Assuring z/OS Environments with Customizable, Realtime Service Dashboards

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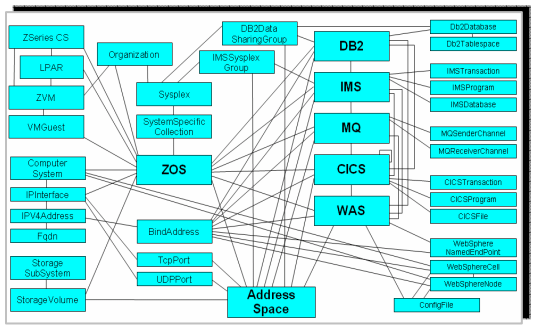
Agenda

- Challenges Facing Operations
- The Value of Dashboards
- Overview of Tivoli Dashboards
  - Managing Virtualized Environments
  - SOA
- Getting Started with Out of the Box:
  - Discovery for z/OS
  - State and status Collection
- Defining Key Performance Indicators

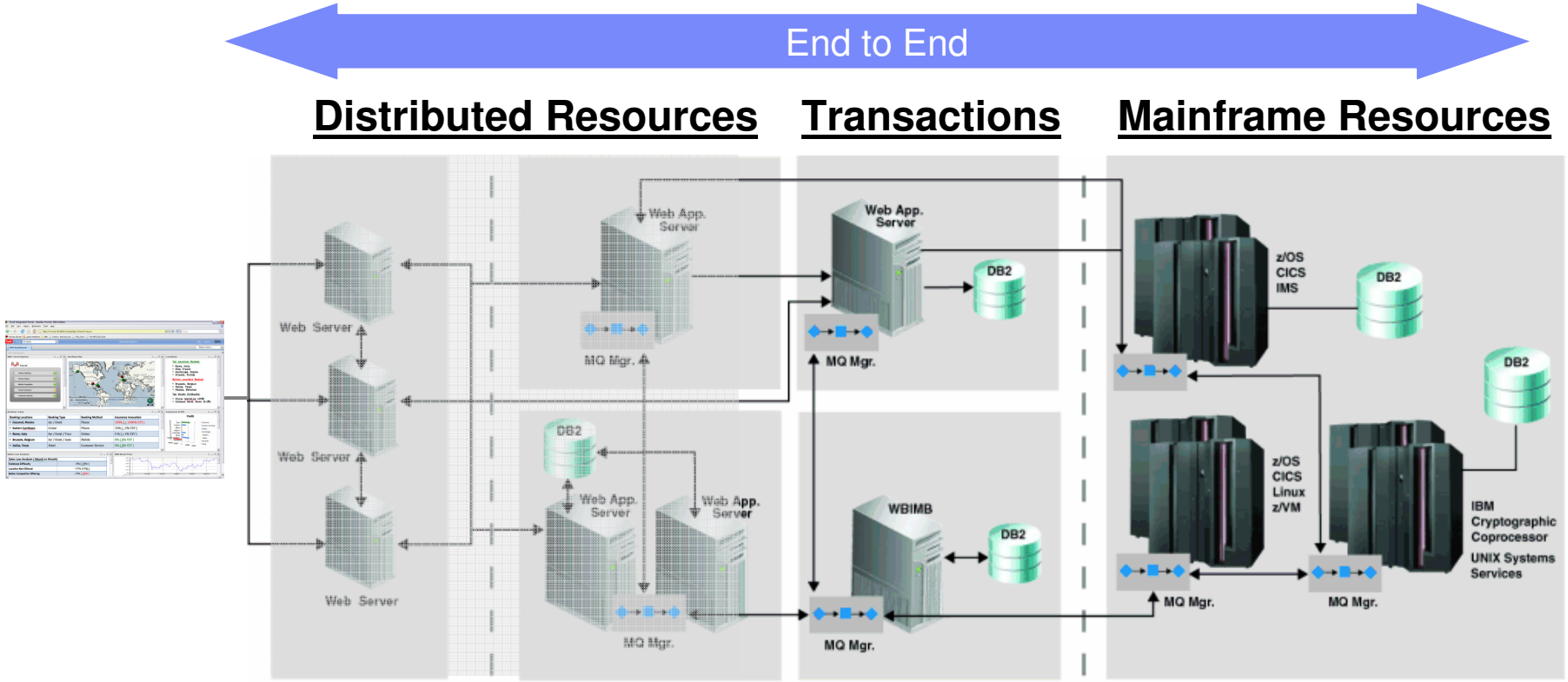
Common Challenges Facing Today's Operations

- Complexity of z/OS based Applications & Services:
  - One or more sub subsystems: CICS, IMS, MQSeries…
  - Supporting one or more Business Service(s)
  - Dependencies can span host and distributed environments
- Difficulty isolating root cause of problems within z/OS, and across host & distributed environments
- Limited insight into the impact of z/OS application & infrastructure problems on services, customers and revenue.
- No easy way to track delivery against key operational indicators and SLA commitments



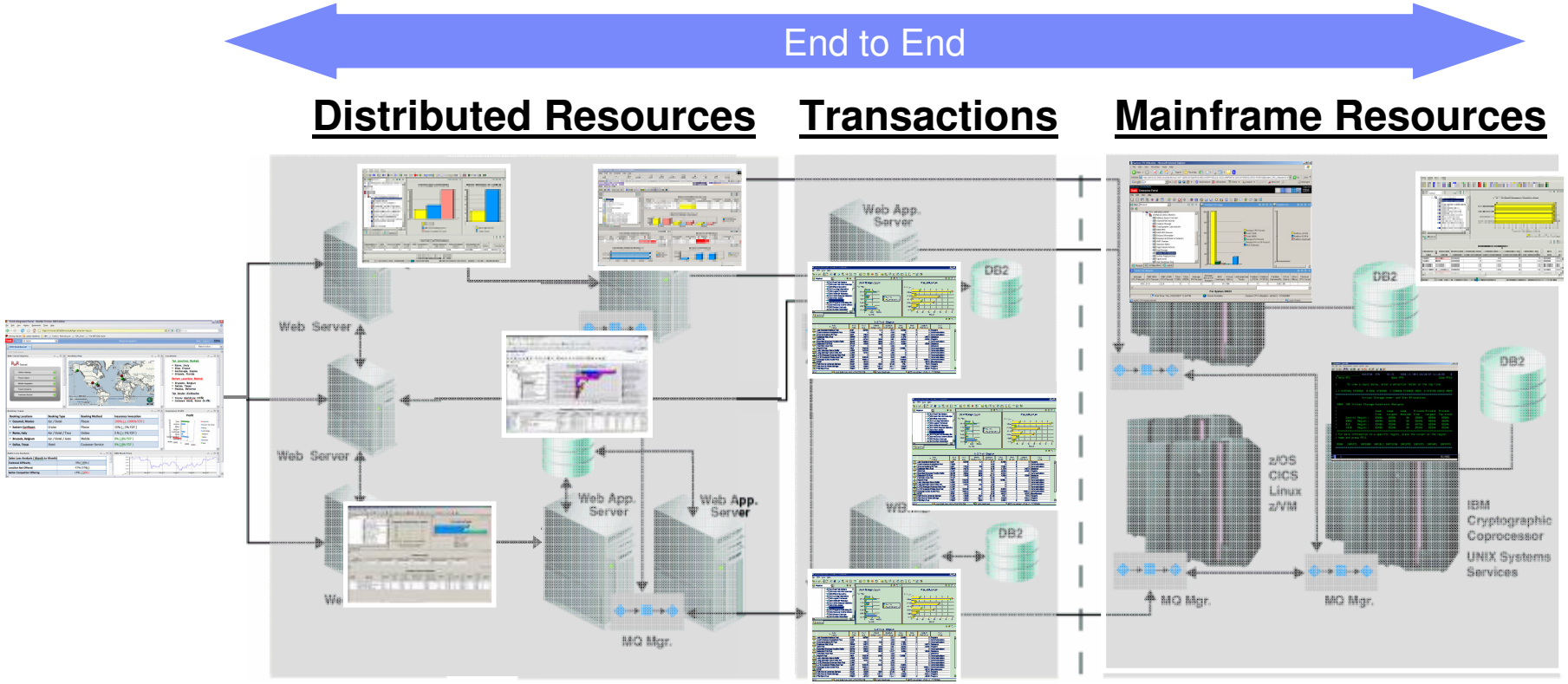
Operations teams require realtime visibility & intelligence for more effective decision making!

Operations Must Watch Many Management Products/Consoles



- In today's environment applications span End-to-End
- A variety of tools to help manage these applications

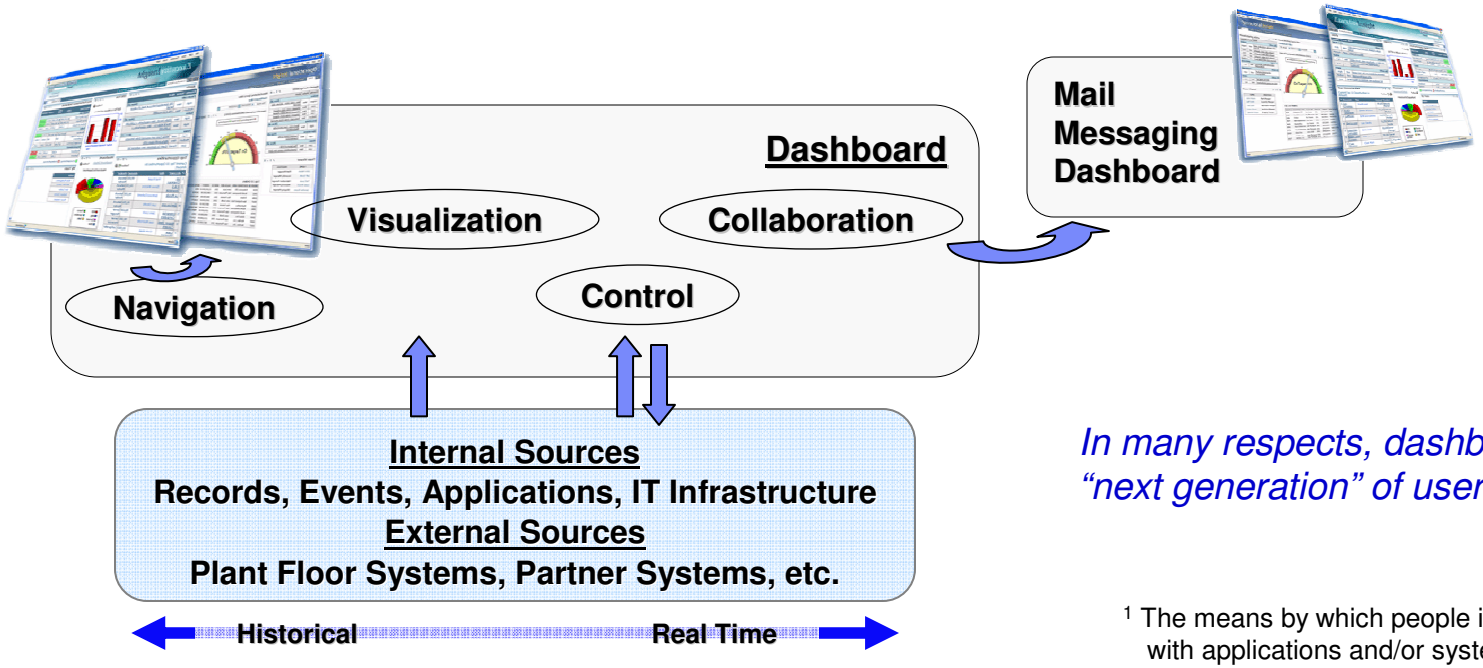
Operations Must Watch Many Management Products/Consoles



- In today's environment applications span End-to-End
- A variety of tools to help manage these applications
- When an event is received they have no idea of the impact to the business

The Value of Dashboards: Visibility & Intelligence

- Present complex information in a simple, easy to understand & timely fashion;
  - *Insights that are easy to gain and still relevant!*
- Navigate a user through the varied sources and detail of that information;
  - *Insights that are deep!*
- Permit a user to take action based on that information – communicate it context to stakeholders or exercise control on operational applications, systems.
  - *Insights that result in collaboration, decisions, and responses!*



In many respects, dashboards are the "next generation" of user interface.

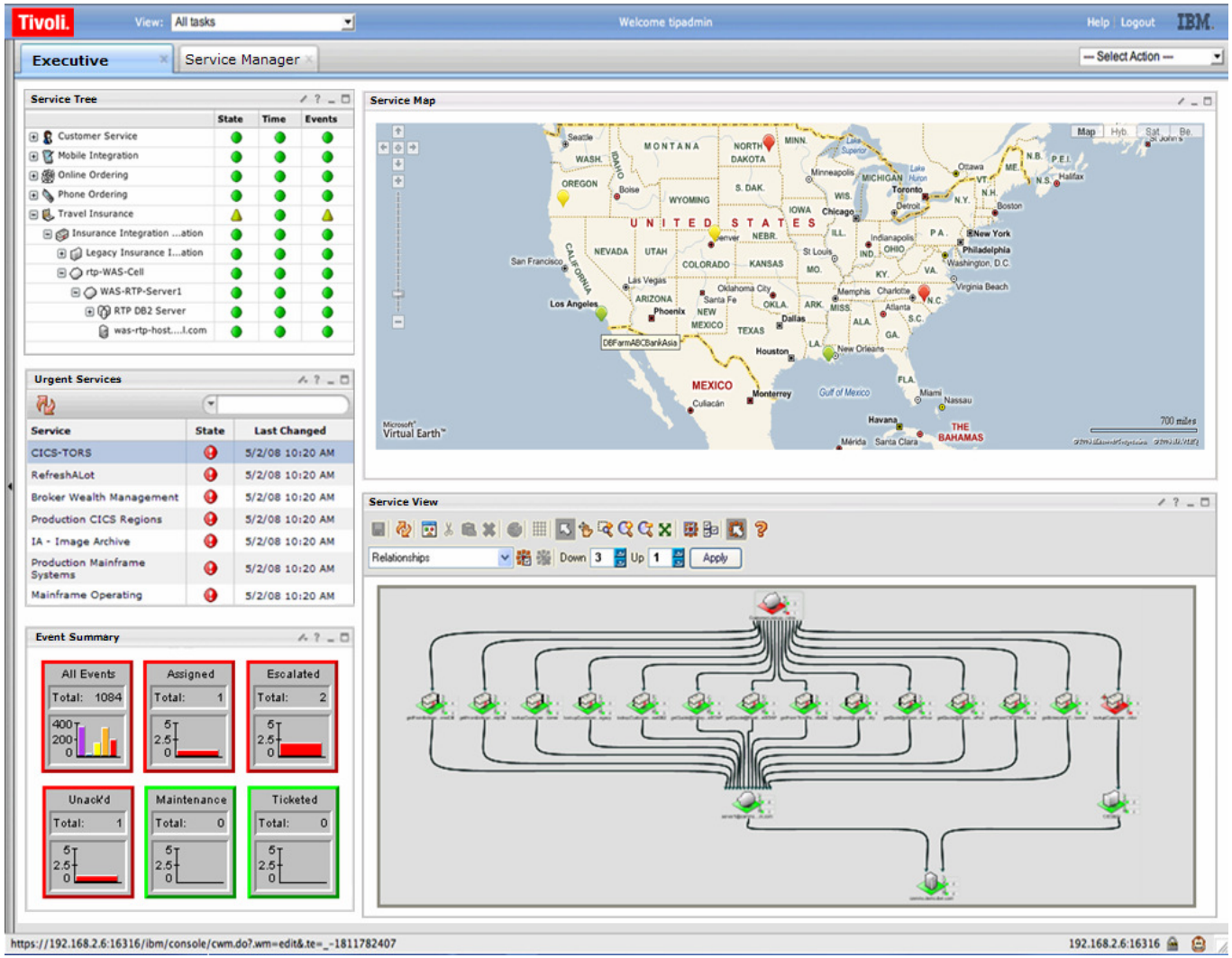
[1] The means by which people interact with applications and/or systems.

Tivoli Customizable Realtime Dashboards

Role-based dashboards
- Customizable/sharing common context
- Web 2.0/Mash-ups (IBM & 3rd party)
- Launch in context views & automations.
- Realtime & Historical reporting across KPIs, event & peformance.
- Mobile Support

Distributed & Mainframe
- Visibility across both
- Manage from either
- SOA & Virtualization
- Supports IPv4 & v6

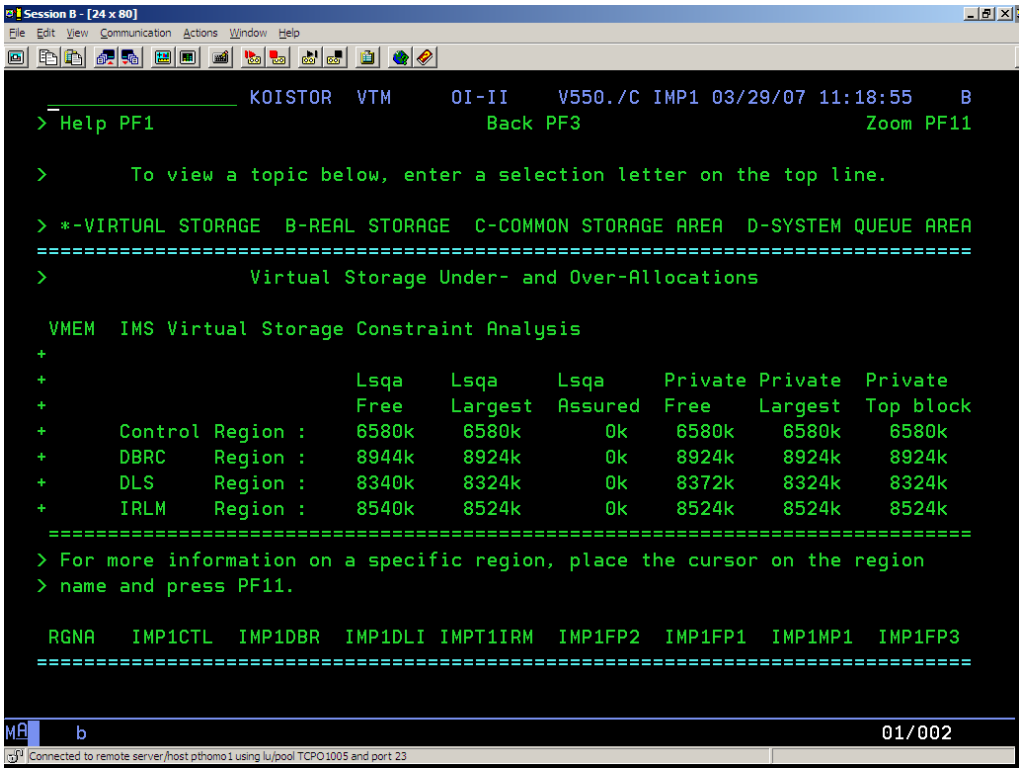
High Scalability/Availability
- Split UI & Engine
- Self-monitoring
- Failover



Integrated Visibility & Intelligence

Low level Diagnostics
- Technical Support staff
- Systems Programmers

→ OMEGAMON Classic



Integrated Visibility & Intelligence

Infrastructure Views
- Operations staff
- Technical Support staff

→ ITM & OMEGAMON XE

Low level Diagnostics
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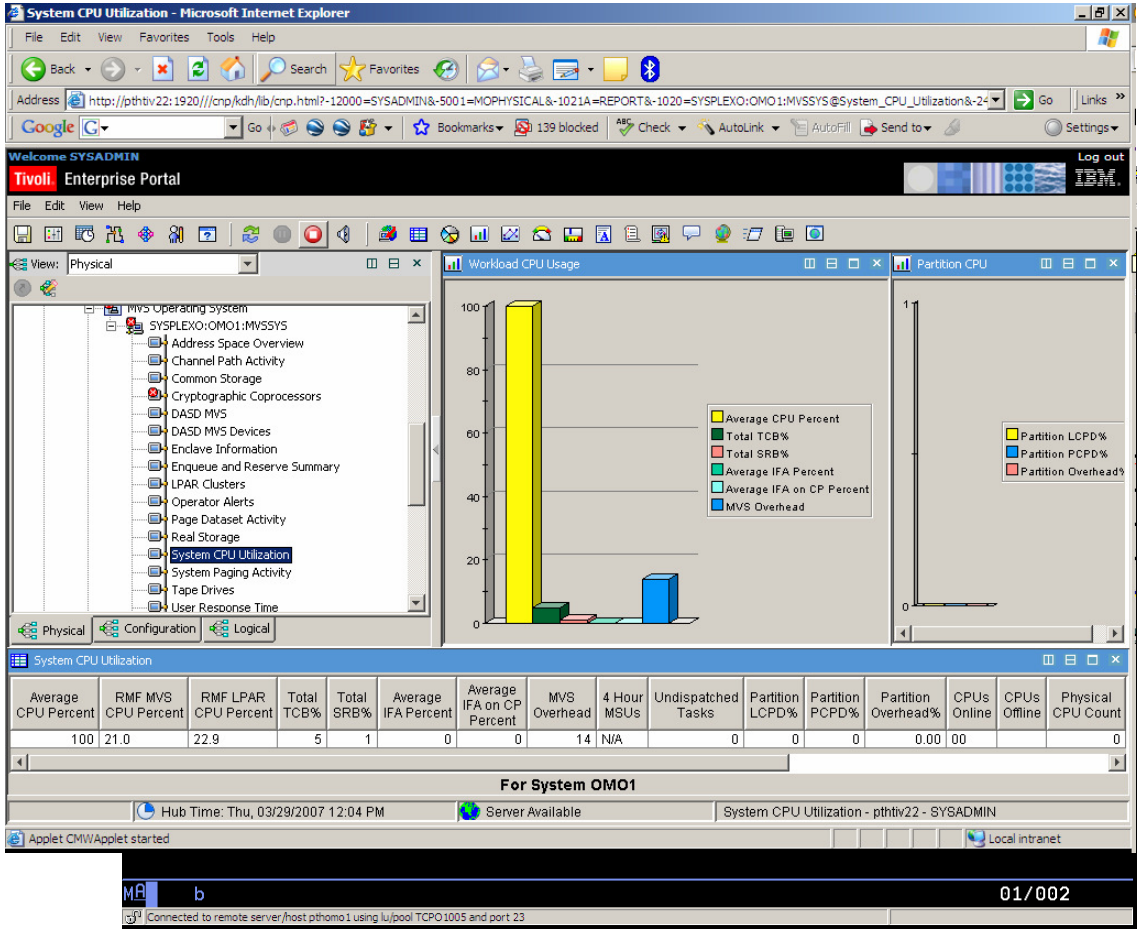

Integrated Visibility & Intelligence

Business Component Views
- Application Support staff
- Help Desk staff
- Operations staff

→ Tivoli Business Service Mnager for z/OS

Infrastructure Views
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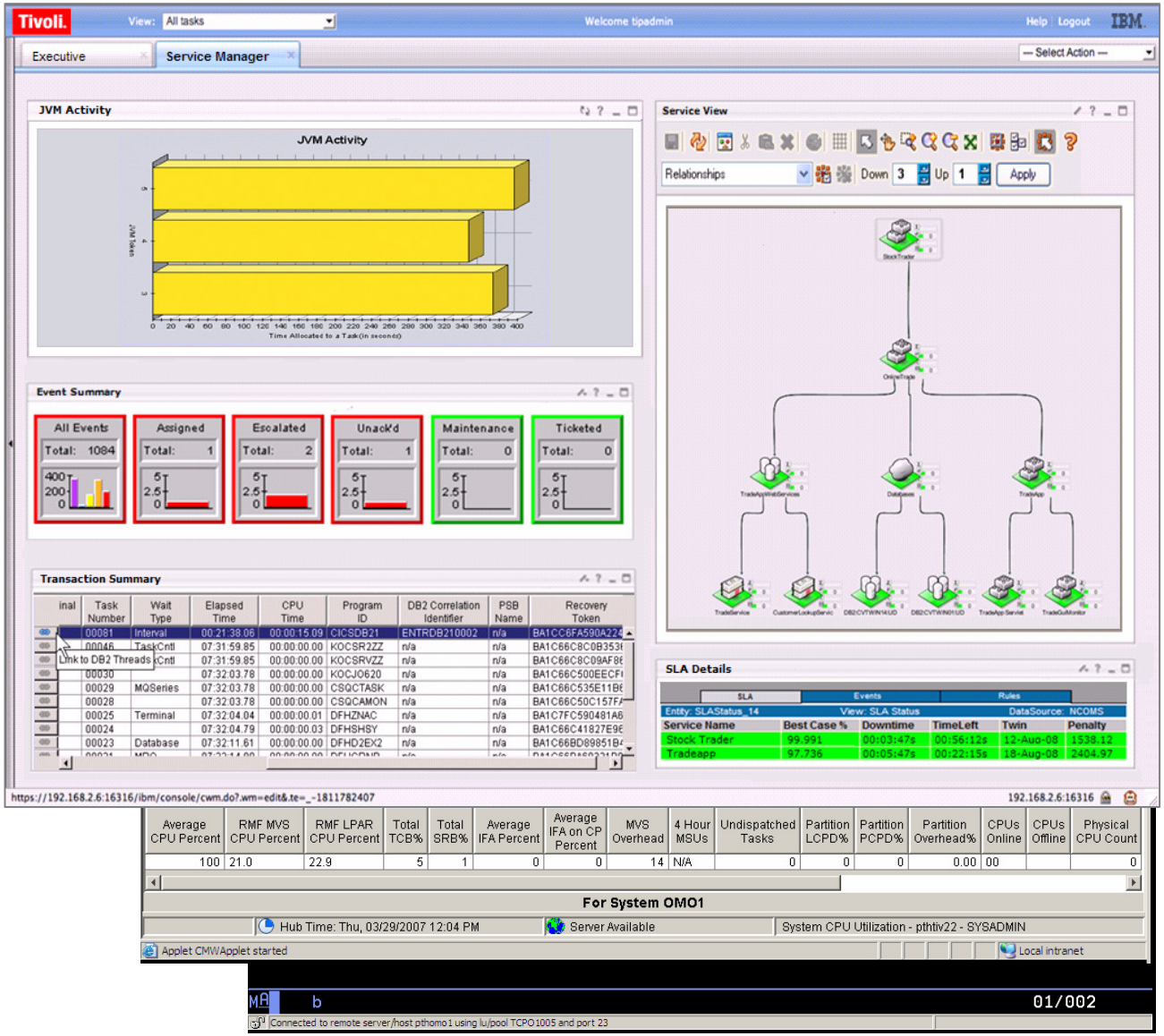

Integrated Visibility & Intelligence

High Level Business Views
- Business Managers
- End Users

→ Tivoli Business Service Manager for z/OS

Business Component Views
- Application Support staff
- Help Desk staff
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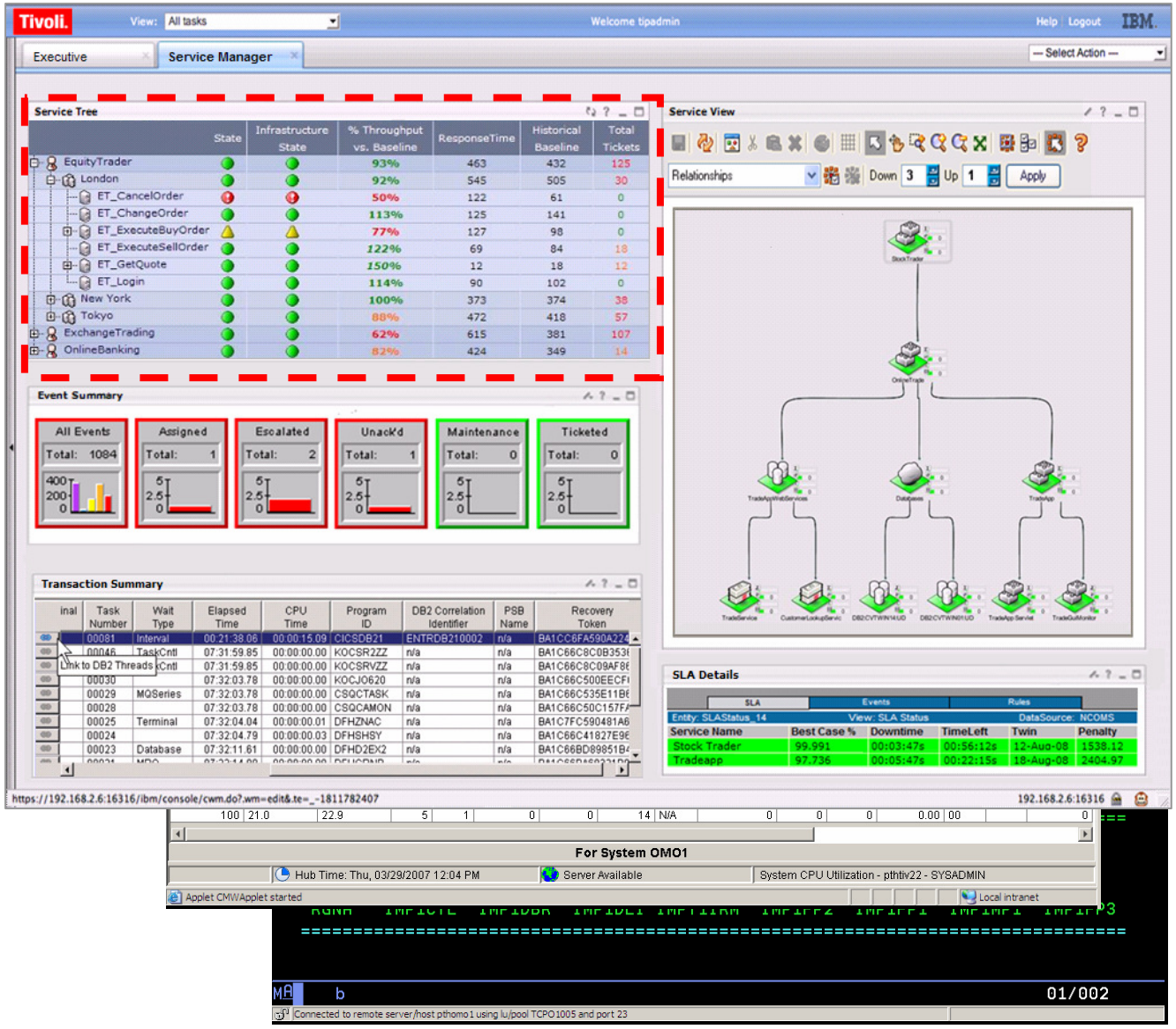
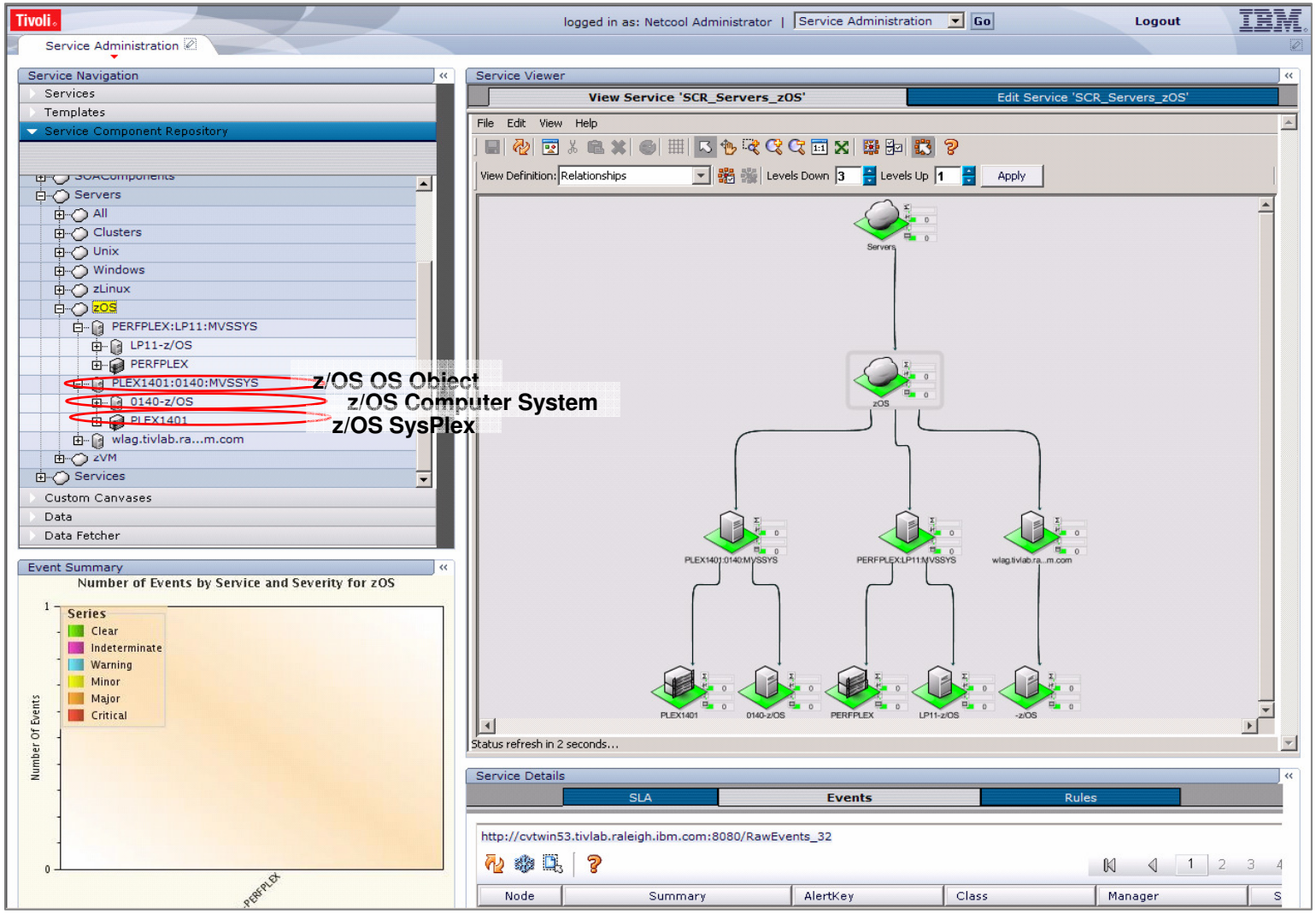
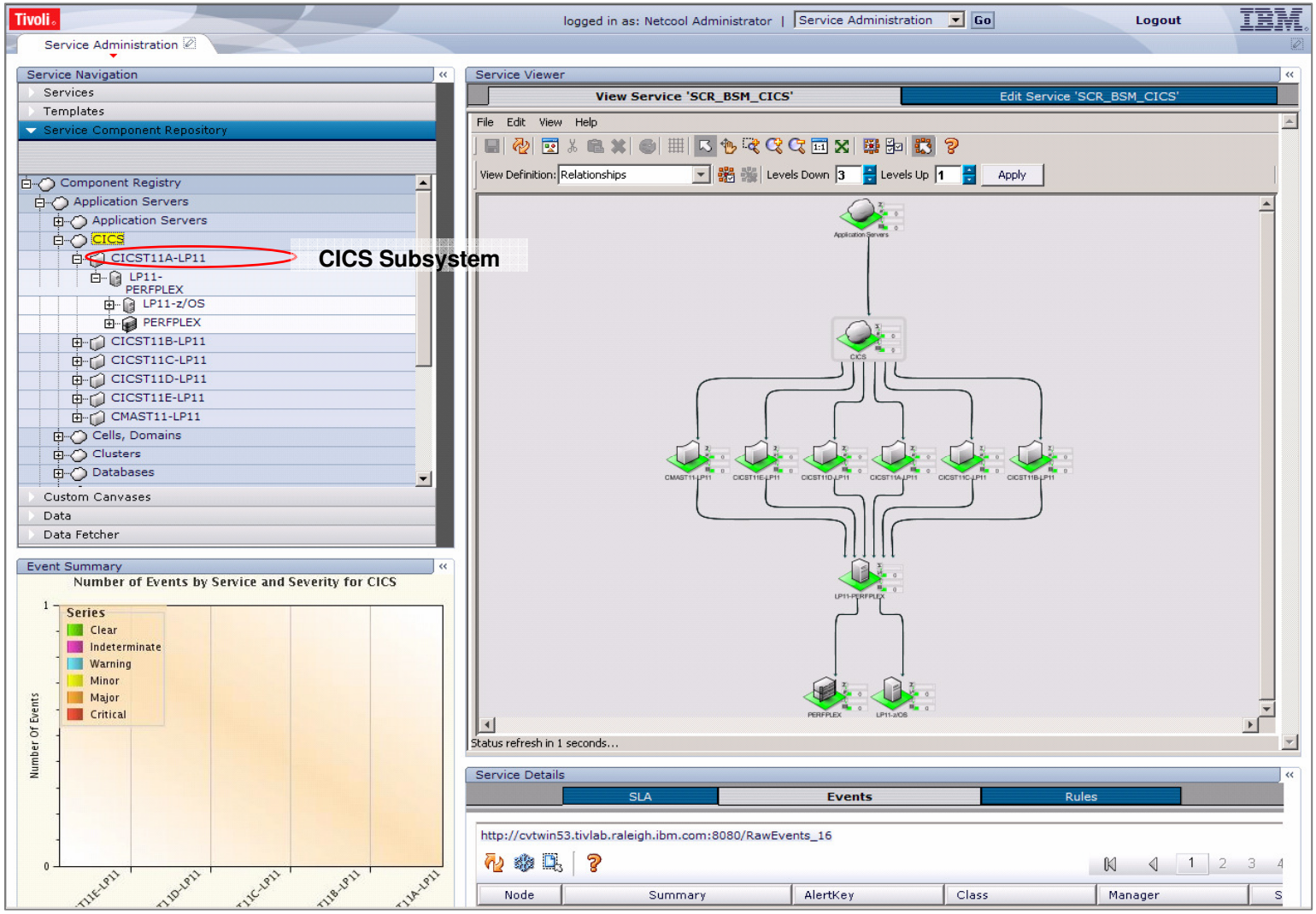


Dashboarding for your Z/OS environment



Dashboarding for your CICS Environment



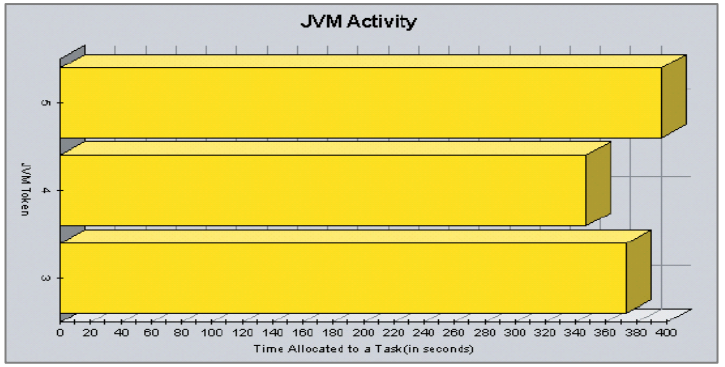
Integrated Drill Down to Detailed Intelligence

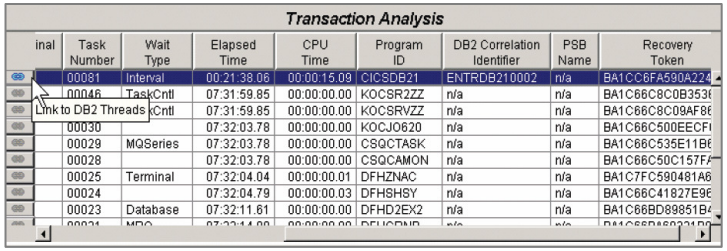
Launch in Context from:

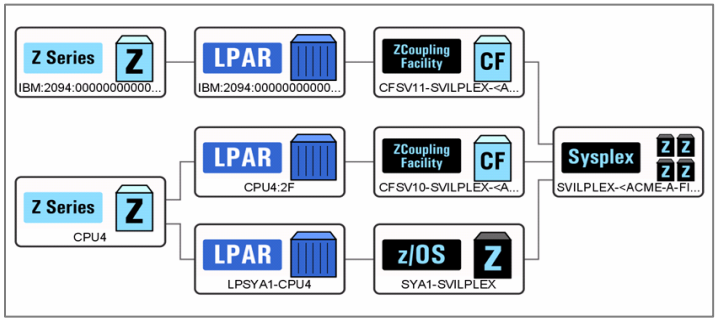
- Dependency Model
- Event Views
- SLA Views
- Custom Maps

Directly to detailed views:

- Transactions
- Performance
- Configuration Details
- Change Reports



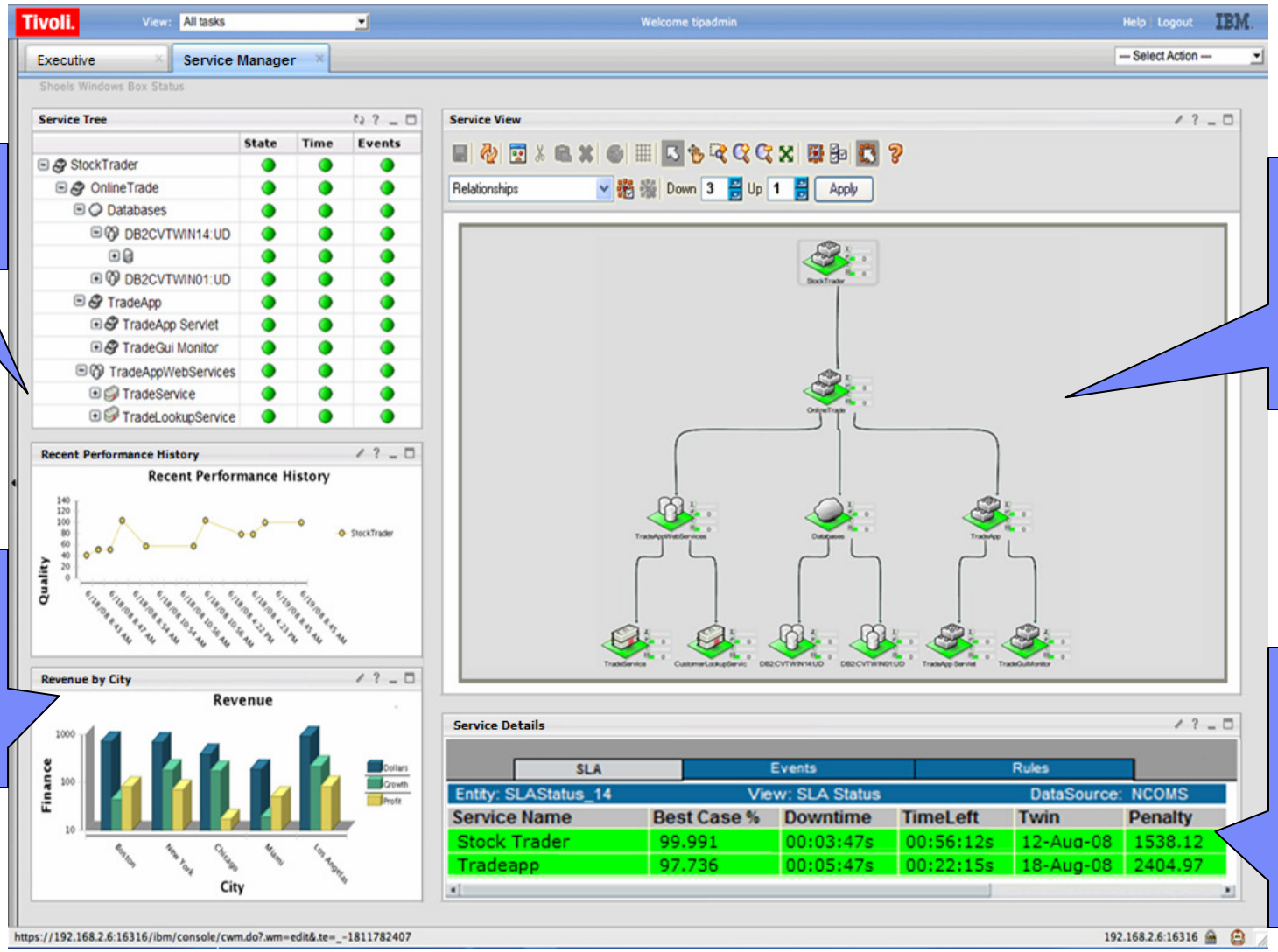




Managing Service Oriented Architectures

Drill down to SOA services & servlets

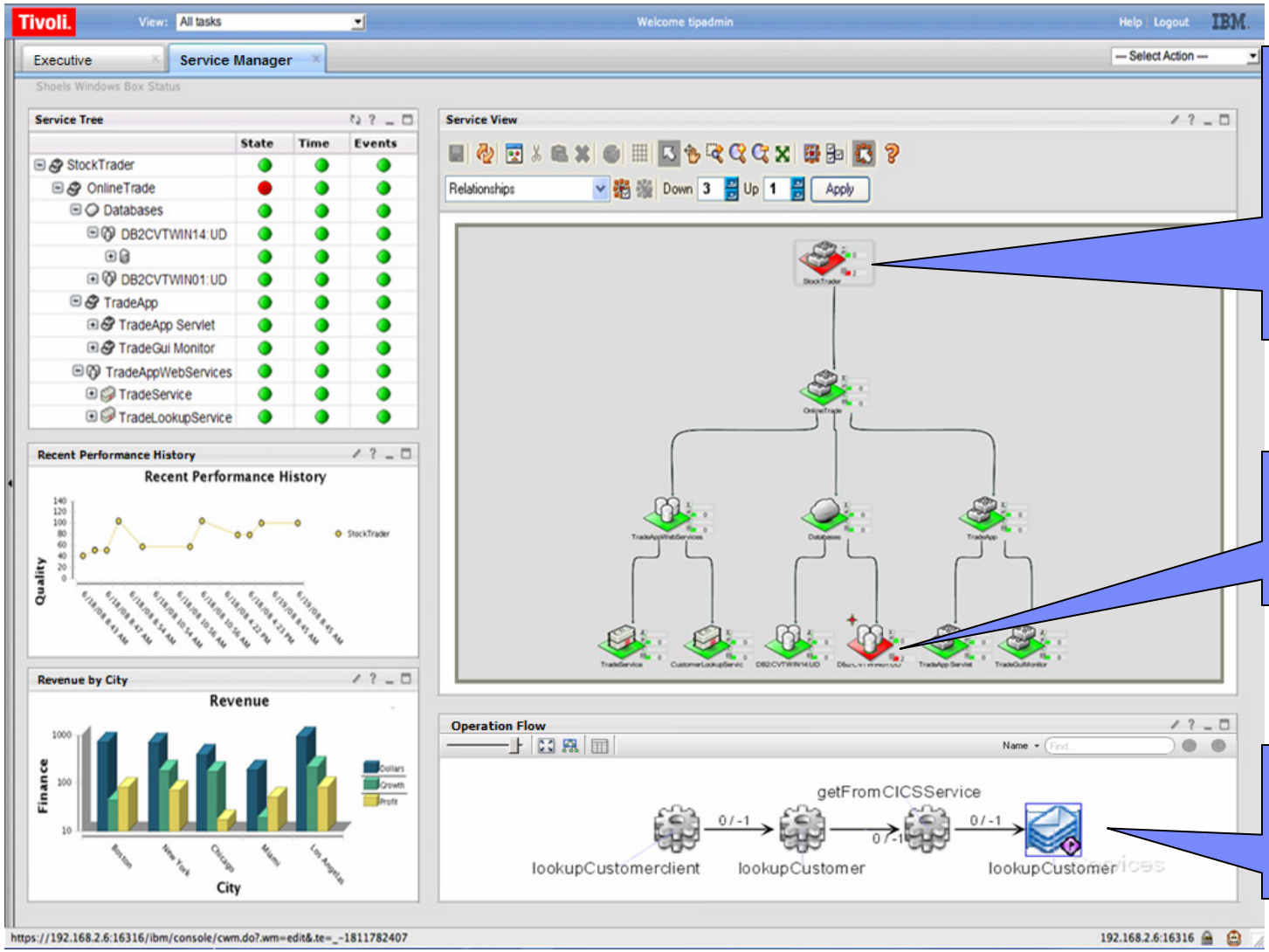
Access Business Events, KPIs & views from SOA platforms & middleware



Auto-discovery and mapping of SOA-based business services & processes (BPEL)

SLA Tracking by service and sub-service components including best case, downtime, penalty…

Managing Service Oriented Architectures



Rapidly identify the service impact on SOA-based business services, processes or transactions.

Pinpoint Service-impacting root cause.

LIC to Operation flow diagrams & details.

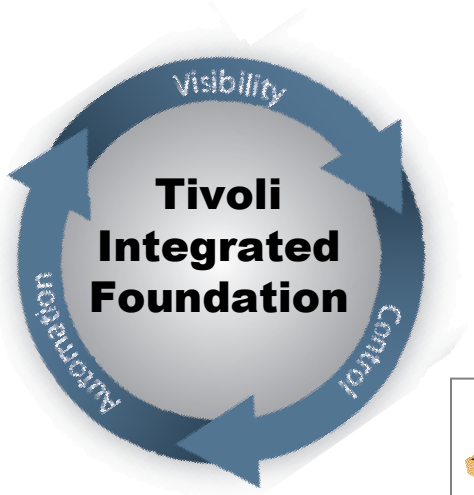
Relational Value Across Tivoli & Third Party Tools…

Integrated Visualization & Navigation

Web 2.0 interface with launch in context across IBM tools and 3rd party views.

Process Automation

Common platform for cross-product integration, processes, & task / runbook automation.

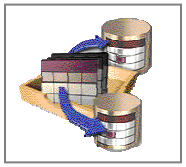


Integrated Security

Secure single sign-on across products.

Open Reporting Ecosystem

Out of the box and custom reports leveraging IBM data warehouse and 3rd party data sources.



Common Data Warehouse

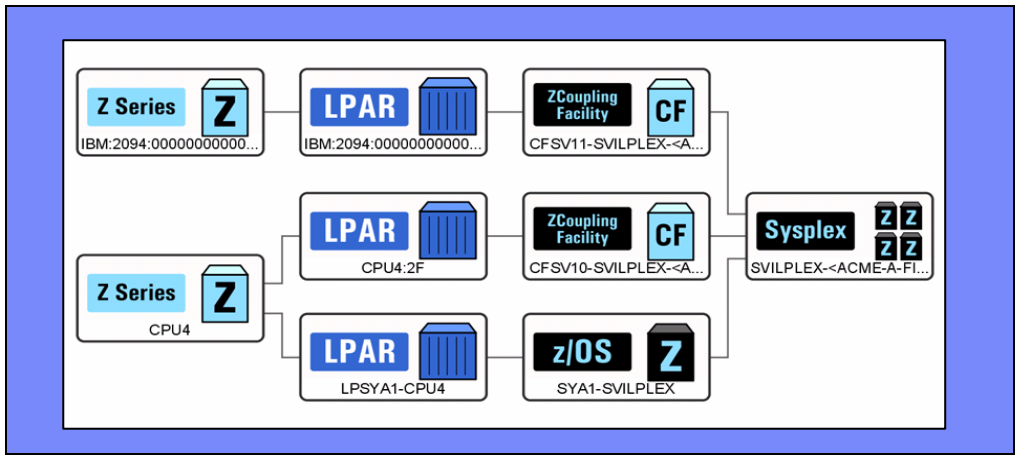
Stores IBM and 3rd party event, performance, & business data for predictive analytics.

Only Tivoli has the integrated & extensible foundation to mange across Tivoli & 3rd Party

Tivoli Discovery for Automated Mapping of Dependencies

Breadth of discovery:

- Mainframe
- Distributed
- SOA
- Virtualization
- Storage
- Network
- Security



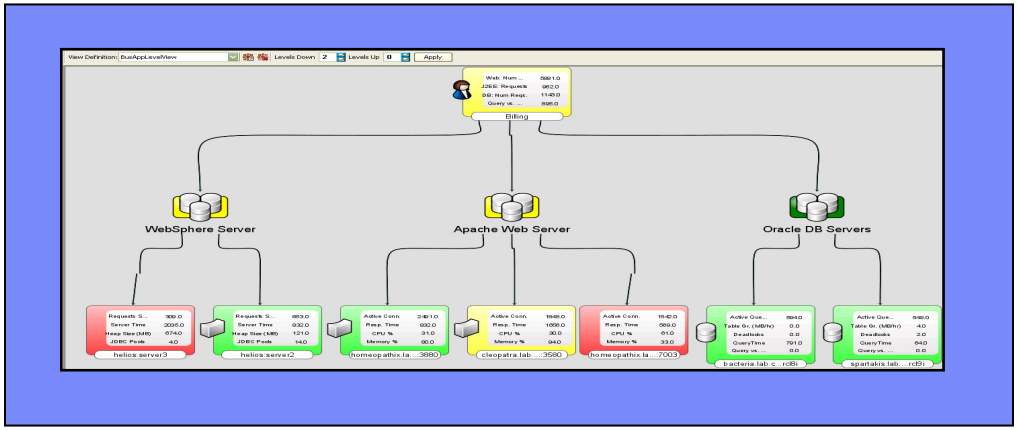
Topology Mapping:

- Periodic
- Partial/Full
- Manual

Configuration Details & Change History

Cross tier application maps
Configuration changes

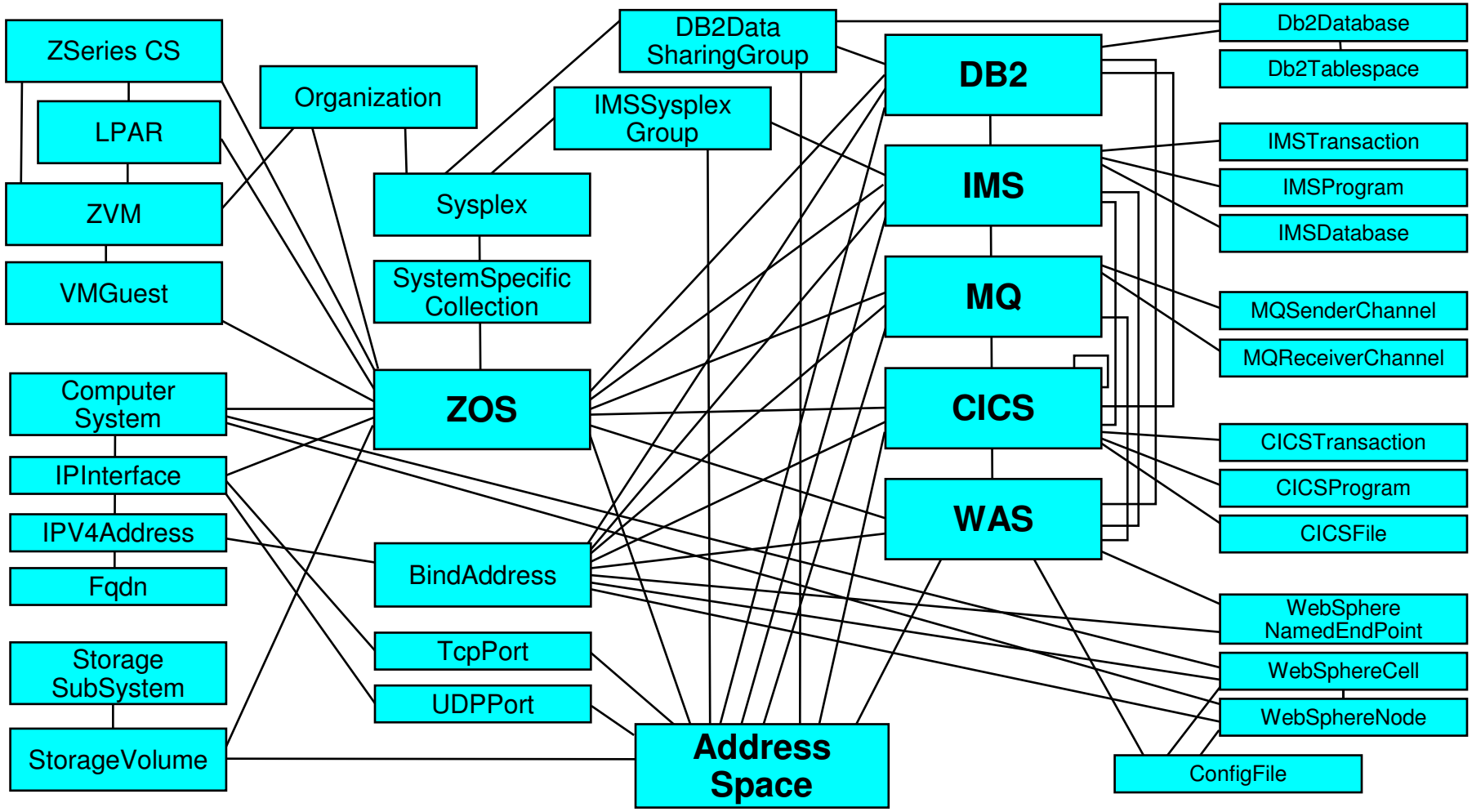
Launch in context to configuration details panels



Sources of Dependency Data for z/OS

- Discovery Library Adapters (DLAs)
  - On OPAL – OPEN PROCESS APPLICATION LIBRARY
  - Discover Resources and Relationships
  - Aim for zero prerequisites
  - Creates an XML file that is in Identity Markup Language (iDML) format, which conforms to the Common Data Model (CDM)
- z/OS DLA – Out-of-the-box Discovery of z/OS Dependencies
  - Discovers z/OS Hardware and z/OS Details
  - Address Spaces
  - Subsystems: DB2, IMS, MQ, CICS, WAS
- TMS DLA
  - Discovers Tivoli Monitoring Services resources
  - All Managed Systems: including Distributed Agents and OMEGAMON XE mainframe agents. Logical Groupings.
- IBM Tivoli NetView for z/OS DLA
    - Discovers System z IP Managed Element data

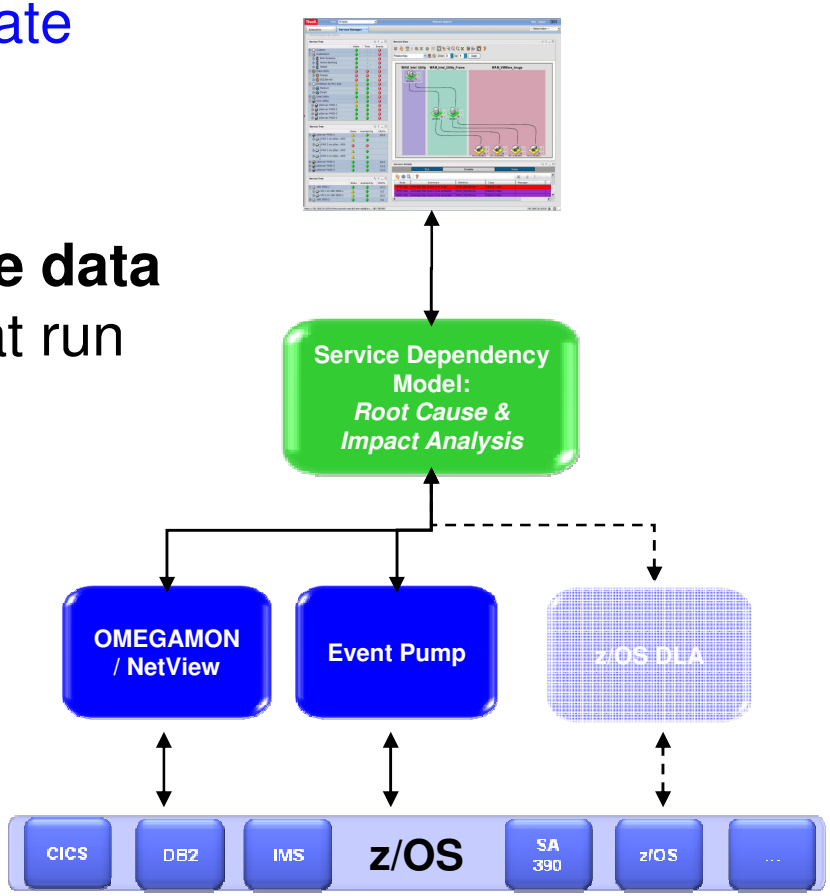
Breadth of Discovery & Connections



Collect State and Status: Event Pump for z/OS

- Out-of-the-box Collection of z/OS State and Status
- Runs on z/OS (mainframe)
- Retrieves **state** and **status resource data** for various subsystems and tools that run on z/OS, such as:
  - z/OS
  - Base CICS
  - CA OPS/MVS
  - IMS*
  - DB2*
  - SA/390*

  **requires NetView for z/OS 5.x*
- Direct Support for OMEGAMON XE
- Any External Distributed Sources



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