Get more from your Mainframe with Proactive end-to-end monitoring

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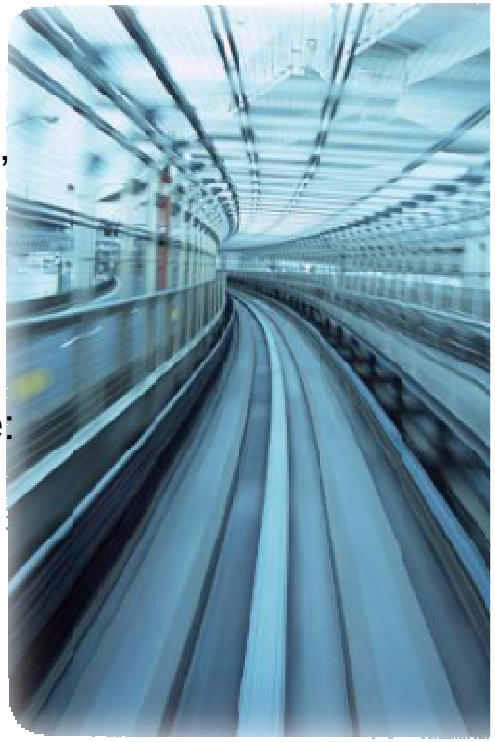
New visibility into consolidated zEnterprise Workloads

- IBM continues to enhance the zEnterprise platform with open APIs for monitoring capabilities
- Tivoli products for zEnterprise Monitoring provide **visibility** to zEnterprise objects for performance monitoring, problem determination, capacity and performance planning
  - Resources
  - Relationships
  - Workload goal fulfillment and utilization
- Tivoli zEnterprise Monitoring offers **improved Time-to-Value** because:
  - Data is collected once, maintained in single repository and shared by many
  - Data collected for both, monitoring technologies
  - Enterprise Common Collector packaged with all products but need to be installed and configured only once
- Existing customer investments are protected due to **integration** with other Tivoli products



IBM zEnterprise Systems – Best in Class Systems and Software Technologies

A system of systems that unifies IT for predictable service delivery

Unified management for a smarter system:
zEnterprise Unified Resource Manager

- Unifies management of resources, extending IBM System z® qualities of service end-to-end across workloads
- Provides hardware, platform, and workload management

The world's fastest and most scalable system:
IBM zEnterprise™ 196 (z196) or zEnterprise™ 114 (z114)

- Ideal for large scale data and transaction serving and mission critical applications

Scale out to a trillion instructions per second:
IBM zEnterprise BladeCenter® Extension (zBX)

- Selected IBM POWER7® blades and IBM System x® blades[1] for tens of thousands of AIX® and Linux applications
- High performance optimizers and appliances to accelerate time to insight and reduce costs
- Dedicated high performance private network

zEnterprise Unified Resource Manager
Transforming way resources are managed and deployed

What is it?

Unified Resource Manager provides infrastructure awareness to optimize the system resources in accordance with understanding the policies assigned to that particular workload.

Functions are grouped into suites of tiered functionality that enable different levels of capability – Manage, Advanced Management and Automate.

How is it different?

- **Heterogeneous management:** Total systems management across heterogeneous resources. APIs facilitate enterprise wide management.
- **Integration:** Single point of control, common skills for resources, reduced complexity of day to day operations..
- **Monitoring.** New dashboard for CPU resources and energy management.
- **Simplified installation:** Auto discovery and configuration of resources and workloads with single interface
- **Secure:** Improved network security with lower latency, less hops and less complexity. Improved control of access due to management of hypervisors as firmware.
- **Service and support management:** Virtual machines and blades able to perform hardware problem detection, reporting and call home

Unified Resource Manager

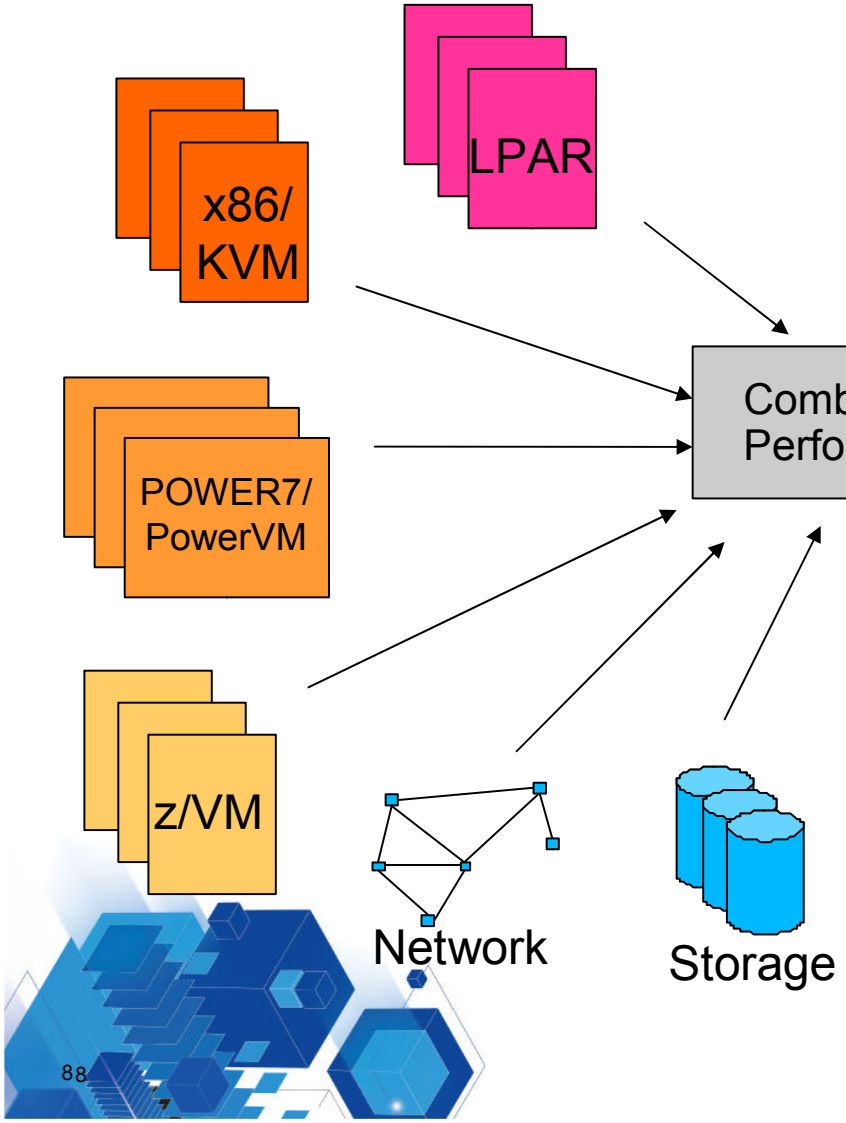
Unified Resource Manager – Data Available via HMC
Manage Firmware Suite

- ***Manage (DataPower XI50z, select POWER7 and System x blades)***
  - Monitor and trend reporting of CPU energy efficiency.
  - New dashboard interface enabling a broader view of system resource consumption.
  - Integrated hardware / asset management across all elements of the system.
  - Private and physically isolated connections for secure support and data sharing.
  - Administrative simplification (wizard) for virtual server provisioning and enablement of integrated storage and network across hypervisors.

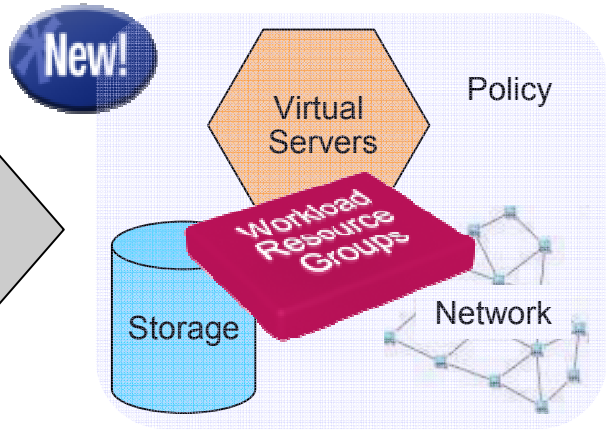
Unified Resource Manager - Turns Data into information
Advanced Management / Automate Firmware Suites

- ***Advanced Management (Select System x blades)***
  - Additional wizard function to set up resources associated with a workload and the capability to associate those resources with a named business process.
  - Ability to monitor and report performance.
  - Energy management capabilities.
- ***Automate (Select POWER7 blades and DataPower XI50z)***
  - Energy management capabilities.
- ***Automate (Select POWER7 blades only)***
  - Additional wizard function to set up resources associated with a workload and the capability to associate those resources with a named business process.
  - Ability to manage to a user defined performance service level policy and enable performance monitoring, reporting and resource optimization.
  - Static power savings.

Unified Resource Manager APIs intended to enable Tivoli to create and manage Workload Resource Groups



Definition of Workload Resource Groups based on platform requirements to support business services



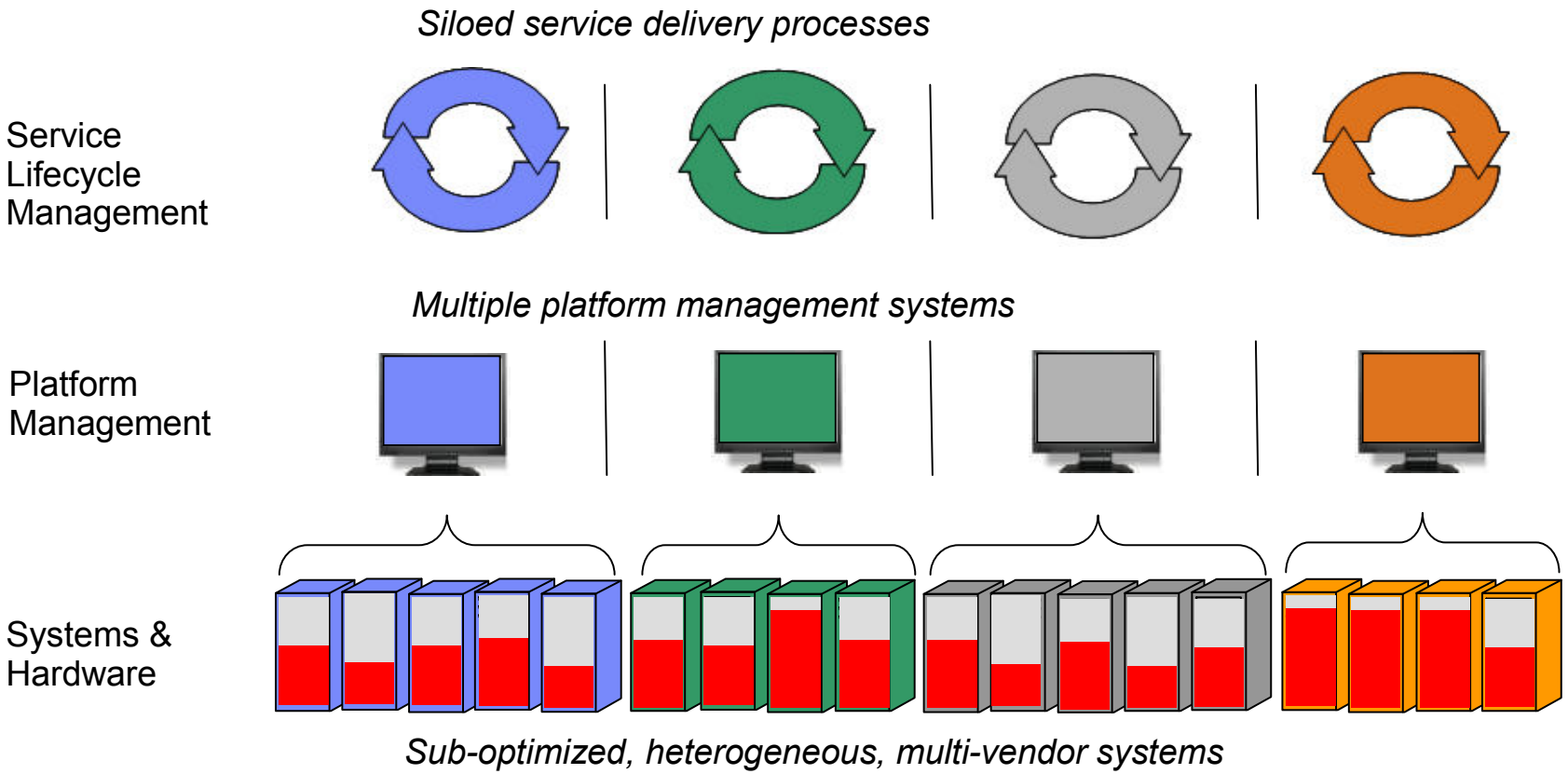
Workload Resource Groups can be provisioned, monitored, discovered and automated

Unified Resource Manager APIs
Enabling Tivoli management tools

- New API support allows programmatic access to the same underlying functions exploited by the HMC user interface (UI)
  - Same resource types, instances and policies
  - HMC UI steps are accomplished using panels in a wizard-style task while API steps are accomplished by calling API management primitives
  - Therefore the API functions correspond to views and tasks in the UI such as:
    - Listing resource instances
    - Creating, changing, deleting resource instances
    - Operational control of resource instances
- Access to these functions will enable tools external to the HMC to manage Resource Manager
- Initially the priority scenarios will be the discovery, monitoring, and provisi

Data Centers today are siloed across multiple heterogeneous technologies and vendors

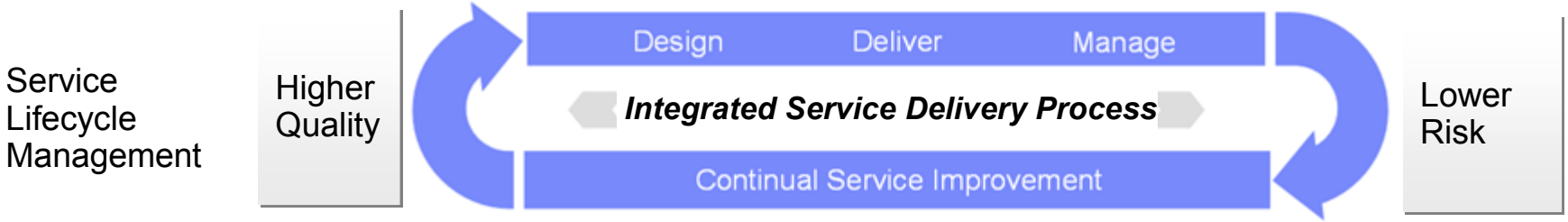
Today's Data Center

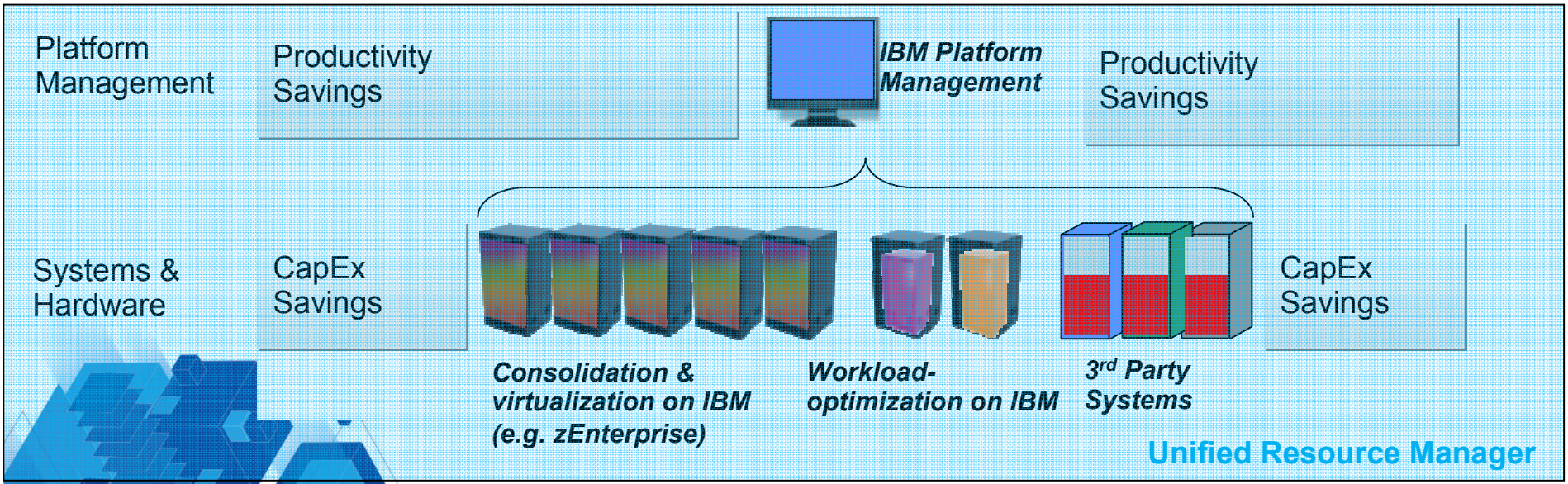


Tivoli Service Management ensures service quality and integrity from the next generation of data centers

Optimized Data Center

Service Management extends across all three layers





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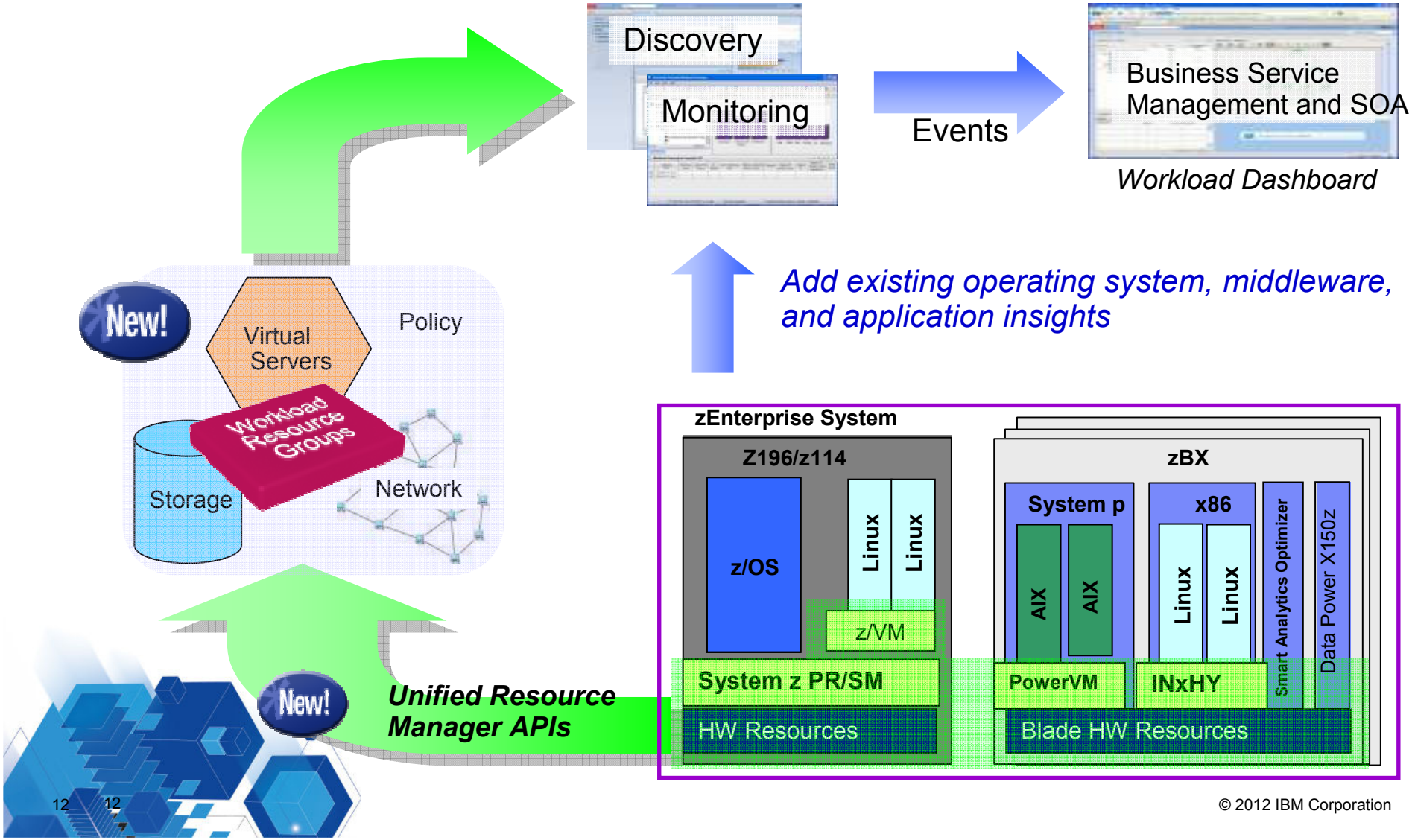
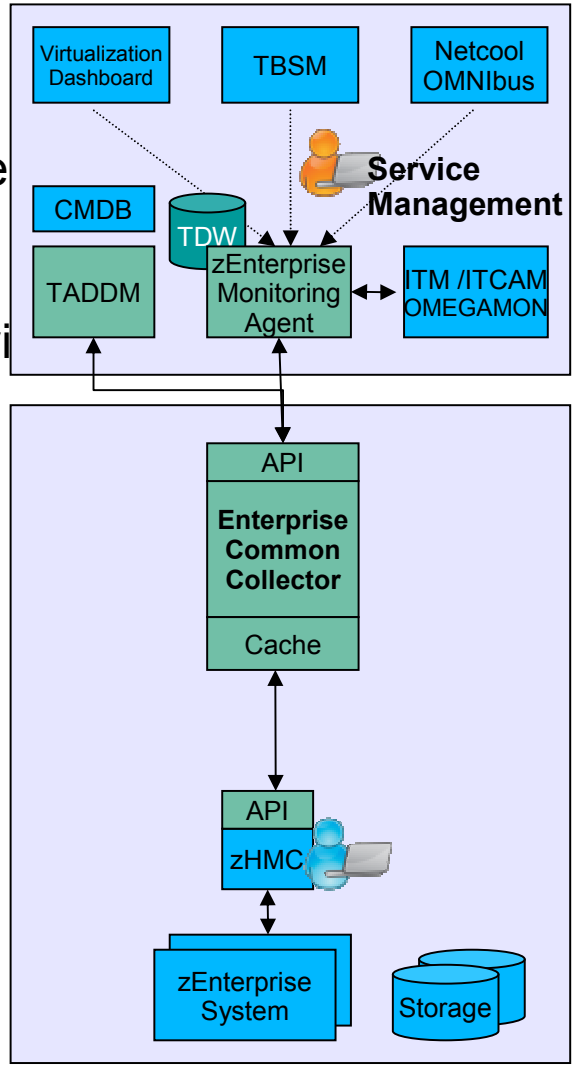
Tivoli monitoring and discovery can track and manage Workload Resource Groups across zEnterprise



Proactive end-to-end zEnterprise Discovery

- Discovers physical, logical, and virtual zEnterprise Syste relationships within the enterprise
  - Fulfills query requests from single TADDM Sensor
  - Used by TBSM to create and visualize business servi correlation

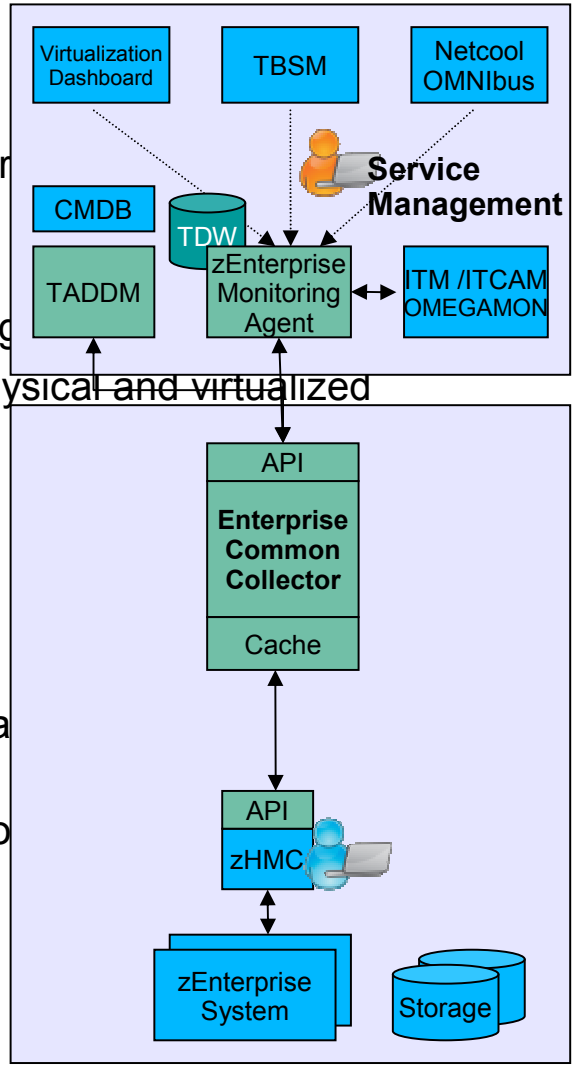
- Leverages IBM Tivoli Monitoring infrastructure
  - Situation monitoring and event forwarding
  - Historical reporting



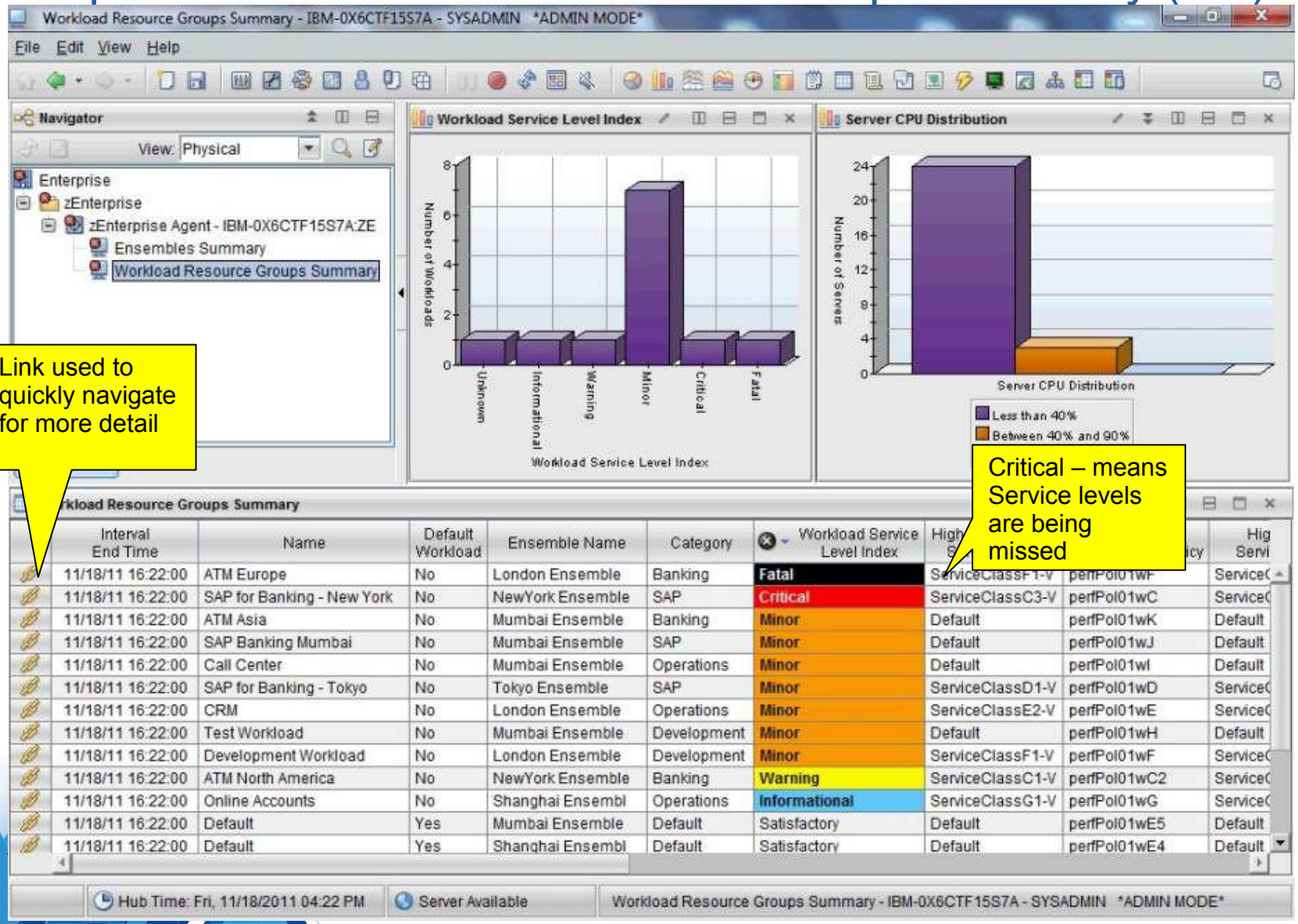
Provide improved performance with proactive end-to-end zEnterprise Monitoring

- Visualizes the health and performance of your workload resource gr
  zEnterprise System hardware
  - Across Ensembles and different types of resources
  - Highlights workloads that do not meet business objectives or hig
  - Provides context of workloads with respect to the underlying physical and virtualized infrastructure including storage and network

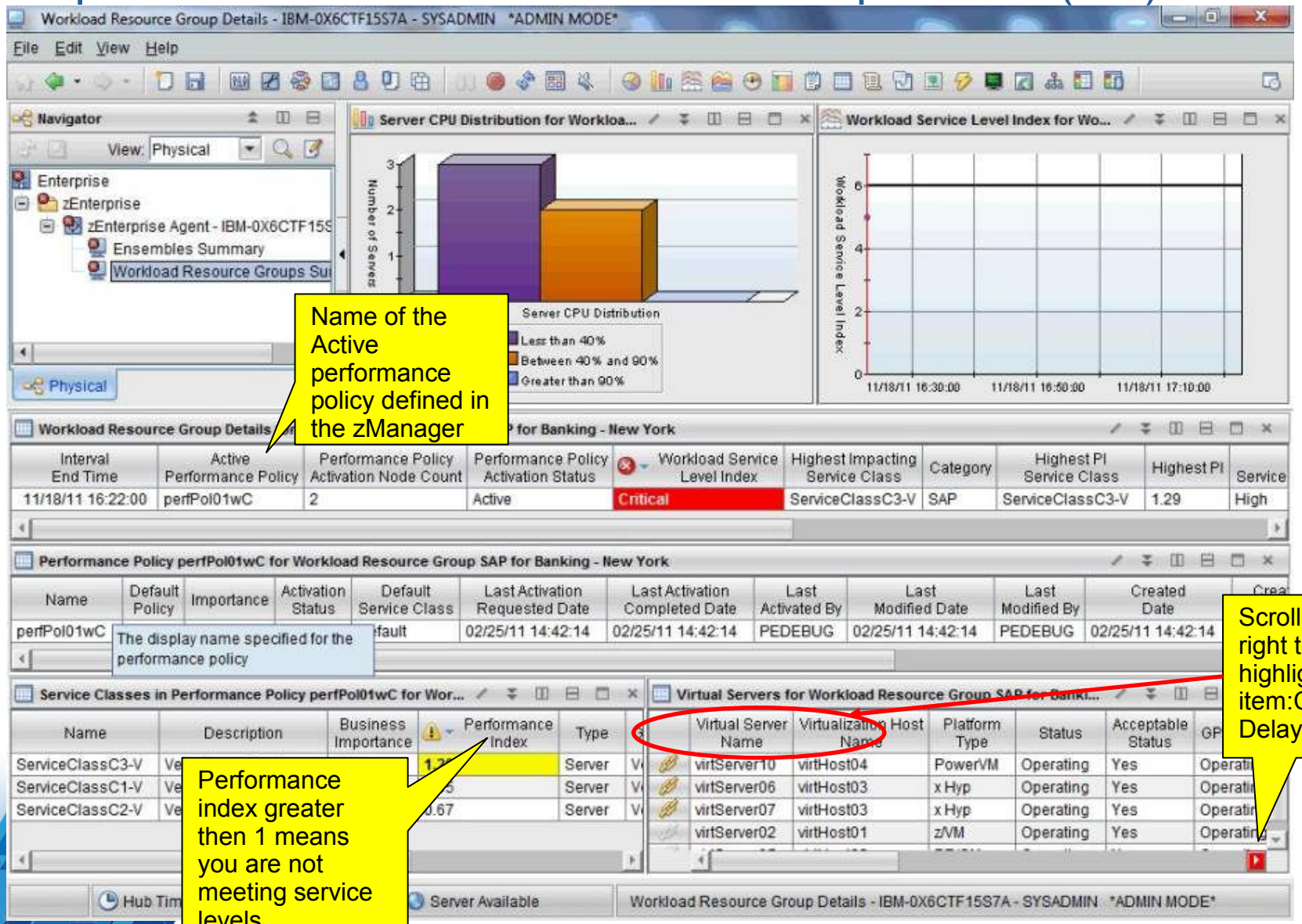
- Enables effective performance analysis if goals not met
  - Drill down into more detailed resource views
  - Drill down into workload details, such as service classes
  - Integration with other Tivoli Monitoring products for detailed ana determination
  - Ability to monitor cloud resources (dynamically provisioned reso zEnterprise Environment.



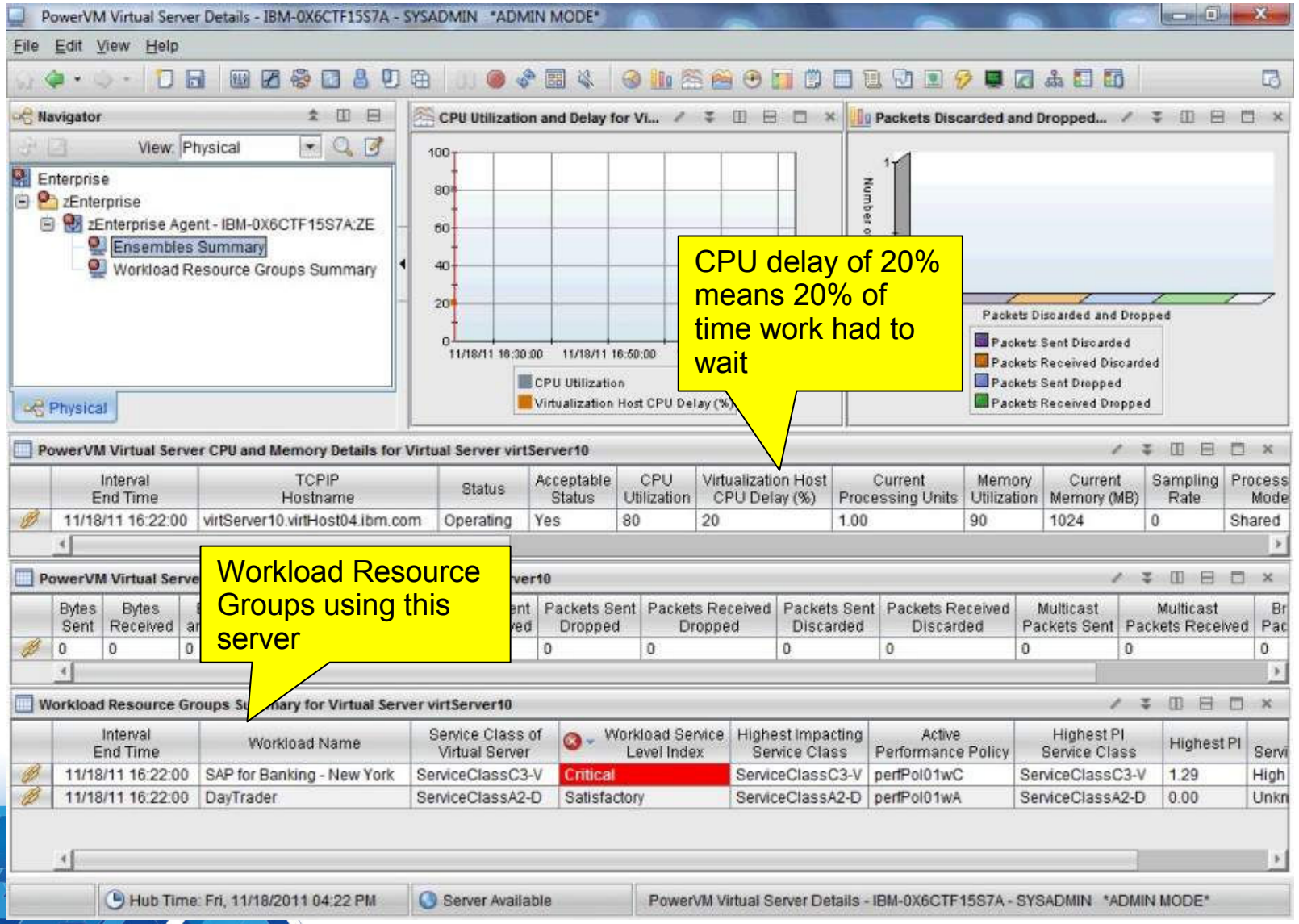
Example Flow: Workload Resource Groups Summary (1/3)



Example Flow: Workload Resource Group details (2/3)



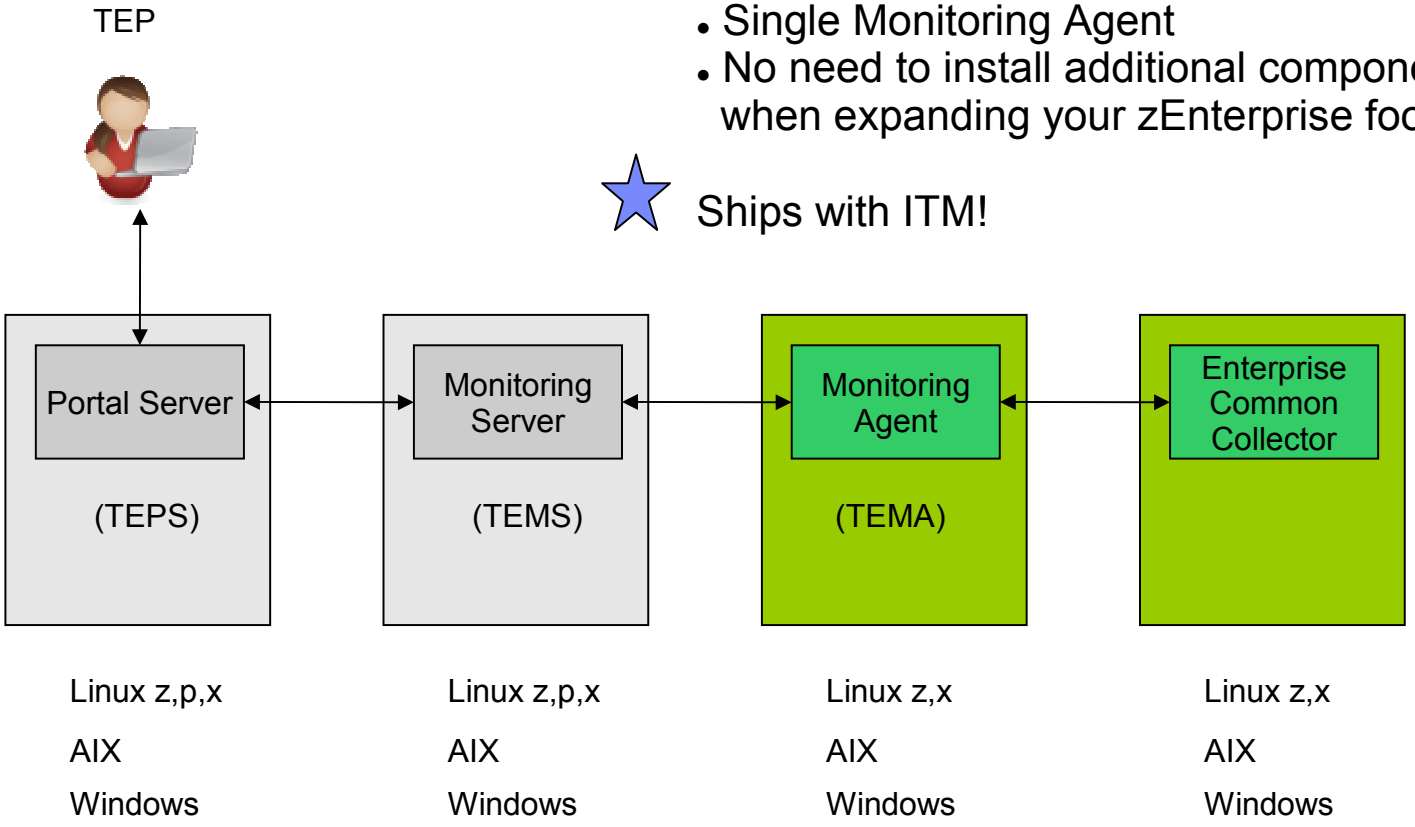
Example Flow: Virtual Server details (3/3)



Implement zEnterprise monitoring with simplified installation

Install it once!
- Single Enterprise Common Collector
- Single Monitoring Agent
- No need to install additional components when expanding your zEnterprise footprint

Ships with ITM!



This solution addresses IBM July 2011 Statement of Direction for zEnterprise Monitoring

- Products that will have this capability as soon as infrastructure updated to ITM
  - OMEGAMON Family
    - OMEGAMON XE on z/OS
    - OMEGAMON XE for CICS on z/OS
    - OMEGAMON XE for IMS on z/OS
    - OMEGAMON XE for DB2 PE/PM
    - OMEGAMON XE for Messaging
    - OMEGAMON XE for Storage
    - OMEGAMON XE for Mainframe Networks
    - OMEGAMON XE for z/VM and Linux on System
    - OMEGAMON Management Suite
  - ITCAM Family
    - ITCAM for Transactions
    - ITCAM for SOA Platforms
    - ITCAM for Applications
    - ITCAM for Application Diagnostics
    - ITCAM for Microsoft Applications
  - ITM Family
    - ITM for Operating Systems
    - ITM for Virtual Environments
    - ITM for Energy Management
  - SmartCloud Monitoring

New visibility into consolidated zEnterprise Workloads

Summary:

- Tivoli products for zEnterprise Monitoring and Discovery provide **visibility** to zEnterprise objects for performance monitoring, problem determination, capacity and performance planning
  - Visibility in to **resource** usage
  - Automatically map out **relationships** between resources
  - **Workload goal fulfillment and utilization** with performance indexes based on business rules helping to guarantee service levels.
- Tivoli zEnterprise Monitoring and Discovery offers **improved Time-to-Value** because
  - Data is collected once, maintained in a single repository and shared by many
  - Data is collected for both, monitoring and discovery technologies
  - Enterprise Common Collector is packaged with all products but need to be installed and configured only once
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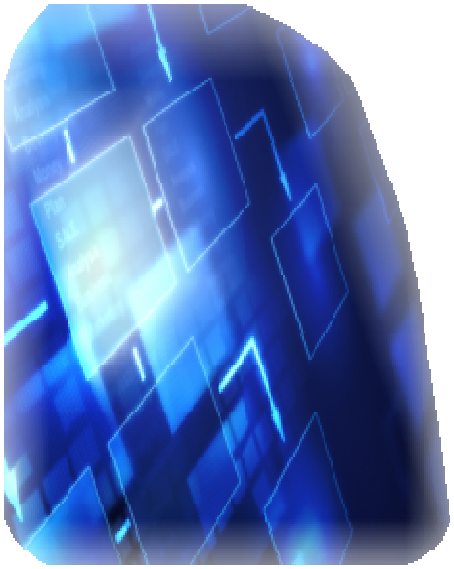

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- **Hear direct from the labs and IBM cloud leaders**
- **Pulse 2012 Cloud Exchange**
  mini-track for CIOs – get connected with experts
- **Cloud Demos**

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May 31 - June 1

Sheraton on the Park Hotel, Sydney

DAY ONE: THURSDAY 31 MAY 2012							
	Track 1: Growth Markets Communication Service Provider Forum	Track 2: Cloud and Innovation	Track 3: IT Service Management	Track 4: Storage Management	Track 5: Security, Risk Management & Compliance	Track 6: Enterprise Asset Management	Track 7: Enterprise Asset Management
Room	**Times on the Park**	**Castlereagh I**	**Castlereagh II**	**Phillip Room**	**Grand Ballroom I**	**Grand Ballroom II**	**Hyde Park Room**
8:00am	**Registration & Exhibition opens**						
9:00am-10:30am	**Keynote Session:** **Bowman Hall, Worldwide Director of Cloud Client Computing Engagements, IBM USA** **Peter Wills, GM Service Management, NBN Co Ltd** **Smarter Physical Infrastructure Client Speaker**						
10:30am-11:00am	**Morning Tea**						
Session 1 11:00am – 11:50am	Trends in the Service Provider Industry *Dr Craig Farrell, VP and CTO Global telecom Industry, IBM USA*	Service Management and Cloud Computing Track Kickoff Bowman Hall, Director of Worldwide Client Computing Engagements, IBM USA		Storage Management Track Kickoff: The Pivotal Role of Storage in the Modern Data Center *Mike Griese, Storage Product Development, IBM USA*	IBM Security Track Kickoff *Steve Robinson, VP Development, Strategy and Product Management, IBM USA and Denis Kennelly, VP Development, IBM Ireland*	Maximo and TRIRIGA Track Kickoff, Strategies and Roadmap *Dave Gasdia, Maximo Product Strategy and Development, IBM USA*	
Session 2 11:55am-12:40pm	IBM Smarter Networks Solution *Dr Sunggy Koo, Global Industry Solution Executive, IBM USA*	Cloud Panel : An ANZ View *Key Australian clients, CSPs and subject matter experts*	Using Advanced Analytics Technologies to Support Improved Decision-Making *Peter Conellas, IBM Tivoli Cloud & Analytics Executive*	The Butterfly Effect. How to find out the true cost of protecting you data and how IBM can help you mitigate risk from data migrations *Robert MacEarchern, Tivoli Storage Leader IBM A/NZ*	Security Intelligence *Jeff Paddock, Senior Tech Director, Q1 Labs*	The world is 24/7 and mobile: Maximo Scheduler and Maximo Mobile Update *Lisa Stuckless, Tivoli Maximo Product Design & Architect IBM USA*	Industry Solutions - Market trends for the Utilities Industry *IBM, Maximo Industry Solutions, Utilities Product Manager, E&U.*
12:40pm – 1:30pm	**Lunch** **Demo Theatrette**						

Draft Agenda as at 9/5/12. IBM reserves the right to alter or change this agenda.

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