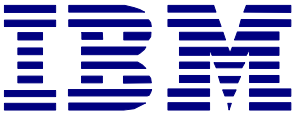

PC Server *White Paper*

PC Server Technology Center

Integrating IBM Netfinity Manager with Microsoft® Systems Management Server

Abstract

IBM Netfinity Manager provides enhanced integration with SMS in three key areas: custom inventory extensions, Netfinity Manager alerts, and Netfinity Manager launch support. An SMS systems administrator can configure this integration by following a few simple configuration steps described in this white paper. This integration contributes to greater productivity and better usability for the system administrator by consolidating management tasks in one console without losing the benefits of both management strategies.

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Introduction

Netfinity Manager, the award-winning LAN management software, can help you manage your distributed desktop, notebook, and server PCs with ease and efficiency. Nevertheless, most networks today are heterogeneous in nature. For the systems administrator, this may create the need to implement more than one management solution to lower your total cost of ownership. Netfinity Manager has been designed to provide integration with other management solutions with the same efficiency and simplicity that are characteristic of the Netfinity Management framework.

For the SMS environment, Netfinity Manager can provide enhanced inventory capability to any SMS client. This includes such features as RAID information, PCI/EISA/MCA device information, serial numbers of IBM systems and other vital product data of components in your systems. This custom inventory provides SMS with a richer database of attributes which can then be queried and monitored by the SMS administrator console. Another area of integration is the sharing of Netfinity Manager alerts with the SMS Administrator console. Netfinity Manager uses alert actions configured through the Netfinity Alert Manager service to define what actions a user would like to take in response to a monitor event. A monitor event takes place when a threshold has been met. Thresholds are set by selecting the item a user wants to monitor from the Netfinity Monitor service. Additional attributes that can be monitored are also available from within other Netfinity Manager services. Please refer to the Netfinity Manager documentation for more detailed information. There are three alert actions that would be of interest to an SMS administrator: NT event log, Map Alert to a SNMP trap, Send a SNMP trap.

Another valuable integration area for a SMS systems administrator who has Netfinity Manager installed along with his SMS Administrator console is Netfinity Service Manager launch support. With this support, one can now leverage within an SMS environment the Netfinity Manager management features which can complement SMS management features. For example, the SMS alert actions are restricted in their ability to notify an administrator in real time that a monitored event has occurred. With the Netfinity Alert Manager service one can configure alert actions such as pager notification and email that are triggered by Netfinity monitors in your network. Other complementing features would include RAID management, Predictive Failure Analysis, and the various Netfinity Manager extensions provided by third parties such as American Power Conversion, Vinca Corp., and Lexmark®. With this integration, it is easy to see how a system administrator can take full advantage of two very powerful management solutions.

The system requirements for this integration are Microsoft Systems Management Server 1.2 with Service Pack 2 and Netfinity Manager . Netfinity Manager Services must be installed on all SMS clients you wish to manage with SMS and Netfinity Manager. Netfinity Manager must be installed on all SMS Administrator consoles for which the launch support and sharing of management features is desired.

Configuration Setup

Netfinity Manager MIF Generator

The Netfinity Manager MIF Generator is a utility that can generate a MIF containing data about your system configuration. MIF (Management Information Format) is a syntax defined by the Desktop Management Task Force (DMTF) for use in its Desktop Management Interface (DMI) to describe components. SMS systems use data in this format to add or maintain items in a SMS database. The Netfinity Manager MIF Generator can be used to add custom inventory data to the

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Personal Computer Properties of a machine that is in an SMS network. The parameters for this utility are as follows:

SIMIFMAK template_file output_file [optional] /SMS [optional]

The template file, sms.mft, provides the Netfinity Manager Custom MIF extensions for SMS. When the sms.mft template file is used, the /SMS parameter must be the second parameter and the output file will default to sistatic.mif. These extensions for SMS will then be picked up during the next inventory cycle run by SMS.

Integration with Systems Management Server

The Netfinity Manager MIF Generator can be integrated into SMS in several ways. It can be scheduled to run using login scripts every time a user logs on, periodically using the Windows NT® AT command or as an SMS job. The details for the setup of this functionality is beyond the scope of this document but can be found in the SMS documentation. When this utility is executed, it will create a file called sistatic.mif in the \MS\SMS\NOIDMIFS sub directory. SMS will then read the contents during its next inventory cycle. This cycle is governed by settings in the Site Properties window.

Netfinity Manager Alert Actions

The Netfinity Manager Alert Actions that are of use within the SMS environment are the NT event log, Map Alert to a SNMP trap, and Send a SNMP trap actions. The alert actions are triggered by when Netfinity monitor thresholds are met or if Netfinity attribute monitors have been set to a particular state. An example of a Netfinity monitor threshold is “CPU utilization exceeded 90%”. A Netfinity attribute monitor example is “RAID Physical Drive 0 has become Defunct”.

Integration with Systems Management Server

SMS Version 1.2 provides an Event to Trap translator and a SNMP trap receiver. The Event to Trap translator must be configured to look for NetFinity Manager as the NT event source. It will convert any NT event log entries from Netfinity Manager into SNMP traps for SMS. The SMS SNMP trap receiver processes SNMP traps and inserts the information into the SQL database using the SNMP trap architecture. Queries can then be run using parameters from the SNMP trap architecture.

Configuring the Event to Trap Translator

1. Bring up the Site properties window and select the SNMP trap filter screen. For an NT event source, type NetFinity.

2. Find the machine you want to configure in the Machine groups window and double click to bring up the Personal Computer properties window. Scroll down to the Windows NT Administrative Tools and select the Event To Trap translator. Select the Edit button and look for Event Sources->Application->NetFinity. This will bring up a list on the right hand side that lists all of our possible events. You can select all and then push the Add button. These should then appear in the window above with other existing selections. Next, select the Settings button and select “Don’t Apply Throttle”.

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Configuring the SNMP Trap Receiver

1. Bring up the Site properties window and select the SNMP trap filter screen. For an Enterprise OID, type 1.3.6.1.4.1.2.6.71. This is the SNMP OID for the NetFinity Manager product.

Creating SMS Queries

SMS is now configured to create SNMP trap entries in its SQL database. A SMS administrator can now retrieve these entries. Custom queries can be created using the Queries Window. To view a list of SNMP traps converted from NetFinity Manager Event log entries, create a query using the SNMP Trap architecture where the NT Event Source is NetFinity Manager. To view a list of SNMP traps received directly from Netfinity Manager,create a query using the SNMP trap architecture where the Enterprise OID is 1.3.6.1.4.1.2.6.71.

Creating SMS Alerts

A new SMS alert query can be defined by opening the Alert window. Enter a name for your alert and then select the Query button. In the Query pull down, select query to execute. Next, set up the actions that you want SMS to take and how often to repeat the query.

Netfinity Manager Launch Support

The Netfinity Service Manager can be added to the Tools Menu of the SMS Administrator Console. This allows an SMS administrator to launch the Netfinity Service Manager against any SMS machine in his network that is Netfinity-enabled. This option only appears in the Tools menu if the Personal Computer Properties window is active in the SMS administrator Console. In order to add this support to a SMS Administrator Console, run the Application Adder utility which is part of the Microsoft BackOffice™ Resource Kit: Part One. The utility's executable name is SMSADDIN.EXE. The entries needed to add Netfinity Service Manager launch support are shown in the table below.

Field	Value
Name	Netfinity Service Manager
Command	c:\wnetfin\netfin.exe
Working Directory	c:\wnetfin
Run	Normal
Register for	Current User
Vendor Registry Key	IBM
Application Registry Key	Netfinity Manager
Tool Availability	SMSMachine
Command Line Arguments Note: The network protocols can be entered in any order but must match the protocols available in your SMS network.	/L:$(Attr(MICROSOFT\|IDENTIFICATION\|1.0:Name)) /S:$(Attr(MICROSOFT|IDENTIFICATION|1.0:Name)) /N:TCPIP::$(Attr(MICROSOFT\|NETWORK\|1.0:DNS Machine Name)) /N2:NETBIOS::$(Attr(MICROSOFT|IDENTIFICATION|1.0:Name))

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	/N3:IPX::$(Attr(MICROSOFT|NETWORK|1.0:IPX Address))

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