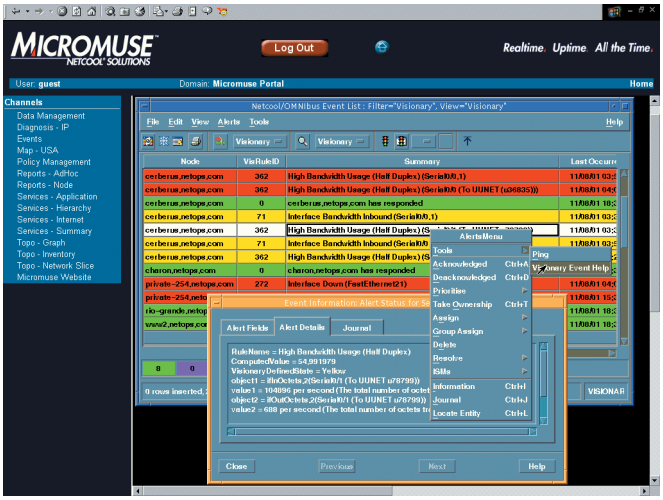
PRODUCT SPECIFICATION SHEET

NETCOOL®/Visionary™ v2.5

Improve Service Continuity Through Realtime Problem Diagnosis



Netcool/Visionary problem diagnoses are reported alongside device status information in the Netcool EventList interface.

Network and system downtime can be extremely costly to service providers and large corporations. As a result, IT departments are constantly challenged with maintaining high service and application availability with an often-limited staff. As IT infrastructures continue evolving and growing more complex every day, management must continually find new methods of delivering on contracted service agreements while containing operations costs.

Prevent Service Degradation

The Netcool®/Visionary™ application helps reduce downtime and eliminates hours of troubleshooting by pinpointing a problem's underlying cause in minutes. Like an engineer in a box, the Netcool/Visionary application looks inside network devices to determine why something went wrong - and then suggests ways to resolve the problem. Netcool/Visionary is also capable of detecting problems in the IT infrastructure that are likely to cause larger problems in the future, thus providing the opportunity for operations personnel to prevent larger degradations in service.

Whenever a device such as a server, switch or router shows a deviation or spike from normal behavior, the Netcool/Visionary application provides an instant explanation for the condition. It does this by analyzing management information residing on the device, accessed from its SNMP MIB (Management Information Base). This allows operations teams to quickly identify why the device reported a problem, allowing them to address problems before they cause service outages.

Minimize Troubleshooting Time

The Netcool/Visionary application helps you quickly resolve problems in your network, reducing overall mean-time-to-resolution. Its diagnostic capabilities coupled with suggested resolution policies can save you a significant amount of time associated with troubleshooting IT problems. If you are a large financial institution, Netcool/Visionary can help your IT personnel increase the reliability of the infrastruture supporting business-critical trading applications. For service providers delivering cable or broadband services, Netcool/Visionary can help operations personnel isolate problems in the physical plant, helping to reduce truck rolls and improve customer satisfaction.

Part of the Netcool Suite

Netcool/Visionary detects problems and automatically sends them to the Netcool/OMNIbus application, which consolidates fault information from the infrastructure. Here, the data is de-duplicated and displayed in a "Problem Diagnosis" or "Problem Summary" table in the Netcool EventList. This provides operators with a complete end-to-end picture of the infrastructure from the overall status of each device through to their individual components. Because it drills down into the device to determine why the failure occurred, operators can more quickly resolve problems.

Netcool/Visionary - Problem Diagnosis and Prevention

The Netcool/Visionary application uses data it extracts and processes from SNMP MIBs to diagnose problems. Its progressive MicroCorrelation™ technology and patent-pending EdgeCorrelation™ technology analyzes the MIB information to pinpoint the underlying cause of hundreds of unique problems. It also monitors multiple variables that can cause problems such as:

> Instability from a particular routing peer.
> Link flaps correlated to connected devices
> CPU utilization
> Redundant link failure identification
> Power fluctuation
> Memory utilization
> Bad clocking
> Uncorrectable codewords

The Netcool/Visionary application processes these events in realtime using MicroCorrelation technology to overlay changes in the "health" of each component and automatically generates recommendations to resolve the detected problems. It analyzes multiple variables on a second-by-sec-

ond basis to detect even the smallest change in a device - identifying potential problems before they manifest into network-wide faults. Once a problem is diagnosed, a message that refers to a recommended solution is sent to the Netcool console to alert the operator. Operators can customize management views based upon job responsibility, criticality of alarms or by component.

Broad Monitoring Coverage

The Netcool/Visionary application can monitor a wide range of infrastructure inconsistencies, ranging from basic interface transition problems to nebulous problems such as routing convergence issues and broadcast storms. It has standard MIB II support as well as vendor specific support, such as Cisco and Nortel.

Benefits

> **PROTECTS REVENUE & REDUCES DOWNTIME -** The Netcool/Visionary application helps protect revenue by identifying potential problems before they affect service or application availability. When a problem does arise, Netcool/Visionary quickly identifies its cause and recommends a resolution. This helps decrease overall mean-time-to-resolution of problems resulting in significant operations cost savings.

> **SCALABLE, OPEN ARCHITECTURE -** The Netcool/Visionary application scales to support very large, multi-site installations regardless of the number of nodes. In addition, it does not rely custom on APIs or integration capabilities to work with diverse elements but instead uses industry standard SNMP.

> **DELIVERS ACCURATE DIAGNOSTIC DATA -** The Netcool/Visionary application provides IT operators and technicians have more accurate, concise information down the node and port level. As a result, operators have information that enables them to be more proactive and effective. Problems are detected and understood more quickly and less time is expended on problem resolution.

> **REDUCES CUSTOMER CARE CALLS -** The Netcool/Visionary application can help significantly reduce trouble tickets and customer calls to service center through its ability to proactively identify potential service-affecting issues.

> **RAPID ROI -** The Netcool/Visionary application can be running within one day, helping customers prevent costly outages.

Netcool/Visionary Components

The Netcool/Visionary application consists of the following four basic components:

> The Netcool/Visionary Device Status Monitor™ (DSM) serves as Netcool/Visionary's polling engine, collecting hundreds of raw data values from SNMP MIBs within each managed network element every second. Its data collection process can access a high volume of information with minimal impact on bandwidth and CPU resources. The Netcool/Visionary DSM feeds the data into other Visionary modules, which diagnose a problem's cause and propose a resolution.

> The Netcool/Visionary Rule Studio™ allows operators to create and remotely distribute new device models and analysis rules.

> The Netcool/Visionary Agent™ receives the filtered events from the Netcool/Visionary and DSMs perform high-speed consolidation, correlation and analysis on the information. Once it identifies a problem, the Netcool/Visionary agent generates a Smart Event, which consists of messages that contain the correlated MIB objects and their values. By correlating changes and trending them over time, Netcool/Visionary looks beyond the immediate symptoms to give you visibility into why they are occurring.

> The Netcool/Visionary Configuration Tool™ allows users to perform administrative functions including adding or deleting DSM and/or targets (network devices); starting and stopping an agent; viewing alerts; and adjusting the system sensitivity.

New Features in Netcool/Visionary v2.5

> **SNMP V2C SUPPORT -** The Netcool/Visionary DSM will now poll with SNMP V2C before backing off to SNMP V1, allowing the proper support of counter64 objects.

> **CABLE MODEM MANAGEMENT TOOL -** Netcool/Visionary enhances its support for cable devices. The CMMT allows one DSM to be configured with CMTS (Cable Head end devices) - and a second DSM is automatically configured (_cmmt) with the downstream cable modems. There is a check box in the GUI and an installation process for CMMT.

> **RULE UPDATES -** Netcool/Visionary has updated its rules for DSX1/DSX3, APC UPS, Cisco Memory, Extreme Switch environmentals, Spanning Tree on Accelar, HSRP, VRRP.

> **NEW BROWSER SUPPORT -** The administration tool is now browser-based, supporting Netscape 6.x, 4.7X and IE 5 and 6.

System Requirements

The Netcool/Visionary v2.5 application is compatible with Micromuse Netcool/OMNIbus v 3.3, 3.4, 3.4.1.

SUN MICROSYSTEMS: Sun Solaris 2.5.1, 2.6, 2.7
HEWLETT-PACKARD PA-RISC BASED PLATFORMS: HP-UX 11.x
IBM POWER PC BASED PLATFORMS: AIX 4.3.3

The following is the recommended minimum hardware configuration for the installation of a DSM monitoring 50 targets on a Solaris® platform:

> Sparc ULTRA 10 300 MHz processor or Enterprise series 333 MHz processor
> 256 MB of memory
> 2.0 GB of disk space
> Network interface card (NIC)

INTEL BASED PC, LINUX (KERNEL 2.x) OR WINDOWS NT 4.0 REQUIREMENTS:
> Microsoft Windows NT 4.0 (SP3 or higher)
> Redhat Linux 6.1, 6.2
> Pentium II 400 MHz processor (Linux compatible)
> 256 MB of memory
> 2.0 GB of disk space
> Network interface card (NIC)

MICROMUSE™
NETCOOL® SOLUTIONS

Corporate Headquarters
139 Townsend Street
San Francisco, CA 94107
415.538.9090
www.micromuse.com

About Micromuse

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