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1 OVERVIEW ........................................................................................................................................................................5
  1.1 FEATURES ..........................................................................................................................................................................5
  1.2 REQUIREMENTS .......................................................................................................................................................................6
      1.2.1 Disk Space Usage ...............................................................................................................................................................6
      1.2.2 Memory Requirements .......................................................................................................................................................6
      1.2.3 Processor Requirements ....................................................................................................................................................6
      1.2.4 Single System Installation ..................................................................................................................................................6
      1.2.5 Multiple System Installation ............................................................................................................................................7
      1.2.6 Prerequisite Software ..........................................................................................................................................................7
      1.2.7 Evaluation and Licensing ..................................................................................................................................................7
      1.2.8 Online Documentation .......................................................................................................................................................7
      1.2.9 Support and Contact Information ..........................................................................................................................................8

2 INSTALLATION ........................................................................................................................................................................9
  2.1 INSTALLATION NOTES ..............................................................................................................................................................9
  2.2 BRIDGE INSTALLATION INSTRUCTIONS ..................................................................................................................................10
  2.3 ENABLING HP CLIENTS' MANAGEMENT...................................................................................................................................21
      2.3.1 Distribution Packages ........................................................................................................................................................22
      2.3.2 Overview of the Distribution Process ....................................................................................................................................22
      2.3.3 Step by Step Distribution ....................................................................................................................................................22
  2.4 VERIFYING A SUCCESSFUL INSTALLATION .............................................................................................................................37
  2.5 POST INSTALLATION OPERATION ...............................................................................................................................................38

3 USING HP TOPTOOLS FOR MICROSOFT SMS ..........................................................................................................................39
  3.1 CONFIGURING THE BRIDGE ......................................................................................................................................................39
  3.2 INVENTORYING HP DEVICES .....................................................................................................................................................39
      3.2.1 Support for HP DMI Devices .............................................................................................................................................39
      3.2.2 Support for HP WMI Devices ............................................................................................................................................39
      3.2.3 Support for HP Netserver ................................................................................................................................................39
      3.2.4 Creating HP Specific Collections .......................................................................................................................................39
  3.3 LAUNCHING THE BRIDGE .........................................................................................................................................................40
  3.4 TOPTOOLS PC ACTIONS ..............................................................................................................................................................41
      3.4.1 Security Considerations .......................................................................................................................................................41
      3.4.2 Accessing PC Actions from the SMS Console ....................................................................................................................42
      3.4.3 PC Actions with SMS Collections .......................................................................................................................................42
      3.4.4 Accessing PC Actions from a Command Line Prompt or Script ..........................................................................................42
      3.4.5 Power On ..............................................................................................................................................................................42
      3.4.6 PC Actions Scheduler .......................................................................................................................................................43
      3.4.7 Power Off ..............................................................................................................................................................................47
      3.4.8 Reboot .................................................................................................................................................................................48
      3.4.9 Security ..............................................................................................................................................................................49
      3.4.10 Set Identification String ................................................................................................................................................56
  3.5 E-DIAGTOOLS ..............................................................................................................................................................................56
      3.5.1 Viewing e-DiagTools Options on the SMS Action Menu ..................................................................................................57
      3.5.2 Launching e-DiagTools .......................................................................................................................................................58
      3.5.3 Configuring e-DiagTools Settings .......................................................................................................................................58
      3.5.4 Viewing Diagnostic Results ................................................................................................................................................59
  3.6 MANAGING SYSTEM DRIVERS/FIRMWARE ..............................................................................................................................62
      3.6.1 Update Software Packages Database ..................................................................................................................................62
      3.6.2 Updating Drivers/Firmware ................................................................................................................................................66
  3.7 TOPTOOLS SERVER ADDRESS ...............................................................................................................................................72
  3.8 ALERTS .......................................................................................................................................................................................73
      3.8.1 Configuring the SetAlert Package .......................................................................................................................................73
      3.8.2 Viewing Alerts .................................................................................................................................................................74
3.8.3 Configuring Actions on Alerts ................................................................. 75
3.8.4 Internet & E-mail Settings ................................................................. 79
3.9 HP TOPTOOLS PROPERTY PAGE ......................................................... 81

4 THEORY OF OPERATION ........................................................................ 85
  4.1 SMS MANAGEMENT CONSOLE SNAP-IN ..................................... 85
  4.2 INVENTORY ...................................................................................... 85
  4.3 INTERACTIONS WITH HP TOPTOOLS ......................................... 85
  4.4 MODIFICATIONS DONE BY INSTALLATION .................................. 86

5 UNINSTALLING THE BRIDGE .............................................................. 87
  5.1 VERIFYING A SUCCESSFUL UNINSTALL ..................................... 91

6 TROUBLESHOOTING AND SUPPORT .............................................. 93
  6.1 VERIFYING TOPTOOLS FOR MICROSOFT SMS OPERATION .......... 93
  6.2 DESKTOP AND NOTEBOOK AGENT DEPENDENCIES FOR DMI AND WMI .................................................. 93
  6.3 PROXY SERVER ERROR ................................................................. 93
  6.4 SUPPORT INFORMATION .................................................................. 95

7 COMMAND LINE UTILITIES ............................................................. 97
  7.1 DEVICE ADDRESSES ........................................................................ 97
  7.2 CMDHPRO ...................................................................................... 97
  7.3 CMDHPDMI .................................................................................... 98
  7.4 USING SCRIPTS ............................................................................... 99
1 Overview

HP Toptools for Microsoft SMS enhances the ability of Microsoft SMS to manage HP devices such as HP Vectras, Kayaks, Omnibooks, and Netservers. By integrating HP product management with the native software distribution, asset inventory, and troubleshooting tools offered by SMS, HP customers could lower IT support costs through better resource control.

HP Toptools for Microsoft SMS (referred to as the Bridge) is one of several HP Toptools enterprise products available from HP that links the device management capabilities featured in HP Toptools with leading enterprise management tools. Visit the HP web site listed to see a complete list of enterprise integration products. (http://www.hp.com/toptools)

1.1 Features

HP Toptools for Microsoft SMS provides the following key features that build a tool set for administrators:

- Automated HP agent deployment
- Maintaining a database of HP Drivers and BIOS software using the HP web site
- Enhanced inventory collection for HP DMI and WMI systems
- Ability to view HP events from a Toptools Server designated during the Bridge installation
HP Toptools actions that can be launched in context from the SMS console menu (for a single device or an entire collection of devices) or included in command-line form in scripts.

This tool set allows administrators to use the DMI and WMI functionality of HP hardware to manage their assets, both through asset inventory and the remote manageability of the Desktop and Notebook clients. For instance, the Bridge will allow an SMS administrator to schedule a variety of tasks for an HP client for the purpose of updating its software without any user intervention. Using Toptools actions like Power-On and Power-Off in their command-line form, administrators can build and schedule automated software distribution scripts to occur outside of regular business hours.

The Manage Drivers/Firmware feature allows you to download and maintain a database of HP Drivers and BIOS software for distribution to HP systems. New software can be downloaded from the HP web site.

The user interface consists of right-mouse context menu options that can be accessed from within the SMS Management console. This gives access to the DMI and WMI device actions available on HP devices.

You can display the property pages for HP devices from the SMS right context menu. The Bridge does not give you access to all of the features available in Toptools. In order to access the discovery and reporting features of Toptools you must access the Toptools Management Server directly.

### 1.2 Requirements

Microsoft SMS 2.01 SP3 server and console software should be installed, configured, and functioning properly before installing the Bridge. The Bridge software is installed on the system running the Microsoft SMS Administrator console. Management of HP Netservers, Kayak, Visualize, Vectra, Brio, and Omnibook products that use current HP Toptools agents is supported.

#### 1.2.1 Disk Space Usage

Approximately 50 MB is required on the SMS Management console system.

#### 1.2.2 Memory Requirements

The Bridge uses approximately 1 MB of memory in background processes on the SMS system, and approximately 25 MB of disk space. If both SMS and Toptools are installed on the same system along with the Bridge, the system should have a minimum of 128 MB.

#### 1.2.3 Processor Requirements

The requirements for the Bridge are the same as the requirements for SMS. If both SMS and Toptools are installed on the same system, a minimum of a 266 MHz Pentium® class machine is suggested for adequate performance.

#### 1.2.4 Single System Installation

There are two single system installation options available:

- Install the SMS console, HP Toptools Management Server, and Bridge software on the same system.
Install the SMS Server, SMS console, HP Toptools Management Server, and Bridge software on the same system (NOT RECOMMENDED)

In both configurations, only integration with Microsoft SMS 2.01 SP3 is supported.

The SMS Administrator console can be installed on the same system as the Toptools Management Server, however, it is important that such a system have memory and disk space adequate for both programs. A minimum of 128 MB of memory is required for such a system, with higher amounts recommended. Beyond the disk space requirements of SMS and Toptools, an additional 25 MB of disk space is required for the Bridge.

When installing SMS Server, SMS Administrator console, Toptools Server, and Bridge software on the same system, be certain to provide resources to accommodate all four applications. In this configuration, it is necessary to install the SMS Server first, as Toptools will update the Data Access Components. Because the Bridge does not require Toptools Database access, the Toptools discovery process will be disabled during the bridge installation to reduce the amount of resources consumed. If for some reason you need to run Toptools discovery, consult the HP Toptools product documentation or online help for instructions.

1.2.5 Multiple System Installation

You can install the SMS console on one system and have a second system for Toptools. This is the recommended configuration. If the SMS console and SMS Server are on different systems and you want to use the scheduling actions functionality, you must also install the Command Line Utilities on the SMS server (see section 2). Refer to section 7 of this manual for additional information on the Command Line Utilities.

1.2.6 Prerequisite Software

The SMS Management console must be properly functioning on the management system prior to running the Bridge. See above sections for details on the SMS and Toptools software requirements. The devices to be managed must also have the SMS Client properly installed and configured.

1.2.7 Evaluation and Licensing

The HP TopTools Enterprise Products CD provides a 60-day evaluation of each HP TopTools Enterprise Products which will expire unless a license key is obtained. To obtain a free license key for HP TopTools for SMS, go to the HP TopTools web site (www.hp.com/toptools) and follow the registration instructions.

When you access the "toptools enterprise solutions" page on the HP web site, click on "registration" to download your license files. Install these files by copying the licenseRSA.dat and licenseDSS.dat files into the directory where the bridge components are installed, i.e. <drive>\Program Files\Hewlett-Packard\HP TopTools for Microsoft SMS.

1.2.8 Online Documentation

Online help for Toptools for SMS is accessible from the Start, Programs menu as well as from help buttons in selected dialogs. In addition, a copy of this manual (User_Manual.PDF) is available from the Start, Programs menu as well as in the root directory of the CD. If you do not have the Adobe Acrobat reader installed, it can be installed from the Toptools CD (A.05.52/Acrobat/Setup.exe).
1.2.9 Support and Contact information

Both pre- and post-sales support for HP Toptools for SMS is provided free-of-charge and may be obtained from the HP Customer Care Centers: [http://www.hp.com/cposupport/mail_support.html](http://www.hp.com/cposupport/mail_support.html). Additional information is provided at [http://www.hp.com/toptools/techsupport/support.html](http://www.hp.com/toptools/techsupport/support.html).
2 Installation

HP Toptools for Microsoft SMS (Bridge) consists of:

- Software that is installed on the SMS Administrator console
- An SMSWIN agent and HP Toptools agents that are installed on each managed HP DMI client
- An SNMP Inventory Collector that is installed on the HP Netservers
- Distribution packages to aid installation and configuration
- HP Command Line Utilities installed on the SMS server (OPTIONAL)
- HP Toptools Management Server software (RECOMMENDED)

Installation begins by installing a Toptools Server (optional) and installing the Bridge on the SMS console(s). Once the Bridge software is installed on the SMS console(s), Agent packages are provided to automate deployment of the Toptools Agents and HP Utilities to systems running the SMS Client.

2.1 Installation Notes

Before installing the Bridge on the SMS console(s), it is important to know about some issues related to the Bridge installation:

- If you want to launch Property Pages on HP devices from the SMS Administrator console or view events/alerts related to the HP devices, you **must** have a Toptools Management Server installed in the SMS Network. Property pages provide detailed configuration information on HP hardware such as serial number, network address, MAC address, OS, OS version, BIOS manufacturer and version, etc. The events/alerts viewing provides complete and detailed information related to any issue that has occurred on an HP device. If you do not need to launch property pages or receive HP events, you do not need to install the Toptools Management Server. The HP Toptools Management Server software is available for download from the HP web site or can be ordered on CD via the same
The Toptools Management Server (a.k.a Toptools Device Manager) must be installed and accessible to the system running SMS. Using Internet Explorer 4.01 (SP2) or greater, go to http://<Toptools_Server>/hptt, where <Toptools_Server> is the fully qualified DNS hostname or IP address of the Toptools Management Server. If you are unable to access the Toptools Management Server, consult the Toptools 5.5 Manuals directory to troubleshoot the problem.

You may be prompted for a login. Only members of the “Toptools Admin” group are authenticated to access the Toptools Management Server as Administrator; the only default users in this group are “Toptools Admin” and “Administrator”. The password for “Toptools Admin” is set during the installation of the Toptools Management Server.

- In order to correctly install the Bridge on the SMS console, the user must log in as a Domain administrator to have rights over the SMS devices. This is required for the Bridge installer to create directories to auto-install the Agents/Utilities packages into the SMS Packages Database.

- If the SMS Server and SMS Administrator console are on different devices, the user needs to install the Command Line Utilities on the SMS Server in order to be able to create scheduled tasks to perform the Toptools actions. This is required because the tasks that will perform the actions are created on the SMS Server machine. The Command Line Utilities can be installed from the Toptools Bridge CD as described in section 2. When you reach the Setup Type dialog shown in Figure 9, select "Command Line Utilities".

### 2.2 Bridge Installation Instructions

The Toptools Bridge CD contains a directory called /PlatformBrdg, containing a file named Setup.exe. Execute this file on the SMS Administrator console. You should see the following screen:
Figure 3. Opening screen of installation program for the Bridge.

After a few moments, a welcome message is displayed to the user (Figure 4). This dialog will notify you that you can register your software to obtain a permanent license.
You can obtain a license for free before or after installation by registering on the HP Web site (refer to Section 1 of this manual). Clicking on the Next button, it will display the License Agreement dialog (Figure 5).

Figure 5. License Agreement.
Setup then asks for a directory to install the Bridge software into, as shown in Figure 6. By pressing the Browse... button, the user can choose another folder to store the Bridge files into, specifying it in the dialog provided in Figure 7. The Bridge uses a default install directory of "c:\Program Files\Hewlett-Packard\HP TopTools for Microsoft SMS".

![Figure 6. The Destination directory selection screen.](image1)

![Figure 7. Choose folder](image2)
After choosing the target directory where the Bridge files will be stored, you will be prompted for the setup type needed. As shown in the Figure 8, the Bridge setup provides two setup types: “Typical” and “Command Line Utilities”. The Bridge Installer identifies the machine where it is being installed. If the user is trying to install the Bridge software on the SMS Administrator console machine, the default selected setup type is always “Typical”. If the machine where the Bridge software is being installed is not an SMS Administrator console machine, the default selected setup type is always “Command Line Utilities”. The Command Line Utilities are for users that do not want to access Toptools actions from a graphical user interface and will only be executing these actions from a command-line or batch file.

**NOTE:** If you want to use the scheduling capabilities of the Toptools Actions, you must install the Command Line Utilities on the device with the SMS database.

If you choose the “Typical” installation, the Bridge Install program will then prompt you for the location of the Toptools Management Server on your network. This can be a system name or IP address. The Toptools Management Server can be a separate system but in the same Windows NT domain.

**NOTE:** If you do not have a Toptools Management Server installed or do not want Toptools features for now, then you may specify the location through the SMS Administrator console later.

![Figure 8. The setup type selection screen.](image-url)
Figure 9. The Toptools Management Server settings screen.

After setting the Toptools Management Server name, the Bridge will start copying the files to the machine. During this process, some actions are performed, such as copying of the Toptools Agents/Utilities distribution files. As described above, the Bridge Installer provides Toptools Agents and utilities to configure the SMS environment to allow inventory collection and execution of the Toptools actions on SMS Clients.
Once the files are copied to the SMS Administrator console machine, the Bridge Installer automatically creates SMS Packages in the SMS Packages database, making the Toptools Agents/Utilities available for distribution over the network using the SMS Software Distribution process. In earlier versions of the Bridge, the Toptools Agents/Utilities were copied to the SMS Administrator console machine and the user had to launch an action on the SMS Administrator console menu to create the packages in the SMS database. In the 5.5 version of the Bridge, the package creation is done during installation. When the Bridge Installer finishes copying the distribution files and starts to create the Packages in the SMS database, the dialog shown in Figure 11 appears, informing the user that the installer is performing the Package creation.
During package creation, the SMS Administrator console machine establishes a connection between itself and the SMS Server machine and creates the SMS Packages. This can take several minutes, depending on the network configuration and link properties between these two machines.

After the packages are created in the SMS Database, the next installation step is to disable Toptools Network Discovery. When you install the Bridge on the SMS Administrator console machine, you are asked for the Toptools Server name (to provide access to the property pages and the alert handling features of the SMS Bridge). Having the Toptools Network Discovery active together with the SMS Hardware Inventory may cause heavy and unnecessary traffic over your Network. To prevent this, the Bridge Installer tries to disable the Toptools Network Discovery on the Toptools Management Server. Figure 12 is the installation screen showing the Bridge trying to disable Toptools Network discovery.
NOTE: To disable Toptools Network Discovery via the Bridge Installer, the Toptools Management Server must be in the same domain as the SMS Server and SMS Administrator console machines. If you use a Toptools Management Server that is in another domain, this automatic disabling will fail and the user will be advised to manually disable the Toptools Network Discovery directly on the Toptools Management Server (Figure 13). This can be done on the Toptools Management Server by clicking on "Settings", "Discovery", and then selecting "Not Scheduled". If you are not concerned about network traffic and want Toptools to run discovery, you can re-enable discovery on the Toptools Management Server using this same method and specifying the discovery frequency.

Figure 12. Disabling Toptools Network Discovery

After this, the Bridge Installer registers the required components and files, as shown in Figure 14.

Figure 13. Disabling Toptools Network Discovery Error

After this, the Bridge Installer registers the required components and files, as shown in Figure 14.
After registering the components and files, the Bridge installs the Microsoft Data Access Components (MDAC) on the SMS Administrator console machine where it is being installed. The MDAC is required because some Bridge features require data access (Software Package Database Update and Manage Drivers/Firmware). The MDAC component is installed on the machine. Figure 15 shows the MDAC installation.
At this point, all the appropriate files will be copied to your PC according to the selections made within the installation process. At the conclusion of the installation, the finish installation dialog is displayed (Figure 16).

Figure 15. Installing MDAC.
2.3 Enabling HP Clients' Management

After installing the Bridge on the SMS Administrator console, you need to perform a set of tasks to enable the management of HP clients. It is required that **ALL** HP devices be **SMS Clients**. To meet this condition, you must have the following software installed on the HP devices:

- **HP DMI Devices:**
  - HP Toptools Agent (Desktops, Omnibooks, Netserver, etc.)
  - SMSWIN tool installed (version 5.5, provided with the Bridge Software)

- **HP WMI Devices:**
  - HP Toptools WMI Agent (Desktops, Omnibooks, etc.)
  - Update the SMS Classes with the mof files provided with the Bridge software.

- **HP Netservers:**
  - HP Toptools for Netservers Agent
  - SMSWIN tool installed (version 5.5, provided with the Bridge Software)
  - SNMP Inventory Collector installed (version 5.5, provided with the Bridge Software)

To support automated deployment of the HP Toptools agents and utilities, the SMS Client must already be installed and functioning correctly with SMS Hardware Inventory and Software Distribution enabled.
2.3.1 Distribution Packages

Several SMS package files have been provided for efficient installation and distribution of the Toptools agents and utilities. Also included is a package that simplifies the distribution of the enhanced DMI attribute-gathering tool, SMSWIN. The CD includes directories that contain .sms files (Distribution) and client agents (desktop, Netserver, and notebook). The agent packages and utilities are installed as part of the Bridge, at install time.

2.3.2 Overview of the Distribution Process

The initial agent distribution will consist of the following steps:

1. Ensure that the SMS Client is present on all client systems.

2. Install and deploy the appropriate Toptools Agent (desktops, notebooks, workstations, Netservers) to client systems. Note that there is a separate command for installing HP Netserver agents (Start → HP Toptools for Microsoft SMS → Launch Netserver Agent Installation).

3. For the clients that are running Windows 2000 with WMI capability (except Netservers):
   - Run Update HP Toptools Agent with SMS classes.

4. For the clients that are not running Windows 2000 but have DMI capability (including Netservers):
   - Deploy the SMSWIN tool (version 5.5) to these clients.
   - Run the SMSWIN tool on these clients.

5. For Netservers:
   - Deploy the SMSWIN tool (version 5.5 (if not deployed yet)).
   - Run the SMSWIN tool (if not run yet).
   - Deploy the SNMP Inventory Collector (version 5.5) tool.
   - Run the SNMP Inventory Collector (version 5.5) tool.

6. Use the Set Alert package (refer to section 3.8.1) to set event destinations on the clients if Toptools discovery is disabled. Disabling discovery is the option chosen by the Bridge when it is installed.

7. Use the SMS Hardware Inventory feature to verify proper operation.

Note that the Run SMSWIN command is included with the Deploy SMSWIN command in the SMSWIN package. The Run SNMP2MIF command is included with the Deploy SNMP2MIF command in the SNMP2MIF package.

NOTE: If you install the Toptools Agent on Windows 2000 clients after an HP specific collection has been created, the new Windows 2000 clients will not be included. To correct this first delete the HP specific collection and then create a new HP specific collection after the Windows 2000 agents have been distributed and updated.

2.3.3 Step by Step Distribution

Deploy the DMI Agent

1. Click on Packages, right click on the HP Toptools DMI Agent for Desktops Setup Package, and select All Tasks → Distribute Software. This will launch the Distribute Software Wizard.
2. In the Distribute Software Wizard welcome dialog, click **Next**.
3. In the Distribute Software Wizard verify that the DMI agent is selected and click **Next**.

4. The **Distribution Points** Dialog will be displayed. Select a point and click **Next**.
5. Make sure the **HP Toptools DMI Agent for Desktops Setup** program is selected in the **Advertise a Program** dialog and then click **Next**.
6. Select a collection to receive the Advertisement and click **Next**.

7. You can use the default settings or set another name for the advertisement on the **Advertisement Name** dialog. After it is set, click **Next**.
8. You can use the default settings in or set another option on the Advertise to Subcollections dialog. After set, click Next. (It is recommended use the default settings on this dialog).
9. On the Advertisement Schedule dialog enter a Time, select No (never expires), and then click Next.

10. Select Yes on the Assign Program dialog and click Next.
11. Click **Finish** on the completion dialog. SMS will finish the deployment of the agent.

**Deploy the DMI Agent (other platforms)**

The HP Toptools DMI Agent differs depending upon the different HP hardware platforms it is supported on. In the Packages list, you will see the DMI Agent packages for notebooks, desktops and workstations. To deploy the correct agent to these devices, just click on the hardware type desired and repeat the distribution procedure (steps 1-11 of Deploying Agents above).

**Deploy the WMI Agent**

Select the **HP Toptools WMI Agent Setup Package** and repeat the distribution procedure (steps 1-11 of Deploying Agents above). As with the DMI Agents, there is a specific WMI Agent for workstations that is shown in the Packages list.
Distribute SMSWIN

Note: The device agents must be distributed prior to installation of SMSWIN otherwise they will overwrite SMSWIN files required for proper operation.

Select SMSWIN and repeat the first four distribution procedure steps of Deploying Agents above (steps 1-4). In the Advertise a Program dialog, make sure the HP SMSWIN Setup program is selected and then click Next.
Follow steps 6-11 of the distribution procedure for Deploying Agents (described above).

NOTE: Distribute this tool to all NetServers and non-Windows 2000 devices.

Run SMSWIN

1. Select the **HP SMSWIN Setup Package** in the SMS Administrator console Packages list, right click, and choose **All Tasks ➞ Distribute Software**.

   Note: SMSWIN must be installed first prior to executing the Run HP SMSWin Utility.
2. Follow steps 1-4 of the distribution procedure (Deploying Agents above). When the Advertise a Program dialog is displayed, select the Run HP SMSWIN Utility program. Click Next.
3. Perform steps 6-11 of the Deploying Agents procedure described above. This will run SMSWIN on the clients.

4. Use the Set Alert package (refer to section 3.8.1) to set event destinations on the clients if Toptools discovery is disabled. Disabling discovery is the option chosen by the Bridge when it is installed.

**Update the Toptools WMI Agent with SMS Classes**

1. Select the **HP Toptools WMI Classes Update** in the SMS Administrator console Packages list, right click, and choose **All Tasks ➔ Distribute Software**. Note that this should be run for a collection that includes all Windows 2000 HP devices. Repeat the distribution procedure (steps 1-11 of Deploying Agents above).

**Note:** The HP WMI Agent must be installed first prior to executing the HP Toptools WMI Classes Update.
Distribute SNMP Inventory Collector

Note: HP SNMP Inventory Collector must be distributed to all Netservers that run the SMS Client software over the SMS Network.

1. Select the **HP SNMP Inventory Collector for Netservers Package** in the SMS Administrator console Packages list, right click, and choose **All Tasks → Distribute Software**. Repeat steps 1-4 of the distribution procedure (described above) to deploy the agents.
2. In the **Advertise a Program** dialog, make sure the **HP SNMP Inventory Collector for NetServers Setup** program is selected and then click **Next**.
3. Perform steps 6-11 of the Deploying Agents procedure described above. This will install the SNMP Inventory Collector on the Netservers.

Run SNMP Inventory Collector

1. Select the **HP SNMP Inventory Collector for Netservers Package** in the SMS Administrator Console Packages list and by the right click, choose **All Tasks → Distribute Software**. Repeat the steps 1-4 of the distribution procedure to deploy agents (described above).

2. In the **Advertise a Program** dialog, make sure the **Run HP SNMP Inventory Collector for Netservers Utility** program is selected and then click **Next**.
3. Perform steps 6-11 of the Deploying Agents procedure described above. This will install the SNMP Inventory Collector on the Netservers.

Note: The SNMP Inventory Collector must be installed first prior to executing the Run HP SNMP Inventory Collector for Netservers Utility.

### 2.4 Verifying a Successful Installation

After the installation of the HP Toptools for SMS components and following an SMS Inventory Collection you should be able to right click on a collection or a device within a collection and see a new Toptools item at the bottom of the Tasks menu.

1. Select a collection containing an HP Toptools device.
2. Right click on an HP device and select **All Tasks ➔ Start Resource Explorer**. This will display a list of client subsystems.
3. Expand the **Hardware** group. The list of hardware and software components for the device will be listed. You should see a set of HP Toptools elements similar to the following:
2.5 Post Installation Operation

Once the Toptools Agents, SMSWIN and SNMP Inventory Collector have been installed on the HP devices and the HP Toptools Agent has been updated with SMS classes on WMI client devices, HP specific inventory information will be available after the next SMS Inventory Collection. HP specific functions will be available from the menus.
3 Using HP Toptools for Microsoft SMS

In order to launch Toptools actions on managed devices, the user must have "Use Remote Tools" SMS privileges for the managed devices. If the user does not have "Use Remote Tools" privileges and attempts to launch a Toptools action, the launch will fail and an error message will be displayed.

3.1 Configuring the Bridge

If you install the Toptools Management Server on the same system as the Bridge, security settings for access to Toptools will not be an issue. However, if the Toptools Management Server is installed on a separate system, authentication for requests from the system running Microsoft SMS may be requested. **It is highly recommended that you install the Toptools Management Server in the SAME domain as the SMS Administrator console.**

3.2 Inventorying HP Devices

3.2.1 Support for HP DMI Devices

The SMSWIN client, provided as a part of the Bridge, will gather DMI attributes from any HP device with a DMI Agent on it. The most complete set of inventory data will be collected from the newer models with the latest DMI version agent. Agents available at the time this product was released are provided with the Bridge. Check the HP web site for the latest versions of agents. See section 6 "Troubleshooting and Support" for additional information.

3.2.2 Support for HP WMI Devices

SMS inventory is supported on HP PCs running Windows 2000 with WMI-based agents. The data in the WMI agent files is exposed into the SMS namespace to enable SMS inventory reporting on these devices.

3.2.3 Support for HP NetServers

The Bridge provides support for HP NetServers that have the Toptools Agent installed. The SNMP Inventory Collector and the SMSWIN tools provide complete information about the NetServer's attributes. In version 5.5 of the Bridge, the user is able to perform actions on NetServers, such as Manage Drivers/Firmware.

3.2.4 Creating HP Specific Collections

A template is provided with the Bridge that can be used to create collections of HP devices. Three templates are provided: one for HP Desktops, another for HP NetServers (HP Servers) and a third one that will cover all HP devices present in the SMS database.

**NOTE:** Before creating any HP specific Collection, you must install and run SMSWIN on at least one managed HP client and allow the inventory data to be synchronized into the database.

To create this collection, click on the collection that you wish to query for HP only devices and select **New.** At this point you will see a new item at the bottom of the menu labeled **Toptools.** Click on this submenu and you will see the three available collection templates provided by the Bridge.
Choose one of the templates. A message is displayed informing the user that a new collection is being created. If you refresh your collections after a moment you will see a new collection, called “HP Desktops”, “HP Servers” or “All HP Devices” (depending on the template chosen). This will contain only HP devices that have already been added to the SMS Database and properly classified (through execution of SMSWIN, for example). As more devices have the agents properly installed and data is added to the SMS Database, the list will grow.

If the user tries to create an existing collection, a warning message is displayed, informing that the collection already exists.

**NOTE:** If no Win2k client is properly classified by running the Win2k agent update, Windows 2000 systems will not show up in the list. To correct this after Windows 2000 clients are added to the network, delete the HP specific collection created and repeat this procedure.

### 3.3 Launching the Bridge

To launch the Bridge, go to the **Start Menu → Programs → HP Toptools for Microsoft SMS** and choose the option **HP Toptools for Microsoft SMS**.
Once the Bridge is launched, the SMS Administrator console window is opened, and the Toptools actions will be available on the SMS Administrator Console Actions menus.

The Toptools Actions menu can be accessed from the SMS Administrator Console Action menu, or by right clicking on an HP device or collection. The HP Toptools menu item is displayed from the All Tasks menu.

### 3.4 Toptools PC Actions

#### 3.4.1 Security Considerations

The Toptools for SMS functions make use of SMS security. If a user has SMS remote control privileges, they can access all of the Toptools features on the SMS Administrator console. Note that some PC actions require a BIOS password (administrator password), if it is enabled on the client device.
3.4.2 Accessing PC Actions from the SMS Console

To access Toptools from the SMS context menu, select an individual node (see above) or an entire collection, right-mouse click on the selection to display the context menu, select All Tasks, then Toptools.

3.4.3 PC Actions with SMS Collections

When an HP Toptools Task for an entire collection is selected, the target list will display more that one PC. You may select units within a single collection by holding the control key down while clicking on the units. This applies for any of the PC actions available on the menu.

3.4.4 Accessing PC Actions from a Command Line Prompt or Script

There are also command line utilities that offer the same functionality as the GUI (with the exception of the property page functions). They are located in the installation directory you had selected. The first command line executable is a utility that will issue a remote power on request to a device that has the RPO capability. The **CmdHPDMI** utility is capable of doing DMI/WMI sets remotely to individual machines or to a group of machines. Refer to Section 7 of this manual for additional information on Command Line Utilities.

3.4.5 Power On

You can power on personal computers whose LAN card and BIOS support remote power-on (RPO) through Magic Packet™ technology. HP personal computers must also have the Network Power-on and Wake-up settings enabled (refer to the **Change Security Settings** action). Check the HP web site for additional information.
A Ping button is provided to verify the state of the machine with the results displayed in the Ping Status column.

**Powering a Device On**

1. Select the device/collection that you wish to power on.
2. Select Action ➔ All Tasks ➔ TopTools ➔ Power On.
3. Click the Power On button.
4. Allow some time to pass before attempting to ping the devices to verify a successful power on as the Power On Self Tests (POST) can take a while.

The results of the operation appear in the Power On Status column.

### 3.4.6 PC Actions Scheduler

In the dialog shown in the figure above, you can see a button labeled Schedule. In the earlier versions of the Bridge, the user was able to schedule the Remote Power On requests. In this version of the Bridge, the user can schedule other actions, such as Reboot, Power-Off, Lock/Unlock, etc. All these action dialogs contain a Schedule button. This button will always lead the user to the TopTools PC Actions Scheduler dialog.

**NOTE:** In order to have access to the scheduling actions, you must be running the Bridge at the SMS Server machine. The scheduled tasks are created and executed only on the SMS Server for security reasons. You also must be logged on as a user with administrative rights on the SMS Server.
This dialog shows all Toptools related scheduled tasks. The fields shown are:

- **Job Name** ➔ This field represents the Job Name of the scheduled task on the SMS Server machine.
- **Action** ➔ This field represents the action that the scheduled task will perform.
- **Target(s)** ➔ This field identifies the targets for the action. It can be an entire collection, a single device or a set of devices.
- **Schedule** ➔ This field represents the time and date when the task will run.

A set of buttons is provided in order to manage the tasks. Pressing the **Add** button will create a new task. This task will perform the action launched by the user before calling the PC Actions Scheduler. For example, if the user presses the **Schedule** button present in the **Power On** dialog, all new tasks created will perform the **Power On** action. If the user presses the **Schedule** button present in the **Power Off** dialog, all new tasks created will perform the **Power Off** action, etc.

Once the user presses the **Add** button in the dialog shown in Figure 19, the Bridge displays the schedule settings dialog, where the user sets the time and occurrence of the task.

Figure 19. PC Actions Scheduler
This dialog sets up the scheduling parameters. Once the parameters are entered, the schedule bar displays in text mode the time when the task will execute. Once you finish editing the parameters, click OK. This will lead you to the Task Account Information Dialog (figure below). On this screen, the user must provide the appropriate credentials in order to correctly run the task.

**Figure 20. Editing schedule settings**

This dialog sets up the scheduling parameters. Once the parameters are entered, the schedule bar displays in text mode the time when the task will execute. Once you finish editing the parameters, click OK. This will lead you to the Task Account Information Dialog (figure below). On this screen, the user must provide the appropriate credentials in order to correctly run the task.

**Figure 21. Task Account Information**
NOTE: The user credentials provided at this screen must have administrative rights on the target machine(s). If the user does not provide correct credentials at this screen, the task may not run correctly.

After providing the required information for this screen, the Bridge qualifies the credentials provided. If the user does not provide a valid user name and/or password, the Bridge advises the user that the task may not run correctly (as shown in the following screens).

Also, if the user does not provide a domain in the specified field, the Bridge assumes that the local domain (machine name) must be used. The Bridge requires a confirmation from the user, as shown in the figure below:

Finally, for security reasons the user must type the account password twice. If the user does not type the password twice correctly, the following screen is shown:

After providing the correct user credentials to create the task and clicking the OK button on the dialog shown in Figure 21 above, a new task will be created on the SMS Server machine and will be added into the PC Actions Scheduler task list. A message dialog like the one in the figure below will be displayed.
Changing Scheduled Tasks

You can also edit the parameters for a scheduled task by selecting a task in the Toptools PC Actions Scheduler dialog and then pressing the Change button (Figure 19). The task parameters will be adjusted in the schedule dialog and the user can modify them as desired. When the changes are finished, click the OK button (Figure 20), provide the correct user credentials (Figure 21), click OK and the task will be re-scheduled on the SMS Server. A message dialog like the one in the figure below is then displayed.

Removing Scheduled Tasks

The user is able to delete existing scheduled tasks by selecting a task in the Toptools PC Actions Scheduler dialog and pressing the Remove button. You will be prompted by a confirmation dialog and if you choose Yes, the scheduled task is removed from the SMS Server and a message dialog like the one in the figure below is displayed to the user.

3.4.7 Power Off

HP personal computers with the SoftPowerDown feature can be powered off remotely. Power Off requires that the HP SoftPowerDown utility be present on the target PC (installed by default with the Desktops Agent).
Power Off requires that either there is no Power On Administrator Password set on the personal computer, or if there is one, that it has been entered in the provided Administrator Password field. HP recommends that you set administrator passwords on all HP personal computers to better control access to the Power Off security feature. After selecting the device(s) that you wish to Power Off you will need to enter the Administrator password in the space provided.

NOTE: When working in this window, you implicitly have administrator rights on the personal computer(s). You need to enter the password for the computer if one is set. The Power Off action will occur on all selected personal computers.

Select one of the following options:

Conditional Power-Off — The computer is powered off only if all application data has been saved.
Unconditional Power-Off — The computer is powered off immediately, even if applications are currently running.

WARNING: All unsaved application data is lost in an Unconditional Power-Off procedure. Enter the Administrator Password if necessary and press Power Off.

Allow some time to pass for the process to complete, especially if you selected conditional power-off. The results of the operation appear in the status column.

You can also schedule the Power Off action selecting the target device(s) and pressing the Schedule button. This will lead you to the PC Actions Scheduler dialog (described on the section 3.4.6 of this manual).

NOTE: For WMI devices, the administrator password field is not required to perform the Power-Off action.

3.4.8 Reboot

Toptools enables you to remotely reboot (restart) HP personal computers. This action is available only for HP personal computers with the SoftPowerDown feature. You can learn more about this at http://www.hp.com/desktops/. Reboot requires that the HP SoftPowerDown utility be installed on the target PC (it is installed by default with the 4.11 or later agent).
Rebooting a Personal Computer

When working in this window, you implicitly have administrator rights on all managed personal computers. You do not need to enter the passwords for each personal computer. The reboot action will occur on all selected personal computers.

Reboot security - Select one of the following:
- Conditional Reboot — The computer is rebooted only if all application data has been saved.
- Unconditional Reboot — The computer reboots immediately, even if applications are currently running.

WARNING: All unsaved application data is lost in an unconditional reboot.

Allow some time to pass for the process to complete, especially if you selected conditional reboot. The results of the operation appear in the top frame.

You can also schedule the Reboot action by selecting the target device(s) and pressing the Schedule button. This will lead you to the PC Actions Scheduler dialog (described in section 3.4.6 of this manual).

NOTE: For WMI devices, the administrator password field is not required to perform the Reboot action.

3.4.9 Security

You can set or change passwords and other security settings on managed devices that support these features. Note that all security features are under the Security menu entry, even for collections or single devices.
Set System Passwords

The Set System Passwords page enables you to set and clear system passwords for both the network administrator and end-user, and to specify how the password must be entered. Set System Passwords saves passwords in the BIOS of the device itself.

NOTE: This action is available only for HP personal computers—HP Vectra personal computers, HP Kayak PC Workstations, and HP OmniBook notebook personal computers supporting the action and that are running the Toptools agent or Windows 2000 computers that are WMI capable.

Passwords are used to restrict changes to the configuration settings on personal computers. They are the same passwords used in the pre-boot BIOS Setup program, and are also known as system passwords. There are two system passwords, Administrator and User.

The Administrator password allows the user to change all configuration settings and controls write access to the following security operations:

- Change Security Settings
- Lock/Unlock
- Protect/Unprotect
- Set Identification String
- Power Off
- Reboot

The User password controls logon/unlocking the keyboard only, and is subordinate to the Administrator password. Optionally, the administrator can also require that the User password be entered before starting the computer, or to unlock the keyboard after startup.
To set a password or change an existing one:

1. If a password is currently set it must be specified in the space provided to enable access.
2. Specify the new Administrator or User password and Press the respective button

System startup security settings can also be specified from this screen by selecting boot options and saving password settings.

Clear Passwords

To delete passwords:
1. Clear the password fields.
2. Click Save Admin/User Password.

Change Security Settings

The Change Security Settings page enables you to set and clear the following device security settings:
- **Startup**
  - Start from Floppy Disk — Enables boot from a floppy disk. Enabled by default.
  - Start from Hard Drive — Enables boot from a hard disk. Enabled by default.
  - Start from CD-ROM — Enables boot from a CD drive. Enabled by default.
  - Network Power-on and Wake-up — Enables the remote power-on (RPO) feature for the selected personal computers. Wake-up refers to waking up from a Sleep or Suspend state.
    - **NOTE:** You must have Network Power-on and Wake-up enabled in order to be able to use the Power On action on these personal computers.

- **Floppy Disk Access**
  - Disabled — No use of the floppy disk at all is allowed.
  - Read-Only — No writes to floppy disk are allowed.
  - Read-Write — Full floppy operation. Enabled by default.

- **Ports and Controllers** (some ports may not be available on all models): Enable any of the following to allow data to be read/written to that port or controller:
  - Serial port A
  - Serial port B
  - Parallel Port
  - Front USB Controller (USB 1Controller)
  - Rear USB Controller (USB 2 Controller)

**NOTE:** This action is available only for HP personal computers—HP Vectra personal computers, HP Kayak PC Workstations, and HP OmniBook notebook personal computers supporting the action and that are running the Toptools agent or Windows 2000 computers that are WMI capable.

**Change Security Settings** requires that either there is no System Password set on the personal computer, or if there is one, enter it in the space provided. HP recommends that you set administrator passwords on all HP personal computers to better control access to the **Change Security Settings** security feature.

**To Change Security Settings:**

1. Select the desired device security setting.
2. Enter the Administrator password if necessary.
3. Press the **Save Settings** button

Most changes will be effective only after the personal computer has been rebooted.

**NOTE:** When the value "OTHER" appears in the status column, it means that some values were changed on the target device(s), but not all. It indicates that some of the attributes selected are not supported on the target machines and, therefore, their status value could not be changed. You should verify on the Toptools property page which attributes are supported on the target device.
Lock/Unlock System

Toptools enables you to lock personal computers. The front panel, keyboard, and mouse of a locked personal computer are disabled. This prevents user input, disallows shutdown of the operating system, and disables the power button on the personal computer's front panel. This action is equivalent to protecting the personal computer, and locking the keyboard and mouse.

**NOTE:** This action is available only for HP personal computers — HP Vectra personal computers, HP Kayak PC Workstations, and HP Omnibook notebook personal computers. The computer must support the action and be running the Toptools agent or be a Windows 2000 computer that is WMI capable.

Locking a system is useful to prevent unauthorized access. If a security intrusion occurs, DMI or WMI alerts will be received that indicate an unauthorized user is making several unsuccessful attempts to log in as Administrator. The HP Toptools Alert log would provide notification of this event. In response, the SMS user could invoke the Toptools action “Lock System”. This would prevent the user from typing anything on the keyboard of that system, and would also prevent that system from being powered down from the front panel, which might result in a denial of service for some other users. In other situations, the administrator might want to prevent certain critical systems from being powered off. One or more systems can be prevented from being turned off. (A truly malicious user can unplug the system, but these controls are intended to protect the environment against inadvertent or accidental incidents.)
To Lock or Unlock a Personal Computer:

1. Selecting the devices that you wish to Lock/Unlock.
2. Enter the Administrator password if necessary.
3. Click **Lock System(s)** or **Unlock System(s)**, as required. The default state of all personal computers is **unlocked**.
4. Click **Apply**.

The Status column will immediately show you results.

You can also schedule the **Lock/Unlock** action selecting the target device(s) and pressing the **Schedule** button. This will lead you to the PC Actions Scheduler dialog (described in section 3.4.6 of this manual).

Protect/Unprotect System

Toptools enables you to protect personal computers. The front panel of a protected personal computer is disabled, including the power button. In addition, shutting down the operating system is disallowed. This action is less restrictive than **Lock/Unlock System**.
The Prevent Shutdown option will not allow a local user the ability to shut their machine down through the standard methods (Start > Shut Down or Ctrl+Alt+Del > Shut Down). The user will receive a notice stating the administrator has disabled the ability. In order to restore the local shutdown function, the Allow Shutdown option must be issued to the node.

NOTE: This action is available only for HP personal computers — HP Vectra personal computers, HP Kayak PC Workstations, and HP Omnibook notebook personal computers supporting the action and running the Toptools agent or be a Windows 2000 computer that is WMI capable.

HP recommends that you set administrator passwords on all HP personal computers to better control access to the Protect/Unprotect System security feature.

Protecting a Device

1. After selecting the devices that you wish to protect, specify the Administrator password (if necessary) and press the Apply button.
2. The devices will immediately report whether or not the action was successful in Status column.

You can also schedule the Protect/Unprotect action selecting the target device(s) and pressing the Schedule button. This will lead you to the PC Actions Scheduler dialog (described in section 3.4.6 of this manual).
3.4.10 Set Identification String

The Identification String, also known as Identification Tattoo, is stored in a personal computer's EPROM memory. You can use the Identification String for asset management or other purposes.

![TopTools - Set Identification String](image)

Figure 29. You can set unique identification strings on one or more HP PCs.

NOTES:

- This action is available only for HP personal computers that support the action and that are running the Toptools agent or Windows 2000 computers that are WMI capable.
- **Set Identification String** requires that either there is no System Password set on the personal computer or that you have entered it in the field provided. HP recommends that you set administrator passwords on all HP personal computers to better control access to the **Set Identification String** security feature.

To Set the Identification String:

1. Select the devices that you wish to Set the Identification String on and enter the Administrator password if necessary.
2. Enter the new Identification String in the space provided.
3. Click **Save**. The Status column will immediately show you results.

### 3.5 e-DiagTools

One of the new features present in version 5.5 of the Bridge is the e-DiagTools functionality. HP e-DiagTools is the HP diagnostic application for fast and efficient hardware troubleshooting when servicing HP desktops, HP notebooks, HP PC workstations and HP PC servers. It is a powerful tool in the diagnosis of hardware problems.

At power-up, e-DiagTools for desktop PCs can confirm the correct functioning of an HP computer, detect an abnormality, distinguish between hardware and software problems, diagnose a hardware related problem and communicate precise information to a help desk or support provider. HP e-DiagTools is able to carry out tests during the PC boot (on desktop
PCs), so it has no difficulty in pinpointing problems, which halt the boot-up process. It can also check for the latest BIOS version installed on the PC, and update it if necessary.

### 3.5.1 Viewing e-DiagTools Options on the SMS Action Menu

In the Action menu for collections and devices, under the **Toptools** entry, there is an entry, **e-DiagTools**. Figure 30 shows the e-DiagTools menu for collections and Figure 31 shows the e-DiagTools menu for devices.

![Figure 30. e-DiagTools Menu for Collections](image)

You will note that in the e-DiagTools menu for devices there is an option that is not present in the e-DiagTools menu for collections: **View Results**. This option refers to viewing the diagnostic results of any chosen device. As the Bridge is not able to present the diagnostic results of multiple devices, this option is not available in the e-DiagTools menu for collections.

![Figure 31. e-DiagTools Menu for Devices](image)
3.5.2 Launching e-DiagTools

You can launch diagnostics on one or more devices. Launching the diagnostics can cause open files to be lost. Before launching diagnostics you should check the following:

- Make sure the correct devices are selected.
- Make sure the proper settings have been made.
- Make sure that it is okay to interrupt processing on the device(s).

To Launch Diagnostics:

1. Select the device(s) that you want to run diagnostics on.
2. Check to see that the correct set of devices is selected. **Note that open files on the target systems may be lost.**
3. If the systems are correct and ready to be tested, click on the **Launch e-DiagTools** button.

3.5.3 Configuring e-DiagTools Settings

The e-DiagTools Settings allow an administrator to configure Startup and Internet Options for the selected device(s).

The **Startup** settings let administrators configure how a system will restart. This includes messages, indicators, and menus that will be displayed on the system as well as delays waiting for user intervention.
The Internet settings let administrators configure selected systems with e-mail information used to send messages to support personnel.

![TopTools - e-DiagTools Settings](image)

**Figure 33. You can configure the diagnostic tool settings for a group of devices**

Note that the e-DiagTools configuration dialog is different if you launch it from collections than if you launch it from a single device. In the single device e-DiagTools Configuration dialog, you can set static values for the Internet options and when the page is loaded, all fields are filled with currently stored information. Figure 34 shows an example of how the configuration page for single devices works.

When you launch the e-DiagTools Configuration dialog for collections, note that all fields are blank and the static values for Internet are disabled.
Configure the e-DiagTools Settings:

1. Select the device(s) that you want to make settings on.
2. Make the desired settings and click on the Apply button.

### 3.5.4 Viewing Diagnostic Results

Once e-DiagTools is launched on the desired devices, the user is able to verify the diagnostic results on a device by choosing the View Results option on the e-DiagTools menu for single devices (Figure 31). These result are called the “Support Ticket”, a text file with six sections. The third section, called “Test Report”, is the one that is processed to build this dialog.

The test report is divided into device tests, such as Video, Memory and USB. Each device tested represents an item in the dialog. Note that on the left side of this list of items are icons, graphically representing the test results. The table below shows the meaning of each icon:
The test was done successfully and the device is OK
The test could not be finished or was aborted by the user
The test failed, the device is not OK
Unknown result
General information about the test.

To View the Diagnostic results:

1. Select the device that you want to view the results.
2. Click on All Tasks → Toptools → e-DiagTools → View Results.
3. The last diagnostic test result will be displayed to the user.

In the upper part of the dialog, the device information (name and IP/IPX address) and the date/time that the last diagnostic was run is shown. If the device does not support e-DiagTools (does not have e-DiagTools installed), a message is displayed in the upper part of the dialog informing the user that there is no diagnostic available.
3.6 Managing System Drivers/Firmware

This new version of the Bridge provides a complete solution for keeping your HP computer product hardware up-to-date with the latest drivers, BIOS, firmware and agent software packages. The Bridge contains a mechanism that identifies the type and model of device(s) you are managing, provides you with information on optional updates, and then offers to deploy these updates to the device.

3.6.1 Update Software Packages Database

The Bridge maintains a local database containing a listing of system software available for HP PCs, Workstations, and Servers. The Bridge uses this database to keep you informed of the latest software available for your systems and to help you download the appropriate software versions to selected devices.

You can create a collection of the actual software and firmware packages on the SMS Server that you can use to install on your systems. These packages contain diagnostics, drivers, and Toptools agents. You can add or remove packages from this collection, updating it from sources on the HP Electronic Support Center.

Keeping Your Software/Firmware List Up-to-date

To ensure that you have the latest listing of software and firmware available for your systems, you should regularly update the software database on the SMS Server.

IMPORTANT NOTE: You should have direct access to the Internet to update the Software Packages Database. If you do not have direct access to the Internet, you can still manually set up a local system software database on your SMS Administrator console. For more information, refer to the white paper "How to install system software packages with Toptools without direct Internet access", available from the HP Toptools Web Site at http://www.hp.com/toptools.

To update the Software Packages Database, in the SMS Administrator console go to the Packages action menu, choose All Tasks \ Toptools – Update Software Package Database (Figure 36).

You will be prompted to choose the device types that you want to update packages for. You must select at least one device type in order to start the Update Software Package Database process.
Once you have selected the device types, click the **OK** button. The Toptools Web Site will automatically be accessed. Note that various updates are made on the Local database, depending on the device types chosen by the user. You will see dialogs like the ones below.

**Figure 37. Choose the device types to be updated**

After this, the next step is to store the local database information on the SMS Database. The local database is “mirrored” to the SMS Database. By doing this, the Bridge will be able to distribute the software using the SMS Distribute Software Process (described earlier in this manual). It displays a dialog where you can check the steps that are performed during the mirroring process.

**Figure 38. Updating the Local database**

After this, the next step is to store the local database information on the SMS Database. The local database is “mirrored” to the SMS Database. By doing this, the Bridge will be able to distribute the software using the SMS Distribute Software Process (described earlier in this manual). It displays a dialog where you can check the steps that are performed during the mirroring process.
All new available packages present in the Local database are mirrored to the SMS Database. Note that during the mirroring process, the bottom-right button caption is **Close**. When the mirroring process finishes, the button’s caption becomes **OK**. When this condition occurs, click **OK**.

After this, the Bridge will display a dialog showing the Packages already present on the SMS Database, as shown in Figure 40.
Figure 40. The packages are listed by device types

Clicking on the device type tabs will show the packages that are available in the SMS Packages Database for that type of machine.

In earlier versions of the Bridge, all package files were downloaded to the SMS Server. In this new version of the Bridge, you are able to choose which packages to download. This minimizes the time to Update the Software Packages Database and provides more flexibility.

When you perform the first Update Software Package Database after installing the Bridge on the SMS Administrator console machine, you will note that the Location for all packages will set to WEB. You can choose the packages that you want to download by clicking on the far left check box of each package. After choosing all the desired packages, click on the Download button. Note that if you click on the Download button before selecting at least one package to be downloaded, a warning message will be displayed informing you that you must choose at least one package to download.

This will start the packages’ files download process. At this point you will be asked to provide the location where the packages will be stored. You must type the path (using UNC format) and click the OK button.
IMPORTANT NOTE: This path must be a shared directory, visible to the SMS Server.

After this, the file download process will start. In the Status bar shown in the bottom of the dialog window, you will be informed of the download process status. When the download finishes, a dialog is shown informing you that the download has finished.

Once the package files are present on the SMS Server, the Location field of the packages are changed from WEB to SMS. Now the packages are ready to be deployed to the HP clients over the SMS Network. If you try to download a package with the Location field pointing to SMS, the package is ignored during the download process.

When you finish the package download, click the Close button. You will be prompted and advised that you cannot distribute packages that have not been downloaded yet. Choose Yes if you really want to finish the Update Software Package Database or No if you want to download more packages.

NOTE: Only software packages already downloaded to SMS can be updated using SMS Distribution.

3.6.2 Updating Drivers/Firmware

On occasion, you may need to remotely update the BIOS, drivers, agents, or diagnostic software on the selected HP personal computers, workstations, and servers. This is useful to ensure that you have the latest software versions on your devices.
NOTES:

- This action is available only for HP personal computers, workstations, and servers supporting Toptools agents 4.1 or higher. The remote installation capability and the number of packages available will vary by device type, operating system and the currently installed agent. See the appropriate HP support web site for details.

- You must have SMSWIN 5.5 installed on client systems that are not running Windows 2000 (with WMI capability). The software update function will not work properly with the older SMSWIN versions that may be installed on the clients.

- You can only use software packages supplied automatically by HP's support web site for these operations.

- All the software update operations require that either there is no Administrator Password set on the target device(s), or if there is, that it has been stored in Toptools using the Set System Passwords action.

- The HP diagnostics software (HP e-DiagTools) cannot be installed on new models of HP PCs supplied with DiagTools pre-installed on a special disk partition. Toptools can only install HP e-DiagTools version 2.10 on models supported by that release.

- **Warning:** If you update ("flash") a system's BIOS using the Manage Drivers/Firmware function, it is possible that a user on the target system could turn the system off during the operation. This would interrupt the flash. When SMS distributes the BIOS package it does not lock the keyboard prior to the software distribution. Interrupting the BIOS update process could disable the system. You should use SMS to distribute the software and then perform the installation locally.

To update software on the HP clients, right click on any collection or device and choose All Tasks ➔ Toptools ➔ Manage Drivers/Firmware.

A dialog will be displayed showing various classes of software (video driver, BIOS, Toptools Agent, etc.) available for the device(s) you selected.
Choose the software that you want to update on the target device(s) and click Next. If you click the Select All button, all options are selected, while the Clear All button unselects all software. If no packages are available in the SMS Packages database, you will not be able to select software types at this screen. Note that you can update the Software Packages Database from this window by pressing the Update Packages Database button. This will lead you to the windows described in section 3.6.1.

The next dialog (Figure 43) shows a list of the software currently installed on the device(s) (based on the software type(s) selected in the previous screen) as well as the updates available, based on the information in the SMS Packages Database.

NOTE: For performance reasons, it is recommended that you select only one software type to upgrade at a time.
In this dialog, the user is shown the device type, operating system installed on the device, current version of the software already installed and new updates (if available), as well as package details of the new available versions. Note that when the installed software has an available update, the field **Need** shows **Recommended**. When no new update versions are available, this field will show **Not needed** and in the **Update Version** field, the value is **no update available**.

To observe the package details for a new update version, the user must click on the line that contains the required update version. The package information is shown below the updates list, (Figure 43). It displays the new package name, version and location, as well as the package details.

To perform an update, the user must click on the far right checkboxes of each required software update. When all updates are selected, the user must click on the **Next** button. This will lead him/her to the packages location confirmation dialog (Figure 44). This dialog will verify if all the selected update packages have been downloaded to the SMS Server. Clicking on the **Cancel** button will stop the Manage Drivers/Firmware process.

**NOTE:** The user cannot select the **Not needed** updates. If you try to select a **Not needed** one, you will see that the checkbox does not indicate that it has been selected.
Figure 44. You can download the packages by this window.

Note that in Figure 44 all packages listed have their Location field showing the value WEB. This means that the packages’ files were not downloaded to the SMS Packages Database. Note that the Next button is also disabled and that a Download Now button is provided, and an information message about the missing packages’ files is displayed to the user. This occurs because the Bridge is able to deploy the packages to the target machines only after ALL package files are present in the SMS Packages Database. Then, the user has two choices:

1. Cancel the Software Update process, download the needed package files and restart the Manage Drivers/Firmware process, or

2. Click on the Download Now button, provided in this dialog to download only the missing packages. (Recommended).

After clicking this button, the Bridge downloads the missing packages to the SMS Packages Database. After all needed package files are downloaded, a dialog like that shown in Figure 45 is displayed. Once all package files are present on the SMS Packages Database, the user is able to continue the Manage Drivers/Firmware process.
Figure 45. All packages were downloaded.

Clicking on the **Next** button will lead the user to the advertisements settings dialog (Figure 46). Clicking on the **Cancel** button will return the user back to the dialog shown in Figure 43.

On the advertisements settings dialog, the user defines when the packages will be available to the targets, as well as if the packages will be assigned to the targets. Fill in the scheduling information and click **OK**. You will see a message stating that the advertisement(s) was (were) created successfully. Each created advertisement will be sent on schedule to the target device(s).
Figure 45. You can define when the package will be deployed.

IMPORTANT NOTE: Due to SMS limitations, the Bridge creates a new collection (named HP Software Distribute <package name>) for each package deployed. It is highly recommended that you delete the HP Software Distribute collections after the advertised programs have successfully run.

3.7 Toptools Server Address

If you have an HP Toptools Management Server and you want to access the device property page functions, you must configure the name or IP Address of the Toptools Management Server. This is normally done at installation of the Bridge but can be entered or changed at any time.

To configure the Toptools Management Server location, right click on any device or collection and select All Tasks ➔ Toptools ➔ Settings ➔ Toptools Server Address. This will open the Toptools Server Address setting window.
Enter the name or IP address of your Toptools Management Server and press **OK**.

### 3.8 Alerts

The Toptools Management Server receives events sent by devices that may signal trouble or require action on your part. For example, a server might send Toptools an event when it has reached 80% utilization of its hard disk. When a new event arrives, Toptools processes it into an alert (Toptools uses the term *alert* to denote an SNMP trap, DMI alert, or WMI alert) and displays it in the Alert log's database of alerts.

Alerts are organized into the following levels of severity:

- **Critical**: Reflects a state of device failure or impending failure — requires immediate attention.
- **Warning**: May require action, but not immediately.
- **Informational**: May not require any action, but the information is useful.

#### 3.8.1 Configuring the SetAlert Package

When the Toptools Management Server runs its network discovery process in an un-bridged environment, it will automatically configure each device it discovers to send alerts to the Toptools Server. During installation of the SMS bridge, the Toptools Server's automatic discovery process is turned off and thus, the automatic alert destination process is turned off as well. If you prefer to have Toptools discovery run, it can be re-enabled directly on the Toptools Server by clicking on "Settings", "Discovery", and then selecting the scheduling frequency you prefer. If you do not want the Toptools discovery process to run (due to network traffic and performance reasons), you can configure the devices to send their events to the Toptools Server using the SMS Bridge's SetAlert program.

The SetAlert package is installed as part of the Bridge software. This package can be distributed to a device collection. When run, it will configure the devices to send alerts to the Toptools Server. You can use an ASCII text editor to edit the SetAlert package (**setalert.sms**). Replace "<dest>" with the IP address or name of the Toptools Server to receive the events.

```plaintext
setalert.sms

[PDF]
Version=2.0

[Package Definition]
Name=HP Toptools SetAlert Destination Package
..."
[Typical]
Name=HP Toptools SetAlert
Comment=Run SetAlert
CommandLine=setalert.exe 188.19.22.55 <= replace "<dest>"
...

You must then distribute the SetAlert package to the desired device collection using the SMS software distribution function. Once distributed the SetAlert program will be executed on each of the clients in the collection. The SetAlert program will set the target address for SNMP, DMI, and WMI events to the Toptools Server.

**NOTE:** During the installation of the Bridge on the SMS Administrator console, if you have provided the Toptools Management Server's IP Address or DNS name, the SetAlert Package available on the Packages list is ready to be distributed, with the value of the variable "<dest>" set to the IP Address or DNS name you provided. You must set the value of this variable only if you have not provided the Toptools Management Server IP Address or DNS name during installation.

### 3.8.2 Viewing Alerts

You can view alerts for a device or a collection by right clicking on the device or collections and selecting **All Tasks → Toptools → View Alerts.**

This will display the Toptools Management Server's Alerts page:
You can change the Toptools Management Server by accessing the Menu File on this window and selecting the option, **Toptools Server Address**. This will open the same dialog described in section 3.7. After you enter the Toptools Management Server's name or address, press OK. The page is then reloaded, using the new information.

3.8.3 Configuring Actions on Alerts

The **Configure Actions on Alerts** feature enables you to specify actions to perform when alerts occur. The feature enables you to fine-tune the type of alert that triggers the action by specifying the alert Severity for particular devices. For example, you might define the following action: Send a descriptive e-mail message to the network administrator when a critical error occurs on device named "E-commerce Website Server."

The following actions are configurable:

- Run a program
- Send an e-mail message
Send a page (uses an e-mail message to a paging service provider). See the Paging help topic for a brief overview of configuring paging.

Log the alert to the Windows NT Event Log (Application log). This option enables you to use other NT tools to view and analyze the event.

In addition, the **Configure Actions on Alerts** page enables you to specify how long closed alerts should be saved in the database before deletion.

To configure Actions on Alerts, right-click on any device/collection, and select **All Tasks → Toptools → Settings → Configure Actions on Alerts**.

This will display the Toptools Management Server Configure Actions on Alerts page:
To configure a new action:

In the Configure Actions on Alerts page, click New. The New Action dialog appears.
Enter a descriptive name for the action. For example, "Server Fail."

Select the action to perform when the alert occurs.

- **Run Command** — Run a program. (Enter the full path for the program or batch file.)
- **E-mail** — Send an e-mail message.
- **Send Page** — Send a pager message.
- **NT Event Log** — Enter the alert in the **NT Event log** (Application Log).

Your selected action may communicate information about the event (for example, device name and alert severity). Use one or more of the following substitution variables within the Command Line, E-Mail, or Paging Message text box. For example: $<dev>$ encountered a $<stat>$ alert.

- $<dev>$ — is substituted with the name of the device that generated the event. The name is usually the domain name. If a suitable name for the device is not found, then the address (IP or IPX) of the device will be substituted instead.
- $<addr>$ — Address (IP or IPX) of the device that generated the event.
- $<desc>$ — Short description text generated for the event.
- $<xdesc>$ — Long description text generated for the event.
- $<stat>$ — Severity of the event as one of the following strings: "Informational", "Warning" or "Critical".
- $<evtid>$ — Identifier string for the event, for example the trap OID of an SNMP trap.
- $<name>$ — Name of the event. Event names are assigned to each type of event as a way to uniquely identify events instead of using event identifiers.
- $<url>$ — URL generated for the event. Note that not all devices generating alerts will have an associated URL. If there is no URL associated with the device, the $<url>$ parameter will be empty.
Specify the Severity of the alert that is to trigger the action and the group of devices to which the alert applies. Click Save to close the New Action dialog. Click Save Settings.

The configured action will occur whenever an alert with the specified severity is logged to the Alert page for the specified device type or Collection.

**To modify an existing action:**
In the Configure Actions on Alerts page, click Modify. The Modify Action dialog appears. Follow the same process as for creating a new action.

**To specify how long closed alerts should be saved in the database:**
In the Configure Actions on Alerts page, move to the Closed Alerts text box. Enter the number of days that closed alerts should be saved in the database. The alert information is erased after this period. Click Save Settings.

### 3.8.4 Internet & E-mail Settings

You can configure the Toptools Management Server to connect directly to the Internet or to go through a proxy. If your network uses a proxy server you must enter its address and port.

You can also list network addresses that should not be accessed using the proxy. If your network uses a proxy gateway (firewall) to control access to outside networks, you should configure the Toptools Internet Settings to allow access to your internal networks without going through the proxy gateway.

To access the Internet & E-Mail Settings page, right-click on any device or collection and then select All Tasks ➔ Toptools ➔ Settings ➔ Internet & E-Mail Settings.
Make your settings and click on **Save Settings** button to apply your changes.

**E-mail Settings**

In order for Toptools to send e-mail in response to an alert you must first tell Toptools the type of mail system to use and the address of the mail server (SMTP) or profile name (MAPI).

**NOTE:** An e-mail client program must already be installed and configured on the Toptools Management Server. An e-mail specialist should do setting up an e-mail server and configuring an e-mail client.

**To Configure E-Mail Settings:**

On the Internet & E-Mail settings page, select the **E-Mail** tab.
Select either SMTP or MAPI operation:

- **SMTP** - If you are using an SMTP e-mail interface select **Use SMTP** and enter the IP Address or DNS name of your SMTP e-mail server. You can also select **Plain text** or **HTML** as the data format for your message.
- **MAPI** - If you are using a MAPI e-mail interface select **Use MAPI** and enter the name of an e-mail profile that you have created on the Toptools Management Server.

If you are changing the configuration, reboot the system.

**NOTE:** When you change email configuration between SMTP and MAPI you must manually **stop and restart** the Toptools services on the Toptools Management Server for the changes to take effect.

### 3.9 HP Toptools Property Page

If an HP Toptools Management Server has been installed and the SMS Administrator console(s) are configured with its location during installation or after (see section 3.7), the HP Toptools Property Page menu item will display the property page of an HP device selected within a collection. This action will only work on HP devices (Net_servers and PCs) that are running Toptools agents and SMSWIN or have WMI agents and have updated the Toptools WMI agents with the SMS classes.

Toptools Property Pages are specific to each system type. HP Kayak property pages provide different actions than HP Brio pages. Most of the Toptools actions enabled in the SMS console are also accessible from within HP PC property pages.
The property pages provided for HP Netservers support DMI only, and include subsystem configuration and status information collected by DMI or WMI.

To access the Toptools Property Page, right-click on any single device and select All Tasks → Toptools → Properties. This will invoke the Toptools Property Page of the selected device.

---

Figure 47. Harnessing the real-time management of Toptools.
Interface Statistics: 15.76.191.100

The Bandwidth Utilization History chart shows the interface utilization, which is calculated from the speed and the total number of input/output events received.

Figure 48. Property Page from Toptools Management Server
4 Theory of Operation

HP Toptools for Microsoft SMS has been developed to provide a native tool “look and feel” while also supporting scaled and distributed Microsoft SMS 2.0 environments. By offering automated agent deployment and software update capabilities, administrators save the time and effort otherwise required to visit each system to deploy management.

4.1 SMS Management Console Snap-In

The Bridge has enabled the administrator to manage some of the most challenging issues faced in IT from a widely known interface, SMS. The snap-in seamlessly integrates Toptools functions into the console for ease of use and single console manageability. In distributed SMS environments, bridge software may be installed on each SMS console to provide management control from multiple console stations.

4.2 Inventory

SMSWIN is an application that runs locally on HP DMI compliant devices. It provides hardware information obtained through the DMI service layer provided by the Toptools agent. This inventory collection is scheduled using SMS. It will run for a short period of time gathering attributes that are then stored within the SMS Database. Once collected and stored, administrators may browse the data using the SMS Resource Explorer or use it to create new collections, queries, and reports.

If you have run the Update HP Toptools Agent with SMS Classes program (see section 2.3), inventory information on WMI compliant devices will be made available to SMS.

4.3 Interactions with HP Toptools

The Bridge provides a convenient launch of the Toptools Property Page for any specific node that has a Toptools agent installed. This allows the administrator to additionally harness the powerful capabilities of the Toptools Management Server if one is configured. It also provides convenient launch of the Toptools Alerts Page (for nodes or collections), Configure Actions on Alerts page and the Internet & E-Mail Settings Page.

When the Toptools Property Page is invoked, it uses the page “template” that is on the Toptools Management Server, but the data displayed on the page is dynamically requested (using DMI or WMI) from the target device. In the case of the View Alerts page, the Bridge configures the page that must be invoked, in order to display the alerts related to the chosen device or collection. The Configure Actions on Alerts and the Internet & E-Mail Settings Pages are invoked statically on the Toptools Management Server, once these pages do not require any configuration before invoking them.

With the exception of alert handling, the Bridge is not dependent on a Toptools Database to execute its actions. The actions that need a Toptools Server are:

- Property Page
- View Alerts
- Configure Actions on Alerts
- Internet & E-Mail Settings.

In this case, the administrators have three options:

- Access Toptools Management Server dependent functions from SMS, and also gain access through the Toptools console to other Toptools management functions by configuring the Toptools Management Server to run discovery and other services.
Access Toptools Management Server dependent functions from SMS by installing a Toptools Management Server, but disable its discovery process to prevent additional network traffic and use of system resources. Use the Set Alert package (refer to section 3.8.1) to set event destinations on the clients if Toptools discovery is disabled. This is the option chosen by the Bridge when it is installed, when the Bridge Installer tries to disable the Toptools Network discovery feature.

- Do not install a Toptools Management Server. In this case, the Toptools Management Server dependent functions will not work.

### 4.4 Modifications Done by Installation

During the installation of the bridge on the management console, the following will occur:

- HP Toptools for SMS program group will be added to Programs
- HP Netserver Agents (local server data) will be added to Programs
- HP Toptools will be added to the SMS program menu
- HP Toptools will be added to the SMS Action menu
- HP Toptools will be added to the menu displayed when you right click on a collection or client. This function will only be active for Toptools collections or clients and all of these HP devices must have Toptools agents installed and functioning properly as well as SMSWIN (for DMI devices) and updated SMS classes (for WMI devices).
5 Uninstalling the Bridge

The Bridge component should be uninstalled using the menu option from Add/Remove Programs. This will start the Bridge uninstallation process.

Choose one of the three maintenance setup types offered by the Bridge Uninstaller and click Next. (Figure 50)
• **Modify**: This option is not available on this version of the Bridge. If you choose it, you will see a message stating that it is not available.
• **Repair**: This option reinstalls the Bridge on the machine. It will verify the installation conditions, following the procedure described on the section 2.2.

• **Remove**: This option uninstalls the Bridge from the machine (the entire Bridge or Command Line Utilities only). After your confirmation on the **Confirm File Deletion** dialog box, the Bridge begins to remove the Bridge files.

![Confirm File Deletion](image)

If you are removing the Bridge from an SMS Administrator console machine, the Bridge Uninstaller provides a new feature that removes the Toptools related Packages from the SMS Packages Database. You will be prompted about this and if you choose **Yes**, the Bridge Uninstaller removes all Toptools related packages present in the SMS Packages Database. If you choose **No**, the Toptools related packages are left in the SMS Packages Database.

![InstallShield Wizard](image)

During the packages uninstall process the following screen is displayed.
NOTE: The packages are removed from the SMS Packages Database and will not be available on any other SMS Administrator console machines with the Bridge installed.

After completing the uninstall, a finish screen is displayed.
5.1 Verifying a Successful Uninstall

The SMS Administrator console should no longer have a right mouse button context selection under tasks “HP Toptools.” Also, the installation directory should have been removed during uninstall.

If you have chosen to remove the Toptools related packages from the SMS database, you can also verify that there are no Toptools related packages present in the packages list.

NOTE: Even if the uninstall packages process finishes, the SMS Server can require several more minutes until all Toptools related packages are removed from SMS Packages Database. If you access the Packages List in the SMS Administrator console Window, you may see that the Toptools related packages have not been completely deleted. It is highly recommended that you do not distribute any Toptools related packages after uninstalling the Bridge. Removing all Toptools packages is the preferred method.
6 Troubleshooting and Support

6.1 Verifying Toptools for Microsoft SMS Operation

A successful installation of the Bridge can be verified by opening the collections folder, right clicking on a collection to display the tasks menu, and seeing if there is an HP Toptools sub-menu available. If the HP Toptools sub-menu is present, the Bridge has been properly installed.

You can verify the correct distribution and installation of agents and SMSWIN on client PCs by waiting until after the next SMS inventory collection and then attempting to create an HP DMI or HP WMI collection (see section 3.2.4). Successful creation of the All HP DMI and All HP WMI sets indicates that at least one HP device of each type responded to the SMS collection. You can then check the All HP DMI and All HP WMI sets of devices to verify that all of the desired devices have responded and are listed.

NOTE: If you install the Toptools Agent on Windows 2000 clients after creating an HP specific collection, the new Windows 2000 clients will not be included. To correct this, first delete the HP specific collection and then recreate it again after the Win2k agents have been distributed to the new clients and you have updated the SMS inventory.

6.2 Desktop and Notebook Agent Dependencies for DMI and WMI

If you try to update software on DMI only systems running NT4 you may be prompted to update to a WMI agent. This is not a valid selection and if you attempt the update, the update of the Toptools agent will fail. Refer to the HP Desktop web sites (www.hp.com/go/kayaksupport, www.hp.com/go/vectrasupport, or www.hp.com/go/omnibook) for the latest information.

6.3 Proxy Server Error

The Bridge accesses some pages on the Toptools Management Server, such as View Alerts, Device Property Page, Configure Actions on Alerts and Internet & E-Mail Settings.

When trying to access some of these pages using the Bridge, you may receive an error, such as the one displayed below.
HTTP Error 401

401.2 Unauthorized: Logon Failed due to server configuration

This error indicates that the credentials passed to the server do not match the credentials required to log on to the server. This is usually caused by not sending the proper WWW-Authenticate header field.

Please contact the Web server's administrator to verify that you have permission to access to requested resource.

This can occur because the Internet Options on the browser are not correctly configured. When the Bridge is installed, you are prompted to provide the Toptools Management Server name or IP Address. This information is stored in the registry and is used by the Bridge browser to launch the Toptools web pages.

If you are using a Proxy Server, the authentication process used by Toptools may not work appropriately. You may need to configure the Internet Settings on the browser to bypass the proxy when accessing the Toptools Management Server. To adjust these settings, go to the Tools menu of Internet Explorer and select Internet Options. Go to the Connection Tab, and in the Local Area Network (LAN) Settings group, press the LAN Settings button. In the Proxy Server group, press the Advanced button. See the figure below.
In the **Exceptions** list, you must provide the address for the Toptools Management Server on the network. By doing this, the Bridge will not use the Proxy Server to gain access to the Toptools pages.

**NOTE:** To minimize this problem, it is **HIGHLY** recommended that you enter the Toptools Management Server name or IP Address during the Bridge installation and that your Toptools Management Server be in the SAME domain as that of your SMS Administrator console machine(s).

### 6.4 Support Information

The most current support information can be obtained at [www.hp.com/toptools](http://www.hp.com/toptools). You can also call your local Hewlett-Packard Customer Care Center. Customer Care Center phone numbers are located at [http://www.hp.com/cpsosupport/guide/psd/cscinfo.html](http://www.hp.com/cpsosupport/guide/psd/cscinfo.html)
7 Command Line Utilities

The CmdHpRPO and CmdHpDMI commands allow you to perform remote actions on HP PCs. The commands can be entered in the DOS or Run windows or executed from a batch file.

7.1 Device Addresses

You can use a list of PC addresses in the command line or refer to a text file containing a list of addresses. The CmdHPRPO target list file requires an IP or IPX address as well as a MAC address and subnet mask. The CmdHPDMI target list file can use either IP or IPX addresses. MAC Address and Subnet mask information are not used with the CmdHPDMI command. Each address must be separated by either a space or carriage return. If a target list file is used, each line represents a device.

Entries in a target list file for the CmdHPRPO command should be in the format:

<network address (IP or IPX) > <MAC address (using ':' or '-' or none) > <subnet mask or IPX number>

Example: cmdhprpo –p -l pwronlst.txt

<pwronlst.txt>
192.10.12.17 123456789012 255.255.255.0<cr>
192.10.12.18 210987654321 255.255.255.0<cr>
192.10.12.19 543210987654 255.255.255.0<cr>

Entries in a target list file for the CmdHPDMI command should be in the format:

cmdhpdm i –R -l dmilst.txt

<dmilst.txt>
192.10.12.17<cr>
192.10.12.18<cr>
192.10.12.19<cr>

7.2 CMDHPRPO

The CmdHpRPO command is a utility that will issue a remote power on request to a device that has the RPO (Remote Power On) capability. The RPO command uses the following syntax:

Usage:

```
cmdhprpo [options] <IPAddress MacAddress SubNetMask>
```

or

```
 cmdhprpo [options] <IPXAddress MacAddress IPXNetNumber>
```

or

```
 cmdhprpo [options] -l <target List file>
```

[options] = -p  Ping After PowerOn (Wait for 5 minutes)

Examples:

IP Addresses: cmdhprpo –p 192.10.12.19 0000BC009DEF 255.255.255.0

IPX Addresses: cmdhprpo –p 00000001:012345678912 012345678912 00000001

Using a list file: cmdhprpo –p –l pclist1.txt
7.3 CMDHPDMI

The CmdHPDMI command issues DMI commands or WMI methods to HP devices.

The command uses the following syntax:

Usage:

```
$cmdhpdmi [options] <network address>
```

Usage:

```
$cmdhpdmi [options] -l <target list file>
```

`<cmd>` =
- `-F` Power Off
- `-R` Reboot
- `-K` Lockup (option `-d` disable)
- `-N` No Shutdown (option `-d` disable)
- `-B` Boot Lock
- `-O` No Boot Lock
- `-G` Boot Keyboard Lock
- `-l` `<string>` Set Identification to `<string>`
- `-A` `<string>` Set Admin Password to `<string>`
- `-U` `<string>` Set User Password to `<string>`
- `-Z` use with options to disable or enable device settings

`[options]` =
- `-c` conditional command
- `-p` `<password>`, using `<password>` as the Admin Password
- `-d` disable command
- `-E|e` Enable | Disable Boot from floppy
- `-H|h` Enable | Disable Boot from hard disk
- `-J|j` Enable | Disable Boot from CD-ROM
- `-W|w` Enable | Disable Network wakeup
- `-M|m` Enable | Disable Floppy disk read
- `-Q|q` Enable | Disable Floppy disk write
- `-S|s` Enable | Disable Serial Port A
- `-T|t` Enable | Disable Serial Port B
- `-V|v` Enable | Disable Parallel Port
- `-X|x` Enable | Disable Front USB Controller (USB 1 Controller)
- `-Y|y` Enable | Disable Rear USB Controller (USB 2 Controller)

Examples:

```
IP Addresses:  cmdhpdmi -F 192.10.12.19
```

```
IPX Addresses:  cmdhpdmi -B 00000001:012345678912
```

```
Using a list file:  cmdhpdmi -R -l dmilist.txt
```
7.4 Using Scripts

The command line utilities can be used together in scripts to simplify the distribution of software to clients. The following script examples assume that you have just installed 25 new PCs and you are making some basic BIOS settings.

- Set a base date in the ID string of the PCs
- Set an Administrator password on the PCs
- Disable boot from floppy on the PCs
- Power down the PCs

In the following examples note that the directory and subdirectory names have been shortened to "\programs\hp\sms\" so that the commands can be shown in this manual on a single line.

```plaintext
rem
rem Set the identification string to the date the PCs were installed (base date).
rem Use a list of devices contained in mytargets.txt
rem
c:\programs\hp\sms\cmdhpdmi.exe -I "Installed 11/10/99" -l mytargets.txt
rem
rem Set Bios Admin password to "hp" and Bios user password to "user" on the PCs
rem
c:\programs\hp\sms\cmdhpdmi.exe -A hp -U user -l mytargets.txt
rem
rem Disable boot from floppy option to reduce chance of security breach on PCs
rem
c:\programs\hp\sms\cmdhpdmi.exe -p hp -e -l mytargets.txt
rem
rem Power off the client PCs
rem
c:\programs\hp\sms\cmdhpdmi.exe -p hp -F -l mytargets.txt
```