

PATROL® Integration for HP OpenView Network Node Manager

Key benefits

- Seamlessly integrates HP OpenView Network Node Manager with PATROL, providing a single solution for management across a distributed computing environment
- Provides an integrated view of Network Node Manager and PATROL objects from a unified console
- Leverages your existing investment in Network Node Manager by extending the product's application management capabilities with PATROL
- Supports Network Node Manager on Unix and Microsoft Windows NT

Business challenge

As corporate IT environments grow in size and complexity, the need for a centralized administrative view of diverse system and network resources can increase as well. Many organizations have chosen to address this need by implementing a system or network management framework solution such as HP OpenView Network Node Manager.

Business opportunity

HP OpenView Network Node Manager is part of the HP OpenView family of enterprise management solutions. Many organizations find it necessary to increase the administrative scope of Network Node Manager to include information related to applications, databases, middleware and other critical resources. The solution is a product that leverages the existing investment in Network Node Manager while effectively extending the product's management perspective across a much wider range of business-critical resources.

The PATROL solution

PATROL by BMC Software and the PATROL Integration for HP OpenView Network Node Manager product provide the cost-effective, powerful solution organizations are

looking for. PATROL Integration extends the management scope of the existing framework solution by delivering a seamless interface between PATROL and the HP OpenView Network Node Manager console. PATROL Integration integrates information into the OpenView alarm browsers and local maps.

PATROL Integration for HP OpenView Network Node Manager enables administrators to use their existing console to view the status of PATROL-managed networks, systems, messaging middleware, databases, applications, Internet/intranet technologies and other critical resources.

PATROL Integration components

PATROL Integration for HP OpenView Network Node Manager consists of the following key components:

- PATROL Integration client

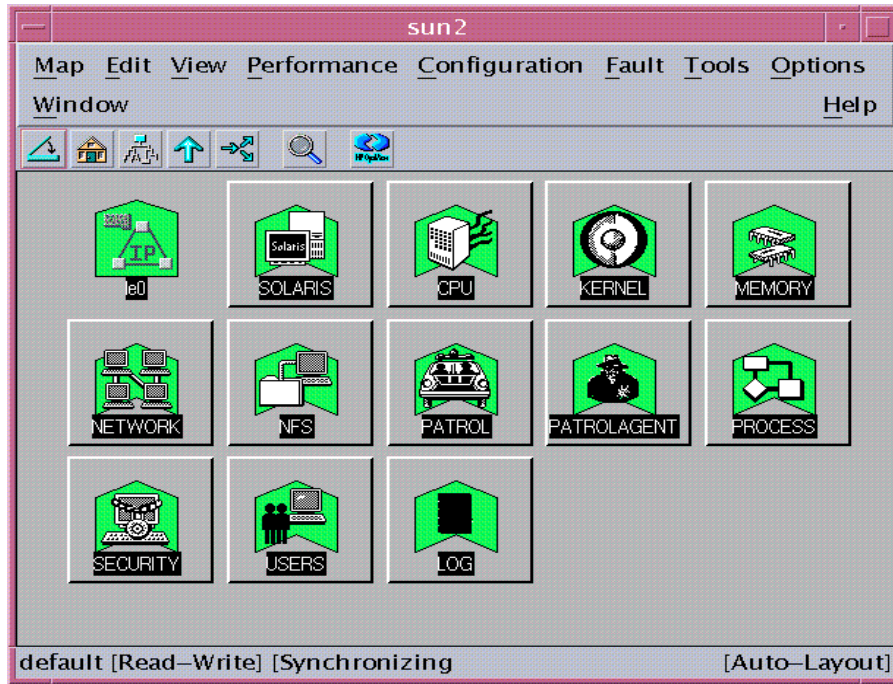


Figure 1 – PATROL Integrator seamlessly integrates management information into the Network Node Manager console, updating the local IP maps with current application, instance and parameter status information. Even the color schemes of the native console remain the same for consistency in delivering "at-a-glance" information regarding alerts and alarms.

- PATROL Integration server
- PATROL Integration configuration utility
- PATROL Integration configuration file

PATROL Integration client

The PATROL Integration client requests information collected by the server. It then creates and updates the PATROL and PATROL Integration icon symbols on the different submap levels of Network Node Manager. The PATROL Integration client also updates instance and parameter levels on demand.

PATROL Integration server

The PATROL Integration server maintains and updates the PATROL network objects and events in the Network Node Manager database. Using the PATROL Event Translator technology, the server establishes a connection with each PATROL Agent. The server monitors the agents for events and reports any

changes. Event filters are applied to the messages and those messages are forwarded to the framework application.

The server also converts events into SNMP traps and sends them to the Network Node Manager host machine, where they are formatted for viewing under the respective alarm category.

PATROL Integration configuration utility

The PATROL Integration configuration utility is a graphical user interface tool that allows users to define and modify the configuration of PATROL Integration and is independent of the client and server. With this utility, users can individually modify the settings that determine which hosts PATROL Integration will communicate with, the port number of the PATROL Agent, the PATROL user name and password for the agent and the event filter settings. Modifications of these settings are stored in the

configuration file for the designated host. The configuration utility allows users to:

- Add hosts to the configuration file
- Specify a target SNMP management host
- Save settings to the configuration file
- Set the connection attributes
- Set the autodiscovery attributes
- Set the debug attributes

PATROL Integration configuration file

The PATROL Integration configuration file defines:

- Specific PATROL Agent hosts to which PATROL Integration should connect
- The Network Node Manager submap level that the PATROL Integration server passes to the client
- Connection parameters to be used for all PATROL Agent connections
- Autodiscovery parameters that instruct PATROL Integration to discover and connect to agents

Ack	Cor	Severity	Date/Time	Source	Message
		Warning	Fri Jul 16 10:57:12	sun2.bmc.com	PATROLAgent Warning: MEMORY State Change: OK WARN Worst applica
		Normal	Fri Jul 16 10:58:02	sun2.bmc.com	PATROLAgent Information: MEMORY MEMORY State Change: WARN OK Updat
		Normal	Fri Jul 16 10:58:02	sun2.bmc.com	PATROLAgent Information: MEMORY State Change: WARN OK Update state
		Normal	Fri Jul 16 10:58:18	sun2.bmc.com	PATROLAgent Information: MEMORY State Change: WARN OK Update state
		Normal	Fri Jul 16 11:00:57	sun2.bmc.com	PATROLAgent Information: FILESYSTEM net-moab-disk1 State Change: OF
		Normal	Fri Jul 16 11:01:51	sun2.bmc.com	PATROLAgent Information: DISK State Change: VOID OK Update status f
		Warning	Fri Jul 16 11:12:13	sun2.bmc.com	PATROLAgent Warning: MEMORY MEMORY State Change: OK WARN Updat
		Warning	Fri Jul 16 11:12:13	sun2.bmc.com	PATROLAgent Warning: MEMORY State Change: OK WARN Worst applica
		Normal	Fri Jul 16 11:13:04	sun2.bmc.com	PATROLAgent Information: MEMORY MEMORY State Change: WARN OK Updat
		Normal	Fri Jul 16 11:13:04	sun2.bmc.com	PATROLAgent Information: MEMORY State Change: WARN OK Update state
		Warning	Fri Jul 16 11:13:04	sun2.bmc.com	PATROLAgent Warning: MEMORY MEMORY State Change: OK WARN Updat
		Normal	Fri Jul 16 11:13:54	sun2.bmc.com	PATROLAgent Information: MEMORY MEMORY State Change: WARN OK Updat
		Normal	Wed Jul 21 08:13:30	sun2.bmc.com	PATROLVIEW Information: PatrolView Server initialized
		Normal	Wed Jul 21 08:13:31	sun2.bmc.com	PATROLAgent Information: User gsiwek logged in.
		Normal	Wed Jul 21 08:14:36	sun2.bmc.com	PATROLAgent Information: Console U:c62d.61141@172.19.201.152 discon
		Normal	Wed Jul 21 08:15:01	sun2.bmc.com	PATROLVIEW Information: PATROLVIEW Client initialized
		Normal	Wed Jul 21 08:15:02	sun2.bmc.com	PATROLVIEW Information: The environment variable PV_HOME is not set!!

360 Alarms - Critical:0 Major:61 Minor:0 Warning:66 Normal:233

FIGURE 2 – The PATROL Integration product allows PATROL Agents to communicate directly with the Network Node Manager Alarms Browser via the HP OpenView API and through SNMP. PATROL Integration seamlessly integrates PATROL management information regarding applications, databases, messaging middleware, Internet/intranet servers and other critical resources into the Network Node Manager console mapping services.

- Debugging information

This information allows the Network Node Manager administrator to use the native console to drill down into PATROL-managed host icons and view all known applications on a specific host. Drilling deeper, the administrator will find icons representing each known instance of an application and alarm.

How it works

When PATROL Integration is installed on an existing HP Network Node Manager console, it is by default automatically launched when the HP OpenView Network Node Manager product starts up. Once launched, the PATROL Integration server connects with PATROL Agents running on the hosts defined in the configuration file. Once connected, the PATROL Integration server will begin receiving messages from the connected agents. These messages are filtered based on event filters set for each agent in the configuration file. The event is used to update the status of PATROL

Integration–created objects in the OpenView database in order to maintain synchronization with the status of the corresponding PATROL-monitored objects at the agent. The received events may also be converted to SNMP traps and forwarded to the OpenView Event Manager for further processing.

The PATROL Integration client builds and updates the Network Node Manager submaps to the level specified in the configuration file. When a PATROL Agent sends an alarm through the PATROL Integration server, the icon symbol that represents the monitored node changes color. Users can drill down into the Network Node Manager GUI to the PATROL application, instance and parameter levels.

The administrator using Network Node Manager has complete control over which PATROL-managed hosts are monitored, and can configure PATROL Integration to filter for specific types of

information on a given host. Filters that can be defined for each host include any or all of the following:

- Information
- State changes
- Errors
- Warnings
- Alarms
- Responses

The administrator can view collections of the monitored parameters each containing detailed graphing windows that provide a precise picture of the current and historical status of the monitored instance. Administrators also have the option of using the message browser to go straight to the alarming parameter without the drill-downs. The color schemes of the native console are maintained in PATROL Integration for consistent, at-a-glance information on alerts and alarms. For more in-depth information, the PATROL Console can be launched as a menu item from the Network Node Manager console.

Managing with PATROL

When authorized to do so, the PATROL Agent can respond to events by executing an automatic correction routine. If the PATROL Agent is unable to resolve an issue, it will forward an alert to the management console. All events detected or resolved by PATROL are stored for administrative review.

Summary

PATROL Integration makes it possible to quickly and efficiently extend the monitoring capabilities of the HP OpenView Network Node Manager solution to a wider range of applications, databases, messaging middleware systems and Internet/intranet servers.

The combination of PATROL and the HP OpenView's Network Node Manager product offers customers a complete solution for managing their environments.

Helping you maintain advantage

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