditus NMS system

2. System Configuration

This chapter describes the hardware and software configuration required prior to installation of the Aditus NMS software.

The Aditus NMS system runs on the Windows NT platform. The hardware and software configuration required for the Windows NT workstation are described in following sections.

2.1. Hardware Configuration

The Aditus NMS system will run on a Pentium based Windows NT workstation with following configuration:

Windows NT 4.0 workstation (unmodified)

Pentium processor (350 Mhz or higher)

128 MB RAM, 100 MHz SDRAM

4 GB Hard Disk

10 MB Ethernet card with PCI interface

24x CD-ROM Drive

3 ½" Floppy Drive

Tape Drive (Optional) for database or software archive

VGA, 1024 x 768 resolution, 16 bit high-color minimum, w/ PCI or AGP interface

A NetModem to communicate with remote Base Stations

UPS, 1200 VA minimum, w/software shutdown

2.2. Software Configuration

It is assumed that the Pentium Workstation will be loaded with Windows NT Workstation Version 4.0 operating system. It is also assumed that the SNMP Service required for Aditus NMS software is provided by the Windows NT 4.0 operating system.

The Aditus NMS system will require following software:

- HP OpenView Network Node Manager 250 Version 5.02
- Oracle 8 For Windows NT, Version 8.0.5.0.0
- Aditus NMS Software
- Window NT Service Pack 6

2.3. *Initial System Configuration*

The Window NT workstation first needs to be configured properly for networking in order to install and run the Aditus NMS software. The NT workstation Administrator can only perform the initial system configuration of the Aditus NMS. The initial system configuration consists of following steps:

1. Configuring the NT workstation for networking
2. Installing HP OpenView NNM software
3. Install Oracle 8 For Windows NT.

The following sections describe above steps in details.

2.3.1. Configuring the NT workstation for networking

The NT workstation should be configured properly for networking prior to any Aditus NMS specific installation and configuration. In fact, the HP OpenView NNM software will not install properly if the NT workstation is not configured appropriately for networking.

The NT workstation configuration comprises of following steps:

1. Font Size Settings on NT Workstation
2. TCP/IP configuration
3. SNMP Service configuration

2.3.1.1. Font Size Settings on NT Workstation

The Aditus NMS System uses third party products such as Dundas Grid in the application which require specific font size on the NT Workstation to function properly. This section describes procedure to set these fonts on the workstation. Necessary fonts are set on the NT workstation by following steps:

1. Logon to NT workstation as an NT Administrator
2. From the Start Menu, click on "Settings->Control Panel".
3. Select "Display" in the Control Panel Window by double-clicking display icon.
4. Choose the "Settings" tab in the Display window.
5. In the Font Size pull down menu, select "Small Fonts" and click on OK.
6. Restart NT Workstation to set the new font size.

This will ensure that the Dundas Grid used in the Aditus NMS system will function properly.

2.3.1.2.TCP/IP Configuration

The TCP/IP Configuration involves setting up the TCP/IP protocol on the NT workstation.

2.3.1.2.1. System with DNS Server

The NT workstation is connected to the base stations over the network (LAN or WAN). The system can be connected using WebRamp. The procedure to install WebRamp can be found in the NMS Operations manual. Prior to starting the TCP/IP configuration, following items are required. Appropriate System and Network Administrator personnel should be contacted to obtain following items:

IP Address for the NT workstation

Subnet Mask

Workgroup Name if available (Not necessary in standalone NT workstation)

Default Gateway IP Address if available (Not necessary in standalone NT workstation)

DNS IP Address if available (Not necessary in standalone NT workstation)

The TCP/IP on the NT workstation in this mode should be configured in following steps:

1. Bring up the Control Panel by picking "Settings->Control Panel" from the "Start" menu.
2. Double click on the "Network" applet in the Control Panel
3. Select the "Identification" tab
4. Change the "Computer Name" to "AditusNMS" (if desired) by clicking on Change button. Also change the Workgroup name if available. Otherwise leave the default name.

   Note: It is not necessary to change the Computer Name. It is only for convenience.

5. Click "Ok"
6. Select the "Services" tab.
7. Remove the "Client Service for Netware" service.
8. Now, select the "Protocols" tab
9. Remove 'IPX/SPX" protocol by selecting and highlighting it and then clicking on the "Remove" button.
10. If "TCP/IP" protocol is not present, follow steps 9 through 12. Otherwise skip to Step 13
11. Click on "Add" button. This will bring up a list of protocols. Select "TCP/IP Protocol" and click on "OK"
12. Click on "Close" to close the Network dialog box. On clicking Close, a dialog for TCP/IP configuration will be displayed.
13. Select "TCP/IP Protocol" and click on "Properties" button.
14. Click on "IP Address" Tab.
15. Click on "Specify an IP Address". Make sure that the other option to obtain Host IP address dynamically from DHCP is NOT selected.

16. Enter the IP address, Subnet mask and Default Gateway IP Address (if available) in appropriate boxes.

17. Click OK.

18. Click on "DNS Tab" and enter DNS host name (if available) and domain name (if available). Also, add the DNS Service Search Order. Click on Add and enter DNS Server IP Address.

19. Click on "WINS Address" Tab. Deselect both Enable DNS and Enable LMHosts options.

20. Click OK.

21. Restart the NT workstation for the new TCP/IP configuration to load by picking "Yes" on the "Network Setting changed" dialog box.

22. Confirm that the TCP/IP configuration is correct by going into "Network" applet in the "Control Panel".

This concludes the TCP/IP installation and configuration for the NT workstation on the Ethernet LAN.

2.3.1.2.2. System without DNS Server

The NT workstation is connected to the base stations through the hub. This system is now in standalone mode.

Prior to starting the TCP/IP configuration, following items are required. Appropriate System and Network Administrator personnel should be contacted to obtain following items:

IP Address for the NT workstation

Subnet Mask

NOTE: Make sure the subnet mask and the IP address are on the same network

The TCP/IP on the NT workstation in this mode should be configured in following steps:

1. Bring up the Control Panel by picking "Settings->Control Panel" from the "Start" menu.

2. Double click on the "Network" applet in the Control Panel

3. Select the "Services" tab.

4. Remove the "Client Service for Netware" service, if installed.

5. Now, select the "Protocols" tab

6. Remove all protocols other than TCP/IP (by selecting and highlighting each of them and then clicking on the "Remove" button).

7. Select "TCP/IP Protocol" and click on "Properties" button.

8. Click on "IP Address" Tab.

9. Click on "Specify an IP Address". Make sure that the other option to *obtain an IP address from a DHCP server* is NOT selected.

10. Enter the IP address, and Subnet mask in appropriate boxes.

11. **Enter the IP address of the PC in the field for Default Gateway.**

12. Remove all the list items from the DNS Service Search Order box and Domain Suffix Search Order box (by highlighting the list item and then clicking on the "Remove" button).

13. Click on "WINS Address" Tab. Deselect both Enable DNS for Window Resolution and Enable LMHosts Lookup options.

14. Delete the addresses of any Primary WINS Server and Secondary WINS Server.

15. Click on Apply button.

16. Click on OK button.

17. Restart the NT workstation for the new TCP/IP configuration to load by picking "Yes" on the "Network Setting changed" dialog box.

18. Confirm that the TCP/IP configuration is correct by going into "Network" applet in the "Control Panel".

2.3.1.3. SNMP Service Installation

The Microsoft SNMP Agent (SNMP service) must be installed before you install the HP OpenView Network Node Manager.

The SNMP Service should be installed on the NT workstation in following steps:

1. Bring up the Control Panel by picking "Settings->Control Panel" from the "Start" menu.
2. Double click on the "Network" applet in the Control Panel.
3. Select the "Services" tab.
4. Click "Add"
5. Select the "SNMP Service"
6. Click "OK"
7. Insert your Windows NT 4.0 CD ROM and enter the directory path (Usually <DRIVE>:\i386\)
8. Pick "Continue" in the "Windows NT Setup" dialog
9. You do not need to add any information in the "Microsoft SNMP Properties" dialog because the Microsoft master agent will not be used, instead the SNMP Research Emanate SNMP Agent will be used (configuration is stored in the file %OV_MAIN_PATH%\conf\SNMPAgnet\snmpd.conf). Pick "OK".

10. Pick "Close" to close the "Network" dialog

11. When the "Network Settings Changed" dialog appears, pick "Yes" to establish your SNMP-related changes by restarting NT.

This concludes the SNMP Service installation on the Windows NT workstation.

2.3.1.4 RAS Set Up

This section describes the installation and set up of the Remote Access Service.

The RAS should be installed on the NT workstation in following steps:

1. Bring up the Control Panel by picking "Settings->Control Panel" from the "Start" menu.

2. Double click on the "Network" applet in the Control Panel.

3. Select the "Services" tab.

4. Click "Add"

5. Select the "Remote Access Service"

6. Click "OK"

7. Insert your Windows NT 4.0 CD ROM and enter the directory path (Usually <DRIVE>:\i386\)

8. Pick "Continue" in the "Windows NT Setup" dialog

9. Windows will prompt you to install a RAS capable device. Click "Yes"

10. When prompted to auto-detect a new modem, do not select "Skip Auto-Detection" and click "Next"

11. Windows will find and query your modem and present you with the option to change the driver for the modem. If you have hardware specific software, click "Change" and point to the proper software.

12. After selecting a driver or if keeping the default driver, click "Next" and "Finish"

13. Click "OK" for RAS to use the modem you've just installed.

14. From the Remote Access Setup screen with the modem highlighted, click "Configure" and select the "Receive Calls Only" radio button and click "OK".

15. From the Remote Access Setup screen with the modem highlighted, click "Network" and select the "Allow any authentication including clear text" radio button.

16. Make sure only the TCP/IP check box is selected and click "Configure". Click the "Allow remote clients to request a predetermined IP address" check box. Click "OK" and then "OK" again to return to the Remote Access Setup Screen and click "Continue".

17. Reboot the machine and, after logging in, open Start->Administrative Tools->User Manager. From User Manager, select the Administrator account, click the "Dial-In" button and click the "Grant Dial-In Access" check box and click "OK".

18. Bring up the Control Panel by picking "Settings->Control Panel" from the "Start" menu.

19. Double click on the "Network" applet in the Control Panel.

20. Click on the Bindings tab.

21. Expand the NetBIOS Interface->WINS Client (TCP/IP)

22. Make sure that the network card binding (3Com Etherlink or Intel EtherExpress) is listed above the Remote Access WAN Wrapper binding. If it is not, highlight the network card binding and click "Move Up". Click "OK" and reboot if prompted.

This concludes the RAS installation on the Windows NT workstation.

Now reinstall Windows NT Service pack 6.

2.3.2. Installing HP Openview NNM software

This section describes the installation of the HP Openview NNM software on the Windows NT workstation. Make sure you have the "HP Openview Network Node Manager 5.0 (or higher) for Window NT" CD-ROM.

The HP Openview NNM should be installed on the Windows NT 4.0 in following steps:

1. Close all windows.

2. Insert the CD entitled "HP OpenView Network Node Manager 5.0 (or higher) for Windows NT" into your CD ROM drive

3. NT will automatically begin installation. If installation doesn't automatically being, click "Start" on the taskbar, choose "Settings", then choose Control Panel. Next, double click "Add/Remove Programs", then click "Install"

4. An installation wizard will be displayed to help guide you through the installation. Enter all default options unless specified here.

5. Choose "Custom" Installation instead of Typical or Compact. Do not choose IPX Networking. Click NO on the IPX Network Dialog box.

6. Select following executables and modules in Custom installation

   - Program Files
   - Contributed Apps
   - SNMP MIBs
   - SNMP RFCs
   - Backgrounds

7. **Do NOT select "Start network auto-discovery"** after selection of custom installation modules.

8. Continue with default options until Finish.

9. At the end of the installation, a dialog box indicating that the installation is complete and whether the user wants to read a README file pops up. The user can answer "YES" or "NO" depending on whether he wants to read the file. This completes the HP Openview NNM software installation.

10. Restart the NT workstation at the end of the installation.

2.3.3. Installing Oracle 8 for Windows NT software

This section describes the installation of the Oracle 8 software on the Windows NT workstation. Make sure you have the "Oracle 8 for Windows NT 8.0.5" CD-ROM.

The Oracle 8 should be installed on the Windows NT 4.0 in following steps:

1. Close all windows.

2. Insert the CD entitled "Oracle 8 version 8.0.5" into your CD ROM drive

3. NT will automatically begin installation. If installation doesn't automatically being, click "Start" on the taskbar, choose "Settings", then choose Control Panel. Next, double click "Add/Remove Programs", then click "Install"

4. An installation wizard will be displayed to help guide you through the installation. Enter all default options unless specified here.

5. Select "Typical Configuration (installs a pre-configured database).

6. Do not install "Legato Storage Manager".

7. Restart the NT workstation at the end of the installation.

8. When the NT is restarted, use the following step to setup the database table to be used by the NMS system:

   A. From the NMS CD, Go to the folder "Install". Under this folder there should be a batch file named "installdb.bat". Double click (or Run) on this file, the Adicom NMS database will be then installed. (**Make sure you do not click "installdb" twice**)

   B. Select Start->Program->Oracle for Windows NT->Oracle Net8 Assistant (**If the Oracle Net8 Assistant does not come up, go to Appendix A**)

      - Click on "Yes" button, on the warning window (You will see the warning " Comment information has been detected ..." Now Oracle Net8 Assistant window will come up.
      - Click on the "Service Names" folder on the left
      - Select Edit->Create from the menu
      - Enter Service Name: "NMS", click on the Next button
      - Choose "TCP/IP (Internet Protocol)" from the list box, click on the Next button

- Enter Host Name : [Computer name for the workstation], click on the Next button
- Change Database SID: "NMS", click on the Next button
- Click on the Finish Button
- Double click on the Listeners folder
- Click on "@LISTENER" under the Listeners folder
- Select "Database Services" from the Drop-down list box on the right
- Change SID: "NMS"
- Select File->Save Network Configuration
- Exit from Oracle Net8 Assistant

C. Go to the MS-DOS command prompt

- Enter "regedit", the registry editor window appears
- Choose \HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE
- Locate ORACLE_SID parameter on the right side of the registry editor window
- Double-click the parameter name and change the data to "NMS"

D. Restart the NT workstation at the end of the installation.

E. Select Start->Program->Oracle for Windows NT-> Oracle ODBC Test

F. Click on "Connect..."

G. Select "Machine Data Source" page.

H. Click on "New..."

I. Select "System Data Source (...)", then click on "Next>"

J. Select "Oracle ODBC Driver", then click on "Next>"

K. Click "Finish", the Oracle8 ODBC Driver Setup window appears.

L. Enter the following information:

- Data Source Name: NMS
- Description: Adicom NMS tables
- Service Name: NMS
- Click "OK". You will be asked to provide password. Enter "nms" as user id and "nms1234" as password.

M. If everything is setup properly, you will be return to the Oracle ODBC 32Bit Test window. The "Disconnect..." button will be enabled and the "Connect.." button is disabled.

N. Now exit the Oracle ODBC Test.

O. You have completed the installation of the Oracle NMS database.

2.3.4. Installing Remote Desktop Software

This section installs Mcaffee Remote Desktop 32, version 2.12.

Close all windows.

Insert the CD containing Remote desktop software into your CD ROM drive.

NT will automatically begin installation. If installation doesn't automatically being, click "Start" on the taskbar, choose "Settings", and then choose Control Panel. Next, double click "Add/Remove Programs", then click "Install"

Make sure the only check-box selected is "Controller Component Only". Uncheck all others.

An installation wizard will be displayed to help guide you through the installation. Enter all default options until you hit the "Finish" button.

After you click on the "Finish" button, the user is asked to restart the computer. Click on the button "Reboot Computer"

You have completed the installation of the Remote desktop software.

3. Aditus NMS Installation

This chapter describes the installation of the Aditus NMS software on the NT workstation. The Aditus NMS software will be provided on a CD-ROM.

This chapter is divided into following subsections:

Full Aditus NMS installation

> This subsection describes installation of Aditus NMS on a pre-configured NT workstation loaded with HP OpenView NNM software.

Aditus NMS software upgrade

> This subsection describes upgrading Aditus NMS software from one release to another.

These subsections are described in following sections.

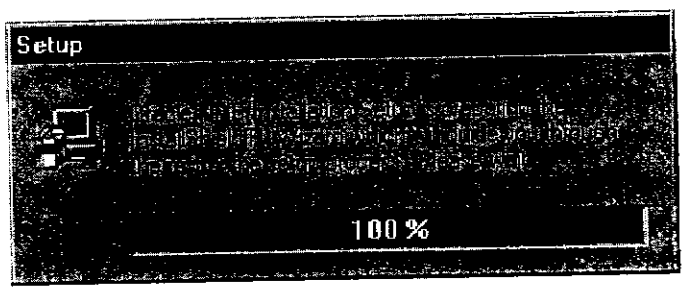
3.1. Full Aditus NMS installation

Full Aditus NMS installation is done the first time after you have installed HP Openview and Oracle on your NT workstation. Or you have HP Openview and Oracle installed but have not executed the Aditus NMS Installation program before. If you have already run the Aditus NMS Installation program before, go to Section 3.2, Aditus NMS Software Upgrade.

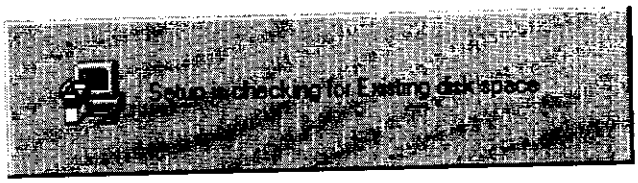
The following steps are required to install the Aditus NMS software on a new NT workstation. Prior to Aditus NMS installation, the NT workstation should be configured with HP Openview Network Node Manager and Oracle software.

1. Click on the Setup.exe file located in the folder Disk1 on the Aditus NMS CD.
   Note: Disk1 and Disk2 must be located in the root directory of the drive you are installing from.

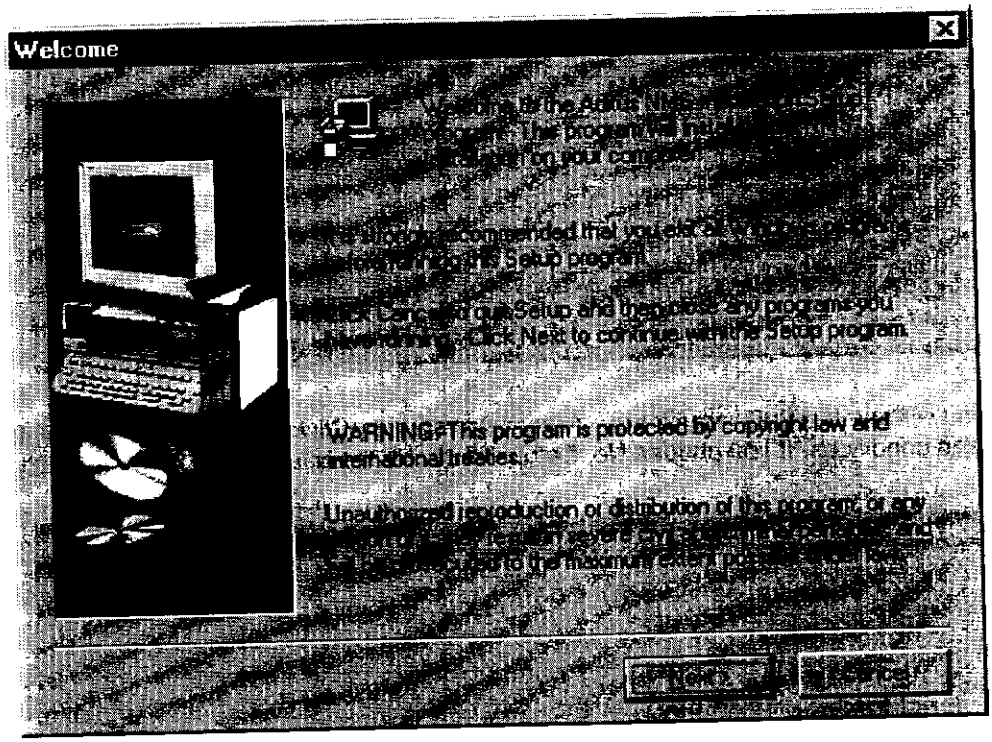
2. You should see the following screen after clicking on Setup.exe.



Setup will check for existing disk space. If there is not enough disk space, Setup will inform the user and automatically exit.

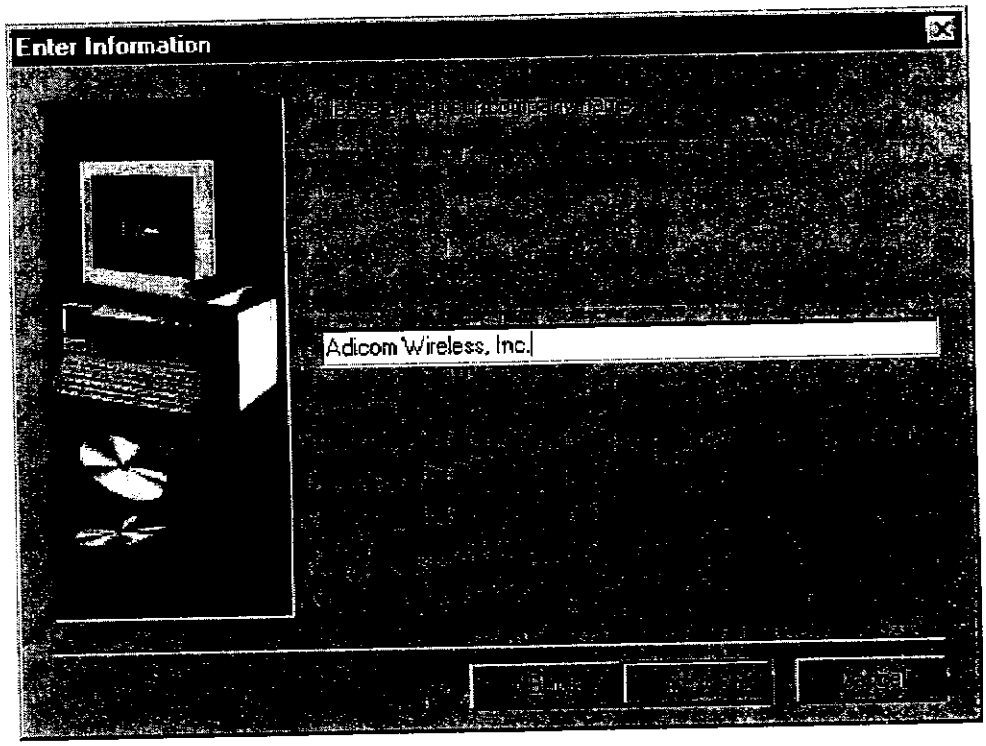


3. If there is adequate disk space you will see the following screen. It is strongly advised that the user close all applications before Aditus NMS installation proceeds.

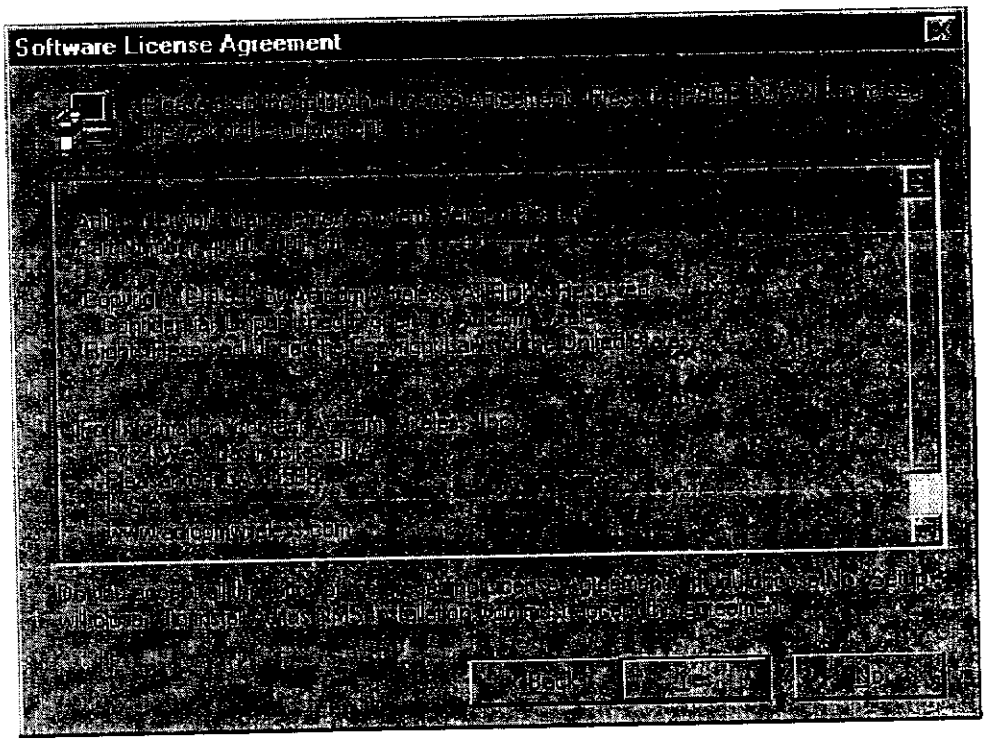


4. Click on the Next button to proceed with installation.

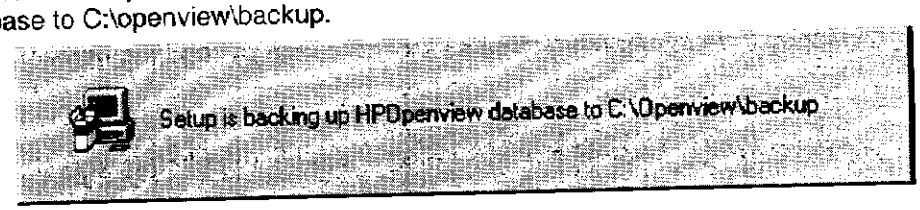
5. Enter your company name then click the next button.



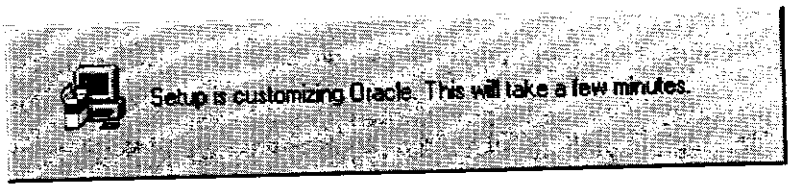
6. Next, you will see the Software License Agreement screen. Click yes if you agree to all the terms and conditions. If you choose No, Setup will inform the user and exit automatically.



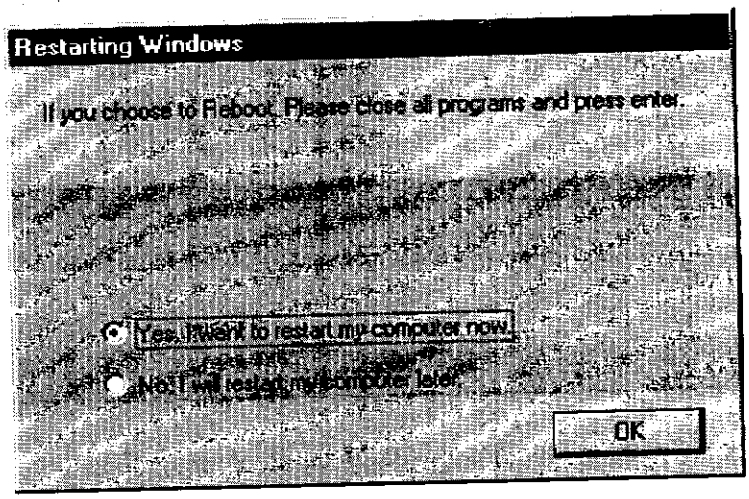
7. If the folder C:\openview\adicom does not exist then setup will back up the HP Openview database to C:\openview\backup.



8. Next, Setup will customize Oracle for Aditus NMS. This will take a few minutes.

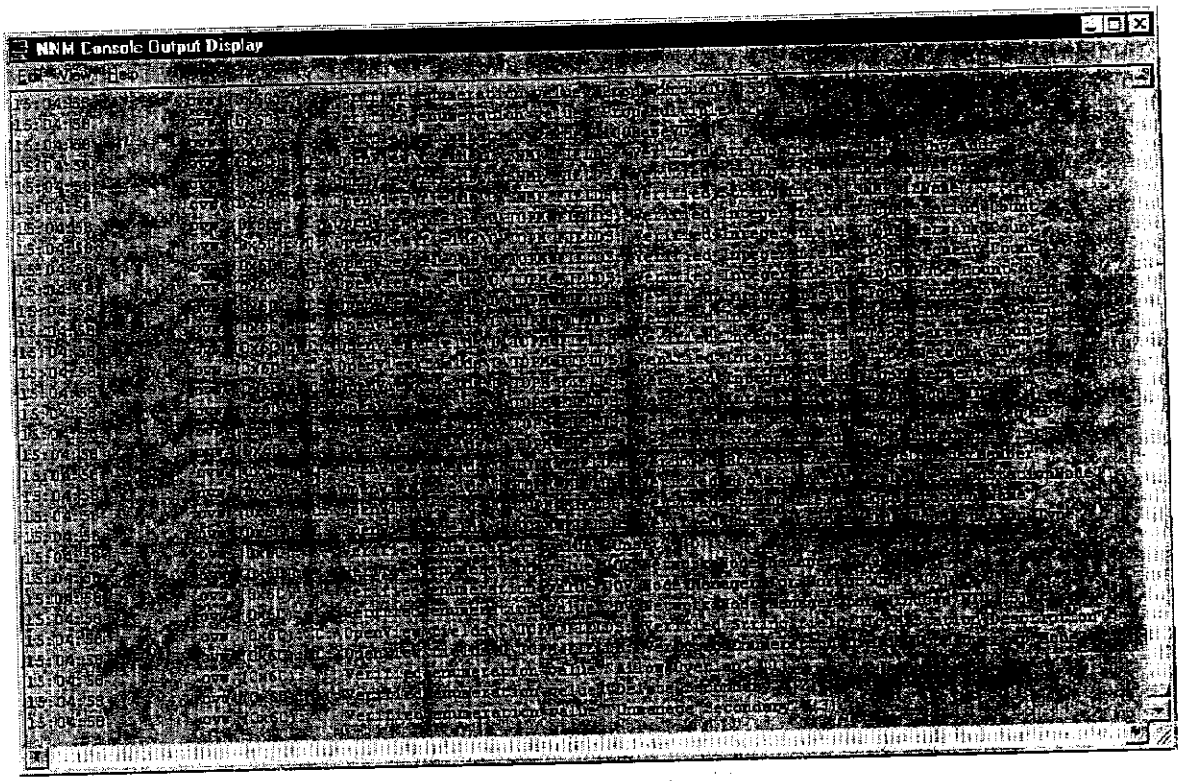


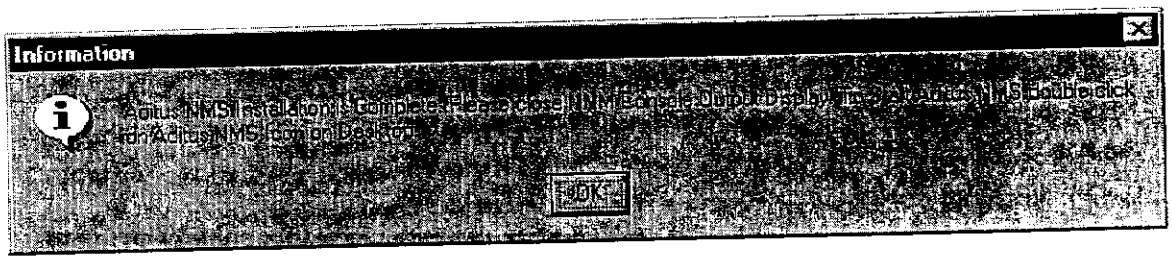
9. After setup customizes Oracle you will see the screen below. It is recommended that you close all programs and reboot the system.



10. After you reboot, the Aditus Installation will automatically restart.

11. Setup displays a Network Node Manager Console Output Display and a message to close it. Click OK to close the Information dialog box.


NNM Console Output Display


Information
OK

12. Start the NMS program by clicking on Programs-> Adicom NMS from the Start menu. (OR by clicking on the icon "Adicom NMS" from the desktop)

13. The NMS will start and a Root map will open along with Event Categories window.

14. Click "Cancel" on the "Openview Daemon Not running" dialog box
Note: This dialog box states that "netmon" the network discovery process is not running. Since we are not allowing network discovery via HP Openview, we need not start this process.

15. Select "Internet" icon and choose "Properties" from the Map pull down menu.

    - The name field shows "Adicom Network"
    - Click on View tab; unselect "Auto Layout"
    - Click on Status Propagation tab: select "Propagate the Most Critical" instead of "default"
    - Close the "Properties" Dialog box.

16. Click on the menu Map → Submap → Properties. Type in the name as "Adicom Network". Click on the tab "Context". Remove any context that's already there and add "isAdicomNetworkMap" and "NoGeneric". Click on Apply after adding to make it effective for the map.

17. Right Click on the Internet symbol on the Root Map. Click on "Symbol Properties". **All label must be spelled as is defined here.**

    - Change label to "**Adicom Network**" instead of "Internet"
    - Choose Child submap properties
    - Click on General Tab: Change label name to "**Aditus Cell Map**"
    - Click on Context Tab: Remove any context that's already there and add "hasCells" and "NoGeneric" properties
    - Click on View Tab: Unselect "Auto Layout"
    - On the View tab: Choose a Background GIF for desired country using "Browse" button.
    - Click on "Apply" button and close the Child Submap properties dialog box and Symbol properties dialog box

18. Move the Adicom Network Icon to the center of the Root Map .

19. The following steps installs a NMS license:

    - Double click on Adicom Network icon. This opens up the "Aditus Cell Map" window. From this window click on the menu Admin → Licenses → Add.
    - Using the browse button, go to the location of the license file. Click on the menu Action → Add. A message box comes up stating that licenses were installed successfully.

20. The following steps installs BSPM frequency:

    - From the "Aditus Cell Map" window, click on the menu Admin → Tools: Install frequency.
    - Select the radio button A100.
    - Using the browse button go the A100 frequency file.
    - Click on OK button on the Install frequency window. The window disappears. This implies that frequency for A100 BSPM was installed successfully.
    - Installing frequency for an A200 BSPM is same as the above. Only difference is you have to select A200 radio button and select the location of A200 frequency file.

21. The following steps installs BSPM frequency:

22. To Start Aditus NMS, follow the path: Windows Start Menu: Programs: Aditus NMS: NMS.

23. The NMS will start and a Root map will open along with an Event Categories window.

24. Click "Cancel" on the "Openview Daemon Not running" dialog box

Note: This dialog box states that "netmon" the network discovery process is not running. Since we are not allowing network discovery via HP Openview, we need not start this process.

Setup is now complete and Aditus NMS is ready for use.

Remove the NMS CD from the CD-ROM drive and store in a safe place.

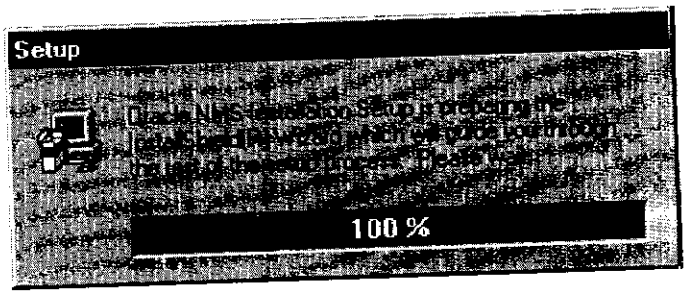
3.2. Aditus NMS Software Upgrade

This section describes procedure to upgrade the Aditus NMS software from one point release to another. This upgrade procedure retains the Aditus NMS Database from previous release and just upgrades the executables and other configuration files related to executables.

The following steps should be taken to upgrade the Aditus NMS software.

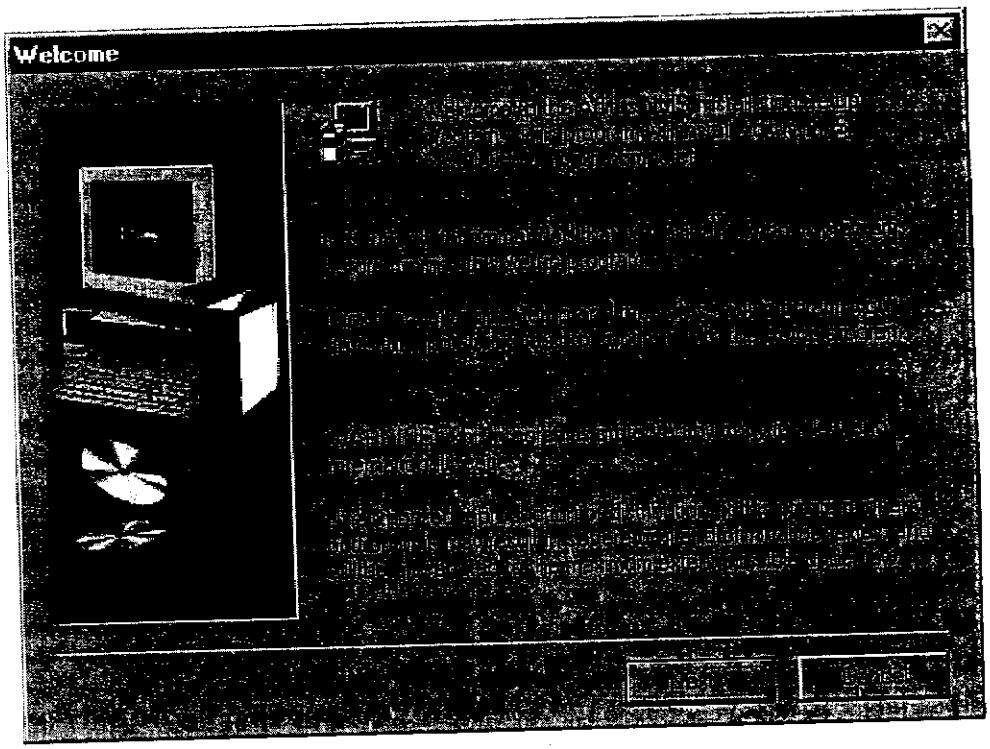
1. Click on the Setup.exe file located in the folder Disk1 on the Aditus NMS CD.
   Note: Disk1 and Disk2 must be located in the root directory of the drive you are installing from.

2. You should see the following screen after clicking on Setup.exe.



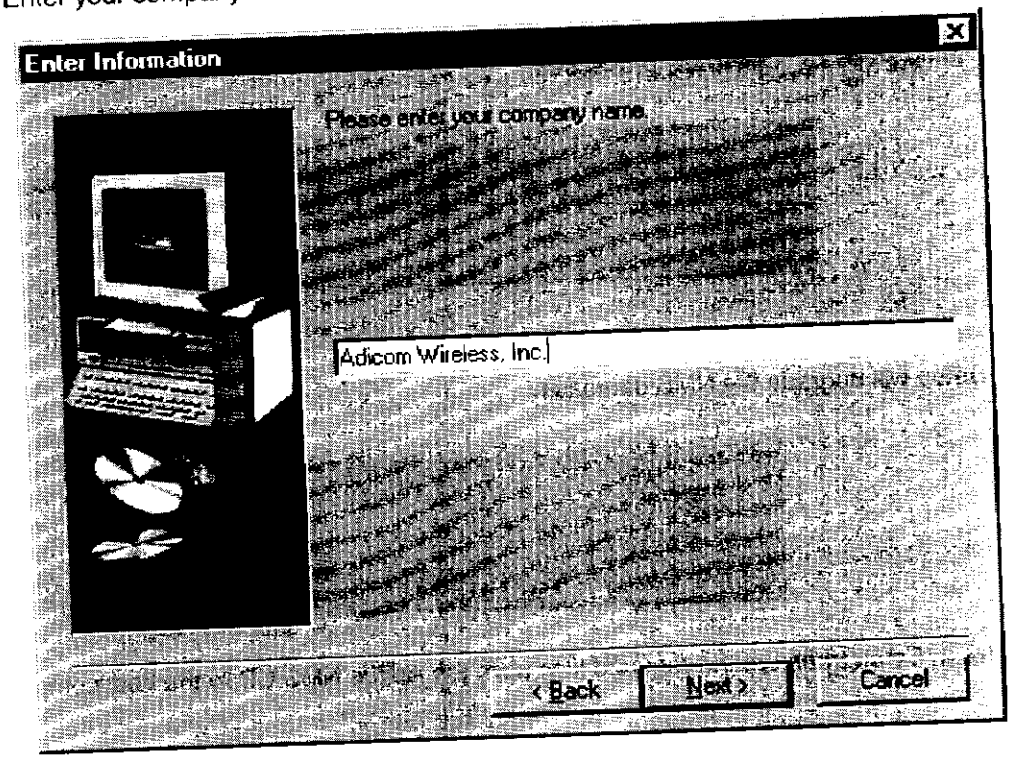
The Setup will check for existing disk space. If there is not enough disk space, Setup will inform the user and automatically exit.

3. If there is adequate disk space you will see the following screen. It is strongly advised that the user close all applications before Aditus NMS installation proceeds.

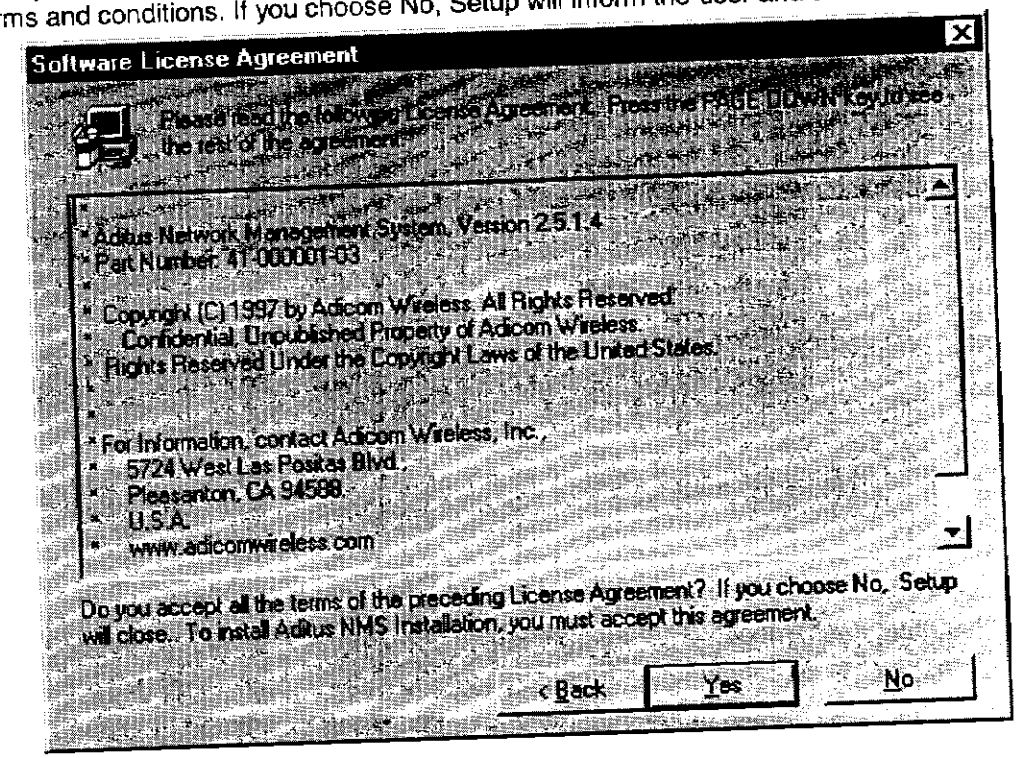


4. Click on the Next button to proceed with installation.

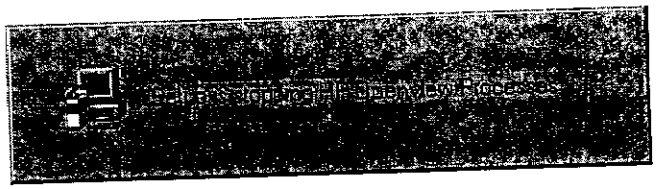
5. Enter your company name then click on the next button.



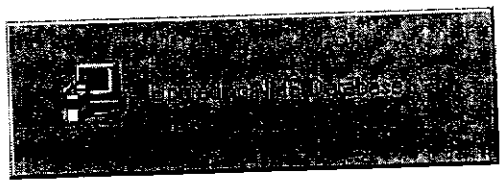
6. Next you will see the Software License Agreement screen. Click yes if you agree to all the terms and conditions. If you choose No, Setup will inform the user and exit automatically.



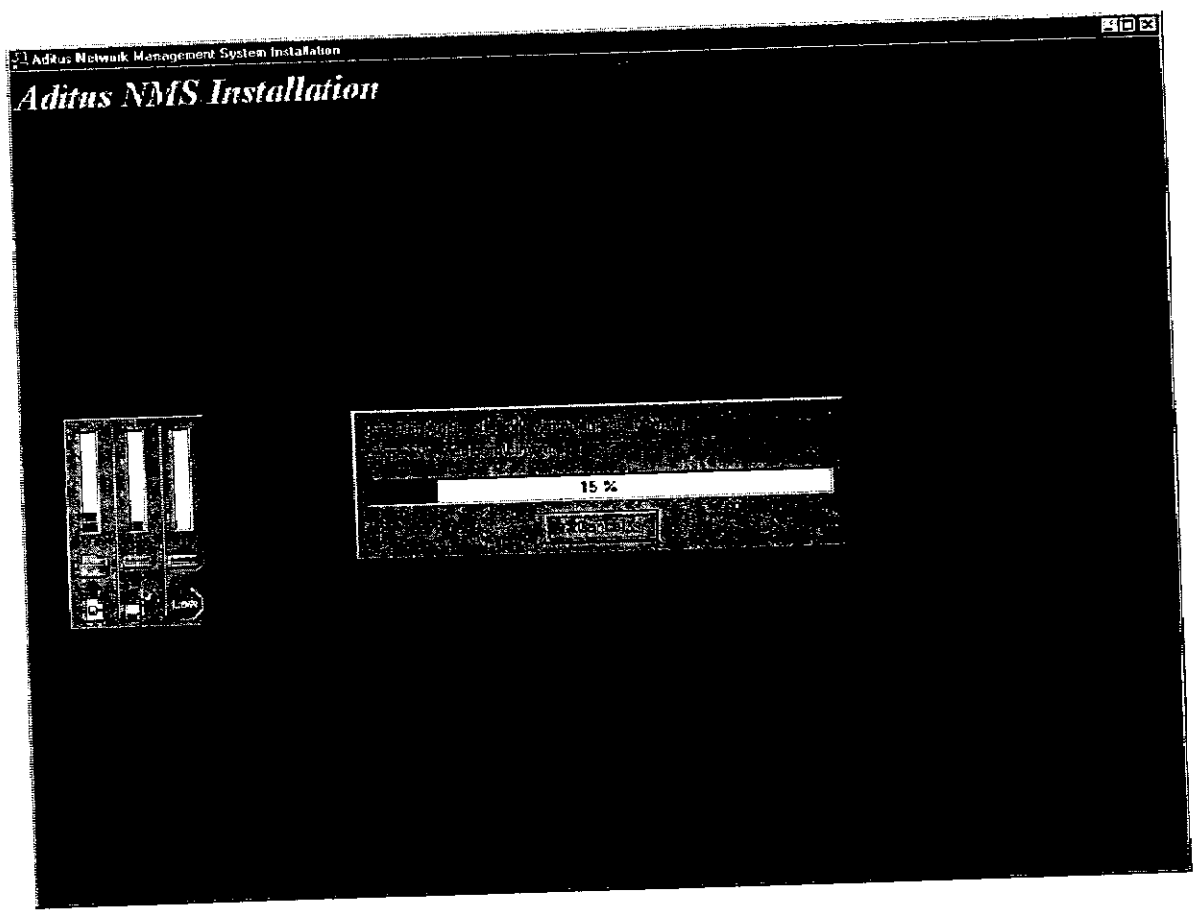
7. Setup stops HP Openview processes.



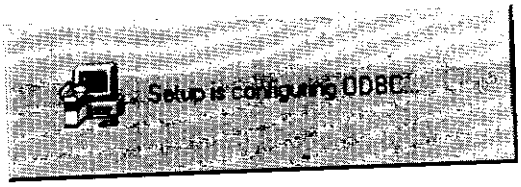
8. Setup will upgrade the NMS database.



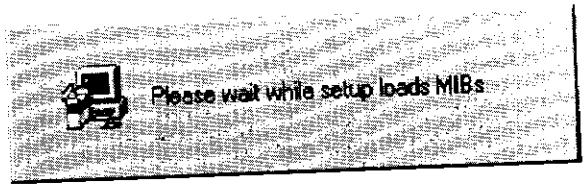
9. Next, Setup transfers the required files from the Aditus NMS CD to the host computer.



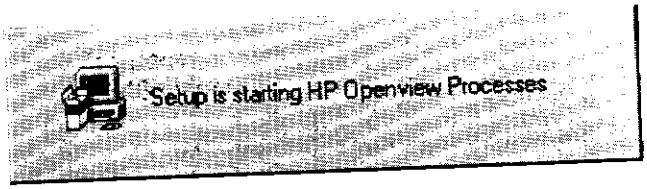
10. Setup creates the NMS Data Source Name.



11. Next, Setup reloads MIBs

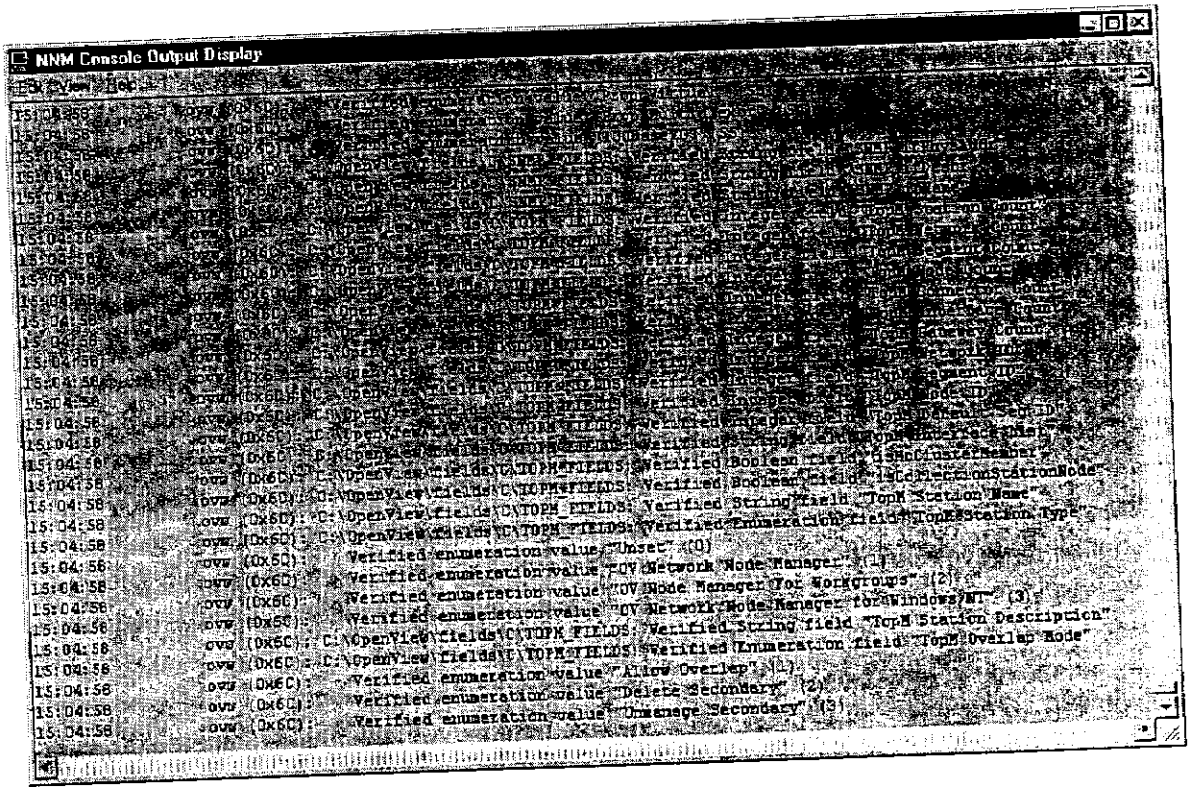


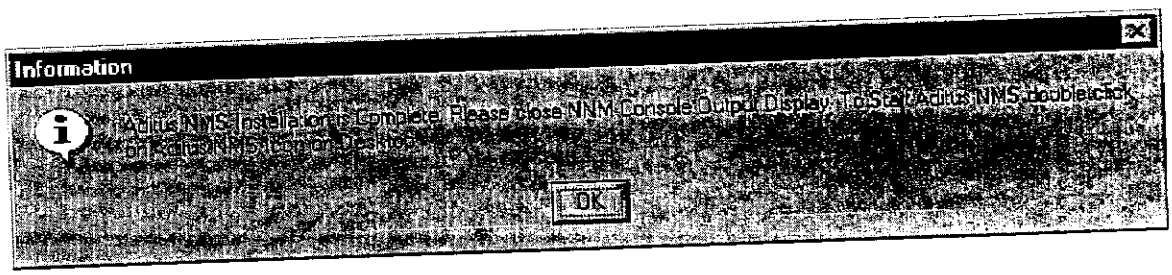
12. After loading MIBs, setup restarts HP Openview processes.



NOTE: The Adicom specific files will be copied into c:\openview\adicom. Check the log and error file stored under c:\openview\adicom for any installation error. Report all other warning/errors to the Aditus NMS Field Support team.

13. Setup displays a Network Node Manager Console Output Display and a message to close it.
    Click OK to close the Information dialog box. Click on Edit -> Exit to close the NNM Console Output Display window.





14. To start NMS, click on Programs-> Adicom NMS from the Start menu. (OR click on the icon "Adicom NMS" on the desktop)

15. The NMS will start and a Root map will open along with an Event Categories window.

16. Click "Cancel" on the "Openview Daemon Not running" dialog box

Note: This dialog box states that "netmon" the network discovery process is not running. Since we are not allowing network discovery via HP Openview, we need not start this process.

The Software upgrade is now complete and Aditus NMS is ready for use.

Remove the NMS CD from the CD-ROM drive and store in a safe place.

4. Aditus NMS Administration

This chapter describes procedures for common administration tasks for the Aditus NMS system. These common administration tasks include following:

System Startup

System Shutdown

Aditus NMS system status

User Administration

Aditus NMS Database Object Deletion

Aditus NMS Database Backup

Aditus NMS Database Restore

The above common administration task management is described in following sections.

4.1. System Startup

The Aditus NMS system startup procedure involves starting HP Openview NNM services i.e. server applications and then starting the HP Openview Windows.

The following steps should be executed to start the Aditus NMS application.

1. Logon to NT workstation as a NT Administrator
2. Verify that the NNM services are not running by checking NNM Services status as explained in Section 4.3. Continue with following steps only if NNM Services are not running.
   (a). From the Start menu, click on "Programs->HP OpenView->NNM Services – Start" option.
   (b). A window dialog box will appear showing server processes starting one after another.
   (c). Click on "Close" on the dialog box after all processes have started (The Restart button will be highlighted after all processes have started)
3. From the Start menu, click on "Programs → Adicom NMS → NMS" option to start the HP Openview windows. OR click on the icon "Adicom NMS" on the desktop.
4. Click "Cancel" on the intermediate dialog box "Openview Daemon not running".
5. A Root Map showing "Adicom Network" icon will appear. Double clicking on the "Adicom Network" icon will navigate you through the different Cells and Base Stations in the Aditus NMS system.

4.2. System Shutdown

The Aditus NMS system shutdown procedure involves shutting down the HP OVW and the HP Openview NNM services i.e. server applications.

The following steps should be executed to shutdown the Aditus NMS application.

1. On the Adicom Network Root Map window or Aditus Cell Map window, click on "Exit" on the menu option.

2. A dialog indicating exiting HP OVW will appear. Click on "OK". This will close all HP OVW windows and exit from the application.

3. Logout and login as NT Administrator (if not already logged in)

4. From the Start Menu, click on "Programs->Openview->NNM Services – Stop". This will stop all the HP Openview server processes one after another. (The Restart button will be highlighted after all processes have stopped)

4.3. *Aditus NMS system status*

The status of Aditus NMS system services can be verified at any time. In order to check the system status, following steps need to be executed.

1. Logon as NT Administrator on the NT workstation

2. From the Start menu, click on "Programs->HP Openview->NNM Status".

3. A dialog box showing status of all the HP Openview server processes will be displayed.

4.4. *Initial NMS Setup*

This section describes the initial setup of a Cell through the NMS graphical user interface.

1. From the Start menu, go to Programs->Adicom NMS to start NMS. The NMS Root map with the Event Categories window will appear.
   - Click Cancel on the OpenView Daemon Not Running dialog box.

2. Highlight the Internet symbol in the Root map and select Properties from the Map pull-down menu.
   - Verify that the name Adicom Network appears in the name field of the Properties window.
   - Under the View tab, deselect Auto Layout.
   - Under the Status Propagation tab, select Propagate Most Critical.
   - Close the Properties window.

3. From the Map pull-down menu, select Open to bring up the Maps dialog box.
4. Highlight the Read Write line for Adicom Network and click on the Select User Default button.
5. Click Close.
6. From the Map pull-down menu in the Root map, go to Submap->Properties.
   - Type Adicom Network in the name field of the Submap Properties window.
   - Under the Context tab, remove all contexts. Add the context "isAdicomNetworkMap" and "NoGeneric".
   - Click on Apply.

7. Highlight and right click the Internet symbol in the Root map to bring up the Symbol Properties window.
   - Type Adicom Network in the name field.
   - Click on Child Submap Properties.
   - Under the General tab, type Aditus Cell Map in the name field.
   - Under the Context tab add the contexts "hasCells" and "nogeneric", and remove all other contexts.

- Under the View tab, verify that Auto Layout is deselected.
- Under the View tab, choose the background country GIF using the Browse button.
- Click on Apply and close the Child Submap Properties window.
- Close the Symbol Properties window.
- Setup is now complete and Aditus NMS is ready for configuration

4.5. *Add the Base Station IP Address to the Host File*

This is particularly useful to speed the look-up process when networking.

1. Open the host file on the NMS Host Computer.
   - Host file is located at <drive>:\winnt\system32\drivers\etc\hosts
   - Type in the IP address of each Base Station on a separate line.
   - On the same line of each IP address, separated by at least one space, type in the name of the Base Station. This name must be unique with this file.

Example of a Host file

206.196.96.45	Marconi
206.196.96.46	Hertz
206.196.96.60	Curie

4.6. *User Administration*

The Aditus NMS system relies on Windows NT User Administration for managing users. An NT Administrator user is required prior to installing, configuring and starting Aditus NMS system. New users can be created or deleted from Windows NT User Profile function as follows. All users can start and stop the Aditus NMS GUI but cannot start or stop Aditus NMS server applications. Only NT Administrator can start and stop the Aditus NMS server applications.

4.6.1. Creating New User

Following steps describe how to create a new user for the Aditus NMS system.

1. Logon to NT workstation as NT Administrator
2. From the Start menu, Click on "Programs->Administrative Tasks (Common)->User Manager"
3. Click on User pull down menu
4. Choose New User. A dialog box appears
5. Enter User Name, Full Name, Description and other required identification. Click on OK and Exit User Manager
6. The First time, the user logs into NT workstation, he will be asked to choose and enter his password
7. 7. After Logon, start Aditus NMS system as explained in Section 4.1

4.6.2. Deleting User

Following steps describe how to delete a user for the Aditus NMS system.

1. Logon to NT workstation as NT Administrator
2. From the Start menu, Click on "Programs->Administrative Tasks (Common)->User Manager"
3. Select a particular user from the list and from User pull down menu, choose Delete. Click OK. The user and his profile will be deleted.

4.6.3. Modifying User Profile

Following steps describe how to create a new user for the Aditus NMS system.

1. Logon to NT workstation as NT Administrator
2. From the Start menu, Click on "Programs->Administrative Tasks (Common)->User Manager"

Select a particular user from the User list and update his profile by modifying desired fields

5. Appendix A – When Oracle Net8 Assistant Fails

The following steps are performed when Oracle Net8 Assistant program does not come up on the machine:

- Go to the folder "ORANT" (This is the folder, which is created when Oracle is installed). From this folder open the file NET80\ADMIN\Listner.ORA
- Make sure the port 1521 is pointing to the host machine name. For example if the host machine name is sw73, then the above file should have the following Address list:

```
(ADDRESS=
(PROTOCOL= TCP)(Host= sw73) (Port= 1526)
)
```

- Edit the above file (listner.ORA) such that the SID_NAME of the host machine is "NMS".

```
(SID_DESC =
      (GLOBAL_DBNAME = sw73)
(SID_NAME = NMS)
 )
```

- Save and close the file.
- Open another file in the folder "Orant". The file is Net80\ADMIN\TNSNAME.ORA.
- Insert the following highlighted paragraph in the above file (TNSNAME.ORA):

```
NmpExample.world =
  (DESCRIPTION =
    (ADDRESS_LIST =
        (ADDRESS =
          (PROTOCOL = NMP)
          (Server = FinanceServer1)
          (Pipe = ORAPIPE)
        )
    )
    (CONNECT_DATA = (SID = ORCL)
    )
  )
NMS.WORLD =
  (DESCRIPTION =
      (ADDRESS = (PROTOCOL = TCP) (HOST = SW73) (PORT =
1521))
      (CONNECT_DATA = (SID = NMS))
  )
```

- Save and close the above file
- Continue with step C of point 20 in section 2.3.3

6. References

This chapter lists the relevant documents, manuals and books referred to in this document.

1. Aditus 200 Network Management System Functional Specifications

2. HP Openview Using Network Node Manager for Windows NT Operating System; May 1997.

3. NMS Operations Manual