Installing NMS SS7 Monitor 2.3

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Revision history

Revision	Release date	Notes
1.0	September 2004	SRR, SS7 Monitor 2.1
1.1	April 2005	LBG, SS7 Monitor 2.2 GA
1.2	September 2006	LBZ, SS7 Monitor 2.3 GA
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Refer to www.nmscommunications.com for product updates and for information about support policies, warranty information, and service offerings.

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1 Introduction

SS7 Monitor software includes the following products:

- TX Base 6.5
- SS7 Monitor 2.3

SS7 Monitor software products support the following operating systems:

- Windows 2000 Server and Windows 2000 Professional
- Windows Server 2003, Standard edition
- Windows Server 2003, Enterprise edition
- Intel Solaris 8
- SPARC Solaris 9 (32-bit mode)

  Run in either of these operating environments:

  – 32-bit applications, 32-bit libraries, 32-bit kernel, 32-bit drivers

  – 32-bit applications, 32-bit libraries, 64-bit kernel, 64-bit drivers
- SPARC Solaris 9 (64-bit mode)
- SPARC Solaris 10 (32-bit mode)

  Run in either of these operating environments:

  – 32-bit applications, 32-bit libraries, 32-bit kernel, 32-bit drivers

  – 32-bit applications, 32-bit libraries, 64-bit kernel, 64-bit drivers
- SPARC Solaris 10 (64-bit mode)
- Red Hat Enterprise Linus ES, Version 3.0

The SS7 Monitor installation program installs the following components:

- SS7 Monitor development and runtime software
- Device drivers
- TX board software
- Host applications
- Libraries
- Sample applications

Refer to *www.nmscommunications.com* for product updates and for information about NMS support policies, warranty information, and service offerings.

From the NMS web site, you can download the SS7 Monitor:

- Software
- Documentation

2 Installing the software under Windows

Complete the following steps to install the software under Windows:

Step	Action
1	Uninstall any prior versions of SS7 Monitor software.
2	Log on as a member of the Administrators group.
3	Download the SS7 Monitor software from the NMS Communications web site.
4	Launch Windows Explorer, and double-click on the downloaded file.
5	Click **OK** to unzip the files.
6	Specify a location for the unzipped product files, and click **Unzip**.
7	Double-click on *setup.exe* in the product files directory. The Welcome screen appears followed by the NMS license agreement.
8	Follow the prompts as the Installation Wizard guides you through the installation process.
9	Reboot Windows before configuring and using the SS7 Monitor software.

For additional installation information, refer to the *readme_ss7.txt* file.

Activating the TX PCI device drivers

After you reboot the system when installing the SS7 Monitor software, activate the applicable devices drivers. The following procedures describe how to activate device drivers under Windows 2000 or Windows 2003.

Windows 2000

Complete the following steps to activate a device driver for a Windows 2000 installation:

Step	Action
1	Log on as a member of the Administrators group. The Found New Hardware Wizard appears.
2	Click **Search for suitable driver for my device**, and click **Next**.
3	Click **Specify a location**, deselect any other options, and click **Next**.
4	Click **Browse**, select the SS7 Monitor root directory, click **Open**, and then click **OK**. The wizard locates the *nmstxpci.inf* file, renames it *oem#.inf* (where **#** is a random number that Windows assigns), and displays its full pathname. This file is located at the root of the directory in which you unzipped the SS7 Monitor software. The wizard uses this file to install the new device driver. **Note:** If the displayed pathname is *C:\WINNT\inf\oem#.inf*, refer to the *readme_ss7.txt* file for procedures to clean up the old files, and repeat steps 2 through 4.
5	Click **Finish**. The New Hardware Wizard repeats file requests for each new TX device it detects. When it is complete, it exits.
6	Reboot Windows 2000.

Windows 2003

Complete the following steps to activate a device driver for a Windows 2003 installation:

Step	Action
1	Log on as a member of the Administrators group. The Found New Hardware Wizard appears.
2	Click **Install from a list or specific location (Advanced)**, and click **Next.**
3	At the **Choose your search and installation options** prompt, click **Browse**, select the SS7 Monitor root directory, click **Open**, and then click **OK**. The wizard locates the *nmstxpci.inf* file, renames it *oem#.inf* (where **#** is a random number that Windows assigns), and displays its full pathname. This file is located at the root of the directory in which you unzipped the SS7 Monitor software. The wizard uses this file to install the new device driver. **Note:** If the displayed pathname is *C:\WINDOWS\inf\oem#.inf*, refer to the *readme_ss7.txt* file for procedures to clean up the old files, and repeat steps 2 and 3.
4	When **Security Alert - Driver Installation** appears, click **Yes**. The wizard installs the device driver.
5	When **Complete the New Hardware Wizard** appears, click **Finish**. The New Hardware Wizard repeats file requests for each new TX device it detects. When it is complete, it exits.
6	Reboot Windows 2003.

Verifying the TX PCI device driver status

Complete the following steps to verify the TX PCI device driver status:

Step	Action
1	Click **Start > Settings > Control Panel**.
2	In the Control Panel, double-click **System**.
3	Click the Hardware tab, and then click **Device Manager**.
4	Expand the **NMS Communications Devices** entry. TX PCI device drivers appear as **NMS TX PCI Driver** entries.

3 Installing the software under Solaris

Complete the following steps to install the Solaris software:

Step	Action
1	Uninstall any prior versions of SS7 Monitor software.
2	Log on as root.
3	Download the SS7 Monitor software from the NMS Communications web site.

4	Extract the SS7 Monitor software image from the file that you downloaded by entering the following commands:
	`uncompress filename .tar.Z`
	`tar -xvf filename.tar`
	where ***filename*** is the name of the file that you downloaded.

5	Run the *monitor_install* script located in the directory in which you opened the tar file, and follow the prompts from the script.

For additional installation information, refer to the *readme_ss7.txt* file.

When the installation process is complete, proceed with any additional configuration as needed. For more information, refer to the product documentation.

Environment variable settings

To set up the system environment correctly, you must:

- Add */opt/nmstx/bin* to the system PATH variable.
- Add */opt/nmstx/lib* to the system LD_LIBRARY_PATH variable.

To make these changes, enter the following changes at the command line and reboot your system:

```
PATH=/opt/nmstx/bin:$PATH
export PATH
LD_LIBRARY_PATH=/opt/nmstx/lib:$LD_LIBRARY_PATH
export LD_LIBRARY_PATH
```

Note: NMS recommends that you also make these variable changes in the system login *.profile* file.

4 Installing the software under Red Hat Linux

To install Hot Swap support for CompactPCI boards on Red Hat Linux, refer to the *readme_ss7.txt* file.

Complete the following steps to install the software without Hot Swap:

Step	Action
1	Uninstall any prior versions of SS7 Monitor software.
2	Log on as root.
3	Download the SS7 Monitor software from the NMS Communications web site.

4	Unzip and untar the download file by entering the following commands:
	`gzip -d filename.tar.gz`
	`tar -xvf filename.tar`
	where ***filename*** is the name of the file that you downloaded.

5	Run the *monitor_install* script located in the directory in which you opened the *tar* file, and follow the prompts from the script. The installation script displays an option for installing LiS. LiS is required to run SS7 software in the Linux environment. For information about installing LiS, refer to the *readme_lis.txt* file. **Note:** If you responded **Yes** to the option for using Hot Swap functionality, you are not prompted to install LIS. LIS is included in the special Linux kernel that Pigeon Point supplies.

For additional installation information and for information about using the Red Hat Package Manager (RPM) to install individual packages, refer to the *readme_ss7.txt* file.

Environment variable settings

To set up the system environment correctly, you must:

- Add */opt/nmstx/bin* to the system PATH variable.
- Add */opt/nmstx/lib* to the system LD_LIBRARY_PATH variable.

To make these changes, enter the following changes at the command line and reboot your system:

```
PATH=/opt/nmstx/bin:$PATH
export PATH
LD_LIBRARY_PATH=/opt/nmstx/lib:$LD_LIBRARY_PATH
export LD_LIBRARY_PATH
```

Note: NMS recommends that you also make these variable changes in the system login *.bashrc* file.

5 Using NMS SS7 Monitor documentation

The *SS7 Monitor Developer's Reference Manual* and associated SS7 manuals are available from the NMS Communications web site, *www.nmscommunications.com*. You can:

- Download or view individual manuals in HTML format.
- Print individual manuals using the Adobe Acrobat Reader available from *www.adobe.com*.

The following tables summarize the SS7 Monitor and associated SS7 documents according to subject.

Configuring and managing the system

For information about...	Refer to the...
Installing and configuring SS7 Monitor software to monitor network traffic	*SS7 Monitor Developer's Reference Manual*
Developing applications to monitor and control redundant and standalone configurations	*SS7 Health Management Developer's Reference Manual*
Using TX utilities to load and configure a TX board, and to diagnose hardware and software issues	*TX Utilities Manual*

Installing NMS hardware

For information about...	Refer to the...
Configuring and installing a TX board and verifying its installation	*TX 3220 Installation Manual* *TX 3220C Installation Manual* *TX 4000 Installation Manual* *TX 4000C Installation Manual*

Configuring and controlling protocol engines

For information about...	Refer to the...
Establishing communication channels between host applications and TX boards	*CPI Library Developer's Reference Manual*
Developing applications that perform task loading	*Loader Library Developer's Reference Manual*
Developing applications that control the H.100/H.110 switch fabric and the T1/E1 interfaces	*TDM for SS7 Developer's Reference Manual*

6 Removing the software

Under Windows, you can remove all of the SS7 Monitor software at once or remove individual software components. The Solaris removal script removes all the SS7 Monitor components.

Windows

Complete the following steps to remove SS7 Monitor software under Windows:

Step	Action
1	Make sure that no applications are using SS7 Monitor components or libraries.
2	Click **Start > Settings > Control Panel**.
3	In the Control Panel, double-click **Add/Remove Programs**.
4	Select **NMS Communications SS7 Monitor**, and click **Change/Remove**.
5	Follow the prompts as appropriate for your system. Use the **Remove** option to remove the entire SS7 Monitor package. Other options enable you to remove individual components.

Removing the TX PCI device drivers

Complete the following steps to remove the TX PCI device drivers under Windows:

Step	Action
1	Click **Start > Settings > Control Panel**.
2	In the Control Panel, double-click **System**.
3	Click the **Hardware** tab, and then click **Device Manager**.
4	Expand the **NMS Communications Devices** entry.
5	Right-click an **NMS TX PCI Driver** entry, and select **Uninstall**.
6	Click **OK**.
7	Repeat steps 5 and 6 for each NMS TX PCI driver listed.

For information about cleaning up residual system files, refer to the *readme_monitor.txt* file.

After you complete the software removal process, reboot the system before reinstalling or upgrading SS7 Monitor software.

Solaris and Linux

Complete the following steps to remove SS7 Monitor software under SPARC Solaris, Intel Solaris, and Red Hat Linux:

Step	Action
1	Log on as root.
2	Make sure that no applications are using SS7 Monitor components or libraries.
3	Run the *monitor_remove* script, located in the */opt/nmstx/bin* directory. The removal script removes all SS7 Monitor packages.

For information about using the Red Hat Package Manager (RPM) to uninstall individual packages, refer to the *readme_monitor.txt* file.

For information about removing the Pigeon Point Hot Swap Kit, refer to the Pigeon Point Systems website, *www.pigeonpoint.com*. Removing the SS7 software package does not remove the Pigeon Point Hot Swap Kit.