IBM Systems and Technology Group University 2005

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IBM Dynamic Infrastructure *for mySAP Business Suite™* **and SAP's Adaptive Computing**

Course # CB45

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IBM Dynamic Infrastructure and

SAP's Adaptive Computing complement each other
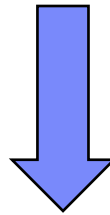
IBM Can Help to Reduce TCO for

SAP Customers

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Customer Pain Points

What led to the development of SAP's Adaptive Computing?

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SAP`s Cost Control Vision

SAP Cost Control Vision

	Today	3 years from now	
	10%		
	30%	40%	INNOVATION
	60%	20-25%	CONSOLIDATION
		35-40%	OPERATION
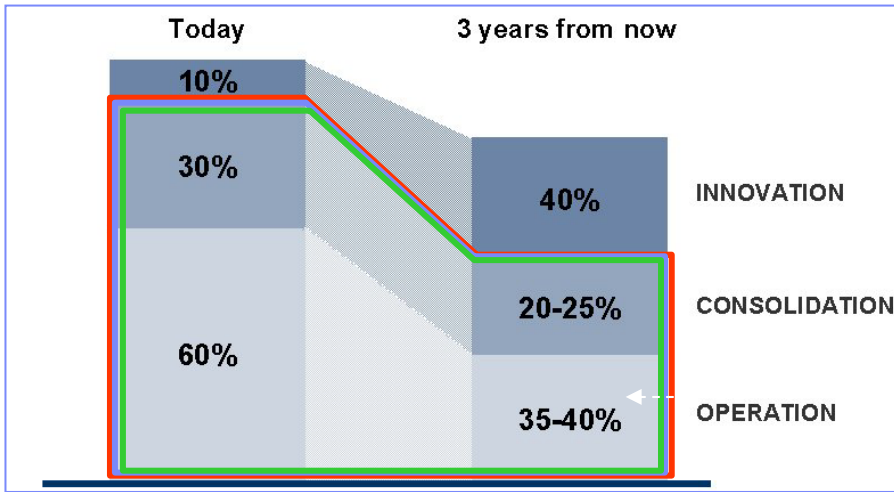
SAP`s cost control vision will enable customers to achieve up to 30% savings, with Adaptive Computing Infrastructure even more

SAP Cost Component Vision

Miscellaneous	5%			
Licenses	7%	Business Suite	1%	SAP
Implementation				
Introduction	13%	Packaged Solutions	2-4%	+ Partner
Integration	15%			
Operations		SAP NetWeaver	8-12%	+ Partner
Interfacing	20%			
Ongoing	20%			
IT Infrastructure	20%	Adaptive Computing Infrastructure	9-13%	+ Partner

Total Savings Potential 20-30%

Source : SAP AG 2003
Henning Kagermann presentation at
SAPphire Orlando

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Client Priorities for an **ON DEMAND BUSINESS**™

Business Drivers: Reduce Costs, Deliver Better Service Levels, Respond Rapidly to Business Change

% of respondents rating high

Infrastructure Management

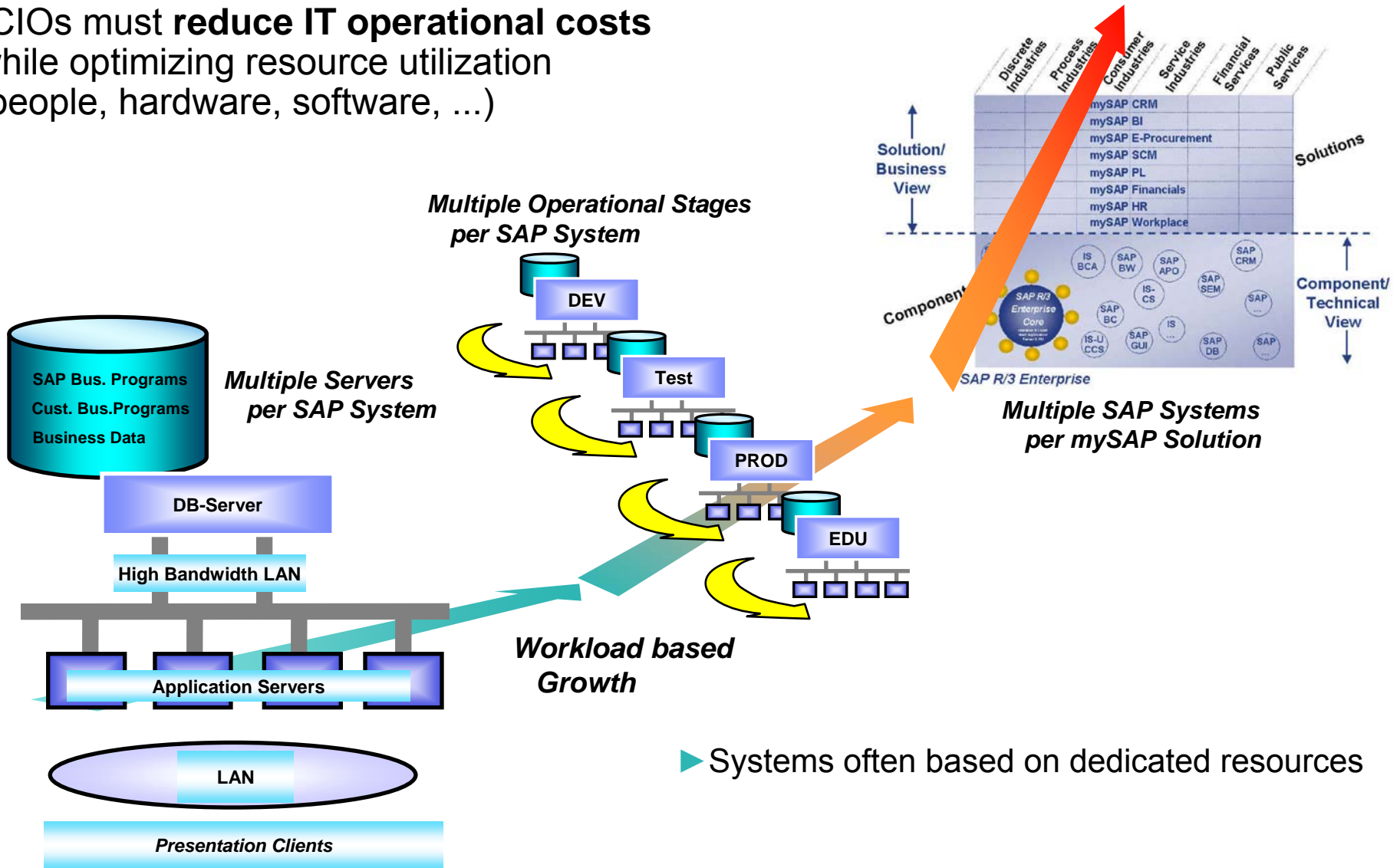| Priority	%
Protecting information assets, confidentiality and data integrity	77
Infrastructure reliability & availability to support business ops	69
Maximizing utilization of existing computing resources	55
Securing exchange of critical business information	52
Consolidating computing resources to reduce complexity of ops	47
Simplifying monitoring and management of IT infrastructure	41
Enabling infrastructure to anticipate, prevent, diagnose and fix problems	28
Automatically deploying and optimizing IT resources real-time	27

Source: Attributes and Capabilities Study June 2003 by EBOD Corporate Market Intelligence

1350 IT executives and managers surveyed worldwide

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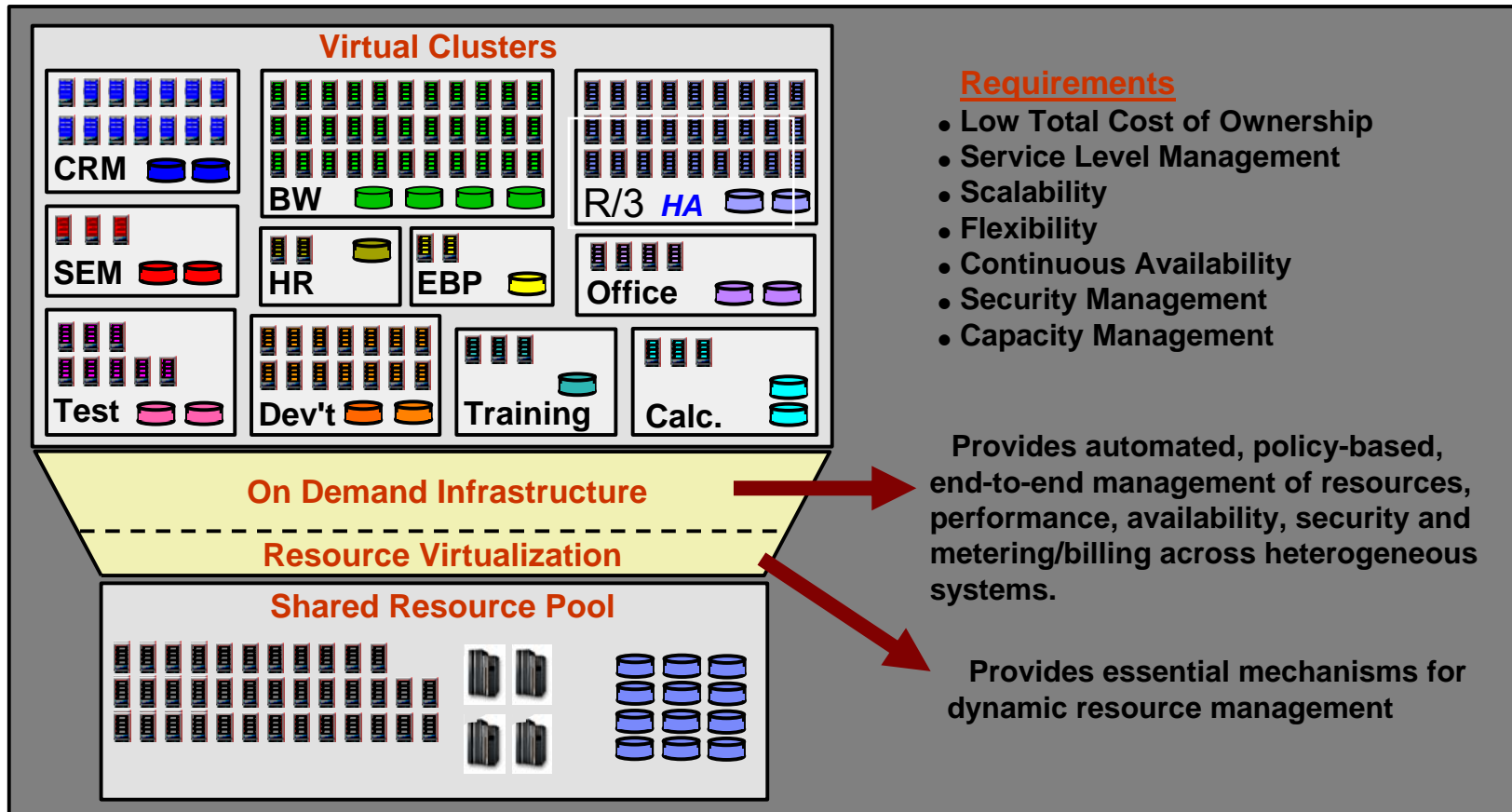# To Do: Infrastructure Simplification

- Increase the utilization of your computing resource

- Make your systems easier to manage

- Speed the implementation of new resources

- Improve the productivity of IT employees

- Reduce the complexity of the IT environment while maintaining its reliability and security

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Increased SAP System Landscape Complexity

► CIOs must **reduce IT operational costs** while optimizing resource utilization (people, hardware, software, ...)

Multiple Operational Stages per SAP System

SAP Bus. Programs
Cust. Bus.Programs
Business Data

Multiple Servers per SAP System

DB-Server

High Bandwidth LAN

Application Servers

LAN

Presentation Clients

DEV

Test

PROD

EDU

Workload based Growth

Discrete Industries
Process Industries
Consumer Industries
Service Industries
Financial Services
Public Services

Solution/ Business View

mySAP CRM
mySAP BI
mySAP E-Procurement
mySAP SCM
mySAP PL
mySAP Financials
mySAP HR
mySAP Workplace

Solutions

Component/ Technical View

IS BCA
SAP BW
SAP APO
SAP CRM
IS-CS
SAP SEM
SAP
SAP R/3 Enterprise Core
SAP BC
IS
IS-U CCS
SAP GUI
SAP DB
SAP

SAP R/3 Enterprise

Multiple SAP Systems per mySAP Solution

► Systems often based on dedicated resources

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On Demand Computing for SAP - Vision

Virtual Clusters

CRM

SEM

BW

HR   EBP

Test   Dev't   Training   Calc.

R/3 *HA*

Office

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Resource Virtualization

Shared Resource Pool

<u>Requirements</u>
- Low Total Cost of Ownership
- Service Level Management
- Scalability
- Flexibility
- Continuous Availability
- Security Management
- Capacity Management

Provides automated, policy-based, end-to-end management of resources, performance, availability, security and metering/billing across heterogeneous systems.

Provides essential mechanisms for dynamic resource management

- **IT resources are pooled, virtualized, and allocated dynamically to satisfy changing business needs.**

➡ Resources are well utilized, workload priorities are used to control consumption, and consumers pay for what they use.

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IBM Dynamic Infrastructure *for mySAP Business Suite*

How IBM's Dynamic Infrastructure complements
SAP's Adaptive Computing

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SAP Adaptive Computing Compliance Test

- **Components:** Computing Node & Storage Technology & ACC Version

- IBM pSeries (AIX and IBM TotalStorage – SANFS), May 2004

- IBM eServer xSeries and BladeCenter (Linux SLES 8 and IBM TotalStorage), July 2004

- IBM eServer xSeries and BladeCenter (Linux SLES 8 and Network Appliance Storage), July 2004

- Details on http://**service.sap.com/adaptive**

ADAPTIVE COMPUTING

COMPUTING   NETWORK
CONTROL   STORAGE

CERTIFICATE OF CONFORMITY

SAP AG hereby confirms that

IBM Corporation

has been approved to receive this certificate by providing an

Adaptive Computing Compliant

Concept according to the Adaptive Computing Compliance Test.

Certificate No. 2004002
The test has been performed using the following platform and building block combination:

Computing: IBM eServer pSeries / IBM AIX 5L
Storage: IBM TotalStorage
Control: Adaptive Computing Controller V1.0

Walldorf, May 10, 2004

I.A. Bernd Lober
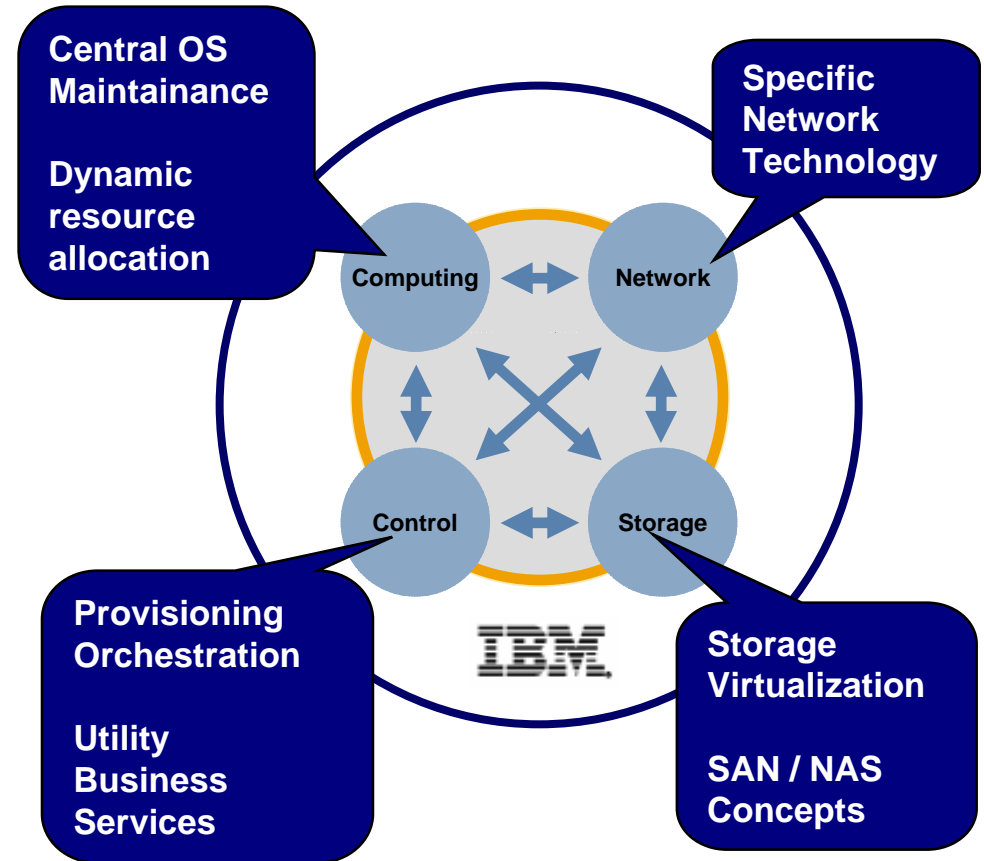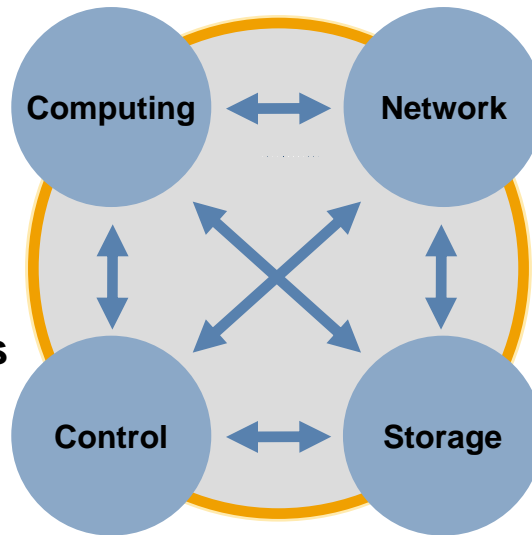Vice President
Adaptive Computing
SAP AG

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THE BEST-RUN BUSINESSES RUN SAP

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Central Requirement for SAP Environments: Service Virtualization

- Decouple service (SAP Instance) from a specific server

- Enable a service to run on any server out of a server farm

- OS users and groups centrally managed

- All data installed on a distributed filesystem

- Virtual hostnames
  - helps to ensure that a service is always reachable by the same hostname and IP address
  - is assigned to a service and moves with the service

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IBM Dynamic Infrastructure complements SAP's Adaptive computing

- **High adminis-tration costs**

- **Limited responsiveness**

- **Ineffective operation**

Computing ⟷ Network

Control ⟷ Storage

Central OS Maintainance

Dynamic resource allocation

Specific Network Technology

Computing ⟷ Network

Control ⟷ Storage

Provisioning Orchestration

Utility Business Services

Storage Virtualization

SAN / NAS Concepts

Customer´s Business Issues

SAP's Adaptive Computing requires functionality

IBM complements SAP's concept through technology solutions

Goal: „Be able to start any service on any server at any time "

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Key Features of IBM @server Complementing SAP's Adaptive Computing

IBM Virtualization Engine™ systems technologies

Micro-Partitioning™ technology
Optimize processing power

Virtualized resources

Capacity on Demand

"Pay as you grow" modular SMP architecture

Multiple operating systems can run simultaneously in logical partitioning

Security features

Mainframe reliability features

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IBM and SAP Share a Common Vision...

- **SAP** - Treat a business application like an application service
- **IBM** - Optimize IT infrastructure through virtualization and automation

- **Technology** - Shared services and service virtualization
- **Add-on -** Automated, policy-based end-to-end management of resources and metering/billing
- **Customer Benefit** - Capacity-on-demand capabilities for SAP business-critical applications

- **Common Value Proposition**
    - Reduce cost of operation
    - Harmonization of IT-Landscape
    - Flexibility and Scalability

➔ Can Reduce TCO

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IBM Dynamic Infrastructure – Roadmap to TCO reduction

IBM Dynamic Infrastructure Enterprise Edition
for mySAP™ Business Suite **V1.0 – January 2005**

Implements and Complements SAP's Adaptive Computing Concept

- Automation of standard provisioning tasks (add/remove application/database servers)
- Dynamic Provisioning and Orchestration complement the SAP Adaptive Computing Concept
- Delivered as *IBM Dynamic Infrastructure Enterprise Edition* product

ITS provides design and delivery services

Available as shrink-wrap soft-bundles (including HW,SW and Services)

IBM Dynamic Infrastructure Enterprise Edition
for mySAP™ Business Suite **V2.0***

Exploitation of LPAR resizing

Adds System Cloning for SAP Systems

Adds SAP ACC Integration

Extends platform coverage

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Summary

IBM Dynamic Infrastructure for mySAP Business Suite

✓ **Provides automated, policy-based, end-to-end management of resources, performance, availability, security and metering/billing across heterogeneous systems**

✓ **IT resources are pooled, virtualized, and allocated dynamically to satisfy changing business needs**

✓ **Customers can potentially lower their TCO and invest in innovation**

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Where to Get More Information ?

- **IBM/SAP Portal**
  - http://w3.ncs.ibm.com/sap

- **IBM Dynamic Infrastructure Sales Guide**
  - http://ncs.ibm.com/cspaper.nsf/HTitle/OBTOS-63CKNX?OpenDocument&Area=SAP

- **Contact**
  - isicc@de.ibm.com

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End Of Presentation

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