

## IBM WebSphere Studio Application Monitor

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### Highlights

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- **Manage composite J2EE applications that span multiple subsystems**
- **Track and correlate composite transactions that start in J2EE and branch off to legacy systems such as IBM CICS and IBM IMS**
- **Detect, analyze and repair application problems in real time**
- **Optimize application performance by mining rich, historic performance data stored at the instance level**
- **Gain deep visibility into the applications, in a nonintrusive manner**



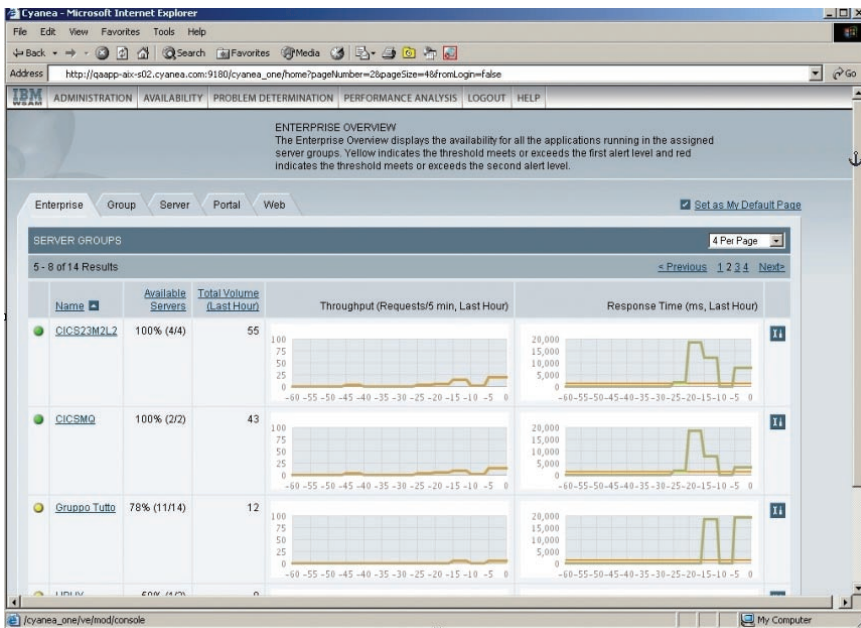
### Meet the challenge of complex enterprise data centers

In today's fast-paced On Demand Business environments, high-performance applications require enterprises to process millions of transactions over complex data environments, faster and more effectively than ever before. Many businesses have built information-rich enterprise data centers that leverage both the flexibility and performance of Java™ 2 Enterprise Edition (J2EE™) and their existing legacy infrastructures, such as CICS® and IMS™.

Although these complex data systems have brought about unprecedented levels of collaboration and access to innovative applications, they have

also created significant challenges. Application downtime can dramatically impact performance, overall productivity and return on investment (ROI). The net results are an inefficient use of corporate resources, a significant loss of revenue and damage to brand equity.

To address the enterprise's need for an efficient and cost-effective management solution for J2EE applications, IBM has developed the IBM WebSphere® Studio Application Monitor. Part of the Tivoli® software portfolio of availability solutions, this WebSphere Studio Application Monitor product provides effective application management for enterprise J2EE applications, including “composite



The "Enterprise Overview" shows the health of your applications at a glance.

applications" that have a J2EE user interface coupled with legacy back-end systems.

A nonintrusive, Web-based management solution, WebSphere Studio Application Monitor enables you to:

- *Manage heterogeneous environments consisting of both mainframes and distributed systems.*
- *Gain visibility into J2EE, CICS and IMS transactions as well as into Java Database Connectivity (JDBC) and MQ environments.*

- *Identify problems and resolve them in real time to optimize performance.*
- *View overall application health at a glance across multiple system types.*
- *Analyze resource consumption patterns for planning future growth.*

### **Monitor, manage and enhance performance across subsystems**

The simple architecture of the WebSphere Studio Application Monitor enables you to address the complex issue of monitoring transactions that span multiple subsystems. For

example, data collectors for the WebSphere Application Server are installed on the Java Virtual Machines (JVMs) to be monitored and send information back to a managing server where the application data is processed and correlated. When you add the optional data collectors for CICS and IMS, you can monitor, track and correlate composite transactions that span multiple subsystems including J2EE, CICS and IMS.

Composite monitoring reveals performance along the full transaction pathway, even down to the method level for isolating code-level performance bottlenecks. Any J2EE-initiated transaction that travels from the WebSphere Application Server to CICS or IMS over MQ is fully monitored at each end point. This gives data center operators and support analysts the ability to produce correlated reports of each MQ event that are displayed in-line along with all other application events, including MQ hops from start to completion. Users can also analyze trends and drill down to get specific details that reveal the health of the queues servicing the application.

## Leverage a complete suite of application management functions

As the first application-centric solution created to address the needs of today's application support analysts and J2EE administrators, WebSphere Studio Application Monitor offers a complete set of management functions that enables you to:

- *View all in-flight J2EE transactions, including composite transactions that cross into the CICS and IMS subsystems.*
- *Analyze problematic transactions in real time, drill down into the details and share this information with other stakeholders using built-in interactive reporting.*
- *Correlate and profile transactions across multiple subsystems to determine the location and root causes of application failures.*
- *Set traps and alerts to detect potentially troublesome situations before they can affect the end users.*
- *Analyze resources consumption, perform trends or historical analysis and plan for future growth.*
- *Manage WebSphere Portal transactions.*

**COMPOSITE METHOD TRACE**  
The Method/Component Trace helps you analyze the composition of methods, programs and components in a Composite Request. The Flow View presents method, program and component events in their order of execution, lets you identify slow or expensive methods, programs and components using the Threshold Highlighter, and lets you export the view to a file or email. Identify methods, programs and components with specific characteristics using the Search.

**TRANSACTION OVERVIEW**

Nesting Summary | Drilldown View | Flow View | Search

Threshold Highlighter  
 Δ Elapsed Time >= 5 (ms) Δ CPU Time >= 5.0 (ms) Apply Reset to Default

COMPLETE FLOW VIEW (ADCDFL.M2L2.M2L2.CIC230A2.b:c3.L:3) 1000 per Page

Queue Names Match Queue Names Don't Match

1 - 15 of 15 Results 1

Depth	Event Type	Event Data	Elapsed Time (ms)	CPU Time (ms)	Δ Elapsed Time (ms)	Δ CPU Time (ms)
0	CICS TRANSACTION Entry	CSMI.CSMI	0	0	0	0
1	EXEC CICS Entry	LINK PROGRAM (DPLCIC2A)	13,853	0	<b>** 13,853 **</b>	0
From: ADCDFL.M2L2.M2L2.CIC230A1.hcc: (L:3) Platform: ZOS App Server: CICS Event: Receive						
2	Program Entry	CIC230A2.DPLCIC2A	14,253	0	<b>** 400 **</b>	0
3	EXEC CICS Entry	ASSIGN	14,650	0	<b>** 397 **</b>	0
3	EXEC CICS Exit		66,098	1	<b>** 51,448 **</b>	1
3	EXEC CICS Entry	ASKTIME ABSTIME	66,098	1	0	0
3	EXEC CICS Exit		67,030	1	<b>** 932 **</b>	0
3	EXEC CICS Entry	FORMATTIME	67,030	1	0	0
3	EXEC CICS Exit		68,182	2	<b>** 1,152 **</b>	1
3	EXEC CICS Entry	DELAY	68,182	2	0	0
3	EXEC CICS Exit		143,672	2	<b>** 75,490 **</b>	0
3	EXEC CICS Entry	RETURN	143,672	3	0	1
3	EXEC CICS Exit		143,672	3	0	0
2	Program Exit	CIC230A2.DPLCIC2A	143,672	3	0	0

Queue Names Match Queue Names Don't Match

1 - 15 of 15 Results 1

WebSphere Studio Application Monitor reveals the entire flow of the transaction.

WebSphere Studio Application Monitor gives you a complete view of your J2EE applications performance in real time, enabling you to proactively manage your middleware technology and strengthen your position in an ever-changing On Demand Business environment.

## Detect and repair problems before they impact users

In today's increasingly competitive on demand world, even short periods of downtime can dramatically affect service levels and significantly impact revenue. WebSphere Studio Application Monitor offers you the



visualization technology graphically displays throughput and response time against historical baseline data, so you can easily see the entire performance of your applications at a glance.

Using our dynamic monitoring technology, you can also change profiling levels without restarting application servers and implement a seamless, responsive monitoring strategy. You can tailor the amount of information to be displayed to the needs of the moment. For production monitoring, use a high-level “Enterprise View.” When a bottleneck occurs, switch to a more detailed view to gather additional information to better diagnose the problem.

In addition, WebSphere Studio Application Monitor offers other useful features such as:

- *Single-console, multiplatform monitoring.*
- *Application grouping.*
- *Detailed, role-based security.*
- *An easy-to-use Web-based interface.*

Because it is totally nonintrusive, WebSphere Studio Application Monitor is ready to be used against any Java application. No changes are required to the application code, JVMs or class loader.

### **WebSphere Studio Application Monitor system requirements**

#### *Monitored environments:*

WebSphere Studio Application Monitor offers the industry’s first true cross-platform, single-console application management solution. Data collectors are designed to be installed on WebSphere within the following environments:

- *IBM AIX<sup>®</sup>*
- *HP-UX*
- *Linux<sup>®</sup>*
- *Sun Solaris*
- *Microsoft<sup>®</sup> Windows<sup>®</sup>*
- *zLinux*
- *IBM z/OS<sup>®</sup>*

Data collectors for CICS and IMS are available separately.

#### *Managing server environments:*

The WebSphere Studio Application Monitor Managing Server can be installed on one of the following environments:

- *AIX*
- *Red Hat Enterprise Linux*
- *Solaris*
- *zLinux*

#### *Browser environments:*

- *Microsoft Internet Explorer*

### **Manage your middleware applications**

WebSphere Studio Application Monitor is a flexible application management solution for complex, multi-tiered applications that span several environments (J2EE, CICS, IMS, MQ). By providing deep insight into the health of critical business applications and connectivity technology, WebSphere Studio Application Monitor helps you increase your ROI and optimize the overall performance of your data centers.



### **For more information**

To learn more about IBM WebSphere Studio Application Monitor and other integrated solutions from IBM, contact your IBM sales representative or visit [ibm.com/tivoli](http://ibm.com/tivoli)

### **Tivoli software from IBM**

An integral part of the comprehensive IBM on demand infrastructure solution, Tivoli technology management software helps traditional enterprises, emerging on demand business and Internet business worldwide maximize their existing and future technology investments. Backed by world-class IBM services, support and research, Tivoli software provides a seamlessly integrated and flexible on demand business infrastructure management solution that uses robust security to connect employees, business partner and customers.

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