

Nimsoft Monitor for Microsoft Hyper-V

Insights for Optimizing IT and Business Performance

Key Features

- Monitors performance, status and end-user response time of Microsoft Hyper-V Server hosts and virtual machines (VM), including system, CPU, memory, disk, and network metrics as well as VM-resident OS and business applications
- Comprehensive visibility into host/virtual machine, application performance, and end user responsiveness
- Point-and-click access to alarms and real-time performance status

Benefits

- Improved performance and uptime. Proactive monitoring and alerting accelerates identification of performance issues—enabling response before end user productivity is affected
- Enhanced resource optimization. Centralized, cohesive view of performance delivers insights into opportunities for resource optimization and “right sizing” of hardware investments
- SLA compliance. Instant alerts and real-time dashboards notify service managers in advance of SLA compliance breaches

Introduction

While virtualization technologies like Hyper-V have ushered in a world of potential benefits, they also brought an entirely new world of challenges from a monitoring perspective.

Hyper-V is a 64-bit virtualization platform that comes bundled in Windows 2008 Server and that is also available as a standalone Hypervisor platform. When Hyper-V gets implemented, an entirely new layer of “moving parts” gets added to the mix, and dramatically increases the complexity of monitoring business applications and the infrastructure upon which they rely. How can organizations efficiently monitor this virtualized infrastructure? How can they ensure that the virtualized infrastructure and all the applications that run in this virtual environment are optimized?

Solution

With Nimsoft Monitor for Microsoft Hyper-V, organizations can harness a comprehensive solution for monitoring all vital performance metrics in Hyper-V environments. Nimsoft Monitor enables organizations to monitor and fully optimize their Hyper-V implementations. Plus, with Nimsoft Monitor, organizations can monitor and manage all the operating systems and business applications that run in this virtualized environment—and get insights into the performance end users experience from these business applications. By offering this comprehensive monitoring picture through a centralized solution, organizations can take a more holistic and service-led view of the virtualized environment—and much more effectively optimize the performance, utilization, and reliability of the entire infrastructure.

Monitoring Os and Apps Running on Virtual Machines

Nimsoft Monitor offers capabilities for monitoring the following:

- All major Windows and Linux based operating systems.
- A host of common business applications, including Microsoft Exchange, Microsoft Active Directory, Microsoft IIS, Lotus Notes, SAP, WebSphere, e-commerce applications, and custom-built applications.
- All prevalent databases, such as Oracle, Microsoft SQL Server, and Sybase.



Data Sheet

Monitoring Response Times of End User Applications

Through its extensive support for response time solutions across a range of applications, Nimsoft Monitor provides vital insights into what is really happening from an end user perspective.

Nimsoft Monitor offers a range of capabilities for simulating transactions that end users conduct with business applications. With Nimsoft Monitor, these simulations are easy to implement and automate, and they yield a wealth of practical insights and alerts if end user processing is degraded or down.

Critical Performance Data: When and How it's Needed

Nimsoft Monitor compiles, analyzes, and monitors performance data to provide real-time tracking of Microsoft virtualized infrastructures. Nimsoft Monitor delivers this vital information via alarms, operator consoles, business dashboards,

long-term trend reports, and SLA compliance reports.

Supported Platforms

- Windows Hyper-V Server 2008
- Windows Server 2008 with Hyper-V

The following metrics are supported:

| | Host | VM | | Host | VM | | Host | VM |
|------------------------------------|------|----|--|------|----|--|------|----|
| SYSTEM | | | NETWORK | | | RESOURCES | | |
| Name | x | x | Total Receive Throughput | x | x | Logical Processors | x | |
| Uptime | x | x | Total Send Throughput | x | x | Network Receive Throughput (per adapter) | x | |
| Address Spaces | x | x | Packets Received (per device) | x | x | Network Send Throughput (per adapter) | x | |
| Connected Clients | x | x | Packets Sent (per device) | x | x | Partitions | x | |
| GPA Space Modifications per Second | x | x | Physical Network Adapter Name (per device) | x | x | Running VMs | x | |
| Virtual Processors | x | x | Receive Throughput (per device) | x | x | Stopped VMs | x | |
| Virtual TLB Flushes per Second | x | x | Send Throughput (per device) DISK | x | x | Total Address Spaces | x | |
| Virtual TLB pages | x | x | | | | Total Average CPU Idle Time | x | |
| | | | | | | Total Average Guest Run Time | x | |
| CPU | | | MEMORY | | | Total Average Hypervisor Run Time | x | |
| Average CPU Utilization | x | x | Allocated Base Size | x | x | Total Deposited Pages | x | |
| Average CPU Idle Time | x | x | Free Physical Memory | x | x | Total GPA Space Modifications per Second | x | |
| CPU Percent Processor Time | x | x | Free Space in Paging Files | x | x | Total Hardware Interrupts per Second | x | |
| CPU Percent User Time | x | x | Physical Memory Allocated | x | x | Total Interrupts per Second | x | |
| CPU Percent Privileged Time | x | x | Size Stored in Paging Files | x | x | Total Pages | x | |
| CPU Percent Interrupt Time | x | x | Total Visible Memory Size | x | x | Total Run Time | x | |
| Current Clock Speed (per CPU) | x | x | | | | Total Virtual Processors | x | |
| Idle Time (per CPU) | x | x | DISK | | | Total Virtual TLB Flushes per Second | x | |
| Utilization (per CPU) | x | x | Disk Kilobytes Read | x | x | Total Virtual TLB Pages | x | |
| CPU Idle Time | x | x | Disk Kilobytes Written | x | x | Virtual Machine Health Critical | x | |
| CPU Limit | x | x | Page File Size | x | x | Virtual Machine Health OK | x | |
| CPU Load Percentage | x | x | Total Disk Space | x | x | Virtual Processors | x | |
| CPU Reservation | x | x | Used Space | x | x | Virtual Switch Receive Throughput | x | |
| Current Clock Speed | x | x | Disk Size (per disk) | x | x | Virtual Switch Send Throughput | x | |
| Guest Run Time | x | x | Free Space (per disk) | x | x | | | |
| HLT Instructions Cost | x | x | Percent Free Space (per disk) | x | x | RESOURCE POOL | | |
| HLT Instructions per Second | x | x | Read Throughput | x | x | Disk Resource Pool Capacity | x | |
| Hypervisor Run Time | x | x | Write Throughput | x | x | Disk Resource Pool Health Status | x | |
| I/O Instructions Cost | x | x | Sectors Read per Second | x | x | Disk Resource Pool Name | x | |
| I/O Instructions per Second | x | x | Sectors Written per Second | x | x | Disk Resource Pool Reserved | x | |
| Page Faults per Second | x | x | Total Read Throughput | x | x | Disk Resource Pool Status | x | |
| Page Faults Cost | x | x | Total Write Throughput | x | x | Memory Resource Pool Capacity | x | |
| Total Run Time | x | x | | | | Memory Resource Pool Health Status | x | |
| | | | EVENTS | | | Memory Resource Pool Name | x | |
| SERVICES | | | Windows Event Log Monitoring | x | x | Memory Resource Pool Reserved | x | |
| Windows Service State Monitoring | x | x | | | | Memory Resource Pool Status | x | |
| | | | | | | Network Resource Pool Capacity | x | |
| | | | | | | Network Resource Pool Health Status | x | |
| | | | | | | Network Resource Pool Name | x | |

About Nimsoft

Nimsoft provides integrated, modern IT management solutions for more than 1000 enterprise and service provider customers globally, including 1&1, CDW, SoftLayer, Sur La Table, TriNet, and Virgin America. The company's Nimsoft Unified Manager is an industry-leading solution which helps organizations easily monitor and manage IT services in increasingly complex business environments. Nimsoft products integrate with existing solutions at any point from the data center to the cloud. For more information, visit www.nimsoft.com.

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