



**ProWatch for Servers
Fault Monitoring
Service Description
August 2003**

SERVICE DESCRIPTION

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ProWatch for Servers is a server monitoring service that is available to customers with an existing NetSolve Service (ProWatch for WAN, ProWatch for LAN, ProWatch for IPT or ProWatch for Security) as an add-on service.

ProWatch for Servers provides the following key features:

- 24 X 365 monitoring, auto-ticketing and auto-notification for:
 - up/down availability of communication interface
 - up/down availability of the server operating system
 - key Microsoft NT/2K/XP services and Unix processes¹
 - environmentals (disk drives, fans, power supplies)²
 - key operating system parameter thresholds (CPU utilization, disk space, memory)³
- For ProWatch for LAN customers, fault validation that the issue is a server issue and not a LAN port issue.
- Web-based inventory listing, trouble ticket status and reporting via ProWatch Exchange

The detailed components of the service are described in the NetSolve Responsibilities section of this Service Description.

Definitions

NMC (Network Management Center) - The NetSolve network operations center.

Monitoring – Monitoring is the term used to describe the heartbeat polling and server performance status checks performed automatically by the NetSolve tools.

Extranet Connection – Frame Relay PVC connection required for SNMP heartbeat polling. A VPN Extranet Connection may be utilized in certain situations.

Referenced Documents

The following NetSolve documents are referenced in, and are considered part of, this Service Description:

DOCUMENT TITLE	REVISION DATE
NetSolve – Moves, Adds and Changes	August 2003

¹ Customers work with NetSolve to establish the services/processes to be monitored. Because of the extensive list of available options, the services are not listed in this document.

² Customers will need a hardware element manager such as Compaq Insite Manager to monitor environmentals.

³ Customers work with NetSolve to establish the CPU performance threshold setting. Other settings are set by NetSolve.

Overview

NetSolve's network management system SNMP polls each monitored server through the Extranet Connection every 90 seconds. When a monitored server fails to respond to a series of heartbeat polls or a performance threshold is exceeded, a trouble ticket is opened and auto-notification procedures are initiated. If the Customer is a ProWatch for LAN customer, NetSolve will validate that the problem is not a LAN port issue.

NetSolve's ProWatch for Servers solution is comprised of:

- A Frame Relay PVC Extranet Connection from the customer's headquarters site to the NetSolve NMC (required for SNMP heartbeat polling).
- Web-based portal for customer access to inventory information, trouble ticket information and reports.

NetSolve Responsibilities

1. Installation Support

NetSolve will:

- Enter the customer-provided server information needed for server monitoring into the applicable NetSolve databases.
- Establish server monitoring access for each monitored server through the customer-provided Extranet Connection (required for heartbeat polling).

2. Data Access

NetSolve will maintain and make available the information repository of inventory data and trouble ticket history via ProWatch® Exchange, NetSolve's Web portal.

The following information is retained by the NetSolve ProWatch for Servers offering if provided by the customer:

- Site physical address (street address, floor, room, city, state, zip code, country)
- Site contact information (administrator, phone, pager, e-mail)
- Maintenance vendor, phone number, coverage information, contract number
- IP address

3. 24x365 Management and Notification

The ProWatch for Servers service automatically monitors the status of all monitored servers 24 hours per day, 365 days per year. If an alarm occurs, a ticket is opened and the customer is auto-notified. Alarms occur on the following conditions:

- If a server fails to respond to heartbeat poll
- If polling identifies a problem with one of the environmentals monitored such as Fan, Disk Drive or Power Supply
- If a system parameter, CPU, Disk Space, or Memory exceeds one of the thresholds
- If a monitored service or process fails.

4. Reports

Reports are visible via ProWatch Exchange.

- Server traffic reports (NIC interface)
- Server performance reports (CPU Utilization, Memory Utilization, Disk Utilization)
- Server Exception reports (CPU Utilization, Memory Utilization, Disk Utilization)
- Trouble ticket and work ticket reports
- Inventory reports

NetSolve will validate that the problem is a server issue as opposed to a LAN issue. The NMC is not responsible for troubleshooting the root-cause of a server problem however, in many instances, the alert will identify the possible problem (such as high disk utilization). Troubleshooting is the responsibility of the customer's maintenance vendor and the customer.

Customer Responsibilities

- Purchasing the ProWatch for LAN or ProWatch for WAN service at those sites where servers are to be monitored.
- Collecting and maintaining all data needed for heartbeat polling and performance threshold monitoring.
- Ensuring that all networks have a NetSolve-approved IP addressing scheme and maintaining addressing scheme.
- Providing the Extranet Connection from the customer's headquarters location to NetSolve, which is required for monitoring.
- Ensuring that SNMP and the host resources MIB is installed.⁴
- Responding to trouble tickets from NetSolve. As a monitoring-only service, NetSolve does not have remote access to customer servers for troubleshooting or evaluation. NetSolve will inform customers of the alerts that are generated.
- Additional hardware-specific parameter monitoring (such as disk drive status, fans and power supply) requires the installation of platform-specific MIB packages such as Dell OpenManage, Compaq Insight Manager or IBM Director. These are typically available for Windows servers and some versions of Unix and Linux. Customers will need to work with their hardware vendor or channel partner to assess the availability and feasibility of loading these additional MIBs.
- Granting NetSolve the right to use statistics derived from historical performance and the right to publish these statistics, aggregated with other customers, as long as Customer or Customer's data is not identified or compromised.

Supported Equipment Classes and Protocols

ProWatch for Servers is available for most servers running:

- Microsoft® Windows® NT/2K/XP
- AIX*
- Sun Solaris*
- HP-UX*
- Linux*
- Novell*

⁴ These are typically installed as the default on Windows 200x servers. Windows NT, Novell and Unix/Linux servers will require additional software or configuration to add these capabilities. IT is the responsibility of the customer and/or the channel partner to verify that these are installed and configured correctly.

* Unix, Linux and Novell platforms are currently approved on an Individual Case Basis (ICB). All functionality may not be available for these servers based on their configurations.

Warranty

WITH RESPECT TO SERVICES, NETSOLVE'S EXCLUSIVE WARRANTY IS THAT THE SERVICES SHALL BE PERFORMED IN A WORKMANLIKE FASHION. IN ANY MONTH IN WHICH CUSTOMER, IN CUSTOMER'S SOLE OPINION, BELIEVES NETSOLVE HAS BREACHED THIS WARRANTY, NETSOLVE WILL CREDIT CUSTOMER UP TO ONE-HUNDRED PERCENT (100%) OF THE SERVICE FEES FOR THAT MONTH FOR THE PRO WATCH FOR SERVERS SERVICES. IN ORDER TO RECEIVE THIS CREDIT, CUSTOMER MUST NOTIFY NETSOLVE IN WRITING WITHIN THIRTY (30) DAYS FOLLOWING THE END OF THE MONTH THE SERVICES WERE PROVIDED STATING (i) THE REASON CUSTOMER IS DISSATISFIED WITH THE SERVICES AND (ii) THE AMOUNT OF THE SERVICE FEES CUSTOMER REQUESTS TO BE CREDITED. UPON RECEIPT OF SUCH NOTICE, NETSOLVE WILL CREDIT CUSTOMER THE REQUESTED AMOUNT (UP TO THE LIMITS ABOVE) ON THE NEXT BILLING CYCLE. THIS CREDIT WILL CONSTITUTE CUSTOMER'S SOLE AND EXCLUSIVE REMEDY FOR BREACH OF WARRANTY. NETSOLVE SHALL NOT BE OBLIGATED TO CREDIT CUSTOMER AN AGGREGATE AMOUNT EXCEEDING TWO MONTH'S SERVICE FEES IN ANY TWELVE MONTH PERIOD, OR AN AGGREGATE AMOUNT EXCEEDING THREE MONTH'S SERVICE FEES IN ANY EIGHTEEN (18) MONTH PERIOD, BUT MAY ELECT TO DO SO BASED ON CUSTOMER'S REQUEST.