



# B87

## What's New With OMEGAMON XE IMS Performance & Availability Management

Ed Woods

**IMS**  
**Technical Conference**

Sept. 27-30, 2004

Orlando, FL

# IBM Acquisition of Candle Corporation

- Acquisition closed effective June 7, 2004
- Candle will be fully integrated into IBM Software Group under the direction of Robert LeBlanc, GM Tivoli Software and IBM on demand Automation
- Why did IBM Acquire Candle Corporation?
  - Enhance on demand offerings
  - Improve end-to-end management offerings
  - Add breadth and depth to zSeries offerings
  - Established OMEGAMON brand

*The road to data center performance...*

**OMEGAMON®**

# IMS In The Industry

- IMS is still a workhorse subsystem for many customers
- Why?
  - IMS offers scalability, reliability, and performance
- Many companies still have mission critical database and applications built on IMS
- Performance and reliability that IMS offers is critical to business success

# IMS In The Industry

- IMS still being used where high performance and high availability are key to success
- Banking, finance, insurance, manufacturing, and government applications – to name just a few
- IMS databases still manage important business information in many shops
  - IMS DB still offers outstanding performance
  - IMS data is being accessed in new and exciting ways by generations of new applications

# IMS Performance Management Challenges

- Managing the performance and availability of IMS subsystems
- Identifying performance bottlenecks
- Rapidly detecting and isolating performance issues
- Addressing issues before they cause critical outages
- Correcting problems at machine speed
  - Less reliance on human intervention

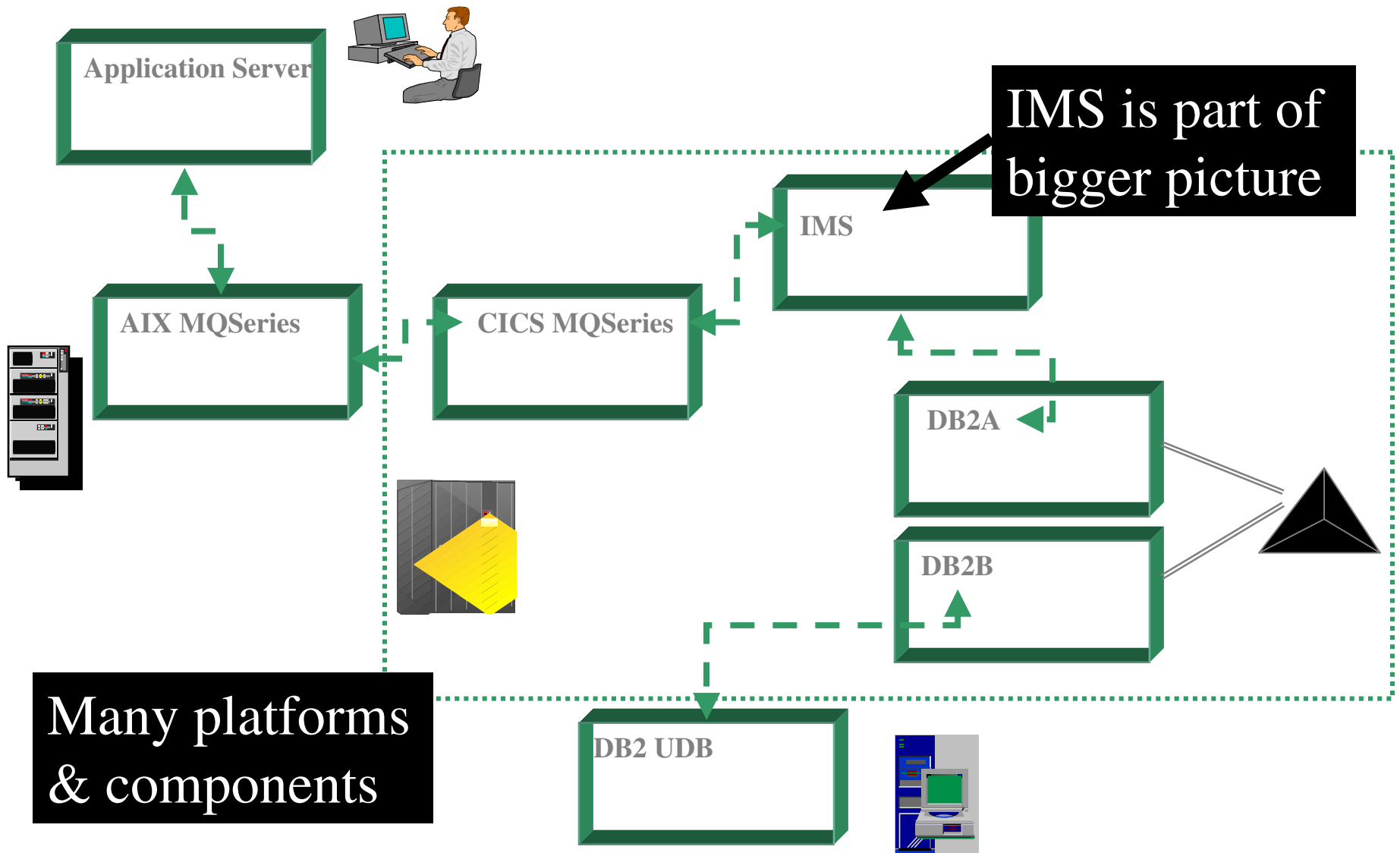
# Common Technical Challenges

- Managing the performance and availability of IMS subsystems as part of an e-business infrastructure
- E-business applications are larger and more sophisticated
  - Being able to isolate problem areas and bottlenecks within these applications
  - Need to answer the question – is the problem in IMS or somewhere else?

# Problem Analysis More Complex

- Problem analysis in an e-business world is more complex
  - Many platforms, layers, and components
  - Requires a monitoring infrastructure able to integrate information from a variety of sources
- A typical application may now cover multiple platforms
  - z/OS, OS/390, UNIX, Windows, Linux (or all of these)
- Problem on one platform impacts other components

# A Typical Application In 2004





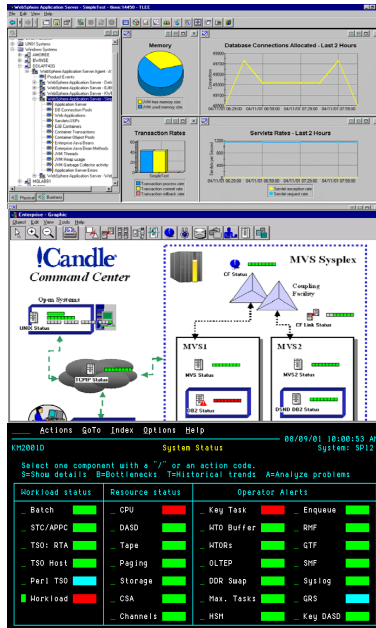
# IMS Version 9 Enhancements

- Integration/Openness
  - IMS Java/XML enhancements
  - OTMA enhancements
- Manageability improvements
  - Command enhancements
- HALDB usability enhancements
- DBRC enhancements

# IMS Version 9 Enhancements

- Fast Path improvements for performance and availability
- Scalability improvements
  - Performance/Capacity/Availability/Recovery
  - z/Architecture
  - Increased transaction capacity
  - Improved logging bandwidth

# OMEGAMON Product Evolution



OMEGAMON DE  
and  
OMEGAMON XE

Candle  
Command Center

OMEGAMON II

OMEGAMON Classic

1975

1989

1995

2002

# OMEGAMON Management Triangle

**OMEGAMON DE – Dashboard Edition**

*High level monitoring  
Multi-system view  
Cross Platform View*

**Performance  
Triangle**

**3270 Interface**

*Subsystem details  
3270 Interface  
Historical details*

**OMEGAMON XE**

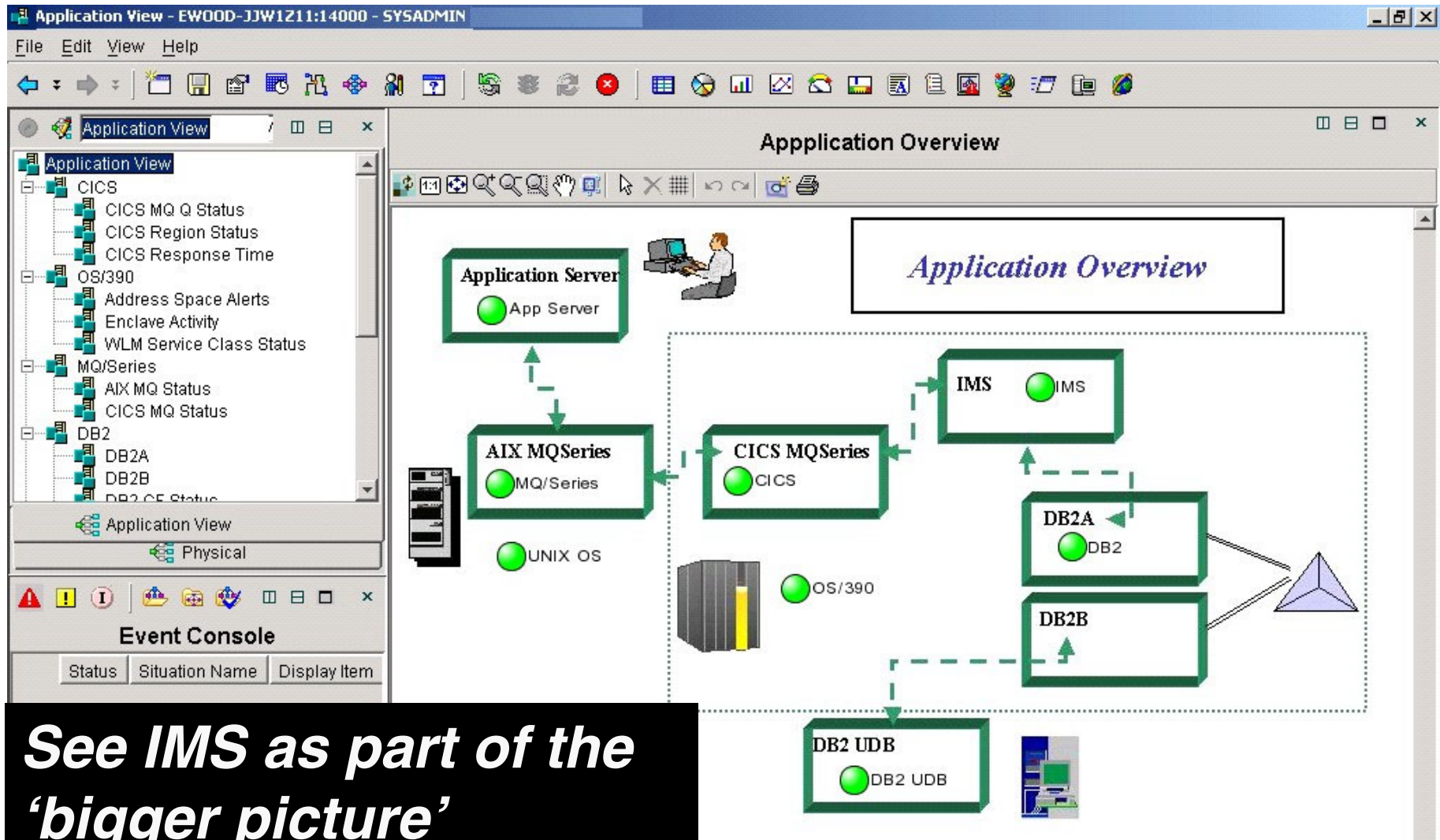
*Subsystem level monitoring  
Browser And GUI interface  
Proactive Alerting & Automation*

# **OMEGAMON XE & DE**

## **The Benefits**

- **Superior integration, consolidation, customization, and flexibility**
- **Powerful ‘Business View’**
- **Better ease of use and navigation**
- **Improved event management & problem isolation – more meaningful alerts**
- **Reduce time to problem resolution – automation and notification**
- **Improved analysis capabilities**
- **Combine Real Time And Historical**

# OMEGAMON DE



**See IMS as part of the 'bigger picture'**

# OMEGAMON DE

**Application View - EWOOD-JJW1211:14000 - SYSADMIN**

File Edit View Help

**Application View**

- Application View
  - CICS
    - CICS MQ Q Status
    - CICS Region Status
    - CICS Response Time
  - OS/390
    - CICS MQ Status
    - DB2
      - DB2A
      - DB2B
      - DB2 CF Status

**User-definable hierarchy**

**Application Overview**

*Application Overview*

Application Server (App Server)

AIX MQSeries (MQ/ Series)

CICS MQSeries (CICS)

IMS (IMS)

DB2A (DB2)

DB2B (DB2)

DB2 UDB (DB2 UDB)

UNIX OS

OS/390

**Graphics map to application flow**

**Icons show status**

**Highlight application alerts**

Event Console

Status	Situation Name	Display Item
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# Sophisticated Problem Isolation

The screenshot displays the IBM Application View interface. On the left, a tree view shows the system hierarchy: CICS, OS/390, MQ/Series, and DB2. The main area, titled 'Application Overview', shows a diagram of the system components. A red triangle icon next to the 'CICS' component in the 'CICS MQSeries' box indicates an alert. The diagram includes components like 'Application Server', 'AIX MQSeries', 'CICS MQSeries', 'IMS', 'DB2A', and 'DB2B'. A callout box labeled 'Application Overview' is also present. At the bottom left, the 'Event Console' shows a table with an alert:

Status	Situation Name	Disp
Open	NW_CICS_MQ_Alert	

Two black arrows point from the 'Red highlights alerts' text box to the red triangle in the diagram and the 'Open' status in the event console.



# OMEGAMON IMS Solutions

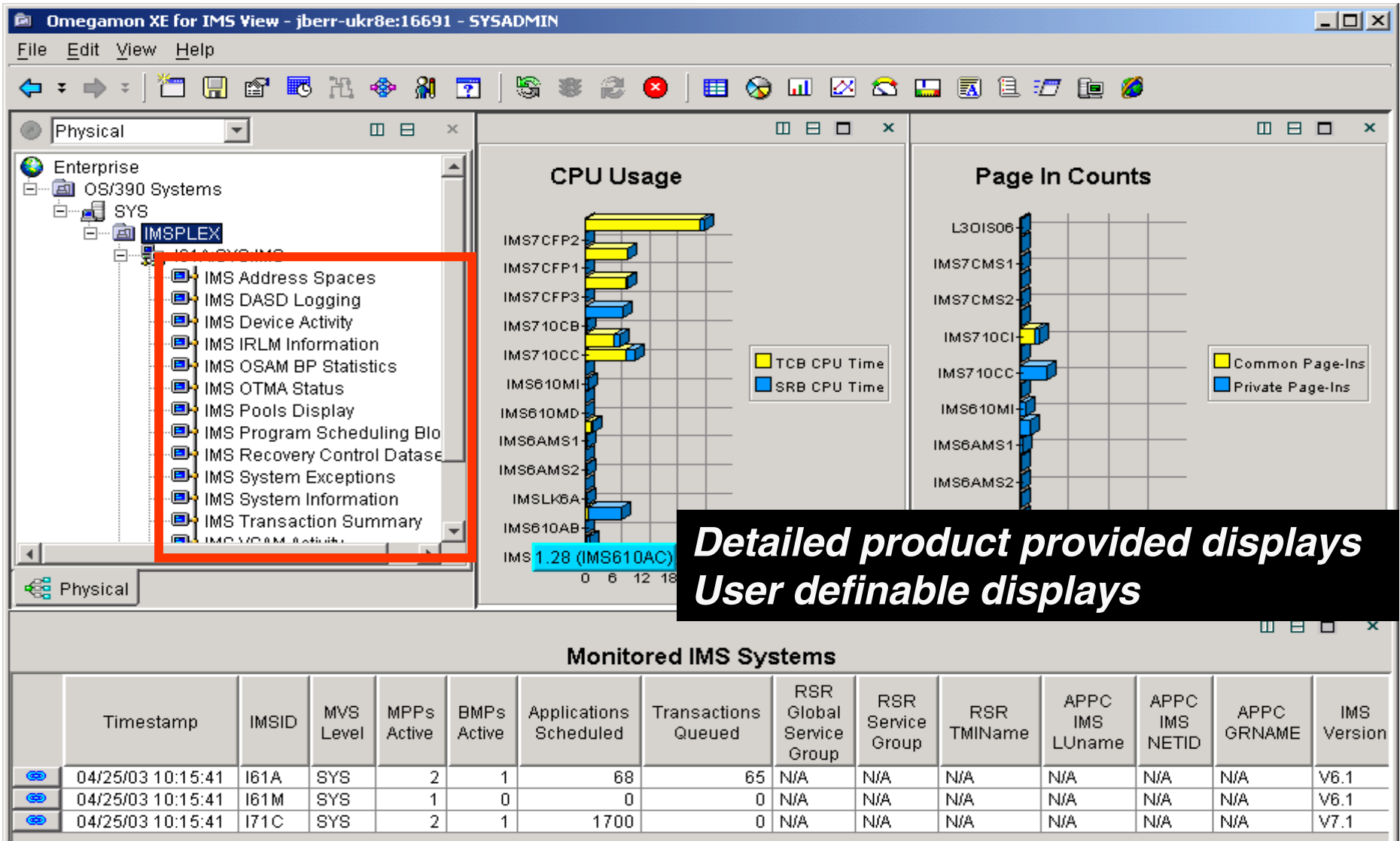
OMEGAMON XE For IMS  
V100

IMS Subsystem Monitoring  
OMEGAMON XE Interface  
OMEGAMON IMS 3270 Interface  
Real time & Historical

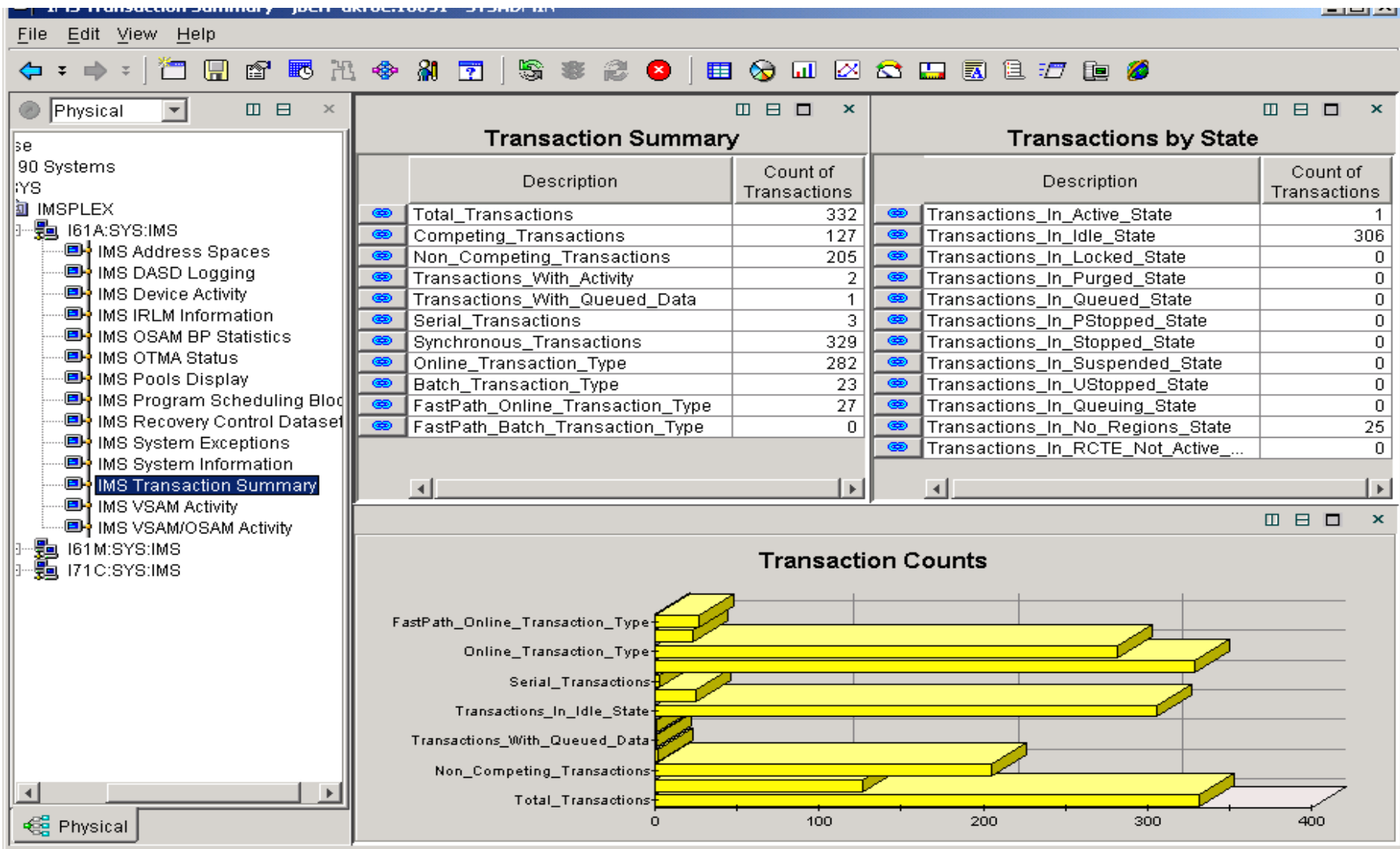
OMEGAMON XE For IMSplex  
V220

IMS Sysplex Level Monitoring  
N-way data sharing view  
OMEGAMON XE Interface  
OMEGAMON IMS 3270 Interface  
Real time & Historical

# OMEGAMON XE For IMS V100



# OMEGAMON XE For IMS V100



# OMEGAMON XE For IMS & IMSplex

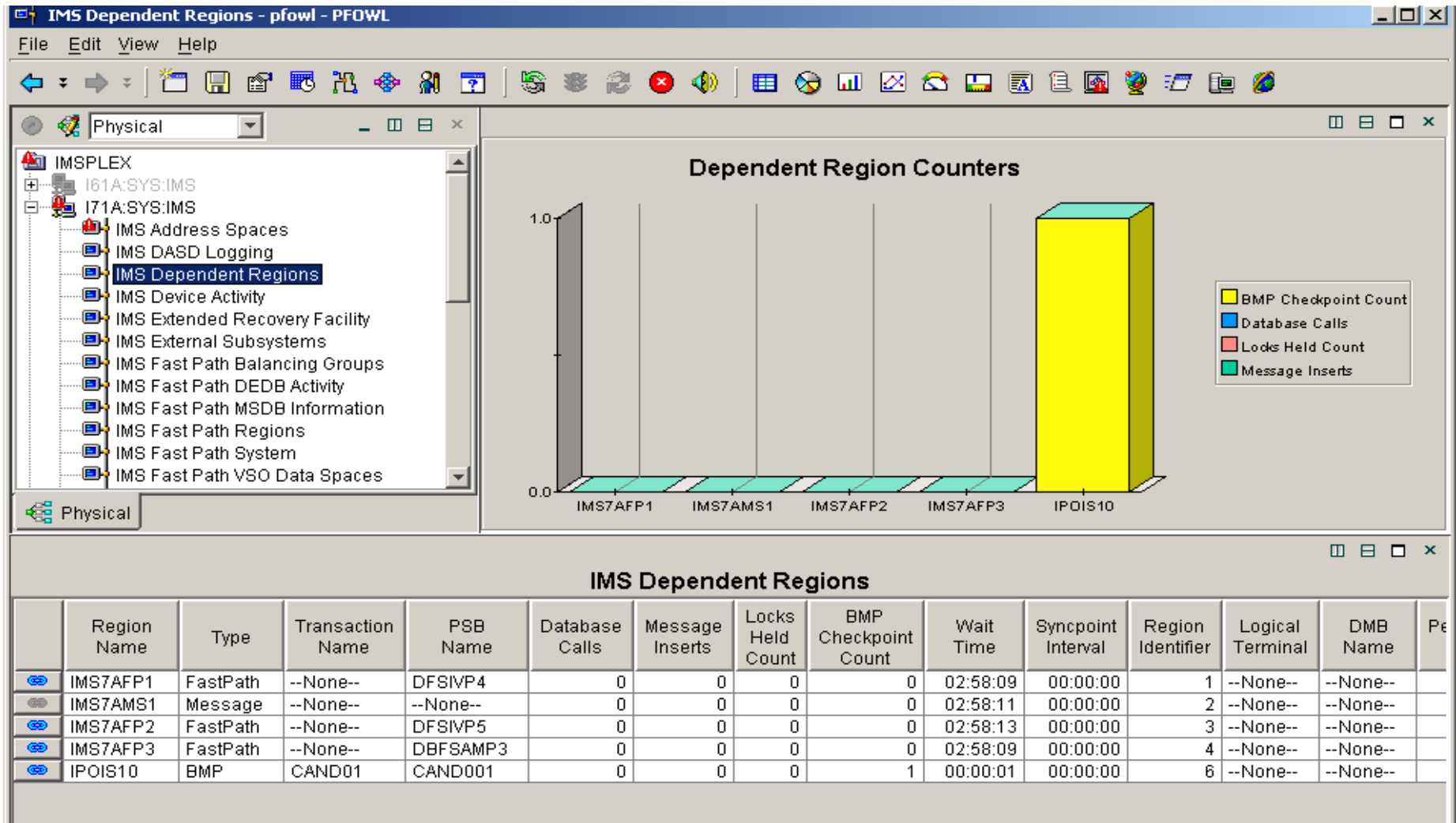
## Recent Enhancements

- QI31030 and QI31035 for XE For IMS
- QIP6008 for XE For IMSplex
- Introduces a significant amount of new data not available in the initial release of the OMEGAMON XE for IMS V100 and OMEGAMON XE for IMSPLEX V220
- Additions includes new attribute groups, attribute names, workspaces, links, and product provided situations.

# Recent Enhancements

- 16 New tables and 380 new attributes includes information about:
  - Fast Path
  - External Subsystems
  - Subpool Statistics
  - Dependent Regions
  - Logical Terminals
  - System Datasets
- 22 New workspaces
- 65 Product Provided Situations

# Example New Display Dependent Regions





# Example New Display

## All System Datasets

Display All IMS System Datasets - pfwl - PFWL

File Edit View Help

Physical

- IMS Fast Path System
- IMS Fast Path VSO Data Spaces
- IMS IRLM Information
- IMS Locking Information
- IMS Logical Terminals
- IMS OSAM Subpool Statistics
- IMS OTMA Status
- IMS Pools Display
- IMS Program Scheduling Blocks
- IMS Recovery Control Datasets
- IMS System Datasets**
- IMS System Exceptions
- IMS System Information
- IMS Transaction Summary
- IMS VSAM Activity

**Total I/O Counts**

DD Name	I/O Count
IMSACBB	~10
RECON2	145
RECON1	198
DFSWADS0	~10
DFSQLS01	~10
DFSTRA02	~10
IVPSPL1	~10
FORMATA	~10
MODSTAT	~10
DFSESL	~10
STEPLIB	~1100

**Message Datasets**

DDName	Block Size	Total Blocks	Used Blocks	Utilization	Shutdown Percentage
QBLKS	6720	12600	35	0.27	99.2
SHMSG	6720	4200	2	0.04	97.6
LGMSG	6720	4200	1582	37.66	97.6

**RECON Datasets**

DDName	I/O Count	CI Splits	CA Splits	Data CI Size	Index CI Size
RECON1	198	65	2	20480	512
RECON2	145	65	2	20480	512

**All IMS System Datasets**

Job Name	DDName	Status	Active	Dataset Type	I/O Count	Delta I/O Count	I/O Rate	Unit	Volumn Count	Volume	Dataset Name
IMS710AC	STEPLIB	Open	No	Other	40	0	0.00	2317	1	PRI171	TDIMS1.GAP1.IMS710.USERLIB
IMS710AC	STEPLIB	Closed	No	Other	13	0	0.00	2104	1	PRI156	GHALL.DFSCMTI.IMS.V7R1
IMS710AC	STEPLIB	Closed	No	Other	1010	0	0.00	029D	1	PPSMPJ	IMS.V7R1.SDFSRESL
IMS710AC	STEPLIB	Closed	No	Other	0	0	0.00	251B	1	PPSMPP	PP.DB2.V7R1.SDSNLOAD
IMS710AC	STEPLIB	Closed	No	Other	0	0	0.00	250E	1	PPSMP8	PP.DB2.V6R1.SDSNLOAD
IMS710AC	DFSESL	Closed	No	Other	0	0	0.00	029D	1	PPSMPJ	IMS.V7R1.SDFSRESL
IMS710AC	DFSESL	Closed	No	Other	34	0	0.00	251B	1	PPSMPP	PP.DB2.V7R1.SDSNLOAD
IMS710AC	DFSESL	Closed	No	Other	0	0	0.00	250E	1	PPSMP8	PP.DB2.V6R1.SDSNLOAD
IMS710AC	PROCLIB	Closed	No	Other	69	0	0.00	251E	1	PPSMPO	IMS.V7R1.PROCLIB
IMS710AC	QBLKS	Open	No	QUEUE_BLOCK	0	0	0.00	029B	1	PPSMPH	IMS.V7R1.QBLKS
IMS710AC	SHMSG	Open	No	SHORT_MSG	0	0	0.00	029B	1	PPSMPH	IMS.V7R1.SHMSG
IMS710AC	LGMSG	Open	No	LONG_MSG	0	0	0.00	029B	1	PPSMPH	IMS.V7R1.LGMSG

Ready | Hub Time: Fri, 01/16/2004 11:15 AM | Server Available. | Display All IMS System Datasets - pfwl - PFWL

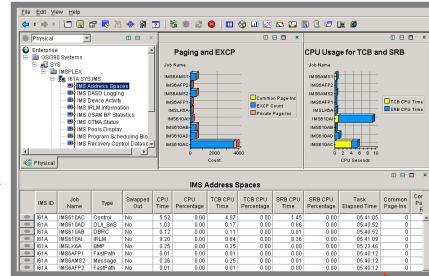


# OMEGAMON XE For IMS OMEGAMON XE For IMSplex Enhancements & Directions

- OTMA display enhancements
- XE level history support
  - Support history capabilities similar to other XE monitoring capabilities
- Merging of IMS and IMSplex offerings into a single OMEGAMON XE for IMS solution

***Please note – These directions are futures & subject to change***

# OMEGAMON XE For IMS Architecture Enhancements



**Dashboard Edition Browser or Client**

**Candle Net Portal Server Windows**

**Candle Management Server - CMS MVS, UNIX, Windows**

**XE**

**XE for IMS will no longer require a hub CMS on MVS**

**XE CICS**

**XE DB2**

**XE Sysplex**

**XE IMS**

**XE Net**

**XE MQ**

**XE MVS**

# Enhancements & Directions

- Lock analysis improvements
  - Show lock owner & waiter detail in same alert row
- Improved product integration
  - More cross product capabilities with other monitors such as XE For CICS and DB2
- Integration with other IBM tools

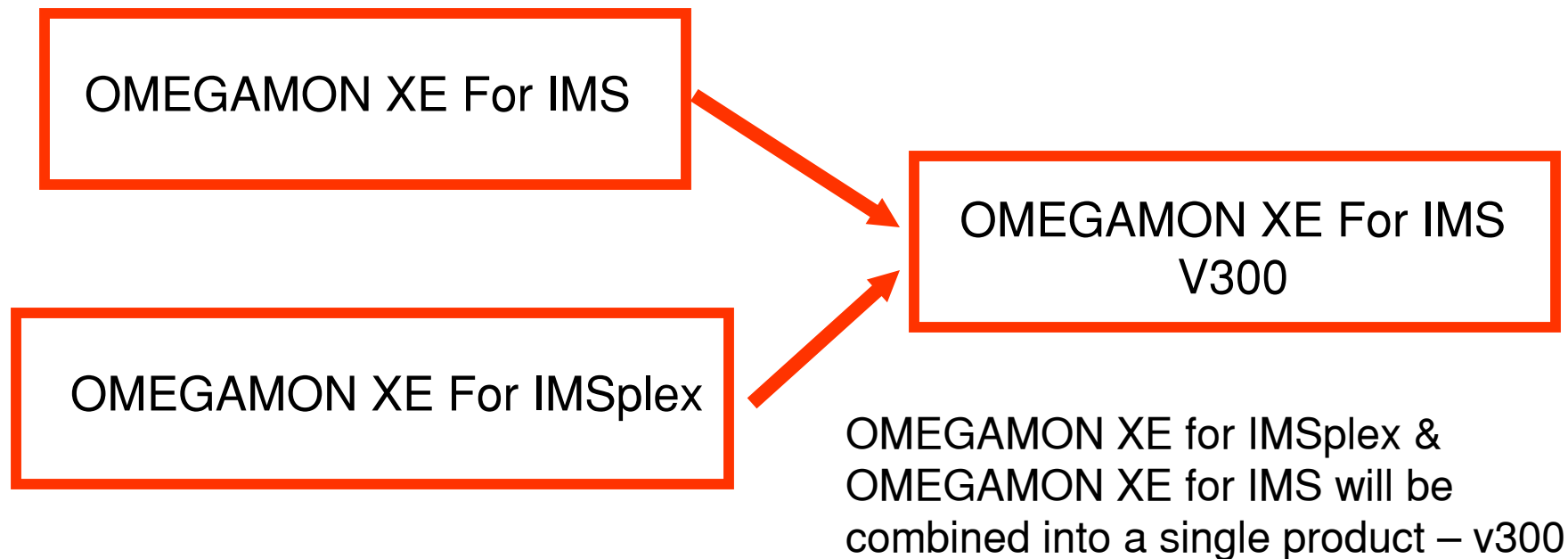
***Please note – These directions are futures & subject to change***

# V9 Specific Exploitation

- More information on HALDB
- Track dynamic Reorg activity
  - Example – show % complete

***Please note – These directions are futures & subject to change***

# OMEGAMON XE For IMS Roadmap

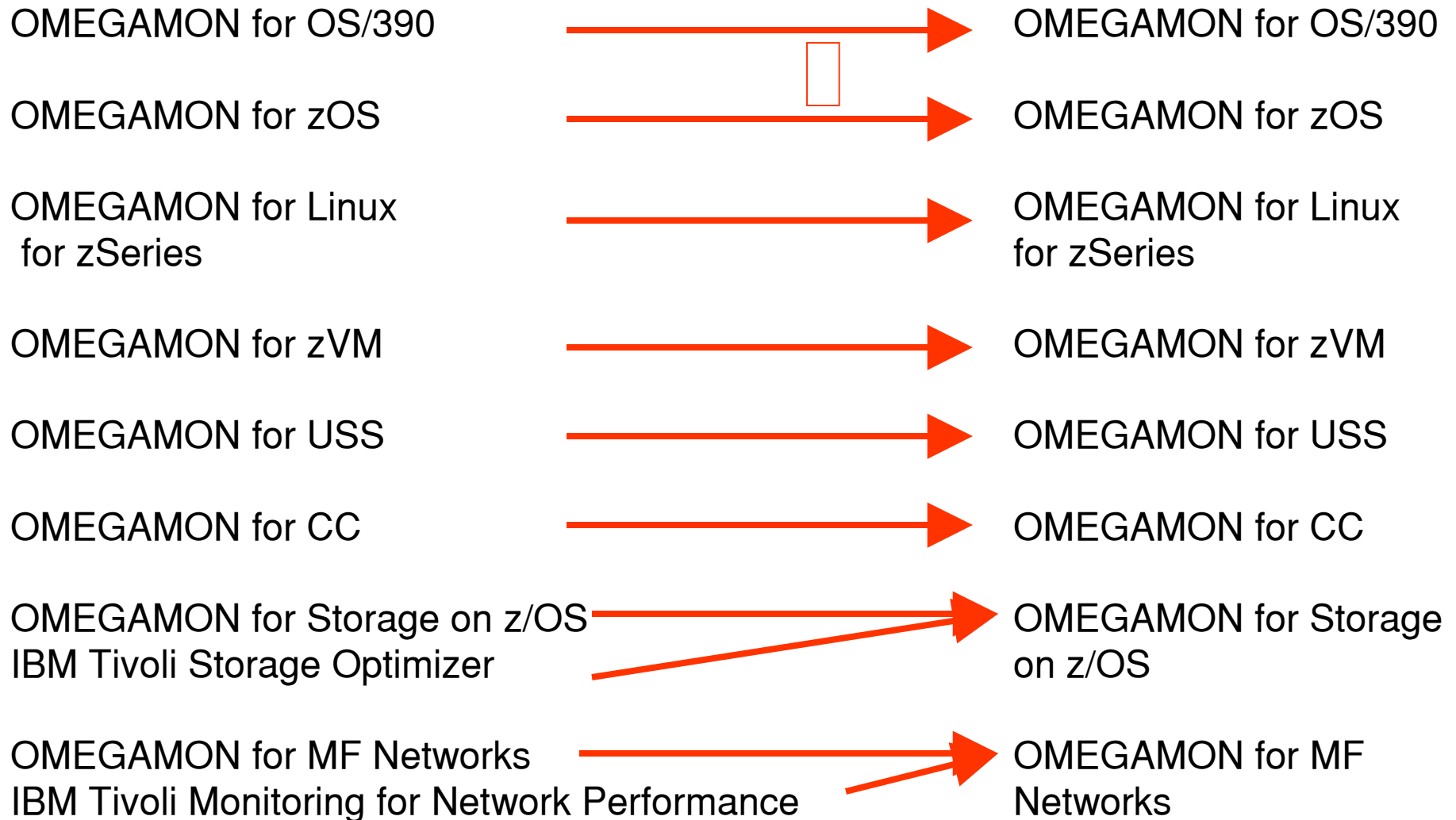


- OMEGAMON XE For IMS V300 will provide combined product functionality

# zSeries Resource Monitoring for OS

**Today**

**Future**



# zSeries Resource Monitoring & Performance Analysis for Databases

Today

Future

## Resource Monitoring

OMEGAMON for DB2

IBM DB2 PM, PE, BPA

OMEGAMON for CICS

IBM CICS Performance Monitor

OMEGAMON for IMS

IBM IMS Performance Monitor

OMEGAMON for DB2  
(converged solution)

OMEGAMON for CICS

OMEGAMON for IMS

## Performance Analysis

IBM CICS Performance Analyzer (PA)

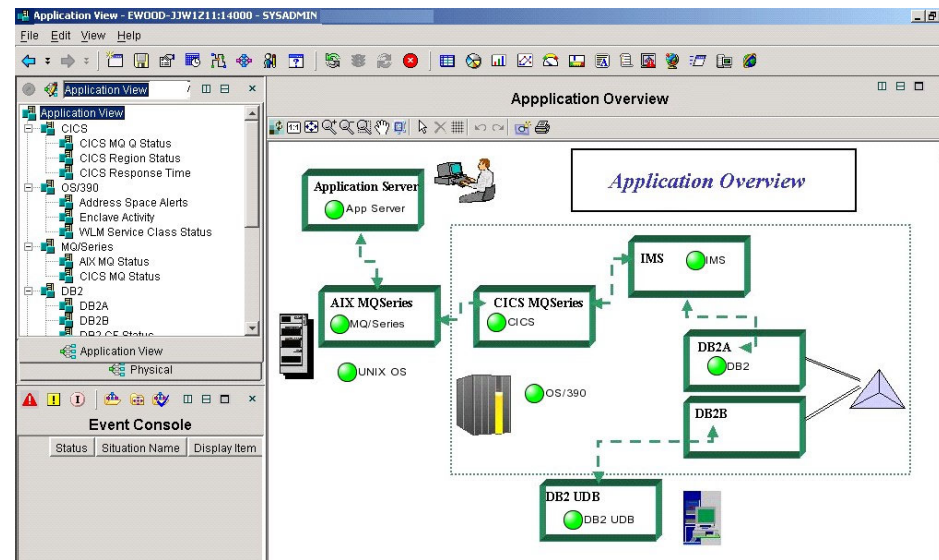
IBM IMS Performance Analyzer (PA)

IBM CICS PA

IBM IMS PA



# In Conclusion



- **Integration of tools**
- **Global dashboard view with drill-downs**
- **Automated corrections**

- **History and real time**
- **Improved problem isolation**
- **Improved productivity with Plex view**