



# IBM Tivoli OMEGAMON XE for IMS on z/OS

## Highlights

- Proactively manage performance and availability of IBM IMS systems from a single, integrated interface
- Track and help optimize resource use and transaction processing
- View coupling facility statistics to identify factors affecting the performance of IBM Parallel Sysplex environments
- Monitor workload balancing using shared queue support and data sharing to help minimize the impact of locks on shared databases
- Integrate information from IBM Tivoli OMEGAMON XE monitors across multiple platforms and third-party software into a single view

The world's largest companies depend on the integrity of IMS™ technology to help shoulder their most crucial high-volume database access and storage needs. For your company to take advantage of the benefits of IMS — especially in the Parallel Sysplex® environment — it is crucial to effectively manage your IMS systems for high performance.

With IBM Tivoli® OMEGAMON® XE for IMS on z/OS®, you gain a powerful management tool to help you optimize the performance and availability of your vital IMS systems. With the intuitive browser interface, you can clearly see and understand application and system events. From a single point of control, you can view comprehensive information and analysis across multiple IMS subsystems — or across your IMSplex environment.

Tivoli OMEGAMON XE for IMS allows you to maintain subsecond transaction processing by measuring internal IMS response times. Quickly solve system delays by analyzing IBM MVS™ resources used by IMS address spaces and internal IMS resource usage, such as IMS pools and database buffer pools. Within IMSplex environments, Tivoli OMEGAMON XE for IMS enables you to see coupling facility structure statistics, shared queue counts and database lock conflicts that help you stay ahead of potential delays or outages.

In addition to offering leading performance and availability management for IMS, Tivoli OMEGAMON XE for IMS integrates with other Tivoli products. You can use these integrated products to implement true end-to-end availability management and help prevent threats to system performance before they impact service levels.

### View detailed information about:

- Address spaces for IMS regions
- Dependent region execution information
- Buffer pool statistics for virtual storage access method (VSAM) and overflow sequential access method (OSAM)
- Direct access storage device (DASD) logging
- I/O device activity
- IMS system exceptions
- IMS system-wide information
- Internal resource lock manager (IRLM)
- Database global lock conflicts
- Lock table enhancements for additional owner and identification information
- Open Transaction Manager Access (OTMA) and shared queue status information
- Pool utilization
- Program scheduling blocks (PSBs)
- Recovery control (RECON) datasets
- Transaction summary and detail information
- VSAM/OSAM databases
- Fast Path information and statistics on data entry databases (DEDBs), main storage databases (MSDBs), and virtual storage option (VSO) data spaces and areas
- External subsystems
- Extended Recovery Facility (XRF) status
- Logical terminals
- IMS system datasets
- Coupling facility data sharing and shared queue statistics
- IMS startup parameters
- IBM MQSeries® status
- Multiple systems coupling
- Response time analysis
- Online Transaction Reporting Facility (TRF) by class and Data Language I (DLI) calls
- IMS connect CPU time statistics

### Measure resource use and help optimize transaction processing

To help you achieve both granular and system-wide views of your IMS operations, Tivoli OMEGAMON XE for IMS monitors collect and summarize information about key resources, such

as enqueue, I/O, CPU, paging rates, pool storage and buffer pool metrics. In addition to usage data, the software includes a transaction reporting facility so you can measure queuing and service times within IMS and IMS internal response times.

### Quickly analyze exceptions

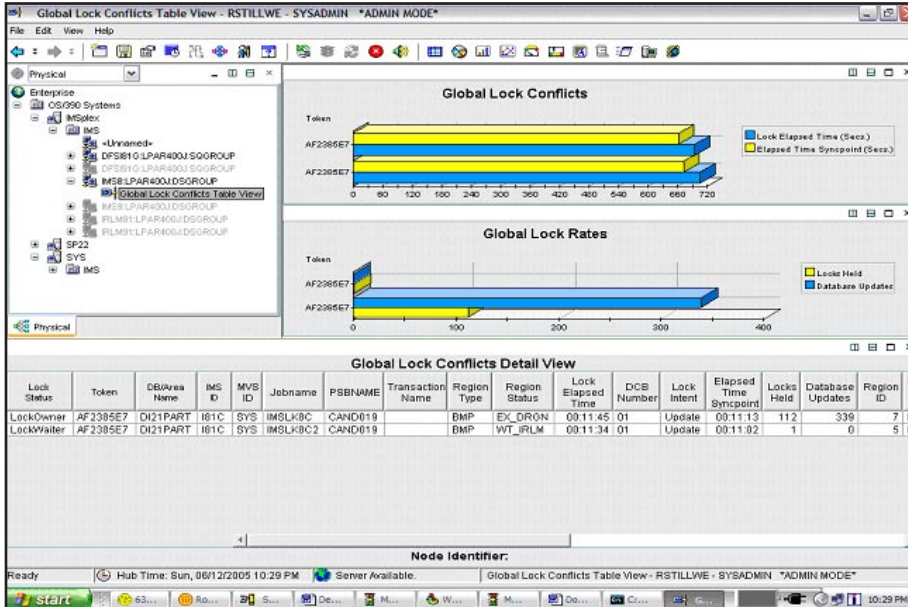
To manage your IMS workloads effectively, Tivoli OMEGAMON XE for IMS provides detailed information to evaluate exception conditions. This data can be included in workspaces or reports — in charts and table views.

### Simplify management with a single view of your IMS systems

Tivoli OMEGAMON XE for IMS empowers you to manage your IMS systems, including those running in a Parallel Sysplex environment. From a single interface, you can display all IMS regions for a given IMS system. And because the information is in one place, you can quickly and easily find and resolve problems.

The interface enables you to access information from each MVS image and IMS subsystem, including address spaces, DASD logging, device activity, pool display, dependent regions, system summary, transaction summary and detail, database activity and external subsystems. You can also view IMS interactions with z/OS resources. Extended TRF reporting combines transaction data, allowing you to see how data is disbursed and load-balanced between IMS subsystems.

When multiple IMS subsystems share one set of message queues, they can



Database locks identify applications that are holding a lock and those waiting for the lock. Monitoring these locks helps detect potential application bottlenecks so you can take appropriate action.

exploit the power of the Parallel Sysplex environment to balance workloads and drive capacity and availability. When you manage your IMS shared queues environment with Tivoli OMEGAMON XE for IMS, the software helps you:

- Automatically collect data and monitor events on the shared queues.
- Optimize processing of the IMS system workload and transaction throughput — examine each of the shared queue types (transaction, logical terminals [LTERM], Fast Path program, advanced program-to-program communication [APPC], OTMA and cold queues) and provide alerts when the number of items on the queue reaches a certain threshold.
- Avoid bottlenecks that can occur when shared queue structures become full.

### Better optimize use of the coupling facility in IMSplex environments

Tivoli OMEGAMON XE for IMS gives you a single point of control over IMS in Parallel Sysplex environments. You can see coupling facility data-sharing and shared-queue structure statistics, shared-queue counts and data-sharing lock conflicts to help identify factors that degrade performance.

Tivoli OMEGAMON XE for IMS speeds problem identification by quickly highlighting the number of transactions on the shared queues waiting to be processed. The software's coupling facility workspaces identify when coupling facility shared-queue structures are becoming full — before incoming messages are rejected.

Additionally, the monitors provide key information about the data-sharing structures — such as global and false contention rates as well as use statistics — to determine when data sharing lock and cache structures are becoming full.

### Simplify tasks to work smarter

All Tivoli OMEGAMON XE monitors, including Tivoli OMEGAMON XE for IMS, help increase productivity by enabling you to customize your workspace to speed problem identification and quickly leverage existing expertise. Features include:

- *Customizable workspaces* — Instantly pull together dynamic tables and graphs to help pinpoint performance issues across all your IMS systems and related applications. You can see resource allocation down to a granular level from multiple perspectives. Data collection and displays can be tailored to specific users, such as operators, performance analysts and systems programmers.
- *Take Action* — Resolve recurring problems by running built-in scripts or easily create new scripts from included templates.
- *Expert Advice* — Mouse over an alert to receive a detailed explanation of the problem and potential fixes. Use knowledge out of the box or edit the feature to preserve solutions specific to your environment.

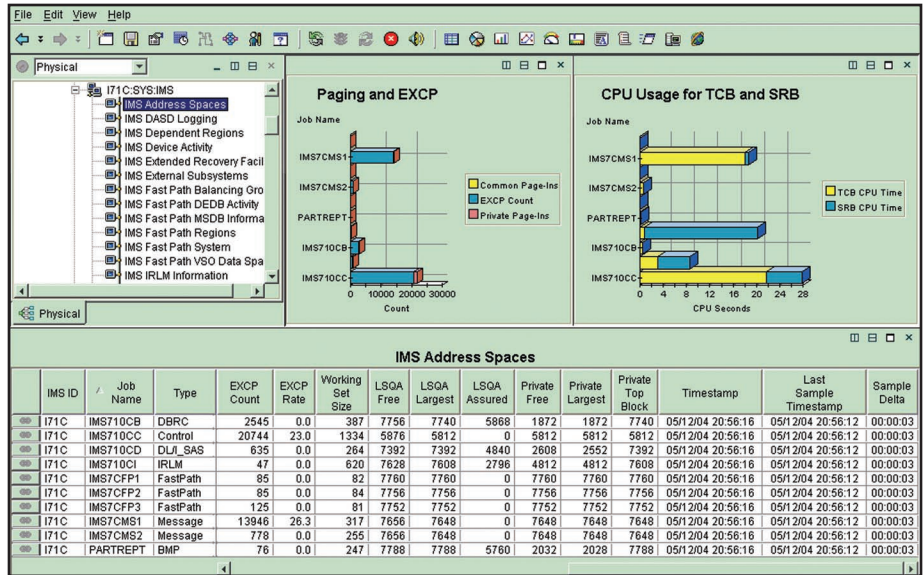
## Access data from anywhere

Like all Tivoli OMEGAMON monitors, Tivoli OMEGAMON XE for IMS offers an intuitive browser-based interface that allows you to monitor the health of your IMS and other systems from almost any location. The shared look and feel across many Tivoli OMEGAMON interfaces virtually eliminates the need for special training.

Tivoli OMEGAMON monitors run on a client workstation with minimal consumption of run-time resources. The server contains common management information, including states, objects, situations and thresholds, user-persistent workspaces and other data. You can also distribute client changes in a single step to deliver the most current version to all browser-based clients.

## Add power to situation definition

Tivoli OMEGAMON software helps you create complex thresholds, situations and alerts, without deep scripting or coding skills. The Tivoli OMEGAMON XE situation editor offers the precision to say, "If condition A or F occurs with C and H, but not with B, alert me," providing unmatched flexibility and



IMS regions can be viewed from an MVS perspective. Factors such as paging rates, CPU consumption and Execute Channel Programs (EXCPs) can have a major impact on transaction throughput. For example, high CPU and EXCPs and lack of storage can indicate a potential application problem.

granular control. The situation editor also allows you to view a graphical representation of alerts, so you know that implementation has been successful.

## Use automation to respond promptly to problems

The complex thresholds you define in Tivoli OMEGAMON XE monitors also allows for automated responses resulting in quick problem resolution and less repetition of manual tasks. Tivoli OMEGAMON XE monitors use

situational analysis to examine a series of thresholds and related alerts — rather than a single event — in relation to each other, which helps eliminate false alerts and gives you more insight into the problem. Reflex automation supports your policies and business rules by taking the necessary actions when those levels are surpassed.

## Help maximize the value of your IT investments with a single point of control

The ability to integrate information from Tivoli OMEGAMON XE monitors

and third-party software into a single view means you can identify and track problems across all your enterprise platforms. This helps you make decisions quickly, efficiently and proactively. With Tivoli OMEGAMON XE you can:

- Build infrastructure views that deliver IT information tailored to the user's responsibilities.
- Correlate reports to reveal an overall application view of performance and availability.
- Automate application-wide responses based on your policies and business rules.

#### **Achieve end-to-end zSeries management**

Tivoli OMEGAMON zSeries infrastructure management solutions from IBM help customers achieve a true on demand computing environment. Composed of integrated, industry-leading monitors and consoles, Tivoli OMEGAMON solutions can provide

an end-to-end view across an entire IT infrastructure. These advanced zSeries infrastructure management solutions help businesses meet the demands of increasing data center volume, complexity and volatility by helping IT quickly identify, isolate and fix problems before they impact customers. With Tivoli OMEGAMON software, businesses can continually adjust their end-to-end zSeries infrastructures to deliver high performance and ultimately help prevent threats to system performance before they impact service levels.

#### **For more information**

To learn more about Tivoli performance and availability solutions and integrated solutions from IBM, contact your IBM representative or IBM Business Partner, or visit [ibm.com/tivoli](http://ibm.com/tivoli)

#### **About Tivoli software from IBM**

Tivoli software from IBM helps organizations efficiently and effectively manage information technology (IT) resources, tasks and processes to meet ever-shifting business requirements and deliver flexible and responsive IT service management, while reducing costs. The Tivoli portfolio spans software for security, compliance, storage, performance, availability, configuration, operations and IT lifecycle management, and is backed by world-class IBM services, support and research.



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## Software requirements

- IMS, Versions 8.1 and 9.1
- z/OS, Version 1.4 and above
- SMP/E for z/OS and IBM OS/390®, Version 3.2.0 or above, available for use in foreground
- ISPF, Version 4.3 or above
- TSO/E, Version 2.6 or above
- For TSO user session, a minimum region size of 4,600K (recommended region size is 6,000K)
- DFSMS, Version 1.4 or above
- REXX

### IBM MVS Interlink support for products based on CT/Engine, Version 360, and support for all three MVS Interlink interfaces:

- TCP/IP native interface, Version 4.1
- High-performance native sockets (HPNS) interface, Version 5.2
- Inter-user communication vehicle (IUCV) interface, Version 5.2
- For emitting alerts to an SNMP monitor, TCP/IP for MVS must be installed on the MVS system

### IBM Tivoli Management Server for Distributed Systems on z/OS supported platforms:

- Microsoft® Windows® 2000
- Windows XP

### IBM Tivoli Management Portal for zSeries® server supported platforms:

- Windows XP Professional Edition with Service Pack 1 or above
- Windows 2000 with Service Pack 3 or above
- Windows Server 2003

### IBM Tivoli Management Portal for zSeries client supported platforms:

- Desktop client on Windows XP, Windows 2000 or Windows 2003
- Browser client running Internet Explorer, Version 6 or above, on Windows XP, Windows 2000 or Windows 2003

## IBM Tivoli OMEGAMON products for zSeries include:

- IBM Tivoli OMEGAMON XE on z/OS
- IBM Tivoli OMEGAMON XE for Linux® on zSeries
- IBM Tivoli OMEGAMON XE for USS on z/OS
- IBM Tivoli OMEGAMON for z/VM®

### Data management:

- IBM Tivoli OMEGAMON XE for DB2® Performance Expert on z/OS
- IBM Tivoli OMEGAMON XE for DB2 Performance Monitor on z/OS
- IBM Tivoli OMEGAMON XE for IMS on z/OS

### Host transaction processing:

- IBM Tivoli OMEGAMON XE for CICS® on z/OS

### Networking:

- IBM Tivoli OMEGAMON XE for Mainframe Networks

### Storage management:

- IBM Tivoli OMEGAMON XE for Storage on z/OS

### Integration:

- IBM Tivoli OMEGAMON DE on z/OS