SUMMARY

Print Audit Infinite Device Management (IDM) is designed to monitor network attached printer/scanner/copier devices using the Simple Network Management Protocol (SNMP). Under most circumstances, therefore, it can only be used to monitor printers, scanners and copiers that are:

1. Directly attached to the network – using either a cable or Wi-Fi

2. Provide support for SNMP

Because of these requirements, desktop printers, scanners and MFPs that are locally attached to a PC or server - using either a parallel or, more commonly, a USB cable - cannot normally be monitored by IDM.

Some locally attached HP printers and copiers, however, can be included, by installing the HP SNMP Proxy Agent on the host PC. With this free agent installed IDM can monitor both meters, such as the number of pages printed, and the status of consumables such as toner and printer ink. Smart alerts can also be configured to warn when consumables need to be replaced, just as with network-attached devices.

How it works

The HP SNMP Proxy Agent is installed on the PC to which the printer is connected and, when prompted, will retrieve status information via its parallel or USB connection. It can then relay that information back to the IDM Information Collection Engine (ICE) using the Windows SNMP service, also configured on the host PC.

As far as the ICE is concerned it is dealing with a network printer via SNMP so, in the majority of cases, no changes need to be made to support printers via the HP SNMP Proxy Agent.

Restrictions

The HP SNMP Proxy Agent is only certified to work with a specific set of HP printers (Appendix A). It may also work with other HP devices, indeed the example used in this document (a Photosmart B100 series MFP) isn't listed, but was picked up by the HP SNMP Proxy Agent. However, the only way to know for sure is to try it.

Printers, scanners and copiers from other vendors are unlikely to work with the HP SNMP Proxy Agent.

Obtaining the HP SNMP Proxy Agent software

Please note that the HP SNMP Proxy Agent is **NOT** supplied nor supported by Print Audit.

The HP SNMP Proxy Agent is available as part of an application called HP Web JetAdmin which can be used to manage HP and non-HP printers using the SNMP protocol on a corporate network. You can get both the full Web Jetadmin application and the proxy agent software from the following link:

www.hp.com/go/webjetadmin

You do NOT need the Web Jetadmin software itself in order to use the HP SNMP Proxy Agent. Moreover, when you download the software you will find that HP provides two proxy agents:-

1. HP SNMP Proxy Agent
2. HP WS Pro Proxy Agent

IDM can only collect information using the first of these – the HP SNMP Proxy Agent – there is therefore no need to install the HP WS Pro Proxy Agent unless you specifically require it for use with HP Web Jetadmin. The HP readme documentation advises installing both, but for IDM this is **NOT** necessary.
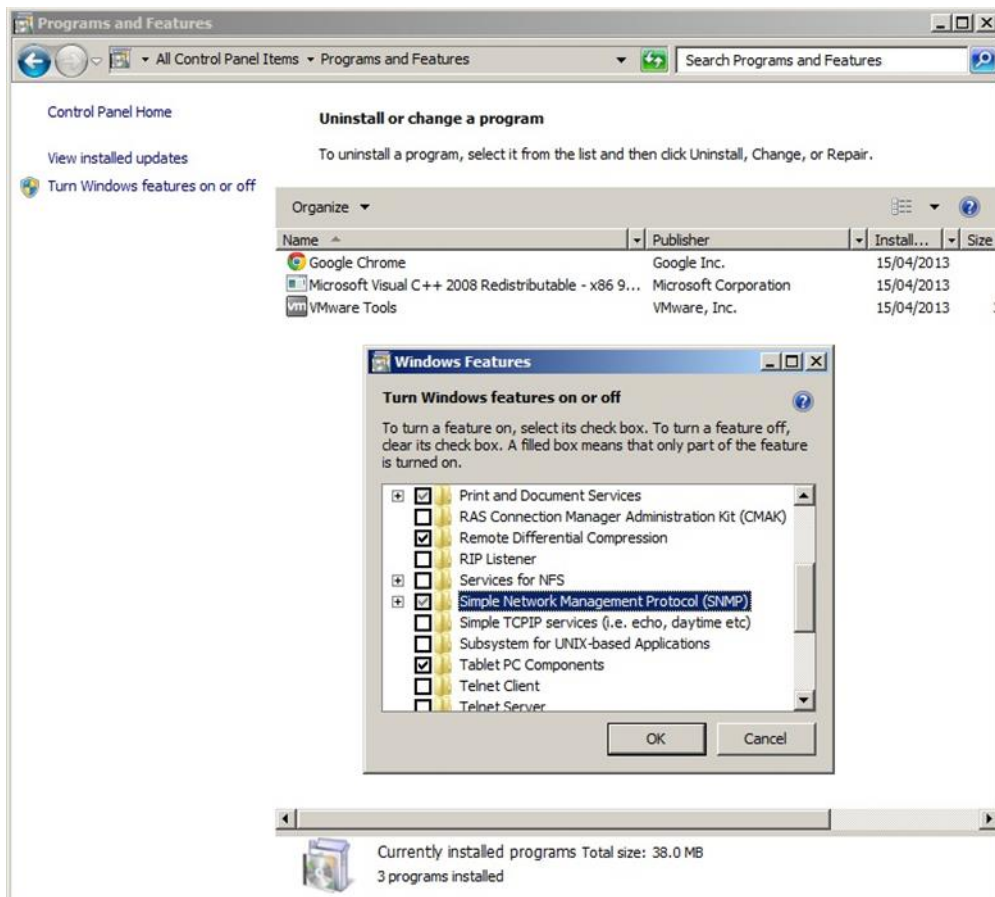
Other things to note:

- There is no charge for the software but you will have to register with HP in order to download it.

- The HP SNMP Proxy Agent is available for both 32-bit and 64-bit implementations of Windows and on workstations can be installed on Windows XP or later (not Home editions) and on servers running Windows Server 2003 or above.

- The HP SNMP Proxy Agent can handle multiple printers attached to the same host.

Pre-requisites – Windows SNMP

Before you install the HP SNMP Proxy Agent you must first make sure that Microsoft Windows SNMP service has been configured and started on the PC to which the printer is connected. This service is usually installed as part of Windows but not set to run by default so you will always need to check.

The procedure is similar on all versions of Windows. Here's how it's done in Windows 7:-
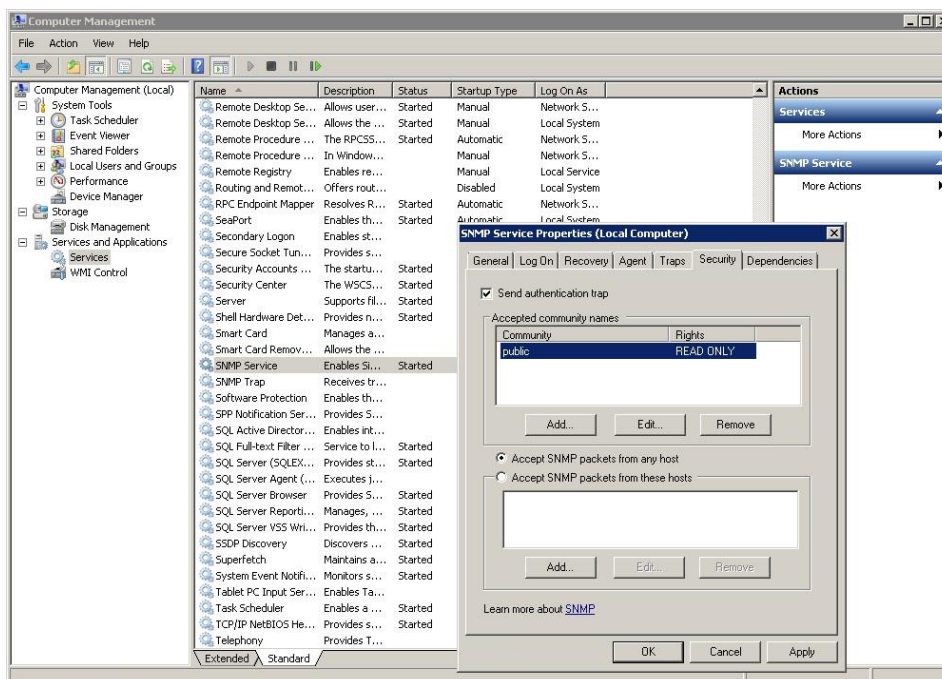
1. Open the Windows Control Panel and select Programs and features.

2. In the left side panel choose the option marked Turn Windows features on or off.

3. When the Windows features window opens scroll down the list and click on the box marked Simple Network Management Protocol (SNMP) as in the screenshot above.

4. Click the OK button and the SNMP service should be set to start automatically for you.

Once the SNMP Service is started you will also need to make a couple of changes to the way the SNMP service is configured, as below:

1. From the Start button menu right-click on **Computer** and select **Manage** to open the **Computer Management** window.

2. In the left-hand pane select **Services**.

3. Scroll down the list of services displayed and double-click on **SNMP Service** to edit its properties (ignore the SNMP Trap service).
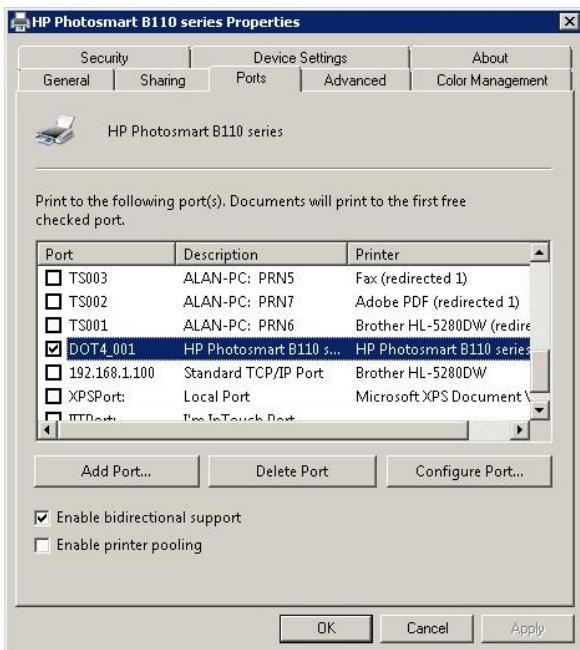

4. Click on the **Security** tab and add an "Accepted community name". The name to add should be **public** with **READ ONLY** rights.

5. You will also need to tell the SNMP service to accept SNMP packets from the ICE when it is scanning for printers. The easiest way of doing this is to click and select the option marked **Accept SNMP packets from any host**, but if preferred you can specify the host name or IP address of the computer hosting the ICE.

Pre-requisites - Printer driver

In order for the HP SNMP Proxy Agent to discover locally connected devices, a supported printer driver is needed to enable communication between the device and client machine.

For most devices you should use a driver that provides an HP DOT4 port connection - whether the connection is via USB or LPT. You can see what ports a Windows driver has available to it from its properties, an example of the correct port type is DOT4_001 as in the screenshot below:-

If the port type is different (e.g. LPT1 or USB001), then you should investigate whether this can be fixed by re-running the printer setup program.

Another alternative is to install the HP Universal Print Driver (version 4.7 or greater is required). Note, however, that before changing any printer driver you should discuss the impact with the user of the computer as the print options may be altered as a result.

Installing the HP SNMP Proxy Agent software

Once you have made sure that the pre-requisites above have been satisfied you can install the HP SNMP Proxy Agent.

First download the software by going to www.hp.com/go/webjetadmin, click **Download Now**, and follow the instructions.

The download will come in the form of an executable archive - simply run the download to un-zip the files.

> **Tip** – The default location for un-zipping will be a hidden directory, so when asked specify your own target folder instead.

Things to note:

- You install the HP SNMP Proxy agent on the PC to which the printer/s are attached.

- You can install the HP SNMP Proxy Agent before or after installing any printer drivers.

- You can install the HP SNMP Proxy Agent on the same PC as the IDM ICE, but this isn't a requirement.

- You will require admin rights to install the HP SNMP Proxy Agent on the host PC but the process requires very little intervention and takes just a few seconds.

- A re-boot is not usually required.

There are separate installers for 32-bit and 64-bit Windows platforms, in the version (10.3) used for this guide the download contained the following files:
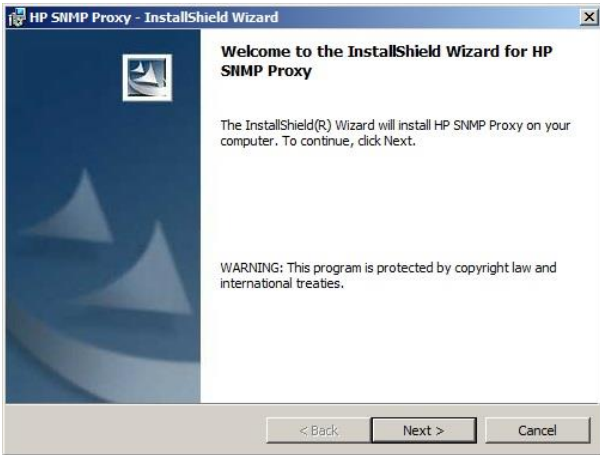
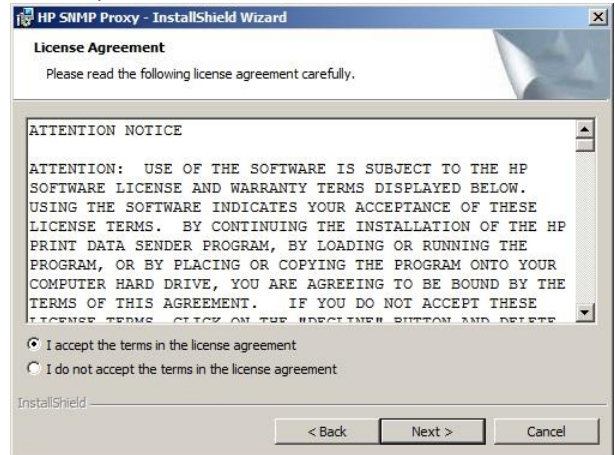> HP SNMP Proxy_32_10_3_0010.msi
> HP SNMP Proxy_64_10_3_0010.msi
>
> HPWSProxyService_10_3_1.msi ***this is NOT required**

The installers are all .msi files for use with the integrated Windows Installer (Msiexec) which means they can be run simply by double-clicking the relevant .msi file. The Windows Installer will then start automatically and prompt you for information using dialog boxes, as below:-
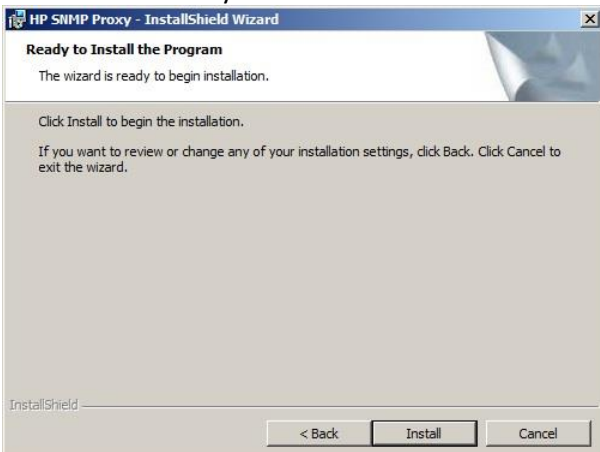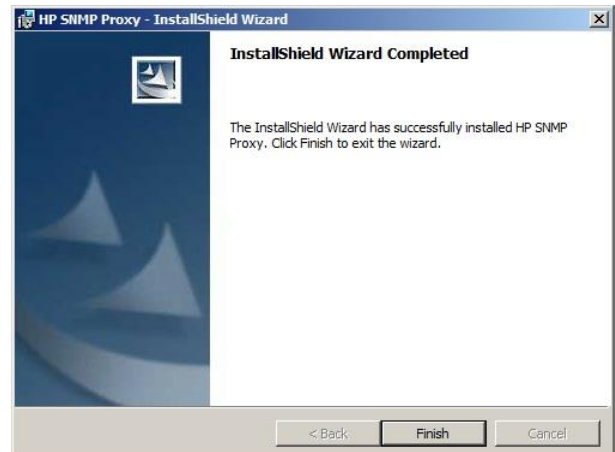
1. Start the installer.

2. Accept the license terms.

3. Click when ready.

4. Let the installer do its work.

Alternatively you can perform a silent install without any prompts and, with the right tools also push the agent out over the network. Information on how to perform these installs is available in the HP SNMP Proxy Agent readme file available from this download link.

The readme file also explains the installation in more detail and contains useful troubleshooting tips for when it fails to work as expected.

Handling the HP SNMP Proxy Agent in IDM

On most networks no changes will need to be made to IDM or the Information Collection Engine (ICE) to monitor local printers via the HP SNMP Proxy Agent.

The only requirement is to make sure that the IP address of the PC running the Proxy Agent is included in the range scanned by the ICE.

From the IDM portal:-

1. Click on the **Administration** tab and select **Customers**
2. Find the customer and click on the site required
3. Click the **Information Collection Engine** tab
4. Scroll down to **Scan Settings**

If the ICE is configured to use the **Default Scan Range**, no changes are normally required.

If the ICE is configured for **Custom Scan Range(s)**, you need to make sure the address of the host PC is included in one of the custom ranges specified.

What IDM will display

Printers discovered via the HP Proxy Agent will be displayed and handled exactly the same way as others that are directly attached to the network. As in the screenshot below which shows a USB attached HP Photosmart B110 MFP (note that the comment field has been completed manually).

The IP and MAC addresses are for the host PC to which the printer is attached.

On some MFP products and where multiple printer drivers are installed, multiple instances of a device may be discovered by IDM. You can work around this issue by choosing just one of the instances to manage from the IDM dashboard.

Appendix A. Devices supported by the HP SNMP Proxy Agent

HP Colour LaserJet 2550 series
HP Colour LaserJet 2605
HP Colour LaserJet 2700
HP Colour LaserJet 2700n
HP Colour LaserJet 2820 series
HP Colour LaserJet 2830 series
HP Colour LaserJet 2840 series
HP Colour LaserJet 3000
HP Colour LaserJet 3500
HP Colour LaserJet 3550
HP Colour LaserJet 3600
HP Colour LaserJet 3700
HP Colour LaserJet 3800
HP Colour LaserJet 4600
HP Colour LaserJet 4610
HP Colour LaserJet 4650
HP Colour LaserJet 4700
HP Colour LaserJet 4730 MFP
HP Colour LaserJet 5550
HP Colour LaserJet 9500 MFP
HP Colour LaserJet CM
1512nfi
HP Colour LaserJet CM1312
HP Colour LaserJet CM2320
HP Colour LaserJet CM 4540
MFP
HP Colour LaserJet CM 6040
MFP
HP Colour LaserJet CP 1505
HP Colour LaserJet CP1515/18
HP Colour LaserJet CP202x
HP Colour LaserJet CP2025
HP Colour LaserJet CP3505
HP Colour LaserJet CP3515
HP Colour LaserJet CP3525
HP Colour LaserJet CP4005
HP Colour LaserJet CP5520
HP Colour LaserJet CP6005
HP Colour LaserJet CP9505
HP Deskjet 450
HP Deskjet 5400 series
HP Deskjet 5900 series
HP Deskjet 6600 series
HP Deskjet 6800 series
HP Deskjet 6980
HP Deskjet 9800
HP Deskjet D1600
HP Deskjet D2600
HP Deskjet F300 series
HP Deskjet F4100
HP Deskjet F4180
HP Deskjet F4400
HP LaserJet 1010
HP LaserJet 1012
HP LaserJet 1015
HP LaserJet 1150

HP LaserJet 1160 series
HP LaserJet 1300
HP LaserJet 1300n
HP LaserJet 1312 MFP
HP LaserJet 1320 series
HP LaserJet 2200
HP LaserJet 2300
HP LaserJet 2300L
HP LaserJet 2410
HP LaserJet 2420
HP LaserJet 2430
HP LaserJet 3015
HP LaserJet 3020
HP LaserJet 3027
HP LaserJet 3030
HP LaserJet 3050
HP LaserJet 3050z
HP LaserJet 3052
HP LaserJet 3055
HP LaserJet 3380
HP LaserJet 3390
HP LaserJet 3500
HP LaserJet 4200
HP LaserJet 4240
HP LaserJet 4250
HP LaserJet 4300
HP LaserJet 4350
HP LaserJet 500 Colour MFP
M575
HP LaserJet 500 Colour M551
HP LaserJet 500 MFP M525
HP LaserJet 5200
HP LaserJet 5200lx
HP LaserJet 600 M601
HP LaserJet 600 M602
HP LaserJet 600 M603
HP LaserJet 700 MFP M725
HP LaserJet 8150
HP LaserJet 9000
HP LaserJet 9040 MFP
HP LaserJet 9050
HP LaserJet 9050mfp
HP LaserJet 9500
HP LaserJet CM1410 Series
HP LaserJet CP1520 Series
HP LaserJet M1530 Series
HP LaserJet M2727 MFP
HP LaserJet M3027 MFP
HP LaserJet M3035 MFP
HP LaserJet M4345 MFP
HP LaserJet M4555 MFP
HP LaserJet M5025
HP LaserJet M5035 MFP
HP LaserJet M9040/50 MFP
HP LaserJet P2015
HP LaserJet P2015d

HP LaserJet P2055/P2035
HP LaserJet P3004 series
HP LaserJet P3005 series
HP LaserJet P4014/15
HP LaserJet M1522 nf
HP Officejet 4100
HP Officejet 4105
HP Officejet 4200 series
HP Officejet 4300 series
HP Officejet 5500 series
HP Officejet 5600 series
HP Officejet 5700
HP Officejet 6100
HP Officejet 6200 series
HP Officejet 6300 series
HP Officejet 7200 series
HP Officejet 7300 series
HP Officejet 7400 series
HP Officejet 7580
HP Officejet 7680/7780
HP Officejet 9100 series
HP Officejet J2100 series
HP Officejet Pro K5300
HP Officejet Pro K5400 series
HP Officejet Pro K5600
HP Officejet Pro K8600
HP Officejet Pro L7300
HP Officejet Pro L7500
HP Officejet Pro L7600
HP Officejet Pro L7700
HP Photosmart 140 series
HP Photosmart 240 series
HP Photosmart 2570 series
HP Photosmart 2600 series
HP Photosmart 2700 series
HP Photosmart 3100 series
HP Photosmart 3200 series
HP Photosmart 330 series
HP Photosmart 3300 series
HP Photosmart 380 series
HP Photosmart 420 series
HP Photosmart 440
HP Photosmart 470 series
HP Photosmart 7200 series
HP Photosmart 7600 series
HP Photosmart 7700 series
HP Photosmart 7800 series
HP Photosmart 7900 series
HP Photosmart 8000 series
HP Photosmart 8200 series
HP Photosmart 8700
HP Photosmart A310
HP Photosmart A430 series
HP Photosmart A510 series
HP Photosmart A610 series
HP Photosmart A710 series

HP Photosmart C3100 series
HP Photosmart C4100 series
HP Photosmart C4200
HP Photosmart C4500 series
HP Photosmart C5100 series
HP Photosmart C6100 series
HP Photosmart C6300 series
HP Photosmart C7100 series
HP Photosmart D5060
HP Photosmart D5100 series
HP Photosmart D6100 series
HP Photosmart D7100 series
HP Photosmart D7200 series
HP Photosmart D7300 series
HP Photosmart Pro B9100
series
HP PSC 1000
HP PSC 1100
HP PSC 1200
HP PSC 1300 series
HP PSC 1310 series
HP PSC 1358
HP PSC 1400 series
HP PSC 1500 series
HP PSC 1600 series
HP PSC 2100
HP PSC 2150
HP PSC 2170
HP PSC 2200
HP PSC 2300 series
HP PSC 2350 series
HP PSC 2400 series
HP PSC 2500 series
HP Scanjet 7000n
HP Scanjet 8500
HP Scanjet 9120

NB. This list is from the HP SNMP Proxy Agent readme document. Other devices may be supported but this is not guaranteed.