VERITAS Indepth™ for Microsoft .NET

PERFORMANCE MANAGEMENT FOR .NET APPLICATIONS

VERITAS Indepth™ for .NET is a comprehensive application performance management solution for .NET applications. It addresses the need for optimizing application performance during the development, testing, and production phases of the application life cycle. This single solution makes identifying and communicating .NET performance problems easy and can be shared by all application stake holders.

As .NET applications help you run your business there is a greater need to ensure that applications scale and meet service level expectations. These business demands require specialized data collection and analysis capabilities to ensure scalability. VERITAS Indepth for .NET provides a method for detecting and correcting performance degradation of the business-logic tier before your business is impacted.

HIGHLIGHTS

- Understand response time contributions from ASP.NET, ADO.NET, Web Services, XML, Windows Forms, .NET Remoting, and more
- Correlate activity across web, multiple CLRs, and databases
- Quickly isolate problematic SQL statements
- Monitor the availability of your .NET applications
- Low overhead while gathering data
- Archive and review historical performance data
- Browser-based UI
- Operational Dashboard
- Automatically identify the hot spots in your application
- Configurable Instrumentation facilitates maximum visibility with minimum overhead
- Collect and correlate performance counters
- SLA Management per instance and service request

BENEFITS

- Designed to work in production environments and in QA under load
- Empower users to quickly isolate the origin of .NET performance degradation
- Visually manage the health of your CLRs
- Correlate application performance across CLRs and application server boundaries
- Evaluate the SQL text generated by your .NET application and continue the performance analysis in the database using VERITAS Indepth™ for SQL Server, VERITAS Indepth™ for Oracle, or VERITAS Indepth™ for DB2 UDB
- Visually manage the SLAs for service requests and business transactions
- Monitor and measure web services in Service Oriented Architecture (SOA) environments
- Automatically ensure complete visibility into your application

The Dashboard provides a quick overview of the monitored applications’ performance and availability
ENSURING INFRASTRUCTURE PERFORMANCE

Today’s internet-enabled applications demand peak performance, especially under burst loads when business consequences are greatest. Multi-tiered architectures centered on .NET applications provide the functionality needed to meet these demands. VERITAS Indepth for .NET provides specialized features to ensure that the IT infrastructure withstands business demands and supports growth.

UNDERSTANDING .NET APPLICATION RESPONSE-TIME

VERITAS Indepth for .NET monitors transactions as they come to your application and all the way to the database. Tracking the transactions end-to-end allows you to quickly determine the source of .NET applications performance bottlenecks. VERITAS Indepth for .NET monitors various .NET technologies and interfaces including ASP.NET, ADO.NET, Web Services, .NET Remoting, response time from Enterprise Services (COM+ Components), MSMQ and more. It can monitor web applications as well as stand-alone .NET applications.

For every service request and method VERITAS Indepth for .NET tracks and collects a comprehensive set of metrics including Response Time, Method Invocation Time, ADO.NET (database) Invocation Time, Invocation Count and many other metrics.

VERITAS Indepth for .NET allows organizations to quickly isolate performance bottlenecks. This includes the ability to drill-down into any method or service-request. For database calls it provides the database access context (server, instance, connection string) as well as the full SQL text for the statements being executed. The ability to isolate the slowest performing SQL statements empowers developers to quickly triage application performance.

SLA metrics on the system, application and service request level help maintain customer satisfaction and productivity

OPTIMIZE TIME FROM PROBLEM DETECTION TO CORRECTION

To shorten the time it takes to find and fix performance problems in .NET applications, VERITAS Indepth for .NET provides its users with a comprehensive dashboard that includes the top (slowest) executing service requests, SQL statements and Web Services. It also displays applications availability, average response time, number of invocations and SLA compliance status. VERITAS Indepth for .NET also tracks and reports the application or system load and their scalability.

Once a slow responding component has been identified, VERITAS Indepth for .NET provides greater visibility by drilling down into every invoked method. Response times can by quantified by examining what methods are called, the web services it invoked, calls it made into the database, its direct contribution to the total response time for the originating service request and more. VERITAS Indepth for .NET also facilitates the correlation of the various performance counters it collects to methods’ response times.
CORRELATING PERFORMANCE COUNTERS

VERITAS Indepth for .NET can collect various performance counters and facilitate the correlation of the collected metrics to actual activity. This correlation helps you understand the response time for an application in the right context. As an example, you can use VERITAS Indepth for .NET to associate an irregular service request response time with garbage collection activity, possibly indicating a need for additional memory.

FLEXIBLE INSTRUMENTATION

VERITAS Indepth for .NET performs dynamic instrumentation of monitored applications using a combination of standard profiling interfaces and proprietary code instrumentation techniques that ensure maximum visibility with minimum overhead. This instrumentation approach does not require changes to source code and enables the collection of various performance measurements at the method level.

VERITAS Indepth for .NET automatically instruments common .NET interfaces. It also provides you with maximum flexibility with instrumenting your applications. Using the user interface and configuration files, you can instrument your application by specifying the DLL or executable, namespace, class and method names, using regular expressions. This flexibility greatly enhances your ability to monitor existing applications as well as newly deployed applications, with minimal configuration changes and no changes to the MSIL code that is stored on disk.

PROVIDING TOTAL APPLICATION PERFORMANCE MANAGEMENT FOR MONITORING .NET APPLICATIONS

VERITAS Indepth for the Microsoft .NET employs a multi-tier, fully distributable architecture to provide the scalability to meet the variable needs of .NET applications and deployments. The performance collectors monitor .NET applications using low overhead, high precision technology. The user interface uses a thin client, HTML-based approach to allow IT staff to use all the product features from a standard browser, either locally or from a remote location.

VERITAS Indepth for the Microsoft .NET data collectors use application instrumentation and Performance Counters sampling. Instrumentation provides an application-centric view of performance correlated with both user page requests and back-end database requests. Sampling provides a way to measure the relative health of the CLR and the underlying operating system. Both are essential for comprehensive performance management.
PART OF THE COMPREHENSIVE VERITAS i³ SOLUTION

In order to isolate the definitive root cause of application performance problems you need an integrated solution that manages performance end-to-end. VERITAS i³ provides application performance management from URL to SQL – even into the physical storage. The solution correlates performance data tier-to-tier. This helps to determine how one application component is affecting the performance of another.

Middleware application components, including .NET applications, are commonly viewed as the source of performance bottlenecks. However, often slowdowns on the .NET tier are a symptom of problems in another tier, such as the database tier. VERITAS Indepth for Microsoft .NET is part of the broader VERITAS i³ solution. This enables IT organization to isolate slowdowns on the .NET tier and follow the problem in context into another tier for resolution.

TECHNICAL SPECIFICATIONS (FOR MONITORED APPLICATIONS)

.NET
Microsoft .NET Framework v1.1
Applications written in C# or VB.NET

Application Servers
IIS 5
IIS 6

Operating Systems
Windows 2000
Windows XP
Windows 2003

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