


How can I proactively identify and resolve performance issues in an increasingly complex 24x7 web application production environment?



The background consists of several overlapping triangles in shades of green and blue. A large dark green triangle is at the top left, a medium green triangle is at the top right, a light green triangle is in the middle right, and a blue triangle is at the bottom left. The text is overlaid on the dark green triangle.

Help IT and business organizations manage your customer's online experience and application performance by proactively resolving problems in complex virtualized environments and Service Oriented Architectures with the CA Wily Application Performance Management solution.

Overview

Challenge

Your web application services environment is not only growing rapidly, it is increasingly complex. Business transactions travel over diverse and interconnected infrastructures; through networks, application servers, firewalls and virtualized systems; via heterogeneous operating systems and distributed Service Oriented Architectures (SOAs). In short, your environment is highly complex, vulnerable to multiple points of failure, and difficult to manage in production.

Solution

To deliver critical Web Services and achieve business goals, you need a new approach to Application Performance Management (APM). Your IT organization needs to become a strategic service provider by delivering high-quality, business-oriented IT services managed from the end-user's perspective.

The CA Wily Application Performance Management (CA Wily APM) solution provides 24x7, end-to-end monitoring and management of all transactions to identify, triage, prioritize, and resolve problems before they affect your end-users and your business.

Benefits

CA Wily's APM solution enables you to proactively monitor and manage your increasingly complex web application services environment today and as you grow. Real-time detailed data provided by the solution helps you quickly understand and address problems before customers are impacted, meet service level agreements, and provide the online experience your customers expect.

CA Advantage

Used by more than 1000 companies worldwide, CA Wily APM can help you transform your application performance management strategy and increase your ability to provide better online services, deliver measurable business results, and improve customer satisfaction.

Next Steps

If you're just learning about the benefits of CA Wily APM and want more information, please visit us at www.ca.com/apm.

Ready to take the next step? CA Wily offers its extensive APM knowledge and experience to you through CA Wily Services and its collaborative, phased APM life cycle approach and APM maturity model. We help you assess your requirements, create the design, implement and integrate the solution, and optimize complex processes to build an effective, proactive performance management solution.

To connect with a CA Wily expert in APM, email wily-info@ca.com or visit ca.com/us/worldwide/ to find the telephone number of an office in your area.

CHALLENGE

Managing the World's Most Complex Production Applications

As your business deploys more and more web-based applications, it's more critical than ever for you to monitor and completely comprehend the end-user's online experience. Your customers may tolerate standing in line at the bank but expect to be treated as if they are your only customer online. You need to ensure a positive experience for each customer to achieve your business goals and meet Service Level Agreements (SLAs).

If you're a line of business manager, you realize that delivering a positive customer experience is a joint responsibility with IT. IT's role as a strategic service provider and partner in innovation is fundamental to delivering high-quality, business-oriented services managed from the end-user's perspective. IT is responsible for ensuring an optimal online experience for each customer, but the challenges IT faces are increasingly complex.

If you're an IT manager, you know that your web application services environment is not only growing rapidly, it is increasingly complex. Business transactions travel over diverse and interconnected infrastructures; through networks, application servers, firewalls and virtualized systems; via heterogeneous operating systems and distributed Service Oriented Architectures (SOAs). In short, your environment is highly complex, vulnerable to multiple points of failure, and difficult to manage in production.

You know that there are three major areas of focus. First, you need to understand the end-user experience and measure SLAs to improve service delivery and increase customer satisfaction. Next, you need to map all business transactions to the end-to-end infrastructure to identify and fix problems that impact application availability in the fastest, most reliable fashion. Finally, you need to conduct incident triage and root-cause diagnosis to simplify troubleshooting and reduce mean-time-to-repair help line of business managers deliver more services and provide innovations that achieve changing company goals.

You may be asking:

- "How can I determine if end users are affected by incidents before they call the help desk?"
- "With so many interconnected parts in my infrastructure, how do I determine the source of performance problems quickly and end finger-pointing between my IT operations teams?"
- "When there are multiple problems, what is most important to fix first?"
- "What can I do to gain insight into the business impact of poorly performing applications?"
- "What is the impact of composite SOAs and virtualization? How do I get visibility into these environments to quickly triage incidents during slowdowns or outages?"
- "How can I implement a rapidly increasing number of successful online applications?"

There are a wide variety of challenges for both business and IT managers. Application slowdowns will impact your business and lead to lost revenue and lost customers. For IT, implementation of technologies like virtualization, SOAs, J2EE, .NET, and more increase your web application services environment complexity and slows problem diagnosis and repair. You're asking, "How can I manage a complex production application environment and ensure that my company meets its business goals?"

Understand the Impact of New Technologies: Composite SOA and Virtualization Increase Business Flexibility but also Increase IT Complexity

Composite applications rely upon disparate legacy and back-end systems, custom and packaged applications, and Web Services to link your customers, employees, and suppliers to vital business data and services. The resulting heterogeneity can make it difficult for your IT organization to detect, prioritize, and eliminate performance problems that can affect your customers and your business. In addition, there is a need to correlate the end-user experience with your application infrastructure and associated services when transactional issues occur.

As your enterprise deploys virtualization technologies in production, the reality of managing a large-scale environment becomes as complex as the environment itself. Server virtualization facilitates multiple operating systems running on a single physical server as virtual machines (VMs). Dynamic allocation allows for easier provisioning and optimized system performance. Workloads are consolidated with underutilized server machines loaded on a smaller number of fully utilized machines. Fewer physical machines can lead to reducing your costs through lower hardware, energy, and management overhead.

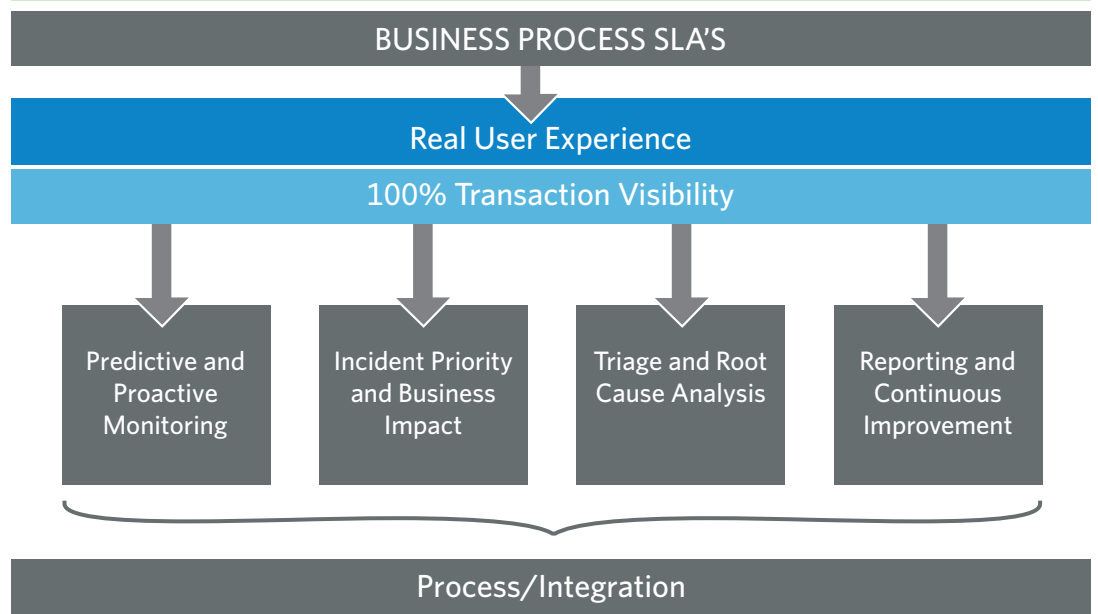
But for all the efficiencies that SOA and virtualization achieve in the development environment and data center, complexity is driven into production/run time environments introducing new application performance and availability management challenges to your organization. The combination of web-based applications running in a virtualized environment equals added support challenges simply because there are more places for the application and its associated transactions to fail.

In such complex, multi-tiered, distributed infrastructures, slowdowns and outages can lead to lengthy bridge calls that burn through dozens of effort hours as representatives from several parts of the organization hunt for the root cause.

FIGURE A

An effective and comprehensive application performance management strategy enables you to: understand the end-user experience and measure SLAs, map all transactions to the end-to-end infrastructure and conduct incident triage and root-cause diagnosis in a complete and fully integrated solution.

A COMPLETE APPLICATION PERFORMANCE MANAGEMENT SOLUTION



Know the Real User Experience

As you increase the number and complexity of services that you offer via the web and as create these challenges. For example, what if your application is so popular that spikes in online traffic cause transactions or hardware infrastructure to fail? If your application relies on integration with a partner’s or supplier’s application, how do you know if they are being successful? If you have signed agreements with customers at agreed upon service levels, do you know if those levels are being delivered?

Understanding the customer experience and the associated business impact is critical for most enterprise IT organizations. From the IT perspective, having the ability to monitor and report to your business organization on the success or failure of the online experience is important. It affects not only your revenue streams but the reputation of your company. Performance and availability levels need to be maintained for optimum customer success.

Set and Manage SLAs on Business Processes

Effective business processes are critical to achieving consistently superior services aligned with business goals. Accordingly, it’s paramount to identify the business processes that matter most to your business, set and measure SLAs on those processes, monitor them 24x7 to consistently evaluate transaction success and report results on a regular basis. In doing so, you can understand the business impact of application performance and improve your ability to present relevant performance information in terms of the business, bolstering the level of engagement between IT and business stakeholders. And by providing a consistent approach to measuring business process SLAs where key criteria and performance metrics can be understood from a variety of perspectives, a consistent methodology and language between business and IT management can develop.

Gain 100% Transaction Visibility and Determine the Source of Performance Problems Quickly

Online transactions are generally seamless to the customer but, within your application infrastructure, thousands of different interactions can occur among application components which, in turn, may integrate data from disparate sources inside and outside your enterprise web infrastructure. What happens if a web application performs poorly or, worse yet, fails? How do you determine where the problem lies in this vast transaction process? Which of your platforms, pieces of hardware or applications did not deliver? How is it affecting your customers?

In your complex web application services environment, identifying the source of a performance issue is the most important concern. Without a root understanding of the IT events that ultimately deliver what the user sees, providing a high-quality, reliable user experience is impossible. Even when a problem is identified, it may still be difficult to determine who is responsible for diagnosis and triage or how the issue should be prioritized based on business impact.

In addition, when customer transactions fail, do your customers try to complete transactions again, or do they phone the call center for help—or, do they go elsewhere? Not only is it paramount to your IT organization to quickly diagnose and triage problems but also understand how problems impact the overall customer experience and the resulting revenue implications.

Conduct Triage, Identify Stakeholders, and Perform Root Analysis

Once issues are identified, it's important for you to conduct triage, get the incident to the right stakeholder, and conduct root cause analysis quickly. In a complex application environment, there typically are many stakeholders involved. Too often, the “blame game” gets played out when a problem occurs. Each stakeholder has a specialty tool that provides enough data about how an application interacts with their piece of the infrastructure. Many times, those tools show that the problem is not associated with their sphere of concern. This creates a very inefficient process for quickly diagnosing the issue and wastes time better spend solving the problem and improving the end-user online experience.

Prioritize Incidents Based on Business Impact

Once problems are identified, it is very important that the order in which they will be addressed be prioritized based on some type of criteria—but what is that criteria? Many IT organizations prioritize problem solution by who complains the most, the prevalence of the problem, or by the time the problem occurred. What if you were able to prioritize problem solving based on the impact to your revenue stream or some other critical factor?

If IT understands the business impact of application downtime, prioritization of problem solutions becomes a more efficient process. Incidents can be prioritized based on user priority, criticality of that particular business function, or the severity of the error, giving your IT organization the information required to resolve your most business critical issues first.

Provide Proactive and Predictive Application Monitoring

In a typical IT environment, it's also important to monitor your end-user's response time. Response time however, is generally a lagging indicator of most performance problems. Users suffer poor response times and limited availability due to a myriad of other issues. When you monitor with a proactive and predictive approach, in many cases, you can identify and alert on problems before they begin impacting your end users helping to eliminate customer frustration and calls to your help desk. A solution is also needed to monitor other factors such as depletion of work threads and other resources, memory leaks, changes to the application infrastructure, error detection, internal failures, and the application interaction with back-end systems. It is also very important for your organization to identify actual problems before they result in performance and availability issues. Finally, your enterprise most likely needs the ability to automatically notify the service desk or the network management solution in order to provide an application performance management perspective into the broader IT management picture.

Increase Reporting and Enable Continuous Improvement

In today's complex environments, simplifying both processes and the way your IT organization reports on issues, trends, SLAs, and the health of transactions has become an imperative. Providing the needed information in both IT and business terms is difficult, and finding ways to streamline processes is an ongoing endeavor.

Deploying a solution that enables your organization to monitor and accurately measure end-user transaction performance against the application infrastructure with automated reporting enables you to quickly and efficiently communicate at both IT and business levels. Having a common language for both your IT and business organizations allows for extremely effective conversations about online performance, end-user experience, and impacts on your bottom line. This capability helps both organizations improve processes and focus on continuous improvement.

Deliver More Successful Services

Like most companies, you will undoubtedly continue to deploy new web-based applications to drive operating efficiencies, tap into new markets, enhance quality, increase revenue, and improve customer satisfaction. As a result, your organization may find itself managing thousands of distributed applications serving millions customers' transactions per day.

These applications can connect thousands of disparate systems and are probably based on technologies such as J2EE and .NET. Given these dynamics, measuring the end user experience, correlating user transactions with business success, and relating IT components to serving business requests becomes ever more critical to your business.

Integrate APM to Improve Infrastructure Management

To meet the challenge of ensuring that web-based applications perform properly and that your customer transactions are successful, a comprehensive management solution that truly addresses the heterogeneous, interconnected nature of your web-based application environment is required. Providing you and your team with the critical data that makes sense to all of the individual stakeholders is a key requirement for quickly resolving issues and understanding how issues affect your business. If we look at the overall application environment from a holistic perspective, it also becomes increasingly important for your organization to develop an overall IT strategy that tightly integrates the control and management of distinct functions, such as operations, databases and services, networks and voice systems. CA is meeting the challenge.

SOLUTION

Industry-Leading CA Wily APM is the Right Choice

To help ensure optimum performance of your web applications, you need a solution that addresses the many business and IT challenges involved in successfully delivering web based applications. The CA Wily APM solution is recognized by analysts and major enterprises as the industry leader in helping you ensure performance of your web-based applications.

CA Wily APM provides both an in-depth understanding of the end-user's online experience as well as the complete visibility you need to manage a complex of web application environment. The CA Wily APM solution provides deep application visibility and unparalleled management capabilities including:

- Real business transaction and end-user experience data
- SLA management and business impact data
- Incident prioritization with mapping to application infrastructure
- 24x7 monitoring of the health and availability of your applications with near zero impact
- Real-time and historical data
- Comprehensive problem triage and patented root-cause diagnosis capabilities for all stakeholders
- Visibility into complex SOA and virtualized environments

The CA Wily APM solution detects problems quickly and provides customized views of real data in real time to everyone from your CIO and LOB managers to operations and development teams.

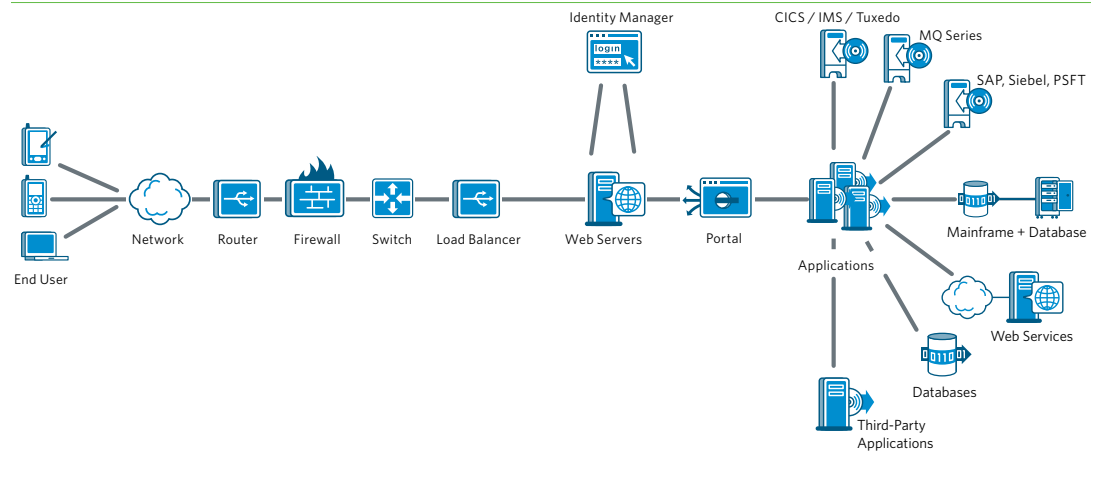
CA Wily APM can help your enterprise organization achieve desired levels of online customer satisfaction and success with the ability to quickly triage and diagnose application issues. The solution also provides you with a comprehensive framework for management of SLAs across business processes, transactions and individual user groups with fully customizable dashboards that provide a common language that both IT and the business can understand in their terms.

The solution enables predictive management so that you can take action before end users are affected by potential problems and before SLAs have been breached. CA Wily APM is optimized for large, complex production applications, across distributed and mainframe environments. To help ensure a truly comprehensive solution, CA Wily APM also provides the support and education that you need to ensure optimal web application performance and customer success.

FIGURE B

The CA Wily APM Solution provides comprehensive visibility into customer transactions across the entire application environment—from end-user to the supporting backend systems.

CA WILY APM SOLUTION



The CA Wily Application Performance Management Solution

The CA Wily APM solution enables your IT teams to deliver competitive, high-performance web applications and assure your business stakeholders that these applications are successfully completing customer transactions with a high degree of reliability and customer satisfaction. It is the right approach for organizations that recognize the critical impact that today's web applications have on business processes. In addition, the CA Wily APM solution provides value to organizations that understand the need for a solution that can correlate application performance with the customer experience and associated business impact.

The CA Wily APM solution addresses your web application performance needs with tools that are modular, scalable and easily integrated. The components that make up the CA Wily APM solution include:

CA Wily Customer Experience Manager

CA Wily Customer Experience Manager (CEM) allows the business and IT to understand and respond to the online experience of each end-user, whether they are external customers, partners or employees. CEM identifies and prioritizes performance problems by analyzing individual end-user, business transactions in real-time, enabling you to troubleshoot problems before customers are affected, measure SLAs accurately, manage incidents by business impact and improve service delivery. CEM monitors every transaction in real time, analyzing the performance and quality of web-enabled business processes.

CA Wily Introscope®

CA Wily Introscope enables your IT organization to monitor complex Java and .NET applications and SOA environments in production 24x7 and to detect and resolve problems before they affect customers. Introscope's patented, low-overhead technology can be used to manage mission-critical applications end-to-end. Fully integrated with CA Wily CEM, your teams can monitor transactions from browser to application components to back-end systems and correlate that data to determine how customers are being affected by application issues. Introscope is extensible and can provide you with comprehensive views of the entire application infrastructure including Java and .NET applications, application servers, Web Servers, messaging middleware, databases, and transaction servers. With powerful capabilities for rapid triage, root-cause analysis and historical data reporting, Introscope makes it possible to identify and remove bottlenecks proactively, eliminate unplanned outages, manage service levels, optimize resources and lower the costs associated with maintaining web applications and SOAs.

CA Wily Introscope® PowerPacks

The CA Wily Introscope PowerPacks are application extensions to CA Wily APM and are included as part of the solution. These extensions are customized to the specific application components and application server platforms and provide critical out-of-the-box metrics that are important to the various stakeholders.

CA Wily Introscope® for SAP NetWeaver

CA Wily Introscope for SAP NetWeaver is an application management solution that ensures the performance and availability of NetWeaver applications, including NetWeaver Portal, XI, ESS/MSS, IPC, and custom Java Applications.

CA Wily Portal Manager for BEA WebLogic® and IBM® WebSphere® Portal

The CA Wily Portal Manager for BEA WebLogic and the CA Wily Portal Manager for IBM WebSphere Portal offer real-time WebLogic and WebSphere portal monitoring for production environments. Both products deliver end-to-end transaction visibility, persistence of all historical data, easy-to-use dashboards, automated threshold alarms and an open architecture to extend performance monitoring beyond the portal framework.

BENEFITS

Optimize the End-User Experience and Business Performance

By helping ensure superior service delivery to your end users, you create a win-win situation: you provide better online services, realize more stable revenue streams, deliver measurable business results, and improve customer satisfaction. In addition to the improved performance of your web applications and increased end-user satisfaction, the CA Wily APM solution provides benefits for the entire organization.

Align IT with Business Needs

The CA Wily APM solution promotes closer alignment between your IT and business organizations by providing visibility into business process performance and availability, customer experience, and SLA compliance. This helps you better meet business obligations and helps your IT organization ensure superior service delivery to all constituents—customers, partners, and internal line of business owners.

Increase IT Efficiencies and Control Costs

Controlling costs is always a business need. CA Wily APM can deliver significant savings and increased efficiencies to your organization by reducing time to repair. By creating an effective process for detecting and remediating performance issues, you now have the ability to significantly improve IT efficiency and eliminate much of the risk associated with poorly performing web applications. This means cost savings for your IT teams that must manage these applications and for your business as a whole.

The CA Wily APM solution is based on patented, low overhead agents. The same solution runs on every platform, distributed and mainframe systems, application servers and non-application servers. It is easy to deploy and maintain.

Improve Service

Today's critical online applications must run at peak performance around the clock. Failure can result in substantial risks, including lost revenue, lost productivity and lost customers. CA Wily is a market-leading provider of enterprise application management solutions. Through end-to-end visibility into your customer transactions in real time, CA Wily APM enables your organization to successfully manage the health and availability of your most critical web applications and infrastructure—which means better customer service, more stable revenue streams and higher IT productivity.

The unique capabilities of the CA APM solution—insight into all transactions, 24x7 monitoring, real-time and historical data, comprehensive problem triage and deep-dive diagnostic capabilities, and the lowest system overhead in the industry—combined with a comprehensive product suite ensure that your web applications perform optimally.

Transform Management of Your Entire IT Infrastructure

The CA Wily APM solution is an important part of CA’s overall vision for Enterprise IT Management (EITM). With our unique capabilities, CA can help you unify and simplify IT management across the enterprise for greater business results. Accordingly, the CA Wily APM Solution is richly integrated with other CA solutions such as CA CMDB, CA Data Center Automation Manager, CA Network & Systems Management (CA NSM), CA Service Desk, CA Service Quality Management and CA SPECTRUM.

PRODUCTS	CA WILY INTROSCOPE	CA WILY CEM	BENEFITS
CA CMDB	X	X	Provides application and application infrastructure dependencies as configuration items.
CA Data Center Automation Manager	X		Provides Introscope performance metrics for policy-driven dynamic provisioning of supporting infrastructure resources.
CA NSM	X	X	Manages the network and application environment via a single management console.
CA Service Desk		X	Provides ability to open trouble tickets and quickly triage issues.
CA Service Quality Management	X	X	Creates closed-loop system for establishing and publishing SLAs and OLAs, automation of incident management, and problem diagnosis.
CA SPECTRUM	X	Available through CA Wily Services	Enables comprehensive network component management combined with end-user experience management and application metrics.

CA ADVANTAGE

Add Value with CA Wily Services

CA Wily Services offers a wealth of APM knowledge and experience to CA customers through its collaborative, phased APM life cycle approach and an APM maturity model. You work side-by-side with our professional services team to build an effective, proactive performance management solution. We help you assess your requirements, create the design, implement and integrate the solution, and optimize complex processes to deliver quality, value and success. CA Wily Services offers its application management expertise to enterprise IT teams in essential areas such as Best Practices, Deployment and Performance.

Realize Value with CA Wily Education Services

Courses from CA Wily Education Services are specifically designed to transfer our application management expertise directly to your staff, enabling your organization to achieve best-in-class performance and availability management. With a well-trained staff, your organization can minimize application downtime and maximize IT resources. CA Wily Education Services is committed to providing IT professionals with the knowledge and skills necessary to become world-class managers of enterprise web applications.

NEXT STEPS

To help ensure the performance of your web applications, do you need 24x7 monitoring capabilities, real-time data and visibility into the complex, heterogeneous web application environment? Call CA Wily for more information on the industry-leading CA Wily Application Performance Management solution.

To find out more about products from CA Wily Technology, email wily-info@ca.com, visit www.ca.com/apm, or contact one of our worldwide offices.

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To learn more, and see how CA software solutions enable organizations to unify and simplify IT management for better business results, visit ca.com/apm

Learn more about how CA can
help you transform your business.

ca.com/apm

CA, one of the world's largest information technology (IT) management software companies, unifies and simplifies the management of enterprise-wide IT for greater business results. Our vision, tools and expertise help customers manage risk, improve service, manage costs and align their IT investments with their business needs.

CA Wily Technology is the market-leading provider of Enterprise Application Performance Management solutions. By delivering end-to-end visibility into business transactions in real time, products from CA Wily Technology enable companies to successfully manage the health and availability of their critical web applications and the end-user experience. CA's comprehensive management approach allows enterprises to rapidly detect and diagnose application slowdowns and failures before users are affected, and better assess the impact of application performance on business success. This means better customer service, more stable revenue streams, and higher IT productivity.



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Learn more about how CA can help you transform your business at ca.com/apm

