



CA Web Services Distributed Management r3.11

CA Web Services Distributed Management (CA WSDM) provides essential visibility and control for Web services, enabling you to observe and proactively maintain service levels between your functional units and with your business partners. Based on your selected metrics and performance thresholds, CA WSDM alerts users to Web service malfunctions and performance degradations. Extensive runtime metrics on your Web services are provided for valuable business and IT operations analytics. CA WSDM integrates with the broader Unicenter® brand of management solutions, allowing you to determine root cause and effectively remediate Web services failures.

Top Three Key Features

- High Performance Native Web Service Management and Monitoring
- Autodiscovery of Web Services
- Automated Threshold Analysis for Service Monitors

Supporting Environments

- Linux
- Windows
- Solaris

Managing Service Levels Across Organizational Boundaries

The adoption of Service Oriented Architecture (SOA) and Web services is largely driven by the need for a standard way to integrate business applications. By this very nature, business systems implemented as Web services are highly distributed. Responsibilities for the operation, support and maintenance of such a system is also likely to be distributed among departments, project teams, or lines of business within enterprises. When failures occur in such a system, it is not difficult to imagine the challenge involved in determining the cause of the failure, the severity of the

situation and the levels of commitment from the different parties responsible for a resolution. The complexity is further compounded when Web services are utilized for connecting systems from different companies. Failures in one company's system may actually result in immediate business losses suffered by another company. It is imperative that production Web services be well monitored, managed and secured.

A major advantage that Web services bring is the ease of integrating business applications, regardless of their underlying implementation choices, platforms and databases. This means management solutions for Web services must be able to provide consistent monitoring and analytical functions across a wide range of application runtime support environments, including support

for Web services hosted by many different vendor- proprietary and open source SOAP platforms, operating on a wide variety of operating systems and IT infrastructures. Additionally, management solutions must also be able to provide true end-to-end coverage to accommodate the needs for full management of service levels across organizational boundaries, which typically implies crossing IT management and security domains.

End-to-end Web Service Management and Security

CA WSDM from Computer Associates International, Inc. (CA) enables IT staff to monitor activities among their own Web services and those provided by business partners. When Web service performance falls below a certain level, alerts are immediately sent to technical as well as business users. Runtime metrics such as response time and rate of requests are collected and reported to provide visibility into actual performance of key Web services. CA WSDM is easy to deploy; instrumenting Web services for management by CA WSDM does not require development changes to the Web services. Additionally, CA WSDM seamlessly integrates with Unicenter® infrastructure-level management solutions to enable quick determination of root cause for failures. Thus, it addresses the challenges involved in managing Web services operating on many different types of platforms and infrastructures.

CA WSDM also addresses the requirement for a true, end-to-end solution for enterprises that need to monitor and maintain service levels across all boundaries. It allows users to monitor the health and performance of Web services operating outside of their

own IT domain. CA WSDM enables companies to monitor not only their own internal Web services, but also those provided by their business partners. Companies can also be alerted when service level falls below acceptable thresholds. CA WSDM integrates with eTrust® Identity and Access Management Suite as well as third-party Web service security solutions to provide end-to-end, secure accesses to Web services across enterprise and IT boundaries. Finally, CA WSDM supports an open integration layer, allowing CA solution partners to jointly offer the industry's most comprehensive Web services management and security solution that supports virtually any Web services environment, application platform and underlying infrastructure.

Distinctive Features and Functionalities

Web Services Monitoring. CA WSDM monitors Web services traffic for a variety of metrics (see Figure 1). Observers (agents) are deployed non-intrusively on the same Web services platform as the monitored Web services to minimize runtime performance overhead. Standard monitors include:

- **Response Time.** Web service operation response time can be monitored from the perspective of the service provider as well as the service requester. This enables you to monitor performance of your partners' Web services without administrative access to their IT environment. Average and total response metrics within user-specified intervals can also be monitored.
- **User Specified Message Content.** You can also monitor Web services based on evaluation of data values

contained in the messages. This enables business users to monitor business activities and improve real-time decision making.

- **Other Monitors.** CA WSDM also monitors for message sizes, SOAP faults and Web services availability in real time.

Automated Alerts. CA WSDM generates real time alerts when a monitor threshold is violated. Alerts can be set to trigger email notifications and SNMP messages. For installations with other Unicenter management solutions, CA WSDM sends native alerts to the Event Console, providing a coherent and highly scalable event management facility for the entire IT environment. Alerts are automatically tracked based on user acknowledgment and resolution cycles. A full history of alerts is available for audit and analysis purposes. Thresholds for alerts can be associated with alert periods, which are defined to reflect business activity patterns based on time periods within a work week.

Business Driven Metrics. CA WSDM allows you to define monitors and set alert thresholds based on actual data values within each Web service message. Message content which typically represents valuable business information is logged along with other metrics for purposes such as business analysis, service level management, exception processing, billing, audits, etc. Logged information can be customized for easy integration with reporting and data analysis facilities. CA WSDM enables you to fully leverage the visibility you gain on your Web services for benefits to your business.

Root Cause Analysis. CA WSDM allows you to drill down into key alert items and examine the details of the Web services

transaction, including the values of the monitored metrics and the actual content of the SOAP message. By offering integration with other Unicenter infrastructure management solutions, CA WSDM enables you to further drill down to examine the underlying application components and, if needed, system- and network-level resources. Upon failure of your Web service, the broader Unicenter solution helps you quickly determine the root cause and find a resolution. This ultimately helps you minimize downtime of your business systems and maximize the return of your investments in SOA.

Feature Category. The feature category title should be 1–5 words in bold type, followed by a bold period. Immediately following the title are 2–3 lines that define the category and, optionally, a brief benefit. Feature categories are typically followed by a bulleted list of 2–4 specific features related to the feature category, although a feature category can be a stand-alone item without a subsequent bulleted list of features. Do not include a return between the feature category and the bulleted list of features.

Integrated Web Service Security. CA WSDM provides a common user interface for configuring security and access policies for your SOA resources. This feature is based on CA's eTrust® solution for management and accesses of identities, groups and policies, combined with several of our partners in the Web Services XML router space. Please visit <http://www.ca.com/webservices> for a list of our partners

Ease of Use. The intuitive configuration user interface reduces errors and inaccuracies inherent in script-based solutions. Other valuable administrative features include:

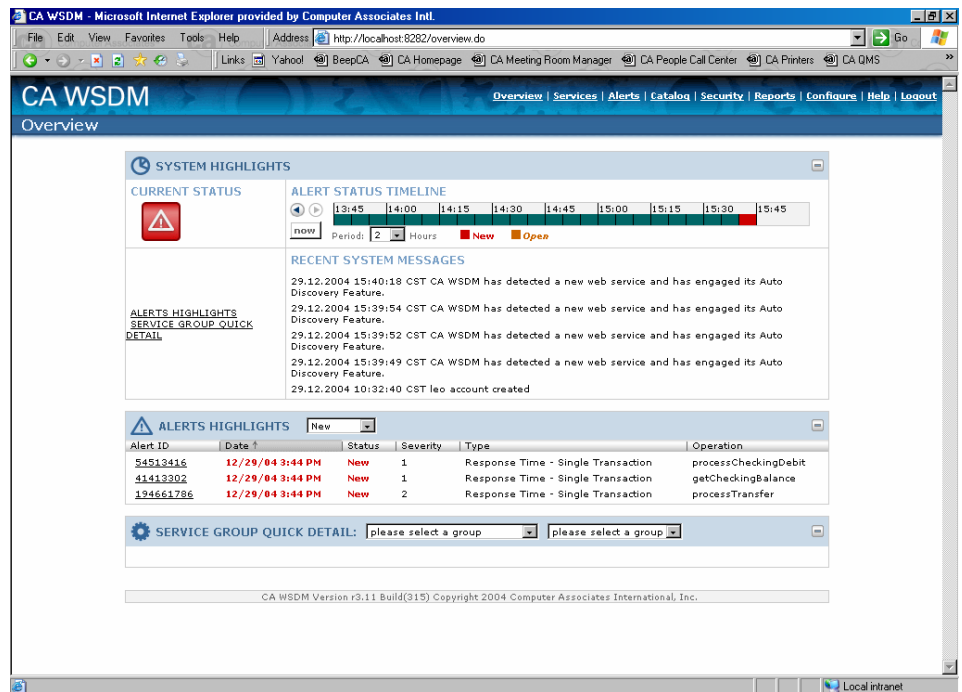


Figure 1.

CA WSDM provides instant visibility into the performance, health and availability of Web services

- **Catalog and Automatic Discovery.** The CA WSDM Catalog captures configurations for all the Observers and details of each Web service to be managed. Once connected to an Observer, details of each managed Web service are automatically discovered and entered into the catalog. As an alternative, you can easily import into the catalog Web services definitions from WSDL sources.
- **Service Groups.** You can arbitrary group functionally related Web services operations into Service Groups to reflect actual business transactions. You can set monitoring configuration and alerts based on a Service Group.
- **Automatic Threshold Analysis.** CA WSDM can analyze the actual metrics collected on your Web services and

suggest alert thresholds accordingly.

This is very useful when you encounter newly deployed Web services and are not familiar to their runtime characteristics.

Open Interfaces. Included as part of CA WSDM is an integration kit that provides a set of well-documented open interfaces for solution extension by customers and CA solution partners. The integration kit enables the following types of extensions:

- **New Observers.** The Observer Development Kit (ODK) allows customers, CA Technology Services and Solution Partners to develop new Observers to instrument Web services hosted in any proprietary SOAP platforms or environments.

- **Non-SOAP Web Services.** The ODK also enables the field to provide broader support for managing any service implementation in a SOA. This includes XML-based (non-SOAP) implementations and conventional B2B protocols, such as EDI message exchanges and so on.
- **Customized Alerts.** CA WSDM supports an open interface to allow easy integration of CA WSDM alerts with your existing processes. For example, CA WSDM alerts can easily integrate with existing Help Desk systems, or custom notification systems.
- **Customizable Logs.** CA WSDM provides a highly flexible and easily configurable logging system. You can easily customize the types of information to be logged as well as the format of the logs. This enables you to integrate your Web services management system with your other business solutions such as SLA management, audits, accounting, decision support, output management and more.

Heterogeneous Platform Support. CA WSDM provides native observers for Microsoft .NET, BEA WebLogic, IBM WebSphere, JBoss, Sun ONE Integration Server and Apache Axis environments. This provides you with unified management solutions for heterogeneous Web services platforms.

Ease of Deployment. CA WSDM is based on stand-alone product architecture. The standard deployment has only minimal prerequisites and a typical product installation takes minutes or hours, not days. CA WSDM is designed to support an incremental deployment approach that allows you to quickly realize a return on your

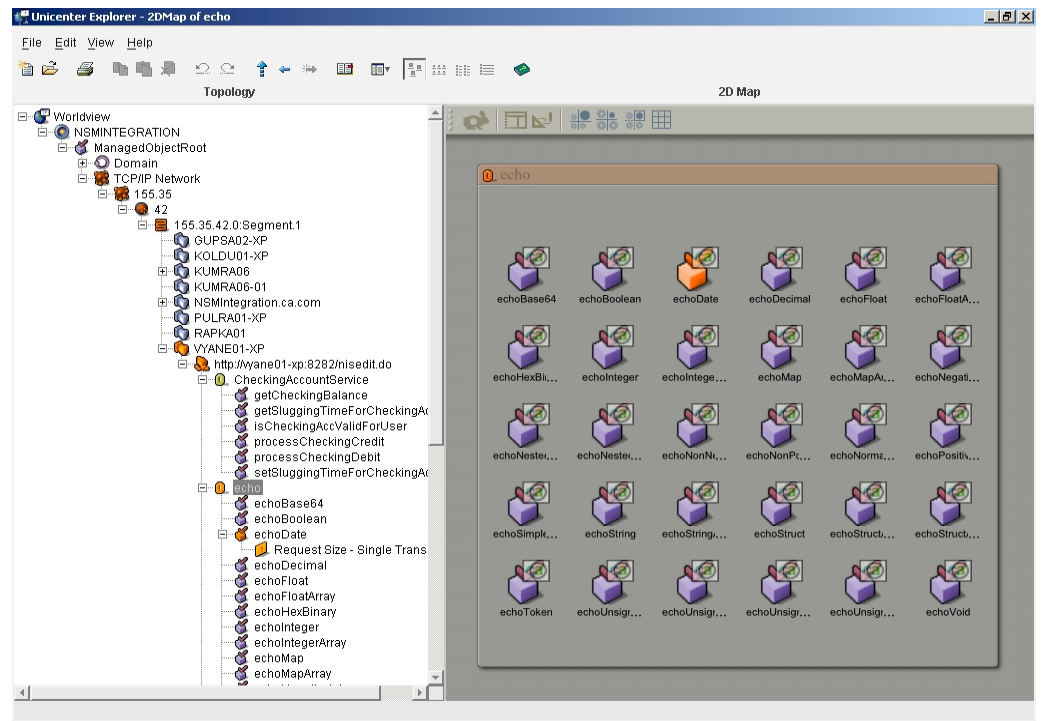


Figure 2.

CA WSDM fully integrates with Unicenter infrastructure management to provide a true, end-to-end enterprise solution.

investments, and then gradually extend your solution as you gain a better understanding of the solution's potential and how it matches your business requirements. The latest, 3.11 version of CA WSDM also includes an Observer Instrumentation Tool application to ease the installation of native CA WSDM Observers.

Scalable Database. CA WSDM includes a copy of Ingres; a proven, high-performance open source relational database solution that offers the scalability, integration and flexibility to leverage information resources across a wide range of platforms, including Linux, UNIX, Windows and OpenVMS. Ingres is a robust RDBMS that has thirty years of industrial-strength experience with commercial use in mission-critical applications. Reliable and cost effective, it

supports a variety of applications, from small and medium-sized businesses to high-volume deployments in large-scale enterprises.

Conformance to Standards. CA Web Services Distributed Management already supports existing Web services standards such as SOAP, WSDL and more. CA is actively involved in standards organizations such as W3C, OASIS, WS-I, Liberty Alliance, and GGF. In particular, CA is committed to full support of the upcoming OASIS WS-Manageability standard, which promotes interoperability among Web services management solutions. This will ultimately benefit organizations adopting SOAs by allowing them to federate management responsibilities of their respective Web services and utilize management solutions from different vendors and sources with ease.

Supported Environments

- Red Hat® Advanced Server 2.1
- Red Hat® Enterprise Server 2.1
- Solaris® 7,8,9
- SuSE® 9.0
- Windows 2000® Server SP3 or 4
- Windows 2003® Server
- Windows XP® SP1a

For more information,
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