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# HP Web Jetadmin Integration into CA Unicenter NSM

## Overview

Among the many functions that Enterprise Management Solutions such as HP OpenView Network Node Manager (NNM) or CA Unicenter Network & Systems Management (NSM) provide to IT administrators, the ability to maintain, monitor, and troubleshoot network nodes remains a high priority. It is important to provide accurate viewing of the network and quick identification of problems so they can be resolved before they escalate to a critical

stage.

Enterprise Management Solutions can monitor the status and configuration of network elements such as routers, switches, servers, and printers, representing the status and logical layout of the network in a two or three-dimensional map (see Figure 1). However, to effectively manage printers, administrators require more detailed printer information to quickly resolve printer issues before they severely impact customer productivity. Ideally, administrators

require the type of printer installation, configuration, maintenance, monitoring, and troubleshooting that a printer management solution such HP Web Jetadmin can provide.

Fortunately, HP Web Jetadmin can integrate into Enterprise Management Solutions such as HP OpenView Network Node Manager (NNM) and CA Unicenter Network & Systems Management (NSM). With the integration of HP Web Jetadmin into these Enterprise Management Solutions, Hewlett-Packard has extended the reach of these solutions to include complete printer management. From the same interface, network administrators can now access all of their Enterprise Management tools and the powerful functionality of HP Web Jetadmin.

Software “bridges” can be created for Enterprise Management Solutions to provide the “hooks” into HP Web Jetadmin to view more detailed printer information.

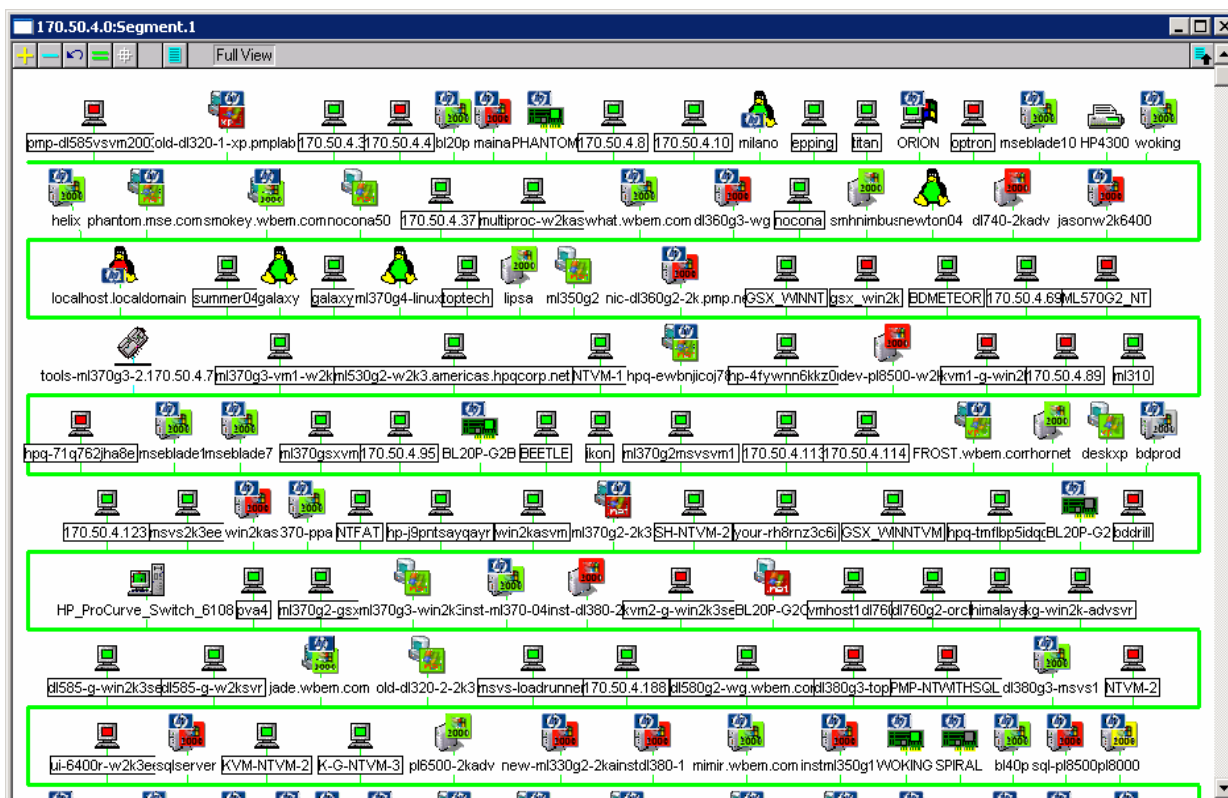


Figure 1



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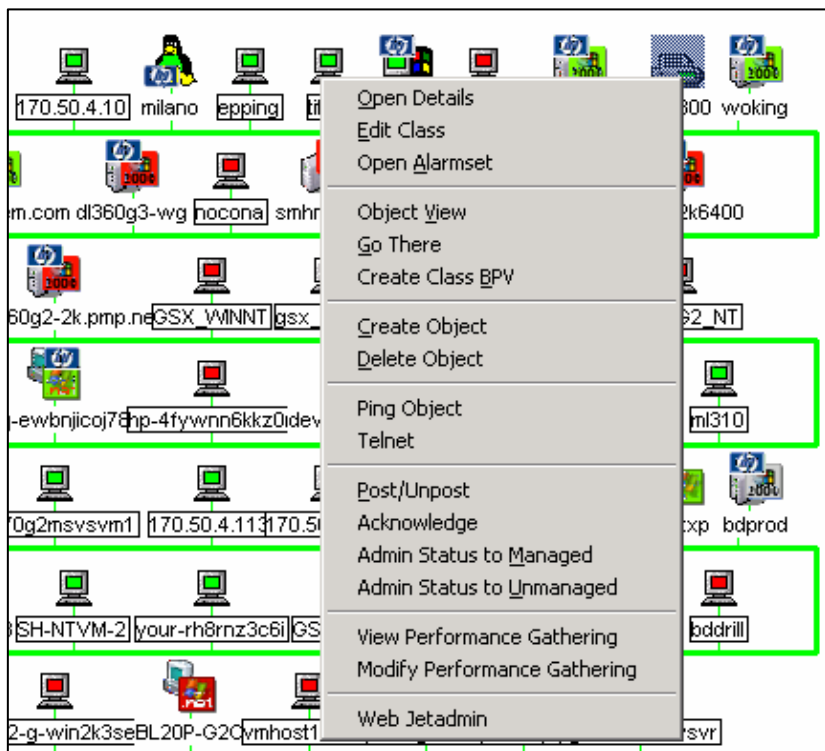


Figure 2

an easy technique for users running CA Unicenter NSM to switch to an HP Web Jetadmin view for any printer to gather more details, configure the device, upgrade firmware, troubleshoot, etc.

A customized bridge can be easily created in CA Unicenter NSM that allows for the launching of an HP Web Jetadmin Status page while right-clicking on a device symbol from a map (see Figure 2). In this example, an entry titled "Web Jetadmin" has been created to launch an HP Web Jetadmin Status page.

To create the bridge and configure a device on the CA Unicenter NSM map to use the bridge, right-click on the desired printer icon, then select *Edit Class* (see Figure 2).

The class which has been created for the symbol is highlighted (see Figure 3), along with the option to either *Modify Existing Class* or *Create New Class*. For this example, use *Modify Existing Class*, unless it is desired to create a new class.

This paper will focus strictly on creating and customizing bridges for CA Unicenter Network & Systems Management (NSM).

For information regarding HP Web Jetadmin integration into HP Systems Insight Manager or HP OpenView Network Node Manager, please read the technical briefs titled "HP Web Jetadmin Integration for HP Systems Insight Manager" and "HP Web Jetadmin Integration into HP OpenView Network Node Manager", found on the following HP Web site:

[http://www.hp.com/go/wja\\_whitepapers](http://www.hp.com/go/wja_whitepapers)

### Creating a Bridge

HP Web Jetadmin integrates into the CA Unicenter NSM framework through the use of a software bridge. The bridge provides a "hook" between

the functionality of CA Unicenter NSM and HP Web Jetadmin, providing

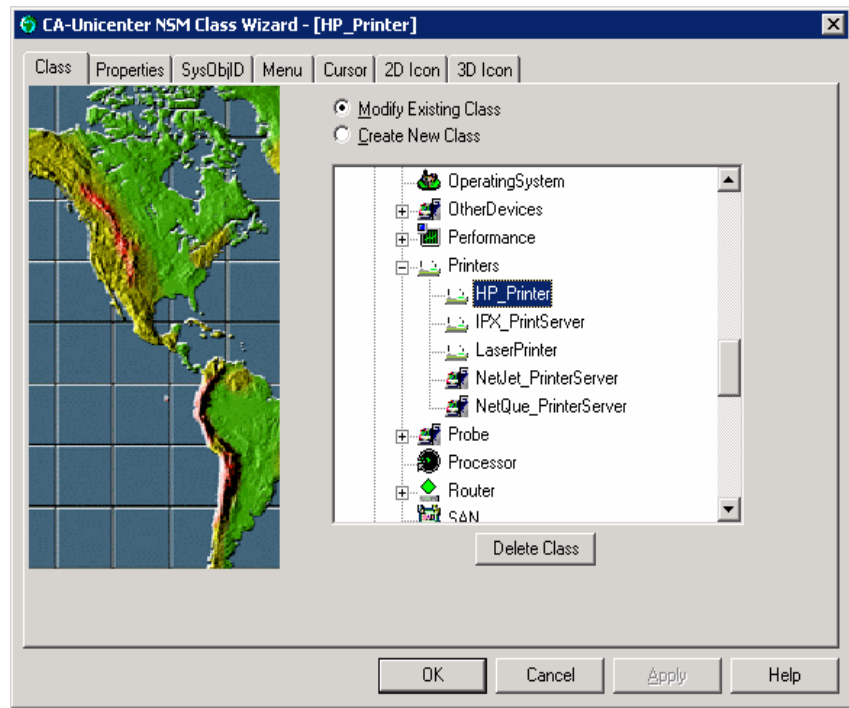


Figure 3

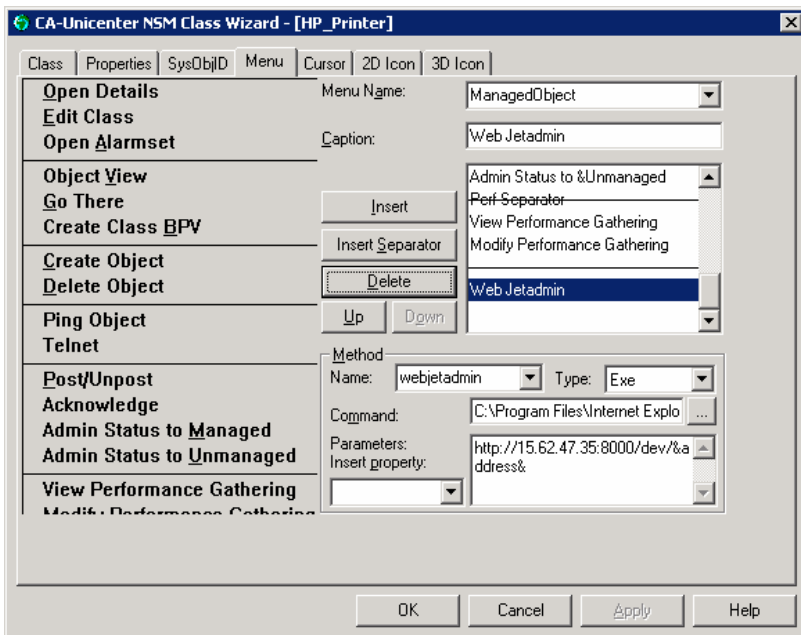


Figure 4

To create a new object to appear in the drop-down menu while right-clicking on a device, select the *Menu* tab (see Figure 4). Scroll down to the appropriate place where it is desired to see the menu option (in this case at the bottom of the list), and click *Insert* to create an entry. Type desired names, such as *Web Jetadmin*, as the *Caption* at the top of the screen and the *Name* in the *Method* box at the bottom of the screen. Assign the *Type* to be *Exe*, and browse to the location of the Microsoft Internet Explorer browser program to be used as the command to run i.e. *C:\Program Files\Internet Explorer\iexplore.exe*.

To instruct Internet Explorer to launch HP Web Jetadmin for the printer object, type:

`http://metz:8000/dev/`

in the box provided, where "Metz" is the hostname of the machine running HP Web Jetadmin. Optionally, an IP address can be used in place of the host name. The "/dev" parameter

instructs HP Web Jetadmin to launch a device Status page immediately.

Finally, a variable unique to the device must be appended so the Status page will launch for the particular device. With the cursor still active at the end of the command,

select *Address* from the *Parameters Insert property* drop-down box, which will insert *&address&* at the end of the url. This will insert the IP address of the current device into the url so HP Web Jetadmin can launch the Status page for that particular device.

Click *OK* to complete the configuration. Now, it will be possible to select *Web Jetadmin* when right-clicking on a printer symbol in the map to launch a separate HP Web Jetadmin Status window to view details or troubleshoot (see Figure 5).

### Bridge Operation

Generally, the status of a network element is reflected by its color on the CA Unicenter NSM map – green for up, red for down (see Figure 1). If a problem is detected on a printer, the administrator can easily switch to the HP Web Jetadmin Status view of the printer, which provides much more information than the standard CA Unicenter NSM interface, by simply right-clicking on the device and selecting *Web Jetadmin*. A separate HP Web Jetadmin device Status window will appear, providing the ability to perform many tasks to assist

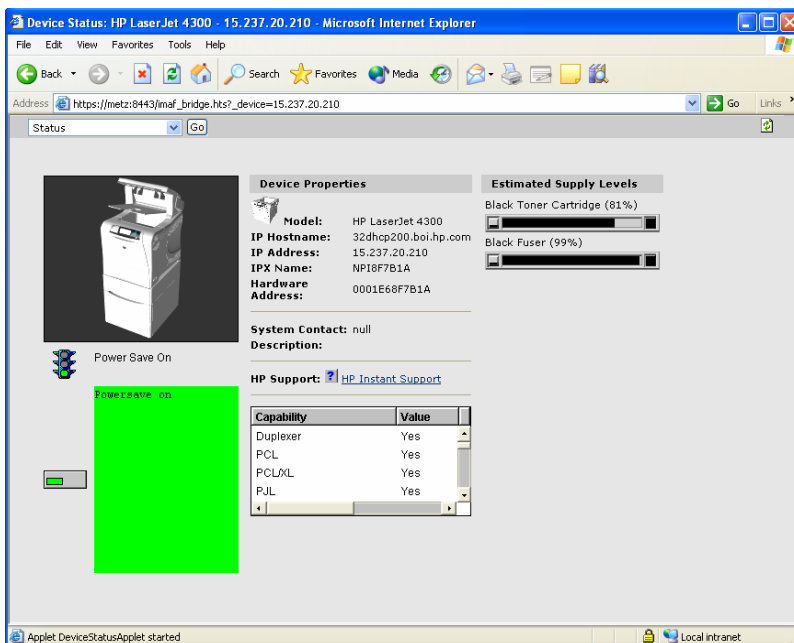


Figure 5

in diagnosing and fixing any issues that exist (see Figure 5).

The Status page includes many pieces of information about the printer such as:

- status
- front panel message
- properties including model, IP address, hostname, MAC address, description, system contact, etc.
- capabilities
- remaining consumables levels such as toner, drum, OPC, etc.

In addition, most printers can be taken online or offline remotely by clicking the button next to the front panel message.

More functionality for solving printer issues is provided by selecting the arrow next to the drop-down menu (see Figure 6):

- Configuration – a multitude of device, network, and security parameters can be configured, including a fully functional remote control panel for many printer models.
- Diagnostics – view additional device information such as serial number, page count, error log, Novell NetWare queue status, etc.
- Reset Options – power cycle printer, cold reset printer to factory defaults, reset NetWare connections.
- Update – upgrade the firmware version for both HP Jetdirect and printer.
- Create Queue – install a print queue using the Standard Port Monitor for Windows.
- Test Page – test basic functionality by forcing the printer to print an internal configuration page.

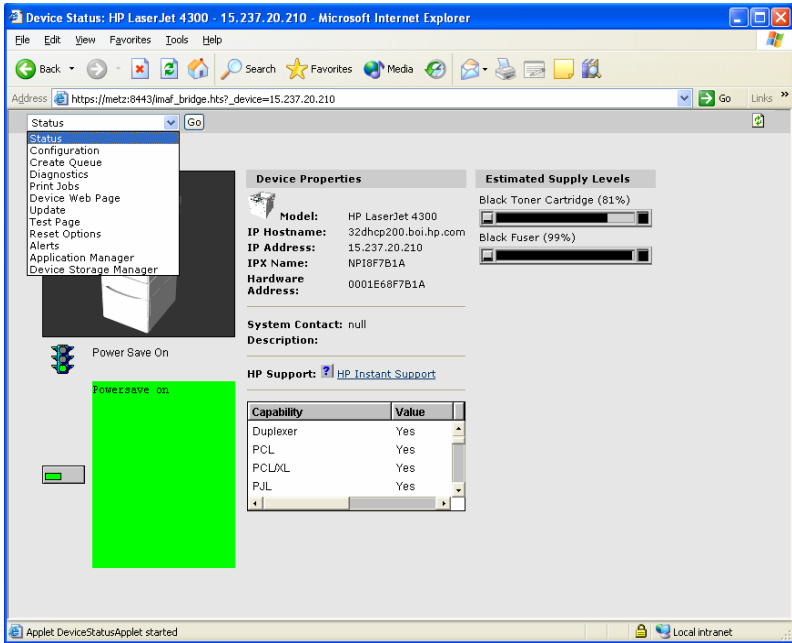


Figure 6

- Print Jobs – view most recent print jobs to have completed printing on the printer.
- Disk Jobs – view or delete any stored print jobs.
- Alerts – configure printer events to trigger e-mail messages to desired individuals.
- Application Plug-ins – additional functionality, such as the ability to manage fonts and macros through the Device Storage Manager, can be installed into HP Web Jetadmin and accessed for a printer.
- NetWare – create a Novell NetWare queue using queue server mode or remote printer mode.

Not all functionality will be available for all models of printers. To view a matrix that matches HP printer models to available functionality, read the technical brief titled "Supported Printer Features in HP Web Jetadmin".

Via the bridge, clearly the administrator or helpdesk individual has all the tools necessary to view and troubleshoot a printer through a simple link from the CA Unicenter NSM interface.

**Summary**

With the integration of HP Web Jetadmin into Enterprise Management Solutions such as CA Unicenter NSM, Hewlett-Packard has extended the reach of these solutions to include complete printer management. From the same interface, network administrators can now access all of their Enterprise Management tools and the powerful functionality of HP Web Jetadmin.

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