

RoboMon NT/2000 - Proxy Server Intelligent Solution Set

Automated management for Microsoft® Proxy Server

Manage Any Proxy Server Environment Better

RoboMon's Proxy Server Intelligent Solution Set provides easily configurable proactive monitoring and problem solving for any size Proxy Server environment, from standalone proxy servers to a chain of servers across several branch offices to the proxy server array used in an ISP's point of presence. RoboMon's automated, out-of-the-box Proxy Server Intelligent Solution Set operates through an integrated set of rules that detect and correct problems before your users experience failures or slowdowns. It monitors all aspects of Proxy Server availability and performance, from the server and client perspectives, including:

- Basic operations, such as whether critical services are running and the Proxy Server is reachable by clients,
- Performance criteria, such as cache efficiency and speed of response across a network, and
- Security issues, such as the effective blocking of disallowed sites.

RoboMon can diagnose and correct problems on the spot, or escalate them to your attention at a central monitoring location.

RoboMon NT/2000 Event Monitor

The screenshot shows the RoboMon Event Monitor window with the following table of events:

EventDateTime	Class	SubClass	Computer	Severity	RuleName
10/28/99 04:02:58 PM	PROXY SERV...	DENIED SITES	GUARDIAN	1	SITES_DENIED
10/28/99 04:00:18 PM	AUTOMATION	NETWORK	EAST	1	UNREACHABLE_COMPUTERS
10/28/99 04:00:18 PM	AUTOMATION	NETWORK	EAST	1	UNREACHABLE_COMPUTERS
10/28/99 02:01:32 PM	IIS	IIS CACHE	GLOBAL	1	IIS_CACHE_ALERT
10/28/99 02:01:28 PM	IIS	IIS PROCESS	GLOBAL	1	IIS_PROCESS_POOL_LEAK
10/27/99 11:00:09 PM	AUTOMATION	PAGE_FILE	EAST	1	PAGE_FILE_LOAD
10/27/99 11:00:01 PM	IIS	IIS SERVICES	EAST	1	IIS_SERVICES

The detailed view for the 'SITES_DENIED' event shows the following text:

```
Updated severity 1 problem for computer GUARDIAN at 10/28/99 04:02:58 PM.
Generated by rule SITES_DENIED of type DENIED SITES in PROXY SERVER.

There have been excessive site denials during the last interval.

During the last 60 minutes, Proxy Server GUARDIAN has
denied client access to 13 sites. The current acceptable limit,
as defined in the RoboMon Solutions Manager, is 5
denied sites per interval.
```

Key Benefits

- Works out of the box, with no setup time
- Configures to any size Proxy Server environment by automatically studying the Proxy Server workload
- Fixes problems automatically, focuses your staff's time on the issues you target
- Allows centralized monitoring of remote systems
- May be precisely customized for each environment
- Provides intuitive, graphical interface for management and customization
- Integrates with RoboMon's enterprise-wide total eBusiness infrastructure management solution (see below)

What RoboMon's Proxy Server Intelligent Solution Set Monitors

RoboMon's Proxy Server Intelligent Solution Set provides comprehensive monitoring and management of running Proxy Server systems. Specific rules are designed to:

- Monitor the status of the Proxy Server Administration and Winsock services, and optionally restart them
- Verify that clients can connect to both the Proxy Server and approved URLs
- Monitor use of system resources by Proxy Server processes, as well as the overall performance of Proxy Server, and raise an alert if performance drops well below recent historical averages
- Monitor Proxy Server and WinSock cache efficiency and raise an alert when either drops below specified thresholds, which may result in poor performance or excessive use of system resources
- Monitor usage levels of the Proxy Server and WinSock DNS cache, raise an alert if usage drops below specified thresholds, and notify the administrator when the cache may need to be flushed
- Flag high transfer rate between Proxy Server and remote Internet servers or Proxy Server clients, as well as high overall I/O, possibly caused by unusual activity levels, excessive use of resources or poor cache efficiency
- Track average time to fulfill client requests, as well as the number of failed requests and DNS resolutions, and raise an alert when these levels exceed specified thresholds

- Monitor number of WinSock sessions, Web Proxy and WinSock connections, as well as FTP, Gopher, and HTTP requests, and flag high levels that may seriously degrade server performance
- Send an alert when a high percentage of SSL sessions have been closed due to idle timeout or excessive demand, which may indicate the need to upgrade the server's CPU or memory
- Check that blocked sites are inaccessible and raise an alert when an excessive number of blocked sites are being requested by clients

What Rules Mean to You

RoboMon rules work out-of-the-box, with no tweaking, for any size Proxy Server configuration. In addition, each RoboMon rule may be completely customized, allowing precise control over threshold settings through the Solutions Manager, as well as actions to be taken, required notifications and alerts. RoboMon's intuitive, graphical Rule Designer allows you to tailor rules and create new rules without writing a single line of code. Customized rules may be deployed to individual machines, domains or throughout the enterprise, via simple, efficient, drag & drop operations in the RoboMon Enterprise Manager.

The Total RoboMon Solution

RoboMon for Windows NT/2000 is automated eBusiness infrastructure management software that detects and corrects complex application, system and network problems to ensure the highest levels of availability and performance.

RoboMon includes a suite of pre-defined rules, called Intelligent Solution Sets, that work out of the box to detect and correct problems with applications, systems and networks, including Windows NT/2000, Microsoft BackOffice, and SNMP-based network components.

RoboMon may be configured to notify staff of problems in real time, or to take corrective action independently and monitor the results for success. RoboMon's many notification options include paging, e-mail, SNMP trap, net send messages, and centralized event reporting through the Event Monitor, enabling it to integrate with and supplement your current staff notification practices.

Where RoboMon's Proxy Server Intelligent Solution Set Gets Its Data

- Perfmon counters
- Win32 API

RoboMon's Proxy Server Rules

Proxy Server

FTP_Requests_High

Raises an alert if the number of FTP requests exceeds a threshold based on historical averages.

Gopher_Requests_High

Raises an alert if the number of Gopher requests exceeds a threshold based on historical averages.

HTTP_Requests_High

Raises an alert if the number of HTTP requests exceeds a threshold based on historical averages.

ProxyServer_Performance_Checks

Checks basic performance indicators.

ProxyServer_Process_Busy

Checks if any of the Proxy Server processes are using excessive CPU.

ProxyServer_Services

Monitors the status of services critical to Proxy Server, generating an event if they are not running.

Request_Fulfillment_Time

Monitors the average amount of time (in milliseconds) taken to fulfill client requests. If the average time exceeds the threshold defined in the RoboMon Solutions Manager, a problem event is generated.

Restart_ProxyServer_Services

When fired, automatically restarts the Microsoft Proxy Server Administration and Microsoft WinSock Proxy Service services.

Sites_Denied

Monitors the number of blocked sites to which clients have attempted to connect. If the number of sites denied for the interval exceeds the threshold defined in the RoboMon Solutions Manager, a problem event is generated.

SSL_Sessions_Scavenged

Monitors the percentage of active HTTP sessions serviced by the Secure Sockets Layer tunnel that have been scavenged (closed) due to idle timeout or excessive demand. A problem event is generated if the percentage exceeds the threshold defined in the RoboMon Solutions Manager.

Web_Proxy_Cache_Efficiency

Monitors the efficiency of Proxy Server's use of its cache. If the cache hit percent drops below the threshold defined in the RoboMon Solutions Manager, a problem event is generated.

Web_Proxy_Connections_High

Monitors the number of simultaneous connections vs. historical average. If the number exceeds the historical average by more than the threshold defined in the RoboMon Solutions Manager, a problem event is generated.

Web_Proxy_DNS_Cache_Efficiency

Monitors the percentage of Web Proxy DNS retrieval attempts serviced from the cache. If the percentage drops below the threshold defined in the RoboMon Solutions Manager, a problem event is generated.

RoboMon's Proxy Server Rules cont.

Web_Proxy_DNS_Cache_Usage_Alert

Generates a problem event if the percentage of Web Proxy DNS cache entries used is below the threshold defined in the RoboMon Solutions Manager for four or more consecutive intervals.

Web_Proxy_Failed_Requests

Raises an event if the number of failed requests to the Proxy Server exceed a threshold based on historical averages.

Web_Proxy_Internet_Transfer

Raises an alert if the rate of transfer between the Proxy Server and remote Internet servers exceeds a threshold based on historical averages.

Web_Proxy_Transfer_Rate

Raises an alert if the rate of transfer between the Web Proxy Server and Web Proxy Clients exceeds a threshold based on historical averages.

WinSock_Connections_High

Monitors the number of active WinSock sessions. A problem event is generated if the number of simultaneous active sessions exceeds the threshold set in the RoboMon Solutions Manager.

WinSock_DNS_Cache_Efficiency

Monitors the percentage of DNS retrieval attempts serviced from the cache. If the percentage drops below the threshold defined in the RoboMon Solutions Manager, a problem event is generated.

WinSock_DNS_Cache_Usage_Alert

Generates a problem event if the percentage of WinSock DNS cache entries used is below the threshold defined in the RoboMon Solutions Manager for four or more consecutive intervals.

WinSock_DNS_Failure

Monitors the percentage of attempted WinSock DNS resolutions that fail per interval. If the percentage exceeds the threshold defined in the RoboMon Solutions Manager, a problem event is generated.

WinSock_Proxy_Transfer_Rate

Monitors the read/write rate for the WinSock Proxy Server data pump. If the number of requests in a given interval exceeds the historical average by more than the threshold percentage defined in the RoboMon Solutions Manager, a problem event is raised.

RoboMon's Proxy Server Client Rules

Blocked_Sites

Verifies that sites designated as blocked by the Proxy Server are not accessible.

ProxyClient_URL_Unreachable

Verifies the ability of the Proxy Client to connect to approved URLs.

ProxyServer_Unreachable

Verifies that the Proxy Client can reach the Proxy Server via the TCP/IP protocol.

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