



IBM Netfinity Manager Plus for Tivoli Enterprise Overview

Integrating Netfinity Manager into your Tivoli Management Environment

Executive Summary

Netfinity® Manager™ Plus for Tivoli Enterprise software from IBM provides high levels of integration with Tivoli management software.

The IBM Netfinity Manager Plus Module for Tivoli provides premiere-level integration of Netfinity Manager 5.2 into Tivoli Enterprise 3.x. This module integrates Netfinity Manager with the Tivoli desktop and Tivoli Enterprise Console™ (TEC), complementing the Tivoli environment by adding comprehensive PC administration and hardware management.

By adding the Netfinity Manager Plus for Tivoli Enterprise Module, a Tivoli system administrator adds hardware management of their IBM Netfinity server system, thus providing the administrator and the network with a more robust management environment and the following benefits:

- w Ability to launch Netfinity Manager hardware management directly from the Tivoli Desktop for Windows
- w Management of the Netfinity Manager application by monitoring its critical processes
- w Consolidated alerting for Netfinity Manager, so all alerts can be sent and viewed at Tivoli TEC
- w Integrated alerting, monitoring and tasking
- w Quick one-step access to common Netfinity Manager functions
- w Software distribution of Netfinity Manager modules

The system administrator is empowered to achieve greater productivity by having the granularity of a hardware manager and the scalability of Tivoli Enterprise software available from one console.

The IBM Netfinity Manager Plus for Tivoli Enterprise module is available at no charge from <http://www.pc.ibm.com/us/netfinity/download.html> for IBM Netfinity Manager customers.

Introduction

Netfinity Manager, IBM's award-winning hardware management software, helps system administrators manage distributed desktop, notebook and server PCs with ease and efficiency. Netfinity Manager provides a powerful suite of tools for PC hardware management to deliver greater life cycle management for IBM and non-IBM servers and clients, including desktops, mobile systems, servers and workstations.

Most networks today are heterogeneous in nature. For the administrator, this may create the need to implement more than one management solution to help lower the total cost of ownership. Netfinity Manager 5.2 has been designed to provide integration with other management solutions with the same type of efficiency and simplicity that are characteristic of the Netfinity management framework.

IBM and Tivoli: A Synergistic Alliance

Since joining forces in 1996 to work on advances in systems management, IBM and Tivoli Systems have been partners in researching, developing and implementing hardware and software manageability solutions for companies of all sizes. IBM and Tivoli Systems continue working together to solve systems manageability issues facing business today.

Sharing a complementary goal

Tivoli and IBM share a common objective: to simplify systems management. Much of Tivoli's success has come by delivering better system management software in the large enterprise business segment. At the same time, IBM has been building advanced hardware management features into an ever-growing line of personal systems: desktop PCs, mobile computers and Intel® processor-based servers. The result: both companies' management advances are beginning to meet in more and more corporate environments.

Tivoli products provide IBM customers with truly powerful enterprise management solutions including Tivoli Enterprise software and Tivoli NetView. For large enterprise customers, these Tivoli solutions span mainframes, midrange computers, Intel architecture servers and PC desktop systems. For smaller businesses, Tivoli offers the IT Director product that extends many of the same systems management capabilities to smaller-scale networked systems.

The IBM Personal Systems Group has designed our Universal Management products—IBM Netfinity Manager and the IBM Universal Management Agent—to complement and integrate with Tivoli management software for a more robust solution to give users greater control over their information technology resources to help users increase system reliability and availability.

Features of the IBM Netfinity Manager Plus for Tivoli Enterprise Module

The Netfinity Manager Plus Module integrates with Tivoli Management Software in the following ways:

- w Application launch
- w Automated actions
- w Distributed monitors
- w Software distribution
- w Tasks
- w TEC events

Application Launch

An icon is placed on the Netfinity Manager Plus for Tivoli window that allows an administrator to launch the Netfinity Manager console against the local machine. If Netfinity Manager is not installed on the machine, a dialog instructing the user to install Netfinity Manager will appear. The administrator will need a Netfinity Manager user id and password for the machine to satisfy Netfinity Manager security requirements.

Tasks

The following Netfinity Manager tasks are available from the Netfinity Manager Plus for Tivoli window:

- w Reboot System or Group
- w Shutdown System or Group
- w Wakeup System or Group (for Wake on LAN[®]-capable machines)
- w Start/Stop Netfinity Support Program
- w Export Hardware Inventory
- w Export Software Inventory

These six operations can be run as *jobs* or *tasks*. A *job* is intended to be run repeatedly as a routine operation or as a means of controlling an entire service; it is typically executed on multiple subscribers. A *task* is intended to be run as a one-time operation on one or more selected hosts. In addition, jobs can be scheduled, whereas tasks are not. To select whether to run an operation as a task or a job, right-click on the task's icon and choose 'Run on selected subscribers' or 'Run job' respectively.

Software and Hardware Inventory exports using an ODBC interface must have the database installed on the local machine due to Tivoli software environment limitations. Exports using the DB/2[®] interface or file interface do not have this limitation. To be able to wake up a system, the system must be running a Wake on LAN-capable network interface card.

Software Distribution

The Netfinity Plus Module provides the capability to install Netfinity Manager or Client Services for Netfinity Manager to Tivoli-managed nodes and PC-managed nodes. The software can be installed from a CD or the hard drive of a Tivoli-managed node running the Tivoli Software Distribution package.

The distribution can be configured to install to entire subscriber lists by selecting a profile, or to particular machines. As long as the target machines are at least Tivoli PC-managed nodes, they can be running any operating system supported by Netfinity Manager including IBM OS/2®, Microsoft® Windows® 3.1, Windows 95, Windows NT®, or Novell™ NetWare™.

Distributed Monitors

The Plus Module comes with two pre-configured monitors:

- w Netfinity Manager Host Monitors: Monitor the availability of the host where Netfinity Manager is running
- w Netfinity Manager Server Monitors: Monitor the availability of Client Services for Netfinity Manager

The monitors are enabled by default and are configured to send TEC Events as a response to a threshold trigger. The monitors must be distributed from a managed node running the Tivoli software Distributed Monitoring package. The distribution can be scheduled and the target machines can be chosen from a list of subscribers to particular profiles, or to individual machines.

Typically, the Netfinity Manager Host Monitors are distributed to the Tivoli Management Region (TMR), and the Netfinity Manager Server Monitors are distributed to Netfinity nodes. Individual monitors can be edited to specify polling intervals, associations to Sentry Indicators, and trigger levels and responses for each of six severity levels.

Monitor status can be viewed via Popups, Tivoli Notices, TEC Events, or Sentry Indicators. There is a Sentry Indicator associated with each Plus Module monitor. The Indicators are represented by a thermometer icon on the Plus Module window. Whenever a trigger is activated, changes in the icon indicate the severity level of a trigger. Double-clicking on the icon reveals a log of monitor alarms that can be cleared or reset.

TEC Events

The TEC server is configured to respond automatically to TEC events sent by Netfinity Manager's distributed monitors by executing the 'Configure TEC for Netfinity Manager' task from the Plus Module window. When the task runs, it creates a NETFINITY_PLUS event group for Netfinity Manager events, a NETFINITY event source for Netfinity events, and a SENTRY event source for all Distributed Monitor sources.

The task also configures the event console selected during the task's execution to subscribe to the NETFINITY_PLUS event group. To view the events, open the TEC console and select the NETFINITY_PLUS event group.

If they are first sent to a Tivoli-managed node running the Tivoli SNMP Adapter, SNMP traps sent by Netfinity Manager's Alert Manager can also be sent to the TEC server and displayed in the TEC console. Simply copy the files `tecad_netfin.oid` and `tecad_netfin.cds` from the Plus Module CD to the `$TECADHOME/etc` directory on the adapter machine and merge their data with the existing `tecad.oid` and `tecad.cds` files that are present in the directory. Then restart the adapter. Be sure to configure the Netfinity Manager node's SNMP software to send traps to the adapter machine.

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When an event is received by the TEC server, a rulebase provided with the Plus Module is consulted to determine how to handle the event. Automated actions are configured for each rule and shown below.

Event class	Condition	Action
NETF_Netfbase_Daemon_Status	Sent by monitor when netfbase becomes available or unavailable	Restart netfbase process.
NETF_Monbase_Daemon_Status	Sent by monitor when monfbase becomes available or unavailable	Restart netfbase process.
NETF_AlertMgr_Daemon_Status	Sent by monitor when alertmgr becomes available or unavailable	Restart netfbase process.
NETF_NfSNMP_DLL_Status	Sent by monitor when nfsnmp.dll is or is not loaded into SNMP service	Reload nfsnmp.dll into snmp.exe process.
NETF_WebFin_Daemon_Status	Sent by monitor when netfbase becomes available or unavailable	Restart webfin process.
NETF_Host_Daemon_Status	Sent by monitor when Netfinity host machine goes down or comes up	None
NETF_Daemon_Restart_Count_Exceeded	Result of a correlation rule when events of CRITICAL severity are received three times within 24 hours	Generate a NETF_Daemon_Restart_Count_Exceeded event.
NETF_Trap	Sent by TEC SNMP adapter	None

System Requirements

Systems must have one of the following operating systems installed:

- w AIX version 4.2x or later
- w HPUX version 9, 10 or later
- w Solaris version 2.5 or later
- w SunOS version 4.1 or later
- w Windows NT 4.0 or later

Systems must have the following Tivoli software installed

- w TME Framework 3.1 (Solaris, HP, AIX) or later
- w TME Framework 3.1.3 (Windows NT) or later
- w TME 10 Software Distribution 3.1
- w TME 10 Distributed Monitoring 3.2 or later
- w Tivoli Enterprise Console 2.6 or 3.1

The Plus module must be installed on the following hosts:

- w Netfinity Manager host(s) (must be a Windows NT/Tivoli-managed node)
- w TEC Server host

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w Tivoli Management Region (TMR) server host

Finally, the installer must have a fully-qualified Tivoli Administrator name (name@domain) and must be assigned the install_product, senior, super, and admin roles in the Tivoli context.

When the Plus module is installed on a Windows NT/Tivoli-managed node running Netfinity Manager, the host is automatically subscribed to the Netfinity Manager's Profile Manager. This makes it convenient to distribute monitors and software components to groups of specific hosts, for instance Netfinity Manager hosts. PC-managed nodes must be subscribed automatically to a profile manager.

Conclusion

IBM and Tivoli Systems are dedicated to making systems management easier for IT managers. Both IBM and Tivoli offer management products that can work with other branded products. But together, IBM and Tivoli make an unbeatable team of extremely manageable hardware and simplified systems management control, exemplified by IBM's Netfinity Manager Plus for Tivoli Enterprise software, helping you achieve excellent integration with Tivoli Management Software.

No matter what hardware you purchase or what management software you decide to implement, you owe it to your company to pursue IBM personal systems and Tivoli Management Software. Together, IBM hardware and Tivoli software offer a total management capabilities solution that is greater than the sum of our individual parts.

Additional Information

For more information on IBM Netfinity system management, refer to the following information brief, available from our Web site at www.pc.ibm.com/us/infobrf/ib_netfinity.html.

IBM Netfinity Manager 5.2: Comprehensive control of your PC hardware

Increased control through integration with Tivoli

For more information on IBM Netfinity direction, products and services, refer to the following white papers, available from our Web site at www.ibm.com/netfinity.¹

*Achieving Remote Access using Microsoft Virtual Private Networking
At Your Service... Differentiation beyond technology
Examples Implementing IBM Netfinity Server Management: Air Conditioning Failure
IBM Netfinity Cluster Directions
IBM Netfinity ESCON Adapter
IBM Netfinity 8-Way SMP Directions
IBM Netfinity Fibre Channel Directions
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IBM Netfinity Web Server Accelerator
IBM Netfinity X-architecture
IBM ServerGuide for Netfinity and PC Server Systems
Integrating IBM Netfinity Manager with Intel LANDesk® Server Manager
Integrating IBM Netfinity Manager with Microsoft Systems Management Server
Lotus Domino® Clusters Installation Primer
Lotus Domino Clusters Overview*

¹ Are you Year 2000 Ready? Visit www.ibm.com/pc/year2000 or call 1 800 426-3395 (and request document 10020 from our faxback database) for the latest information.



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IBM Personal Systems Group
Department LO6A
3039 Cornwallis Road
Research Triangle Park NC 27709

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