



MIDAS 4 Software Installation Guide



MIDAS 4 Software Installation Guide

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Comtech EF Data is an ISO 9001
Registered Company.



Network Customer Support

The Network Customer Support Plan identifies the steps to be followed in resolving the Customer's concern.

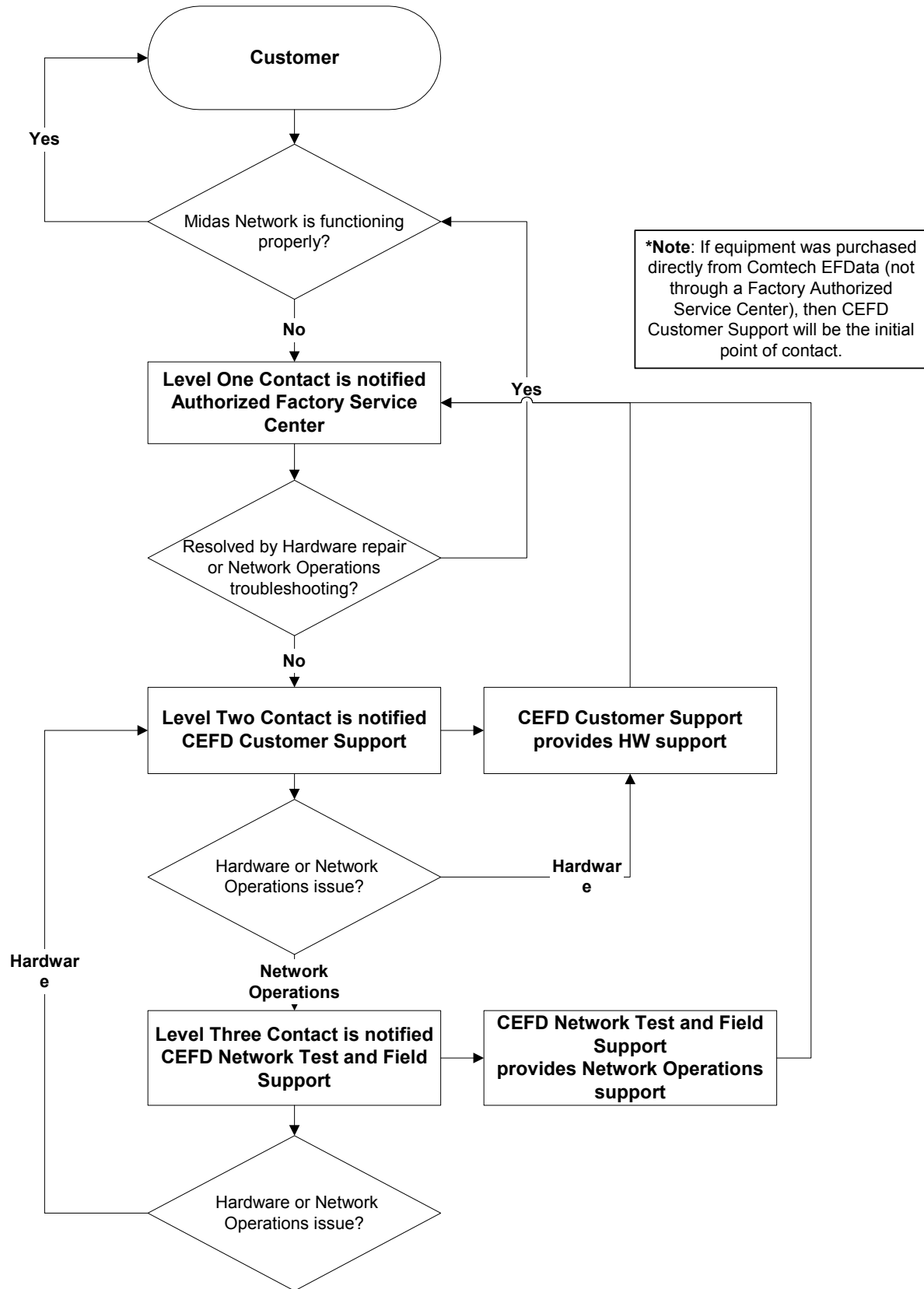
The resolution efforts will follow these levels of contact:

- **Level One Contact** – Factory Authorized Service Center.
- **Level Two Contact** – Comtech EF Data Customer Support.
- **Level Three Contact** – Network Test and Field Support

Procedural Steps

Step	Procedure
1	The Customer raises a concern with the Level One Contact .
2	The Level One Contact will perform <i>Hardware</i> repairs and <i>Network Operations</i> troubleshooting in accordance with the Comtech EF Data Service Center agreement.
3	If the Level One Contact is unable to resolve the concern, then the Level One Contact will inform the Level Two Contact of the concern in accordance with the instructions found within the attached Comtech EF Data Customer Support Department's document.
4	The Level Two Contact will enter the concern into the Comtech EF Data database and determine whether the concern is a <i>Hardware</i> concern or a <i>Network Operations</i> concern
5	The Level Two Contact will interface with the Level One Contact and provide the appropriate hardware support and enter all correspondence into the Comtech EF Data database.
6	If the Level Two Contact determines that the concern is a <i>Network Operations</i> concern, then the Level Two Contact will inform the Level Three Contact .
7	The Level Three Contact will interface with the Level One Contact and provide the appropriate support and enter all correspondence into the Comtech EF Data database.
8	If the Level Three Contact determines that there is a <i>Hardware</i> failure then the Level Three Contact will inform the Level Two Contact . Go to Step 5.

Network Customer Support Plan



See the Comtech EF Data website at <http://www.comtechefdata.com> for contact information for a Factory Authorized Service Center. Contact the Factory Authorized Service Center for:

- Product support
- Information on upgrading or returning a product

Contact the Comtech EF Data Customer Support Department for:

- Product support or training
- Information on upgrading or returning a product

A Customer Support representative may be reached at:

Comtech EF Data
Attention: Customer Support Department
2114 West 7th Street
Tempe, Arizona 85281 USA

480.333.2200 (Main Comtech EF Data Number)
480.333.4357 (Customer Support Desk)
480.333.2500 FAX

or, E-Mail can be sent to the Customer Support department at:

support@comtechefdata.com

1. To return a Comtech EF Data product (in-warranty and out-of-warranty) for repair or replacement:
2. Request a Return Material Authorization (RMA) number from the Comtech EF Data Customer Support Department.
3. Be prepared to supply the Customer Support representative with the model number, serial number, and a description of the problem.
4. To ensure that the product is not damaged during shipping, pack the product in its original shipping carton/packaging.
5. Ship the product back to Comtech EF Data. (Shipping charges should be prepaid.)

Contact the Comtech EF Data Network Test and Field Support for:

- System level Network Operations support
- Information on upgrading Network Operation software
- Reporting comments or suggestions concerning manuals

A Network Test and Field Support representative may be reached at:

Comtech EF Data
Attention: Network Test and Field Support
2114 West 7th Street
Tempe, Arizona 85281 USA

480.333.2200 (Main Comtech EF Data Number)
480.333.3693 (Network Test and Field Support)
480.333.2161 (FAX)

or, E-Mail can be sent to the Network Test and Field Support Department at:

<mailto:midasfss@comtechefdata.com>

Contact us via the web at www.comtechefdata.com.

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About this Manual

This software installation guide provides the data necessary to install the MIDAS 4 System and verify the communications and functions of the system. This document refers to Product Data Specification sheets that are available via various Comtech EF Data product CD-ROMS and the Comtech EF Data website: www.comtechefdata.com

Conventions and References

Metric Conversion

Metric conversion information is located on the inside back cover of this manual. This information is provided to assist the operator in cross-referencing English to Metric conversions.

Trademarks

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Reporting Comments or Suggestions Concerning this Manual

Comments and suggestions regarding the content and design of this manual will be appreciated. To submit comments, please contact the Comtech EF Data Technical Publications department: techpub@comtechefdata.com

Overview of Previous Revisions

Changes made to Revision 2, dated October 19, 2001 are as follows:

Revised Sequence of Events to show a NO line from *Passed Verification Tests?* to *System Preparation*.

Revisited paragraph MIDAS Controller Server Preparation, Chapter 2.

Revision Installation of FASTCOM ESCC_PCI., steps 4 and 5.

Revised Enable Local Client Protocols steps.

Revised Installation of HP Open View, step 3.

Revised Testing and Verification and Summary to remove”.” and place a space between LMHOSTS and File.

Change ‘no’ to No’ in MIDAS 4 CD-ROM , Chapter 4.

Added new step 7 for MIDAS 7 CD-ROM steps, Chapter 5 and added step 10.

Added step 7 for MIDAS CD-ROM in Chapter 6.

Disclaimer

Comtech EF Data has reviewed this manual thoroughly in order that it will be an easy-to-use guide to your equipment. All statements, technical information, and recommendations in this manual and in any guides or related documents are believed reliable, but the accuracy and completeness thereof are not guaranteed or warranted, and they are not intended to be, nor should they be understood to be, representations or warranties concerning the products described.

Further, Comtech EF Data reserves the right to make changes in the specifications of the products described in this manual at any time without notice and without obligation to notify any person of such changes.

If you have any questions regarding your equipment or the information in this manual, please contact either:

Comtech EF Data Customer Support Department at: service@comtechefdata.com

Comtech EF Data Technical Publications Department at: techpub@comtechefdata.com

Introduction

This manual provides instructional procedures for a Network Engineer, proficient in Microsoft Operating Systems, to set up the MIDAS System at a pre-selected site.

Note: MIDAS Software Version 4.3 is identified as MIDAS 4 throughout this manual. Future software versions will be added to this manual, however, if the procedure is compatible with other software versions it will not be separately identified. Only procedures that are dedicated to a version number will be identified. Refer to MIDAS Network Customer Support department if this causes any concerns.

Functional Overview

A MIDAS 4 system consists of multiple components:

Controller Server

A computer (refer to Comtech EF Data Specification SP/8861) running Microsoft Windows NT Server 4.0 (\geq Service Pack 6a) with SVGA resolution and containing an HDLC interface card. MS NT Server must be installed as a stand-alone server, not as a primary domain control server.

Note: The MIDAS 4 Controller software is installed in this server.

All MIDAS 4 Network Configuration Types include a Controller. The Controller software uses proprietary communications protocols to monitor and control the attached MIDAS communications devices (consisting of control and data transmission devices). It also provides a MIB (Management Information Base) via SNMP (Simple Network Management Protocol) for external communication with the MIDAS 4 NMS Server.

Local Client Workstation

A computer (refer to Comtech EF Data Specification SP/8860) running Microsoft Windows NT Workstation 4.0 (\geq Service Pack 6a) or Windows 98 with SVGA resolution.

Note: The MIDAS 4 Local Client software is installed in this workstation.

The Local Client Workstation allows the operator to configure, modify, control, and monitor the elements in the MIDAS satellite network using a graphical user interface (GUI).

NMS (Network Management System) Server

A computer (refer to Comtech EF Data Specification SP/9175) running Microsoft Windows NT Server 4.0 (≥ Service Pack 6a) with SVGA resolution and using HP OpenView® Network Node (Ver. 6.1 or greater) Manager as an SNMP-based NMS. MS NT server must be installed on a 4 GB (minimum) hard drive space and as a stand-alone server.

Notes:

1. The MIDAS 4 NMS software is installed in this server.
2. After installing HP OpenView, Win NT 4.0 Service Pack 6 shall be reinstalled.

The NMS Server uses the MIDAS MIB to receive event and alarm notifications from the controller and also to configure or query MIDAS devices via the Controller.

Remote NMS Workstation:

A computer (refer to Comtech EF Data Specification SP/8460) running Microsoft Windows NT Workstation 4.0 (≥ Service Pack 6a) with SVGA resolution and using HP OpenView® Network Node Manager Remote software (ver 6.1 or greater).

Note: The MIDAS 4 Remote NMS workstation Software is installed in this workstation.

The Remote NMS workstation(s) allow a logged in user to perform all network management functions as if the user were at the NMS Server. A Remote NMS workstation may also be permissioned for limited network management functions for selected sections of the network.

MIDAS Network Configuration Types

The MIDAS Network can be configured in several different ways dependant upon the type of system requirements, network topology, and physical location of network components. All configurations types will have a Controller which will communicate through an SNM-1001 Network Control Modem to all Nodes and Channels.

All configurations types also can accommodate a secondary Controller for redundancy.

Configuration Options with Requirements

Controller with Local Client Workstation

This setup employs a Local Client Workstation as a user interface to monitor and control the MIDAS Network.

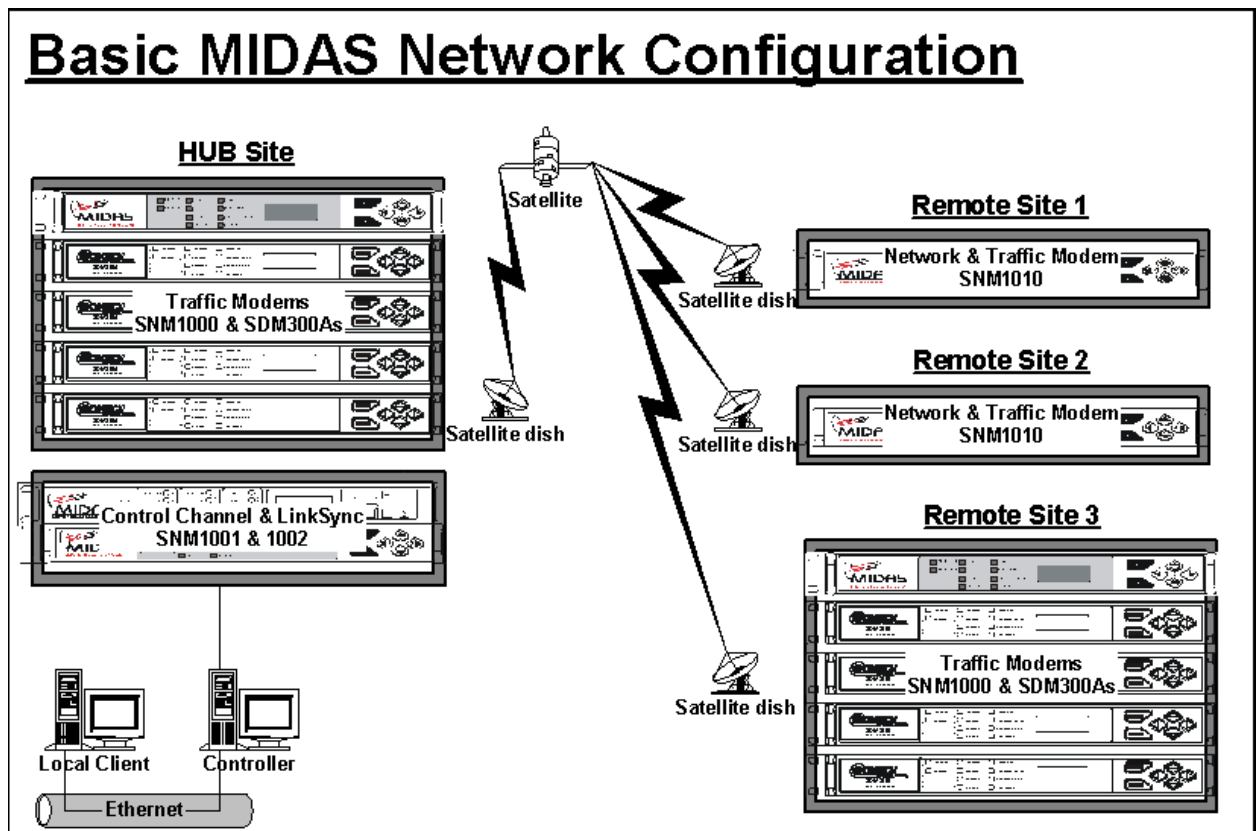


Figure 1-1. MIDAS Network with Local Client Work Station

Requirements:

- Controller/Local Client communications shall be a high-speed LAN connection (10/100 BaseT)
- Controller/Local Client shall be on the same IP subnet with a direct LAN connection or bridged.

Controller with Local Client Workstation (Redundant)

This setup employs a Local Client Workstation as a user interface to monitor and control the MIDAS Network.

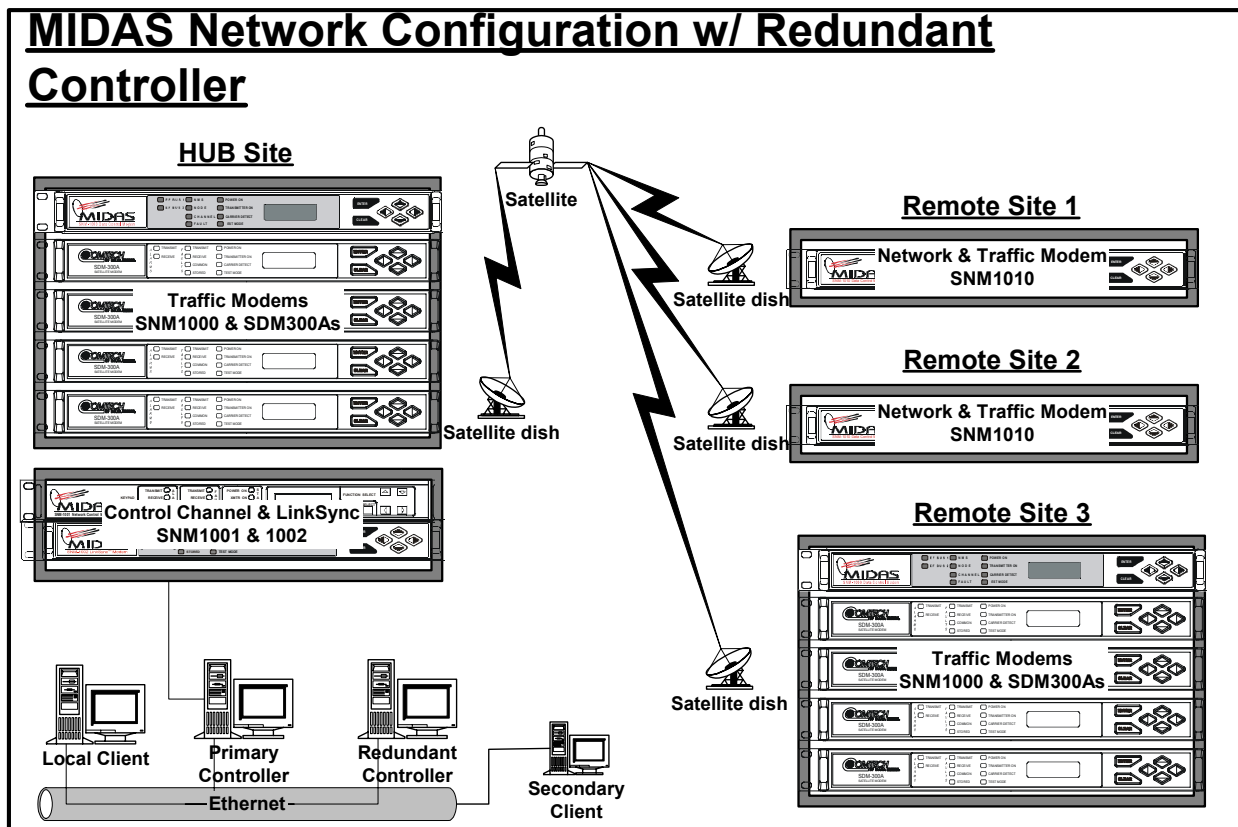


Figure 1-2. MIDAS Network with Local Client Work Station and Redundant Controller

Requirements:

- Controller/Local Client communications shall be a high-speed LAN connection (10/100 BaseT)
- Controller/Local Client shall be on the same IP subnet with a direct LAN connection or bridged.
- Primary/Redundant Controller communications shall be a high-speed LAN connection (10/100 BaseT)
- Primary/Redundant Controller shall be on the same IP subnet with a direct LAN connection or bridged.

NMS Server with Remote NMS Workstations

This setup employs a NMS Server and Remote NMS Workstations (optional) as a user interface to monitor and control the MIDAS Network.

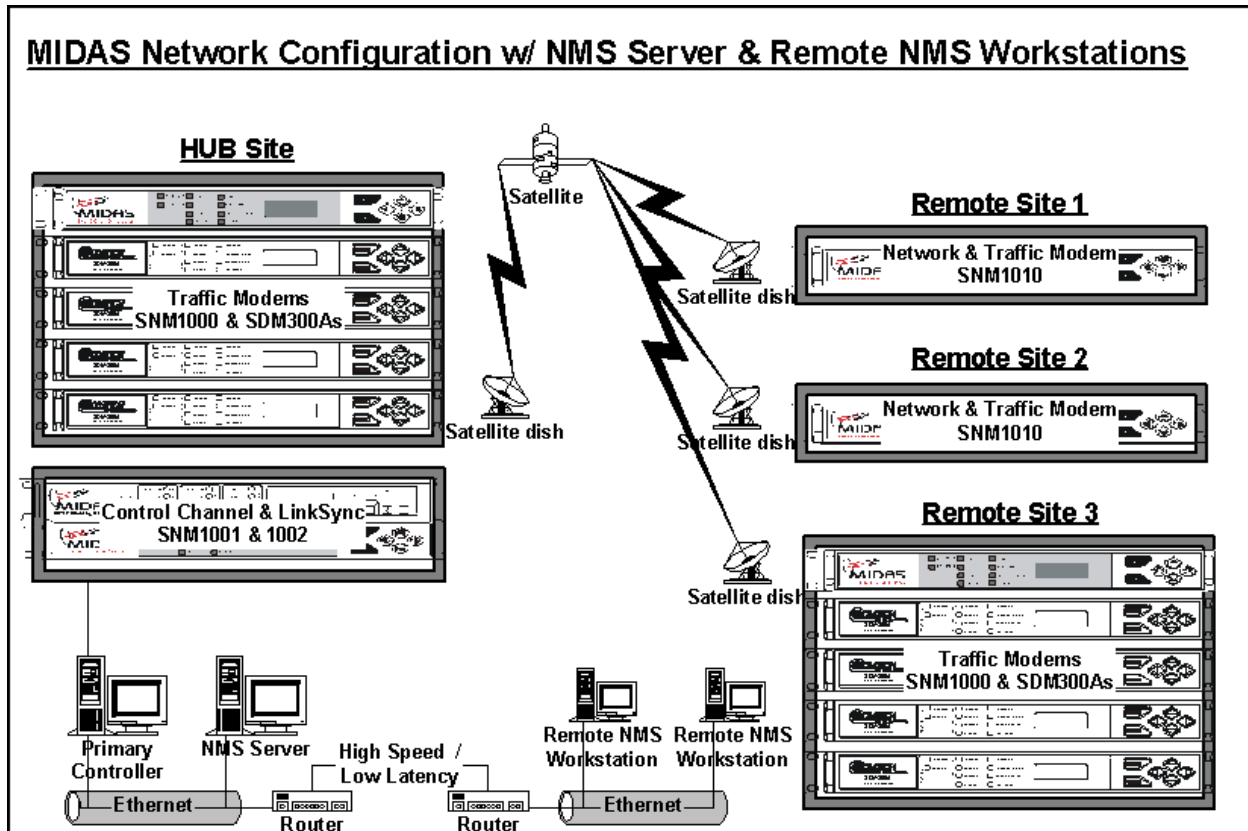


Figure 1-3. MIDAS Network with NMS and Remote NMS Workstations

Requirements:

- Controller/NMS Server communications shall be a high-speed LAN connection (10/100 BaseT) isolated from extraneous traffic.
- NMS Server/Remote NMS shall be on a high-speed (> 2Mbps), low latency isolated from extraneous traffic.

NMS Server with Remote NMS Workstations (Redundant)

This setup employs a NMS Server and Remote NMS Workstations (optional) as a user interface to monitor and control the MIDAS Network.

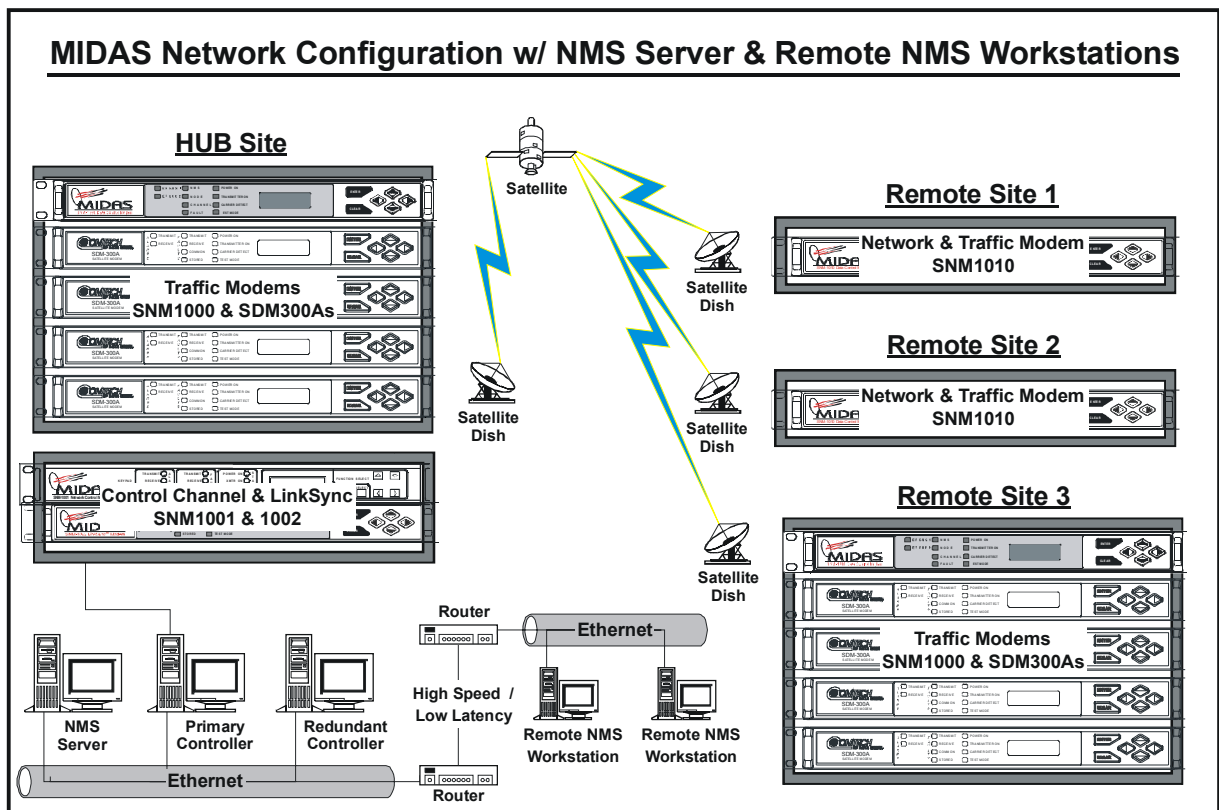
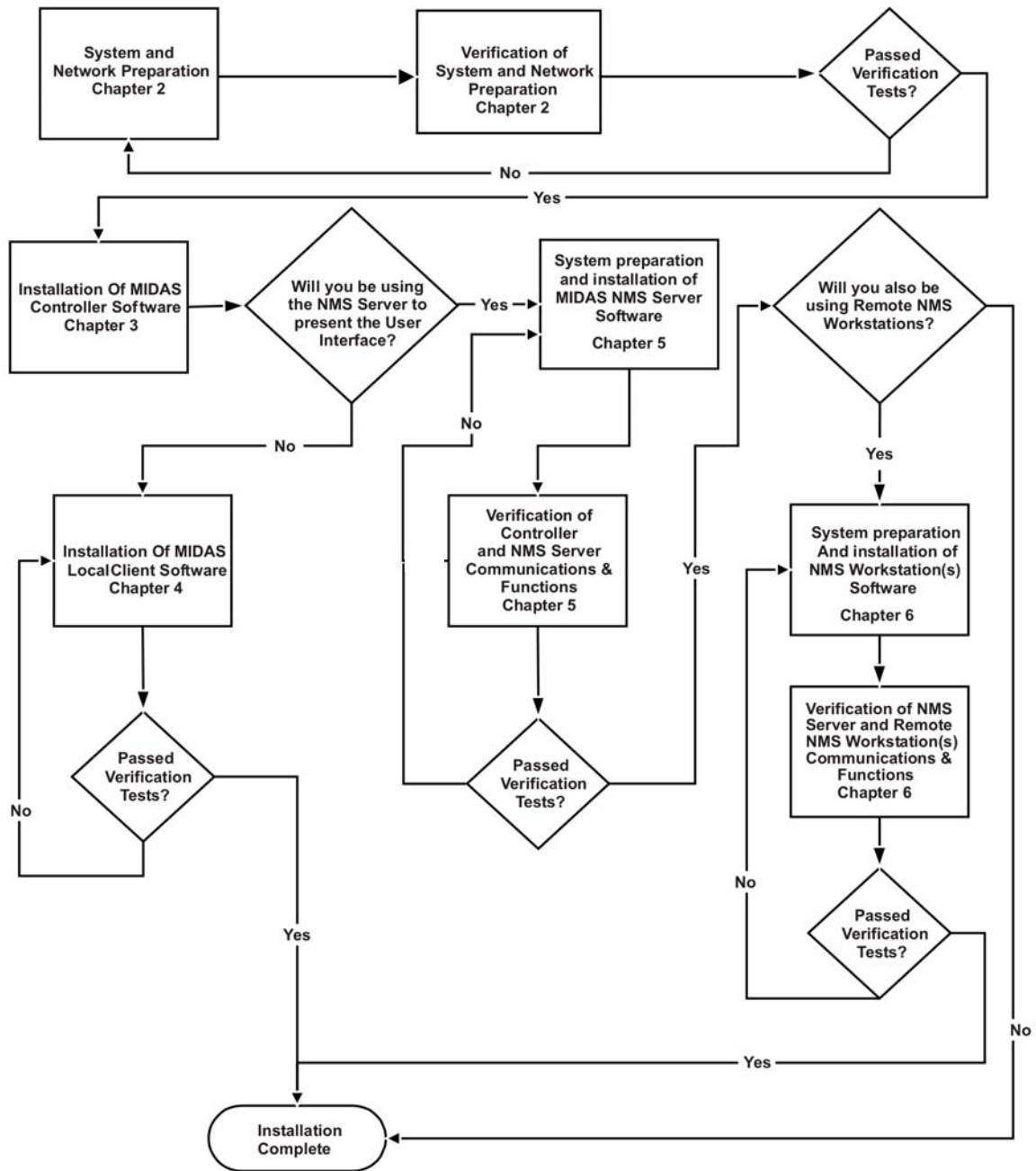


Figure 1-4. MIDAS Network with NMS and Remote NMS Workstations and Redundant Controller

Requirements:

- Controller/NMS Server communications shall be a high-speed LAN connection (10/100 BaseT) isolated from extraneous traffic.
- NMS Server/Remote NMS shall be on a high-speed (>2 Mbps), low latency isolated from extraneous traffic.
- Primary/Redundant Controller communications shall be a high-speed LAN connection (10/100 BaseT)
- Primary/Redundant Controller shall be on the same IP subnet with a direct LAN connection or bridged.

Sequence of Events





MULTIMEDIA INTEGRATED DIGITAL ACCESS SYSTEM

MIDAS2. System Preparation

System Preparation

While there may be variances from the specified setup that do not inhibit either the performance or function of the MIDAS System, it is advisable to install only the required components, services, and protocols during the initial installation process.



It is critical that all PC requirements defined by Comtech EF Data Specifications, SP/8860, SP/8861, and SP/9175 be followed.

It is recommended to set the Virtual/Actual Memory to at least a 2:1 ratio for the MIDAS System to achieve maximum performance.

After the system has been validated, install any variances that may be necessary one by one.

Installing the variants one by one and re-testing the performance and function of the system after each variant is installed will allow anomalies to be tracked to a specific variant without the need for exhaustive troubleshooting activity.

MIDAS Controller Server Preparation

The MIDAS Controller Server is a dedicated PC that meets the requirements of Comtech EF Data Specification SP/8861. Microsoft Windows NT Server 4.0 (≥ Service Pack 6a) is installed [as a stand-alone server, not as a primary domain server] as the operating system.

This server should be dedicated to the MIDAS application. Unless a service or function is explicitly defined as a MIDAS replacement, it should not be loaded on the MIDAS Controller server.

Installation of FASTCOM ESCC_PCI

Preparation for Installation

A FASTCOM ESCC_PCI card is supplied with the MIDAS 4 System to communicate with the SNM-1001 Network Control Modem.

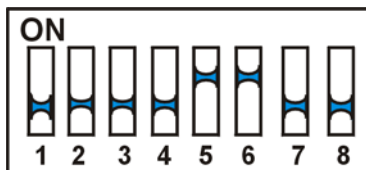
Ensure the FASTCOM card is configured, as follows:

1. Clock control (SW5)



Ensure the card is configured, as follows:

2. EIA-485 Control (SW6)



Installation of FASTCOM ESCC_PCI

Install the FASTCOM ESCC_PCI card into a rear slot of the Controller Server as follows:

1. Open the FASTCOM card package, ensuring all ESD precautions are observed.
2. Install the FASTCOM card in the PCI slot and plug in to the motherboard (see Figure 2-1).
3. Connect supplied Y-Cable as follows:
 - a. Connect the supplied-cable base connector to the FASTCOM card.
 - b. Connect supplied-cable Port 1 connector to the Comtech EF Data supplied EIA-422 cable from SNM-1001 Modem (P/N CA/5684).
 - c. Cable Port 2 connector is not connected.
4. Connect 9-pin EIA-232 cable from Controller Server COM 1 port to SNM-1001 Remote port (J6).
 - a. If non-redundant SNM-1001, the following remote settings are required:
 - EIA-232
 - 19.2 Baud rate
 - 8N1
5. Connect 9-pin EIA-232 cable from Controller Server COM 2 port to SNM-1002 Remote port (J6).
6. Connect 25-pin pre-programmed dongle to Controller Server 25-pin I/O port.

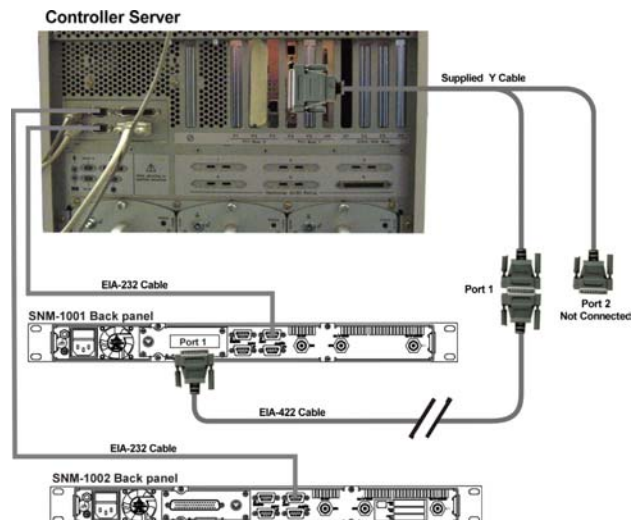


Figure 2-1. Installation of FASTCOM Card

ESCCPDRV INSTALL

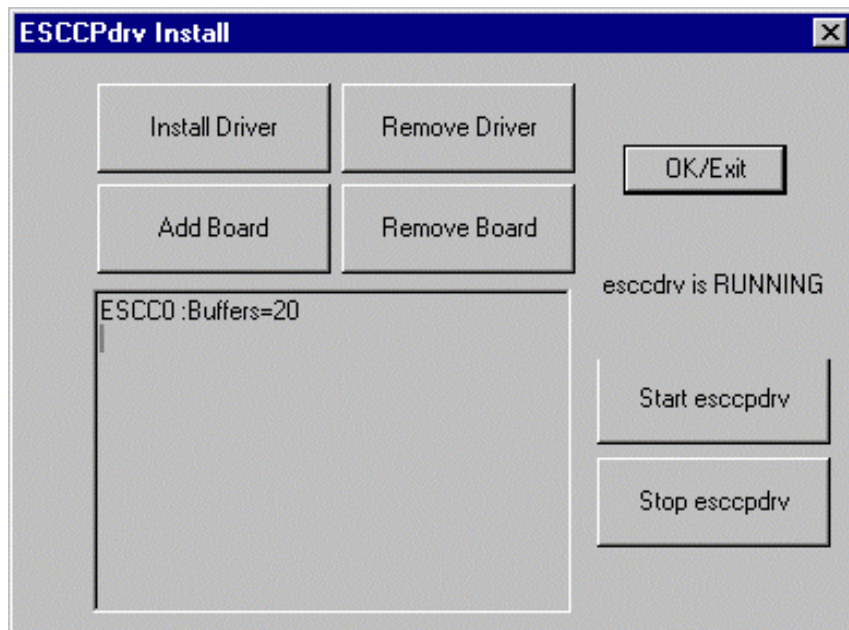


IMPORTANT

ESCCPDRV driver can be installed using the supplied-installed CD from FASTCOM or using the MIDAS CD.

Observe dialog box ESCCPDRV INSTALL, as follows:

- If “ESCCPDRV IS RUNNING”, click: OK.
- If dialog box states, “ESCCPDRV IS NOT INSTALLED, proceed as follows:



-
1. Click INSTALL DRIVER button.
Response, “ESCCPDRV IS STOPPED.”
 2. Click ADD button and change Receive Buffers to 20.
 3. Click OK.
 4. Press ESCCPDRV button.
Response, “ESCCPDRV IS RUNNING.”
 5. Setup complete.
 6. Click YES to restart the computer to ensure installation is accepted.
-

Enable Controller Services

The user shall verify MIDAS Controller Services, as follows:

-
1. Network Neighborhood: Right-click for Properties
 2. Select Tab: Services
 3. Add the following Services if not enabled:
 - a. Computer Browser
 - b. NetBIOS Interface
 - c. RPC Config
 - d. Server
 - e. Workstation
 - f. SNMP Service
-

Enable Controller Protocols

The user shall verify MIDAS Controller Protocols, as follows:

-
1. Network Neighborhood: Right-Click for Properties
 2. Select Tab: Protocols
 3. Add TCP/IP Protocol, if not enabled.
 4. Highlight: TCP/IP Protocol
 5. Select Properties
 6. Select: Specify an IP Address
 7. Enter IP Address and Subnet Mask (must be a subnet shared only with either the Local Client Workstation or the NMS Server, depending on the MIDAS Configuration Type)
 8. Select Tab: DNS
 9. Enter: Host Name and Domain (Domain must be common between Controller Server, NMS Server, and all NMS Workstations in NMS Configuration Type)

Note: The DNS Host Name must be identical to the Network Identification computer name and the DNS domain must be identical to the Network Workgroup. The DNS Host name along with the domain name must be no more than 15 characters (including the period), unless in a true DNS Server environment.

MIDAS Local Client Preparation

This section only applies to a MIDAS Basic Configuration Type (no NMS Server). Proceed MIDAS NMS Server Configuration Type.

The MIDAS Local Client is a PC that meets the requirements of SP/8860. Microsoft Windows NT Workstation, or Windows 98 must be installed as the operating system.

All preparation instructions refer to Windows NT Server 4.0, any significant differences for Windows 98 will be included.

Enable Local Client Protocols

The user shall verify MIDAS Local Client Protocols, as follows:

-
1. Network Neighborhood: Right-Click for Properties
 2. Select Tab: Protocols
 3. Add the following Protocols if not enabled:
 - a. REM: If running WIN98 in TCP IP Properties, ADVANCE TAB, check.
 - b. Set this protocol to be the default protocol.
 - c. NetBIOS tab should indicate check to enable NetBIOS over TCP/IP.
 4. Highlight: TCP/IP Protocol
 5. Select Properties
 6. Select: Specify an IP Address
 7. Enter IP Address and Subnet Mask (must be a subnet shared only with the Controller Server)
-

MIDAS NMS Server Preparation

This section only applies to a MIDAS NMS Configuration Type.

The MIDAS NMS Server is a dedicated PC that meets the requirements of SP/9175. Microsoft Windows NT Server 4.0 (\geq Service Pack 6a) must be installed as the operating system. Microsoft Internet Explorer web browser (version 5.0 or later) with Java/JavaScript (version 5.0.0.3309 or later) options enabled.

Note: After Java/JavaScript installed, select: Tools/Internet Options/Advanced [Advanced tab on Internet Explorer properties]. Enable JIT compiler for virtual machine and enable Java console. Restart the PC, Open Internet Explorer, and observe that Java console is displayed under View.

Enable NMS Server Services

The user shall verify MIDAS NMS Services, as follows:

1. Network Neighborhood: Right-Click for Properties
 2. Select Tab: Services
 3. Add the following Services if not enabled:
 - a. Computer Browser
 - b. NetBIOS Interface
 - c. RPC Config
 - d. Server
 - e. Workstation
 - f. SNMP Services (May require reloading Windows NT CD-ROM)
 4. Highlight: SNMP Services
 5. Select: Properties
 6. Select Tab: Agent
 7. Enable the following:
 - a. Agent Service for Applications
 - b. Agent Service for Internet
 - c. Agent Service for End-to End
 8. Select Tab: Security
 9. Enable the following:
 - a. Send Authentication Trap
 - b. Accept SNMP Packets From Any Host
-

Enable NMS Server Protocols

The user shall verify MIDAS NMS Protocols, as follows:

1. Network Neighborhood: Right-Click for Properties
2. Select Tab: Protocols
3. Add TCP/IP Protocol, if not enabled.
4. Highlight: TCP/IP Protocol
5. Select Properties
6. Select: Specify an IP Address
7. Enter IP Address and Subnet Mask (must be a subnet shared only with the MIDAS Controller Server)
8. Select Tab: DNS
9. Enter: Host Name and Domain (Domain must be common between Controller Server, NMS Server, and all NMS Workstations in NMS Configuration Type)

Note: The DNS Host Name must be identical to the Network Identification computer name and the DNS domain must be identical to the Network Workgroup. The DNS Host name along with the domain name must be no more than 15 characters (including the period), unless in a true DNS Server environment.

10. Select Tab: WINS Address
 11. Enable: LMHOSTS Lookup or DNS resolution, if applicable.
-

Installation of HP OpenView

-
1. Install HP OpenView Network Node Manager using the "Typical" configuration option (refer to HP OpenView Network Node Manager Installation Guide). Use "C:\OPENVIEW" as the installation path.

Note: Ignore Warning regarding, Internet Information Service (IIS) or peer web server, this is not required.

2. After installing HP OpenView Network Node Manager, re-installation of MS NT Service Pack 6a or greater is required.
3. Check with Comtech EF Data for the latest patches for HP OpenView Network Node Manager. Patches and corresponding loading instructions can be obtained from HP at their OpenView Support Site:

http://support.OpenView.hp.com/cpe/patches/nnm/6.2/intelINT_4.x.html

4. WinNT service pack 6 must be reinstalled after installing HP Openview and all HP OpenView patches.
 5. Enable sharing on "C:\OPENVIEW"
-

MIDAS Remote NMS Workstation Preparation

This section only applies to a MIDAS NMS Configuration Type. The MIDAS Remote NMS Workstation is a PC that meets the requirements of SP/9175. Microsoft Windows NT Workstation 4.0 (≥ Service Pack 6a) with SVGA resolution must be installed as the operating system.

MS NT Workstation must be installed as a stand-alone server.

Enable Remote NMS Workstation Services

The user shall verify MIDAS Remote NMS Workstation Services, as follows:

1. Network Neighborhood: Right-Click for Properties
 2. Select Tab: Services
 3. Add the following Services if not enabled:
 - a. Computer Browser
 - b. NetBIOS Interface
 - c. RPC Config
 - d. Server
 - e. Workstation
 - f. SNMP Services (May require reloading Windows NT CD-ROM)
 4. Highlight: SNMP Services
 5. Select: Properties
 6. Select Tab: Agent
 7. Enable the following:
 - a. Agent Service for Applications
 - b. Agent Service for Internet
 - c. Agent Service for End-to End
 8. Select Tab: Security
 9. Enable the following:
 - a. Send Authentication Trap
 - b. Accept SNMP Packets From Any Host
 - c. Accepted Community Names
-

Enable Remote NMS Workstation Protocols

The user shall verify MIDAS Remote NMS Workstation Protocols, as follows:

-
1. Network Neighborhood: Right-Click for Properties
 2. Select Tab: Protocols
 3. Add TCP/IP Protocol, if not enabled.
 4. Highlight: TCP/IP Protocol
 5. Select Properties
 6. Select: Specify an IP Address
 7. Enter IP Address and Subnet Mask (must be a subnet shared only with the MIDAS Controller Server)
 8. Select Tab: DNS
 9. Enter: Host Name and Domain (Domain must be common between Controller Server, NMS Server, and all NMS Workstations in NMS Configuration Type)
Note: The DNS Host Name must be identical to the Network Identification computer name and the DNS domain must be identical to the Network Workgroup. The DNS Host name along with the domain name must be no more than 15 characters (including the period), unless in a true DNS Server environment.
 10. Select Tab: WINS Address
 11. Enable: LMHOSTS Lookup or DNS resolution, if using a true DNS Server.
-

Additional Remote NMS Workstation Preparations

Note: If using a DNS Server environment, then begin at Step 5.

1. Using Windows Explorer, select the (<Boot Drive>) "c:\winnt\system32\drivers\etc" directory.
2. Copy the LMHOSTS.SAM file to lmhosts.
3. Edit the LMHosts file by adding the following:

```
<IPAddress of NMS> <NMSHostname.Domain>
```

Example: 10.10.11.24 NMS01.MIDAS
4. Save
5. Open: Internet Explorer\Help>About
6. Verify: Internet Explorer 5.0 or greater is installed [with Java/JavaScript (version 5.0.0.3309 or greater)].

Note: After Java/JavaScript installed, select Tools/Internet Option/Advanced [Advanced tab on Internet Explorer properties]. Enable JIT compiler for virtual machine and enable Java console. Restart the PC, Open Internet Explorer, and observe that Java console is displayed under View.

Installation of HP OpenView

1. Install HP OpenView Network Node Manager "Remote Console" configuration option (refer to HP OpenView Network Node Manager Installation Guide). Use "C:\OPENVIEW" as the installation path.

Note: Ignore Warning regarding Internet information server or peer web server. This is not required.

2. During the installation, you will be asked to identify Name of NMS that remote client will be connected to. Enter "NMS HostName" (i.e. NMS01).

Caution: Before entering the name of the NMS Computer go to Windows Explorer C:\WINNT\system32\drivers\etc\lmhosts, and verify that the IP Address and name of the NMS is added as previously instructed.

3. After installing HP OpenView Network Node Manager, re-installation of MS NT Service Pack 6a or greater is required.

Network Preparation and Verification

Perform the network preparation and verification of the MIDAS Basic Configuration after completing the Controller and Local Client preparation.

Perform the network preparation and verification of the MIDAS NMS Configuration after completing the Controller, NMS Server and optional Remote NMS Workstations preparation.

MIDAS Basic Configuration

The network changes to prepare for the installation of MIDAS 4 comprise routing and filtering settings. The MIDAS Controller and the MIDAS Local Client need to be together on a sub-network that is isolated from all non-MIDAS traffic. This can be accomplished several ways.

- A direct connection using a CAT5 crossover ethernet cable between the Controller and the Local Client.
- A connection using a 10/100 BaseT hub.
- A connection using a 10/100 BaseT Layer 2 Switch or Router.

Testing and Verification

Step	Procedure	Troubleshooting
1	From the Controller Server, PING the Local Client and verify 100% response with average delay of < 30 msec.	A failed PING attempt between the Controller Server and the Local Client shall not occur if they are on the same physical sub-network unless serious NIC problems exist (hardware or driver).
2	From the Local Client, PING the Controller Server and verify 100% response with average delay of < 30 msec.	A failed PING attempt between the Controller Server and the Local Client shall not occur if they are on the same physical sub-network unless serious NIC problems exist (hardware or driver).
3	Attempt to PING to and from the Local Client from any other device in the network and verify no response.	If any other network device can PING the Controller Server or the Local Client, verify IP Address and Subnet Mask settings.

MIDAS NMS Configuration

Controller – NMS Server

The network changes to prepare for the installation of MIDAS 4 comprise routing and filtering settings. The MIDAS Controller and the MIDAS NMS Server need to be together on a sub-network that is isolated from all non-MIDAS traffic. This can be accomplished several ways.

- A connection using a 10/100 BaseT hub.
- A connection using a 10/100 BaseT Layer 2 Switch or Router.

Testing and Verification

Step	Procedure	Troubleshooting
1	From the Controller Server, PING the NMS Server. Verify 100% response with average delay of < 30 msec.	A failed PING attempt between the Controller Server and the NMS Server shall not occur if they are on the same physical sub-network unless serious NIC problems exist (hardware or driver).
2	Attempt to PING to and from the Controller Server from any other device in the network and verify no response.	If any other network device can PING the Controller Server, verify IP Address and Subnet Mask settings.
3	From the NMS Server, PING the Controller Server. Verify 100% response with average delay of < 30 msec.	A failed PING attempt between the Controller Server and the NMS Server shall not occur if they are on the same physical sub-network unless serious NIC problems exist (hardware or driver).
4	Attempt to PING to and from the NMS Server from any other device in the network and verify no response.	If any other network device can PING the NMS Server, verify IP Address and Subnet Mask settings.

NMS Server – Remote NMS Workstation (Optional)

The network changes to prepare for the installation of MIDAS 4 comprise routing and filtering settings. The MIDAS NMS Server and each MIDAS Remote NMS Workstation require a high speed (>2 Mb/s), low latency connection. This connection(s) shall be isolated to only allow traffic between the NMS Server and each individual Remote NMS Workstation.

This can be accomplished several ways.

- A connection using a 10/100 BaseT hub.
- A connection using a 10/100 BaseT Layer 2 Switch or Router.

Testing and Verification

Step	Procedure	Troubleshooting
1	From the NMS Server, PING each Remote NMS Workstation by IP Address. Verify 100% response with average delay of < 100 msec.	If there is no response to a ping attempt between the NMS Server and any Remote NMS Workstation, first check hardware or driver. a. Verify IP Address, Subnet Mask, and default Gateway settings. b. Verify Router configuration.
2	From each Remote NMS Workstation in the MIDAS network,, PING each Remote NMS Workstation by IP Address. Verify 100% response with average delay of < 100 msec	If there is no response to a ping attempt between any NMS Workstation and the NMS Server, first check hardware or driver. a. Verify IP Address, Subnet Mask, and default Gateway settings. b. Verify Router configuration.
3	From each Remote NMS Workstation in the MIDAS network, PING each Remote NMS by name (e.g. ping nms). Verify 100% response with average delay of < 100 msec.	If there is no response, verify LMHOSTS File. IP Address and computer name shall be in LMHOSTS. C:\winnt\system32\drivers\etc
4	From each Remote NMS Workstation in the MIDAS network, PING each Remote by DNS name (e.g. ping nms). Verify 100% response with average delay of < 100 sec.	a. If there is no response, verify LMHOSTS File. IP Address and computer domain name shall be in LMHOSTS. b. Verify NMS Server and Remote Workstation both have identical Domain.
5	Attempt to PING to and from each Remote NMS Workstation from the Controller Server and verify no response.	A PING response between the Controller Server and any MIDAS Remote NMS Workstation indicates a failed or incorrect route setting.
6	Launch Network Node Manager, First - the NMS, then on the Remote NMS(s). Remote NMS(s) connect to NMS and Root Submap is displayed.	Verify NMS C:\OPENVIEW is shared.

Summary

The MIDAS NMS Server can ping:

The MIDAS Controller	A failed ping attempt between the MIDAS Controller and the MIDAS NMS Server should not occur if they are on the same physical sub-network unless serious NIC problems exist (hardware or driver).
All installed MIDAS Remote NMS Workstations	A failed ping attempt between the MIDAS NMS Server and a MIDAS Remote NMS Workstation indicates a failed or incorrect route setting.

The MIDAS Controller can ping:

The MIDAS NMS Server	A failed ping attempt between the MIDAS Controller and the MIDAS NMS Server should not occur if they are on the same physical sub-network unless serious NIC problems exist (hardware or driver).
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The MIDAS Remote NMS Workstation can ping:

The MIDAS NMS Server	A failed ping attempt between the MIDAS NMS Server and a MIDAS Remote NMS Workstation indicates a failed or incorrect route setting.
	Verify LMHOSTS File.IP Address and computer name and domain shall be in LMHOSTS C:\winnt\system32\drivers\etc

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3. Controller Server Installation

Installation of MIDAS Controller Server Software

The MIDAS Controller Server Installation applies to all Midas Network Configuration Types.

MIDAS 4 CD-ROM

Install MIDAS 4 CD (MIDAS Installation, in MIDAS Controller Server). Follow Install Shield instructions as they apply to MIDAS Controller Server configuration.

-
1. Install Shield will inquire: Select the type of Installation. If it is an Upgrade from a previous MIDAS release, select the previous release version.
 2. Enter No. for redundant controllers
 3. Select destination folder.
 4. Enter No. for Event Viewer, unless user intends to use the Event Viewer. (Refer to Event Viewer Installation Guide, if yes.)
 5. Enter No. for NMS, unless user intends to use the NMS. If yes, Enter IP Address for NMS and Controller.
 6. Specify path of Sentinel files.
 7. If ESCCDRV is not running, select Install Driver and start ESCCDRV. Select OK, if ESCCDRV is running.
 8. Restart Controller. MIDAS will Autostart after reboot.

Note: If this is an Initial Installation, the Controller will be in an exception state after initialization. Refer to Basic Configuration or NMS configuration Guide for Initial System setup.

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4. Local Client Workstation Installation

Installation of MIDAS Local Client Workstation Software

The MIDAS Local Client Workstation Installation applies to the Midas Basic Network Configuration Type only. For the Midas NMS Network Configuration Type, proceed to Chapter 5.

MIDAS 4 CD-ROM

Install MIDAS 4 CD (MIDAS Installation, in MIDAS Local Client Workstation). Follow Install Shield instructions as they apply to MIDAS Operator Workstation installation.

Versions 1.2x and 2.0x platforms will require equipment upgrades before installing Version 4.X. The user shall determine if the current system requires MIDAS 4 equipment.

1. Select Installation Option, either New Software Installation or an Upgrade from a previous version.
2. Select Primary Operator Workstation for Non-Redundant or Primary Redundant. Select Secondary Operation Workstation for Redundant Secondary or View Only Operator workstation.
3. Select destination folder.

Note: If loading Local Client on Controller; rename the Directory folder other than what is in the Controller folder.

Example: Controller folder = MIDAS 4.3.2

 Local Client folder = LC4.3.2

4. After installation is complete, Installation CD will prompt for a system reboot.
 5. Reboot system and remove CD
-

Testing

-
1. After system reboots, open MIDAS Local Client application.
 2. The MIDAS Network Management System Logon prompt will appear. Log on to MIDAS Controller. See MIDAS System Operator's Guide for instructions for logon. Logon.
 3. After connecting to the Controller, the Initial Configuration Startup prompt will appear. See MIDAS System Operator's Guide for instructions on initial configuration procedures.
-

If Local Client fails to connect after verifying all preparation steps, verify Local Client Preparation and Controller, and Verification steps from Chapter 2.



5. NMS Server Installation

Installation of MIDAS NMS Server Software

The MIDAS NMS Server Installation only applies to a Midas NMS Network Configuration Type.

MIDAS 4 CD-ROM

Install MIDAS 4 CD (MIDAS Installation, in MIDAS NMS Server). Follow Install Shield instructions as they apply to MIDAS NMS Server configuration.

Versions 1.2x and 2.0x platforms will require equipment upgrades before installing Version 4. The user shall determine if the current system requires MIDAS 4 equipment.

1. Select NMS Installation.
2. Select NMS Installation or Upgrade.
3. Enter IP Address of NMS, enter UDP Port (must be > 5000). Record UDP Port.
4. Enter IP Address of Controller.
5. Follow installation prompts for registration and file sharing. Installed CD, will then restart HP OpenView.
6. Installation CD will prompt to ensure, JAVA Virtual Machine is installed.
7. From Control Panel/System/Environment, add variables, "CLASSPATH" with value:
C:\OPENVIEW\MIDAS\1\LIB\JAVA
8. After installation is complete, launch Network Node Manager. An icon for "ALL MIDAS SITES" should be displayed, when NMS connects to controller.
9. If NMS fails to connect, verify NMS and controller preparation and verification from Chapter 2.

Map Setup of MIDAS NMS Stations

Background graphics, such as bitmaps, symbols, or pictures, may be displayed in the background plane of a submap window. The background graphic may be different for each submap. Observe the following procedures.

When using a background graphic, symbols cannot be placed outside the dimensions of the background graphic.

Step	Procedures
1	Create separate Root Level object
2	Open object (Edit/Add Object in the Root window of HPDV. Select desired object symbol and subclass symbol, then in Add object, label the object)
3	Create sub-map
4	Open sub-map properties (Double click the created symbol)
5	Link appropriate background GIF to sub-map (Map, Sub-map, properties, view)
6	Turn-Off auto-layout on sub-map
7	Set sub-map as home (Map, sub-map)
8	Move to “ALL MIDAS Sites” and Open [↑]
9	Select appropriate site object(s)
10	Copy object(s)
11	Return to destination sub-map
12	Paste object(s) (Edit)
13	Change symbols type to medium-generic (Right-click object)
14	Alter label or Turn-Off the display of label if necessary(Right-click object/symbol properties)
15	Drag to appropriate location on sub-map
16	Save windows geometry for sub-map (View, window, geometry)
17	For each object on Main Sub-map: <ol style="list-style-type: none"> a. Double-click (drill down one level) b. Open sub-map properties (Map, sub-map, properties, view) c. Link appropriate background GIF d. Verify that auto-layout is turned-Off on sub-map e. Change symbol type as necessary f. Alter label or turn-Off the display of label if necessary g. Drag symbols to appropriate locations on sub-map h. Save windows geometry for sub-map

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6.0 Remote Workstations Installation



Installation of MIDAS Remote NMS Workstation(s) Software

The MIDAS Remote NMS Workstation Installation only applies to a Midas NMS Network Configuration Type.

MIDAS 4 CD-ROM

-
1. Install MIDAS CD. Select NMS remote installation.
 2. Enter IP Address and UDP Port of NMS (from NMS Install).
 3. Enter IP Address of Controller.
 4. Enter NMS HOSTNAME
 5. After install, launch Network Node Manager. After connecting with NMS, "ALL MIDAS SITES" icon should be displayed in Root window.
 6. If remote NMS fails to connect, check Remote NMS and NMS Preparation and verification steps from Chapter 2.
 7. From Control Panel\System\Environment: Add variable "CLASSPATH" with value:
C:\OPENVIEW\MIDAS\V1\LIB\JAVA
-

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METRIC CONVERSIONS

Units of Length

Unit	Centimeter	Inch	Foot	Yard	Mile	Meter	Kilometer	Millimeter
1 centimeter	—	0.3937	0.03281	0.01094	6.214×10^{-6}	0.01	—	—
1 inch	2.540	—	0.08333	0.2778	1.578×10^{-5}	0.254	—	25.4
1 foot	30.480	12.0	—	0.3333	1.893×10^{-4}	0.3048	—	—
1 yard	91.44	36.0	3.0	—	5.679×10^{-4}	0.9144	—	—
1 meter	100.0	39.37	3.281	1.094	6.214×10^{-4}	—	—	—
1 mile	1.609×10^5	6.336×10^4	5.280×10^3	1.760×10^3	—	1.609×10^3	1.609	—
1 mm	—	0.03937	—	—	—	—	—	—
1 kilometer	—	—	—	—	0.621	—	—	—

Temperature Conversions

Unit	° Fahrenheit	° Centigrade
32° Fahrenheit	—	0 (water freezes)
212° Fahrenheit	—	100 (water boils)
-459.6° Fahrenheit	—	273.1 (absolute 0)

Formulas
$C = (F - 32) * 0.555$
$F = (C * 1.8) + 32$

Units of Weight

Unit	Gram	Ounce Avoirdupois	Ounce Troy	Pound Avoir.	Pound Troy	Kilogram
1 gram	—	0.03527	0.03215	0.002205	0.002679	0.001
1 oz. avoir.	28.35	—	0.9115	0.0625	0.07595	0.02835
1 oz. troy	31.10	1.097	—	0.06857	0.08333	0.03110
1 lb. avoir.	453.6	16.0	14.58	—	1.215	0.4536
1 lb. Troy	373.2	13.17	12.0	0.8229	—	0.3732
1 kilogram	1.0×10^3	35.27	32.15	2.205	2.679	—



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