



# Service Management e Data Center Transformation

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IBM Software

## PCTY2010

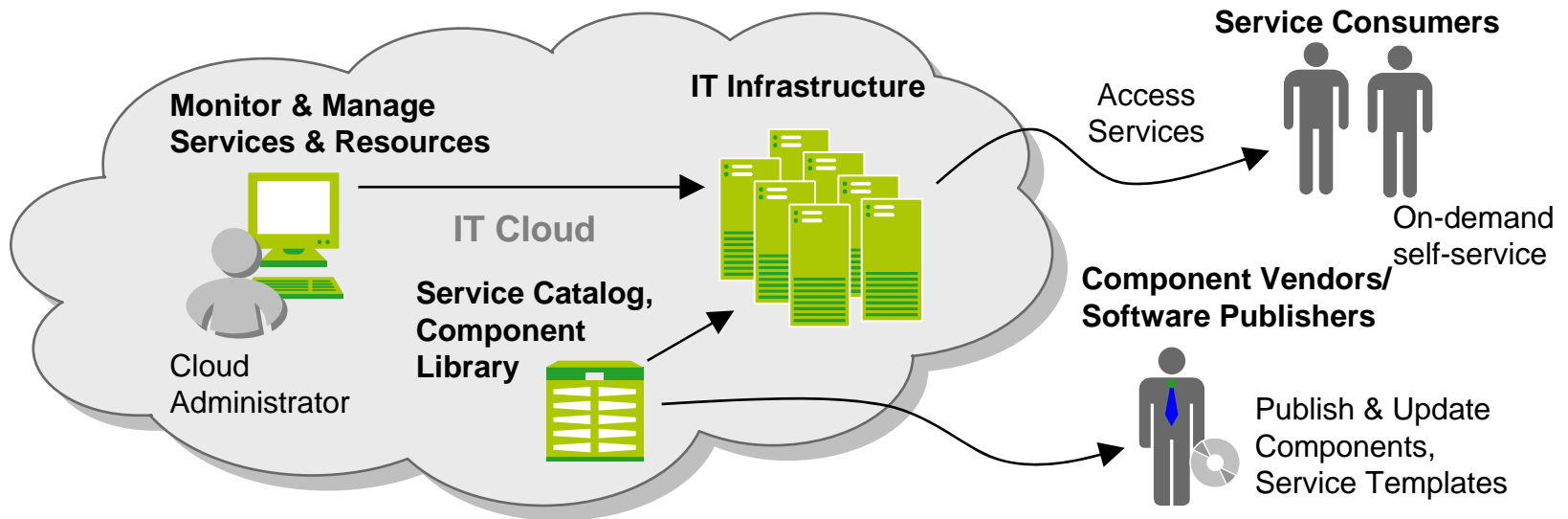
Pulse Comes to You



**Integrated Service Management: IT e Business al centro dell'impresa**  
6 maggio, Roma

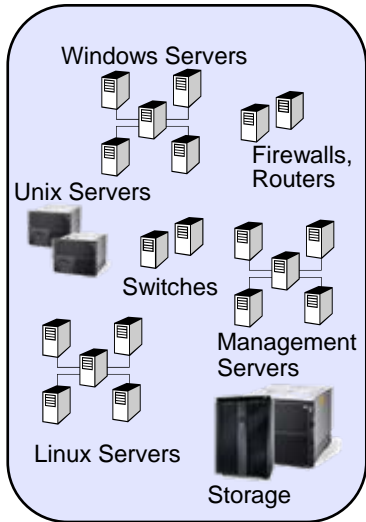
# Cloud Computing

- Cloud Computing is an emerging style of computing in which applications, data, collaboration, business processes and IT resources are provided as services to users over the network
- Cloud represents the Industrialization for delivery of IT supported services made available by **highly efficient virtualized compute resources** that can be **rapidly scaled up** and down in a **flexible** yet **secure** way to deliver a **high quality of service**.

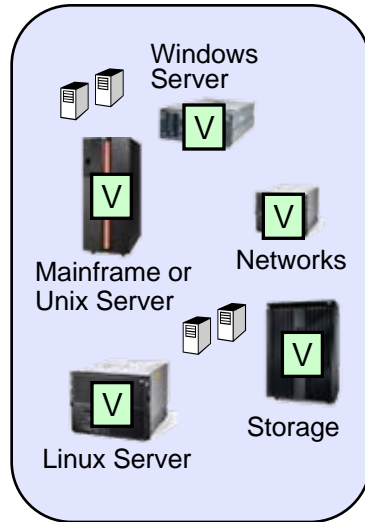


# IT Infrastructure Evolution to Cloud Computing

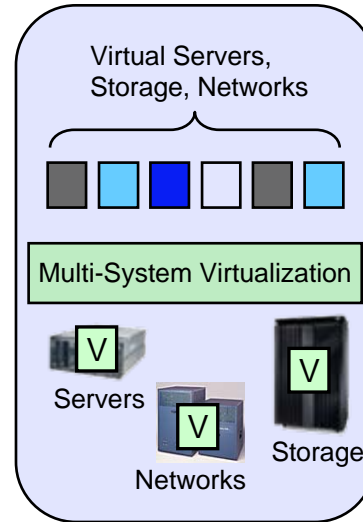
## Scale-Out Sprawl



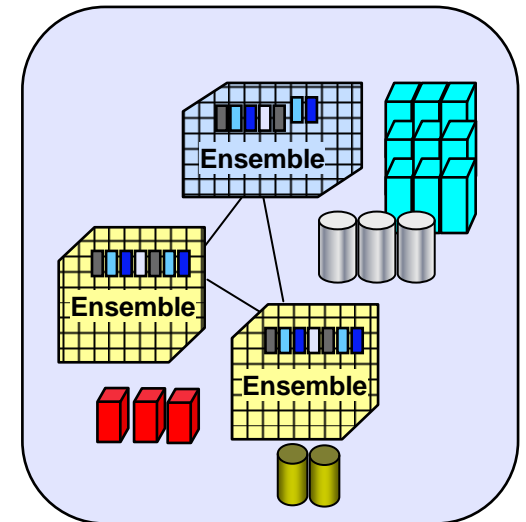
## Physical Consolidation



## Abstraction and Pooling



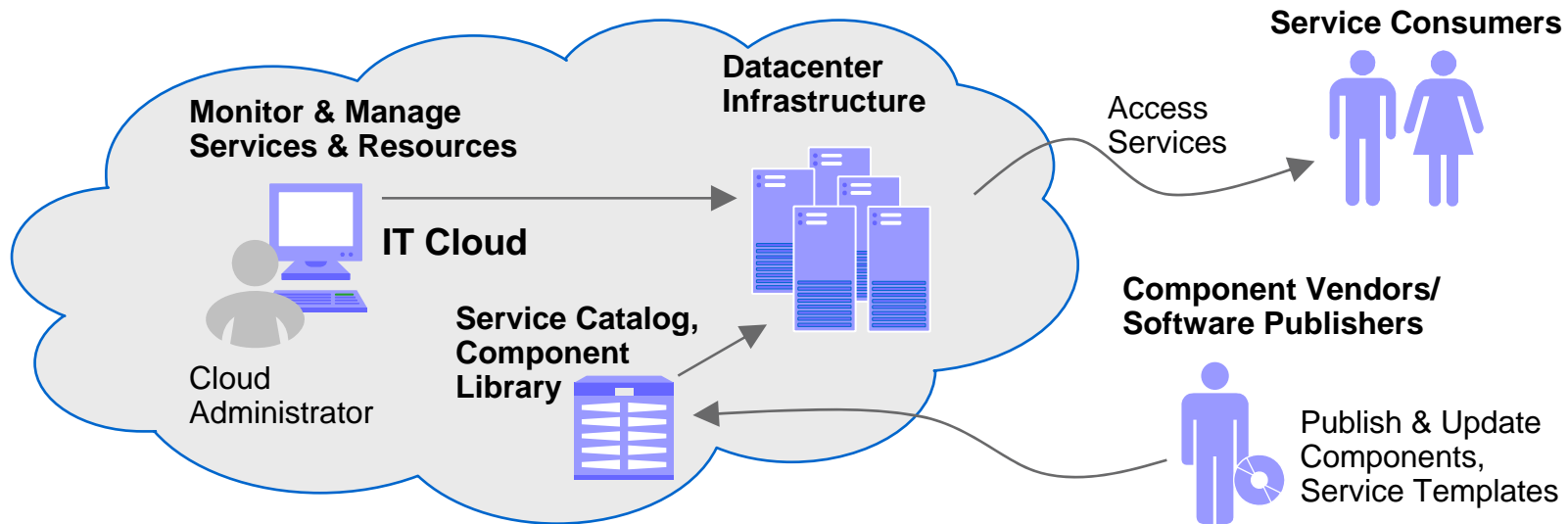
## Service Orientation, Cloud Services, Ensembles, ...



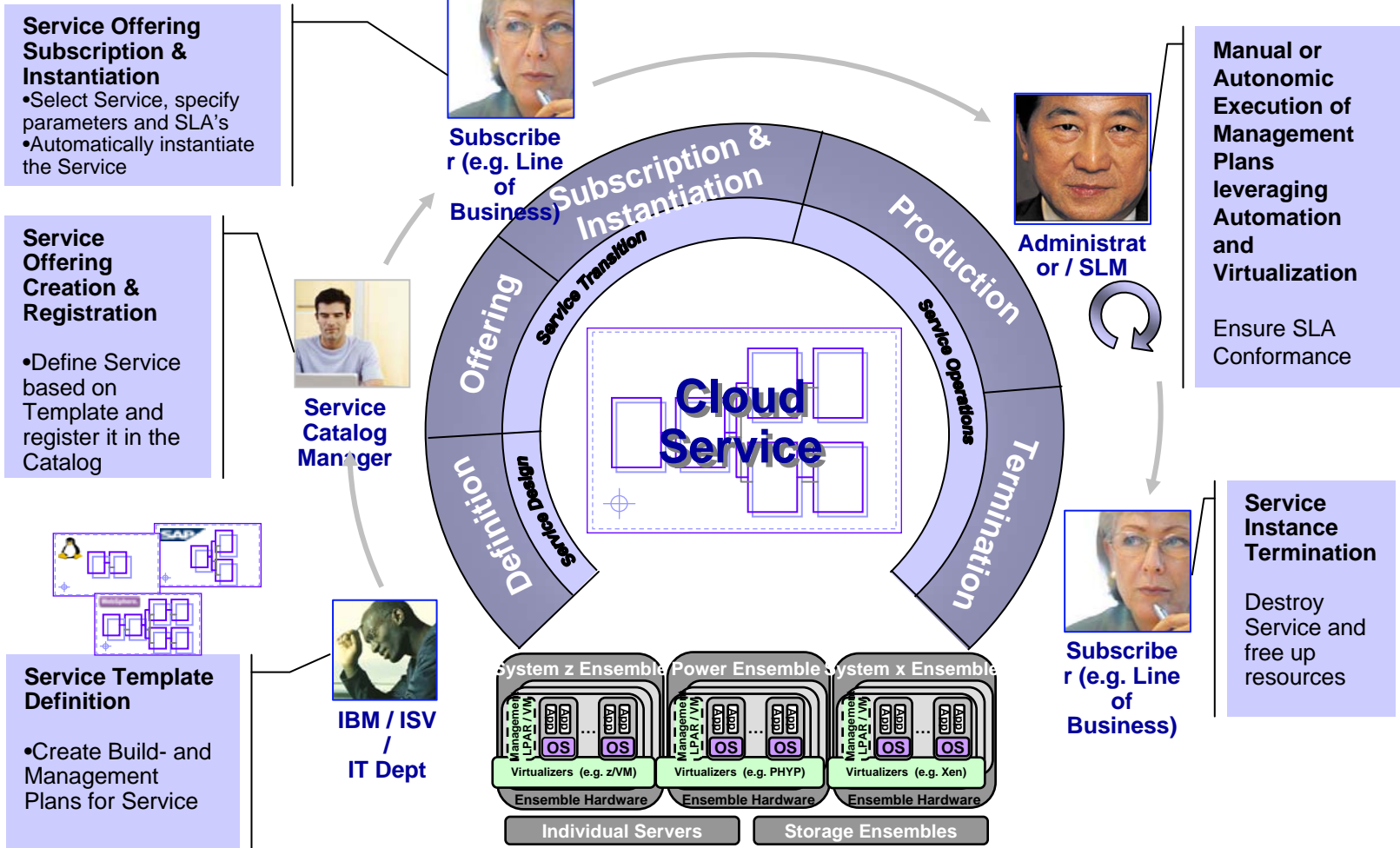
# What are clients looking for in a Cloud offering?

Cloud computing is a new consumption and delivery model:

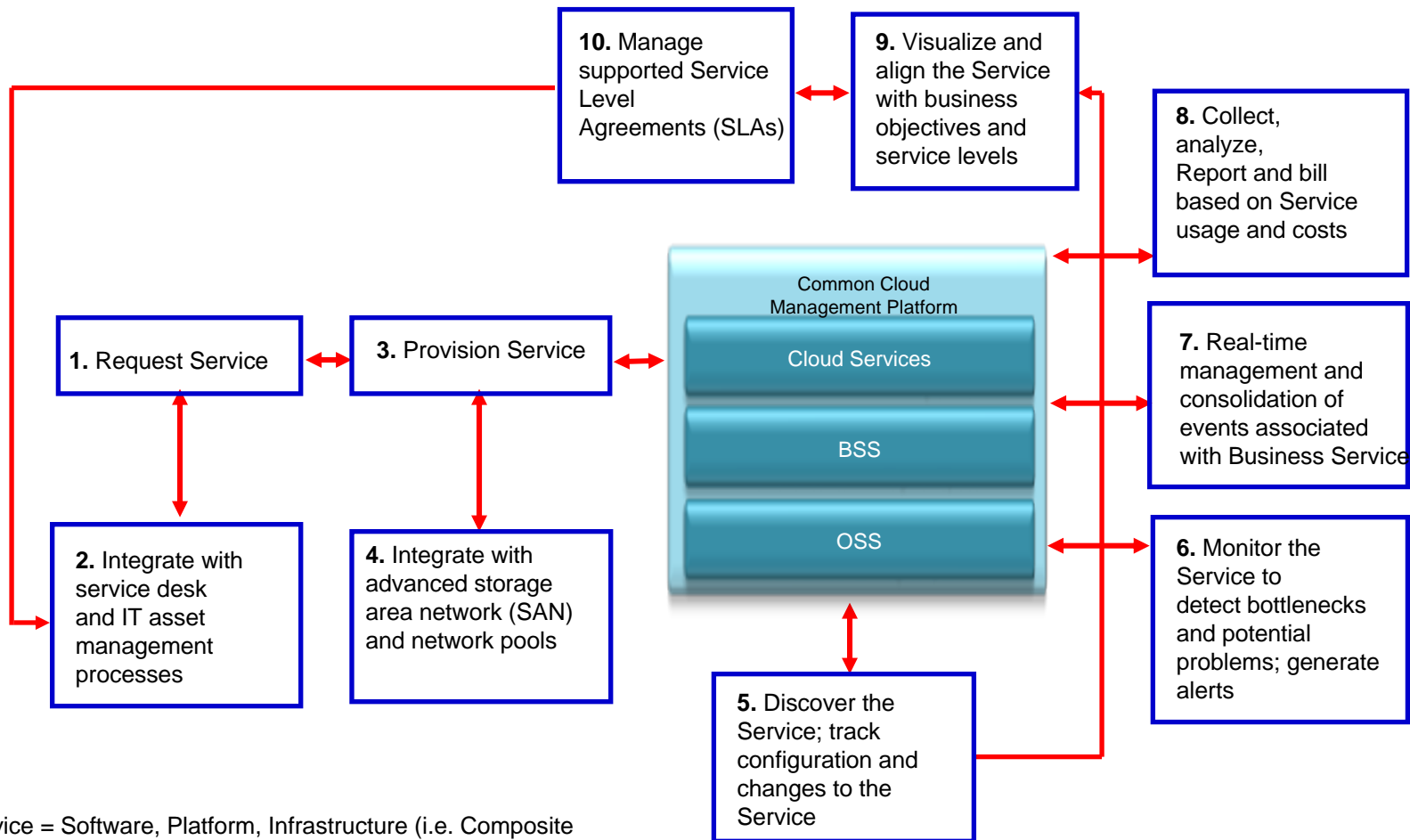
- On-demand self-service
- Ubiquitous network access
- Location independent resource pooling
- Rapid elasticity
- Flexible cost/pricing models



# Lifecycle of a Cloud Service



# Why Service Management: Cloud Use Case



Service = Software, Platform, Infrastructure (i.e. Composite Application, Physical / Virtual OS, Middleware, Network, Storage)

Not in all cases will all steps exist in a client engagement

# Roadblocks to Innovation and Success

## *Business Objectives*

***Growth &  
Competitive Edge***

***Risk &  
Compliance***

***CapEx &  
OpEx Control***

**Obscured view. Inadequate governance.  
Operational disconnect.**

*Lost opportunities. Unnecessary risk. Low efficiency & return.*

Business processes

Information

People

Information Technology

Business Assets

IT Processes

**Business & Technology Assets**

# Enabling Business and Technology Integration

## *Business Objectives*

**Growth &  
Competitive Edge**

**Risk &  
Compliance**

**CapEx &  
OpEx Control**

## **IBM Service Management**

*Provides the integrated visibility, control & automation across business and technology assets needed to achieve business objectives.*

**Visibility**

**Control**

**Automation**

Business processes

Information

People

Information Technology

Business Assets

Business & Technology Assets

IT Processes



# Visibility: See your Business

## Challenge:

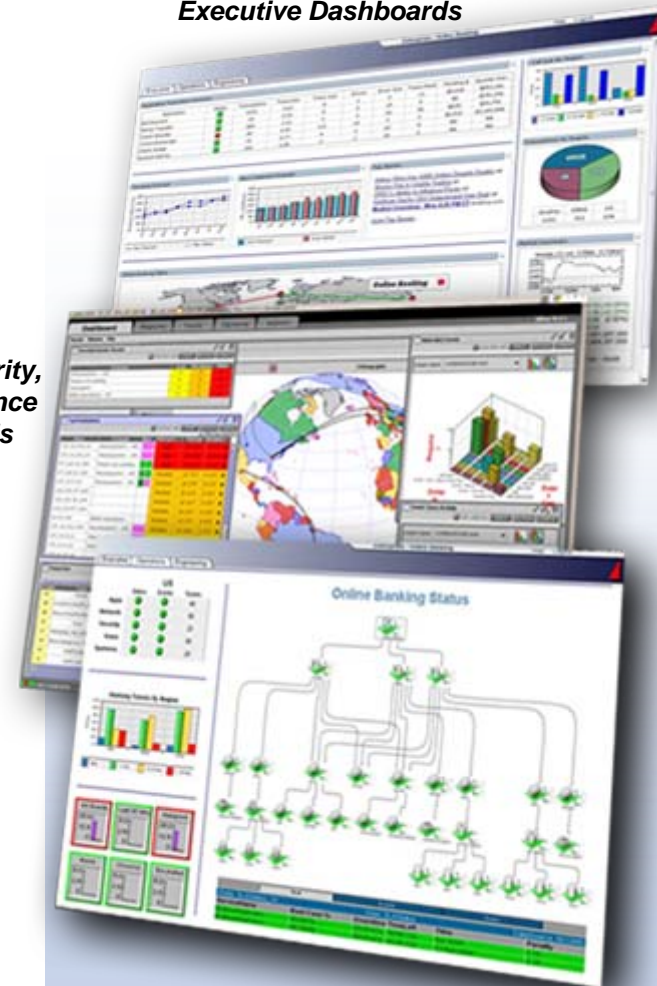
- Business and operational audiences lack the visibility needed to directly support and deliver against business objectives

## Solution: Targeted real-time dashboards

- **Business, Compliance, and Operational dashboards** leverage existing assets and provide the real-time **visibility needed to manage against business objectives**

*Any data. Anywhere. For any audience. In real-time.*

*Industry, LoB, & Executive Dashboards*



*Risk, Security, & Compliance Dashboards*

*Operational, Service, Customer, & IT Dashboards*

# Service visibility is vital

*...vital to both business and operations:*

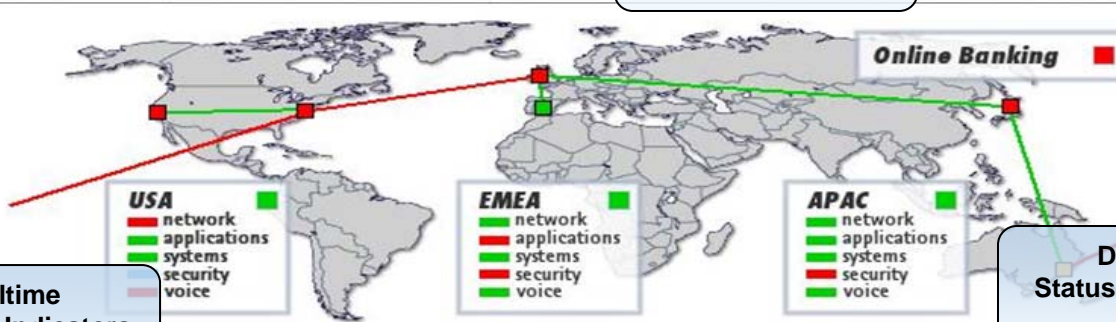


- ☑ Insight into the operational health of services
- ☑ Track ongoing customer experience
- ☑ Make strategic business decisions & investments
- ☑ Assure high service availability and performance
- ☑ Reduce costs & improve operational efficiency
- ☑ Deliver against line of business requirements
- ☑ Make long-term IT investment decisions

**Challenge:** *Business & Operational audiences lack the integrated service visibility and intelligence needed to align and deliver against their objectives.*

**Service Status Indicators**

Online Banking Status



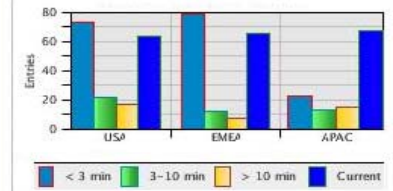
**Realtime Business Indicators**

**Domain Status Indicators**

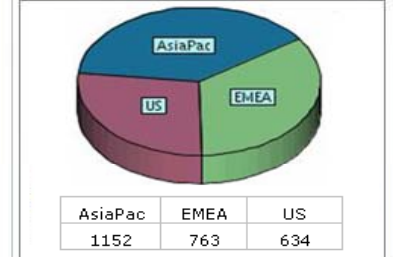
Application Transaction Summary

Application	Status	Transactions	Trans/Sec	Trans SLA	Errors	Error SLA	Trans Pend	Pending \$	Quarter Rev.
Bill Payment	Green	1232	0.43	4	1	5	13	\$5,034	\$453,301
Money Transfer	Green	14	0.53	4	5	10	0	\$0	\$391,256
Check Reorder	Green	869	2.23	3	3	10	30	\$435	\$66,791
Online Brokerage	Red	45	4.87	0.9	15	3	2	\$4,532	\$1,143,546
Check Image	Green	32	0.77	4	2	10	0	NA	NA
Account Activity	Green	203	1.45	2	2	10	2	NA	NA

Call Que By Region



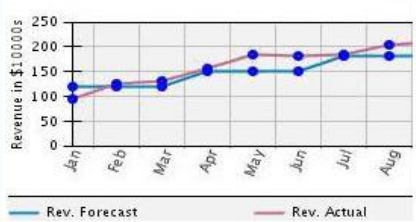
Transactions by Region



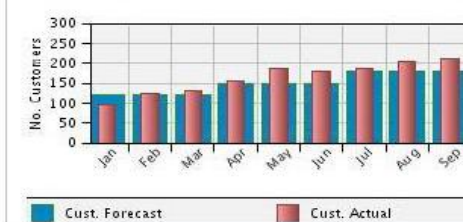
Market Summary



Revenue Forecast



New Customer Forecast



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[PM ET Briefing.com](#)

**Realtime & Historical Reports**

**Third Party Data**

# Control: *Manage and Secure your Investments*

## Challenge:

- **Poor control increases CapEx, OpEx, & Risk - impacting growth and innovation**
  - *Finance Week:*<sup>1</sup> Only 40% of assets are well described and can be easily found
  - Over 85% of service problems result from changes to the infrastructure

## Solution: Integrated Asset Control

- Helps recover assets and implement effective access control and change management processes across business and technology investments—**maximizing ROI, minimizing service problems and improving security.**

## ***Integrated Business & Technical Asset Control.***



“[EAM provides] 30% reduction in costs the first year.. and continued savings of 5-10% for the next 5 years”

*Gartner*

# Control over Change Management

Microsoft Work Order Tracking (WOT) interface showing various data fields and configuration options. The interface includes sections for Work Order details, Job Plan, and Configuration/Inventory and Tracking.

583 Replace Bearings Status: WAPPR

```

    graph LR
      START --> REVIEW
      REVIEW --> VALUE
      VALUE --> LOW
      VALUE --> HIGH
      LOW --> STOP
      HIGH --> STOP
  
```

Flowchart illustrating a process flow: START → REVIEW → VALUE. From VALUE, the flow branches into LOW and HIGH paths, both leading to a STOP icon.

Summary of Applications:

- Equipment: Equipment Codes (70), Equipment Priority (70), Logs (70), Position Codes (70)
- Inventory: Inventory Counting (70), Stock Readings (70), Purchases (70), Inventory (70), Item Inventory (70)
- Reports: Reports
- Performance: Qualifications (70)
- Work Orders: Quick Reporting (70), Work Order Tracking (70)

Result Set:

SRID	STATUS	DESCRIPTION
10001	WAPPR	Inventory Expansion Notification
10002	WAPPR	Inventory Expansion Notification

MP1 List:

Item	Actual	Target	Variance
Average Emergency Completion Times	7.58	8.00	7.58
Average Response Time for Emergency Work Orders	2.01	2.00	2.01
PBM Work Orders Overdue	02	5	31
Work Orders Overdue	104	95	149

MP1 Graph:

Average Cost per Mile

Actual	Target	Variance
13.26	11	2.26

MP1 Assignments:

Record #	DUPLICATE	STARTDATE	ENDDATE	APP	PRIORITY	DESCRIPTION	ROLE
No Inbound Assignments found for Record Grids							

# Automation: *Build Agility into Operations*

## Challenge:

- The operational processes that directly support delivery of revenue generating business services and processes are not automated or integrated.

## Solution: 'Operational' Automation

- **Automates and integrates the operational processes and tools that directly support the delivery of critical business services and processes** – to help maximize productivity and reduce new labor expense, while improving service assurance.

*Automating operations for greater business agility.*



## Operational Spend

- 70% of CIO budget is labor

## By 2008

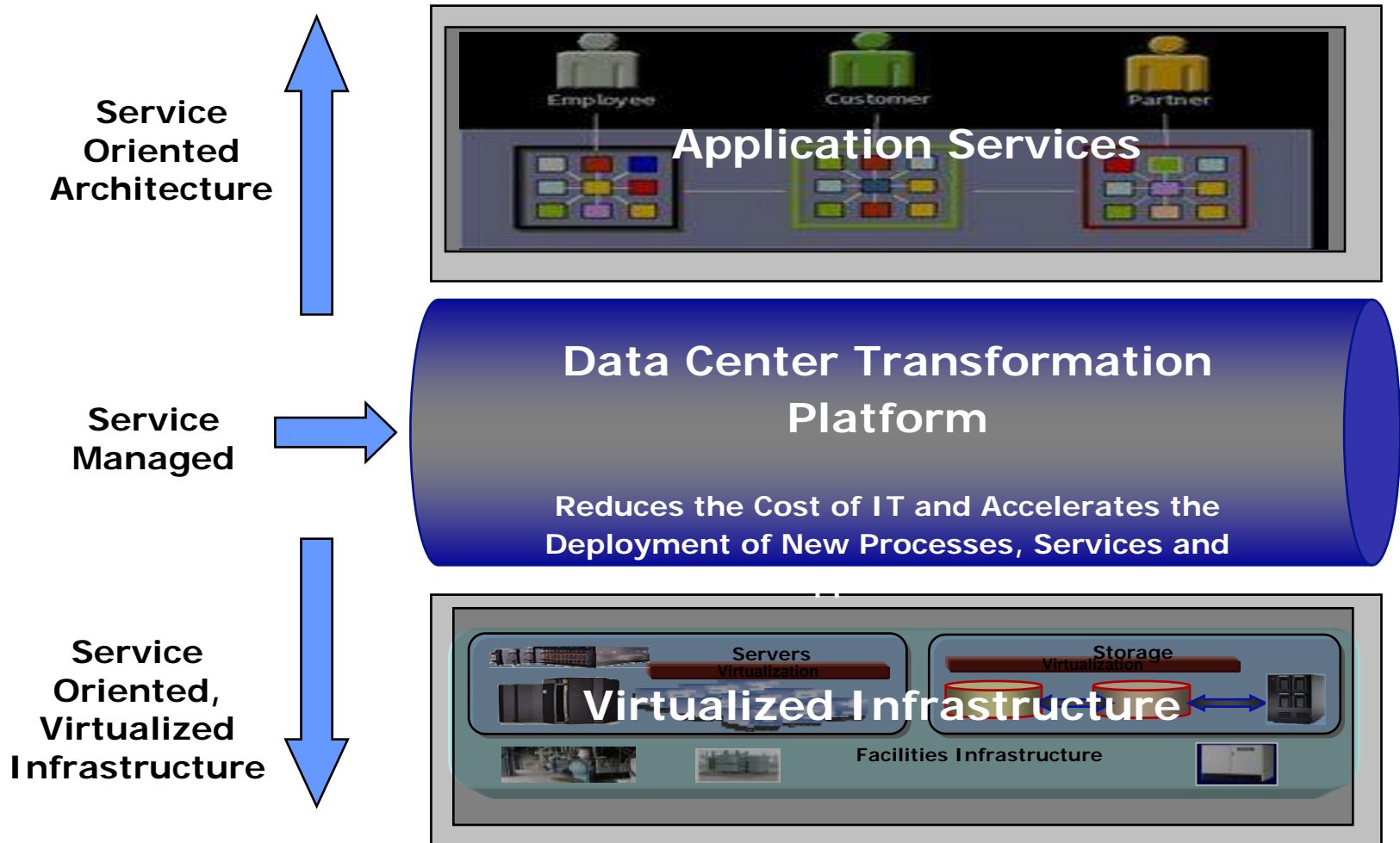
- 73% of CIO budgets will be labor spend
- Growth supporting app. dev. will decline at -10% CGR
- Total operations labor spend will reach \$325B

# Automate Your Processes

The image displays several screenshots of IT management software:

- Zabbix Enterprise Portal:** Shows a 'User System Summary' table with columns for System Name, Type, Version, Total Real Memory (KB), Total Memory (KB), Total Virtual Memory (KB), Number of User Sessions, Number of System Pkts, Net Address, and Timestamp. Below it, a table lists active sessions with columns for System, User, CPU, User CPU, System CPU, User CPU, Pkts, CPU Busy, and Timestamp.
- IBM Tivoli:** Shows a 'Business Applications' diagram with a flowchart of application dependencies.
- BMC Atrium:** Shows a 'Welcome Mike Wilson' dashboard with sections for 'Quick Insert', 'Users', 'Security, Users and Groups', 'Workflows Configuration', and 'Open Work Orders Waiting Approval'. It includes a bar chart for 'Priority' and a gauge for 'Open Work Orders Waiting Approval'.
- Alerts Table:** A detailed table of alerts with columns: Node Name, Summary, Alert Group, Source, Location, Count, First Occurrence, and Last Occurrence. The table shows various alerts such as 'New York - VOP System Health Score', 'Abnormal Resource 100.00% confid', and 'SSH session from 172.29.38.140 on'.

# The Operating System of the Data Center

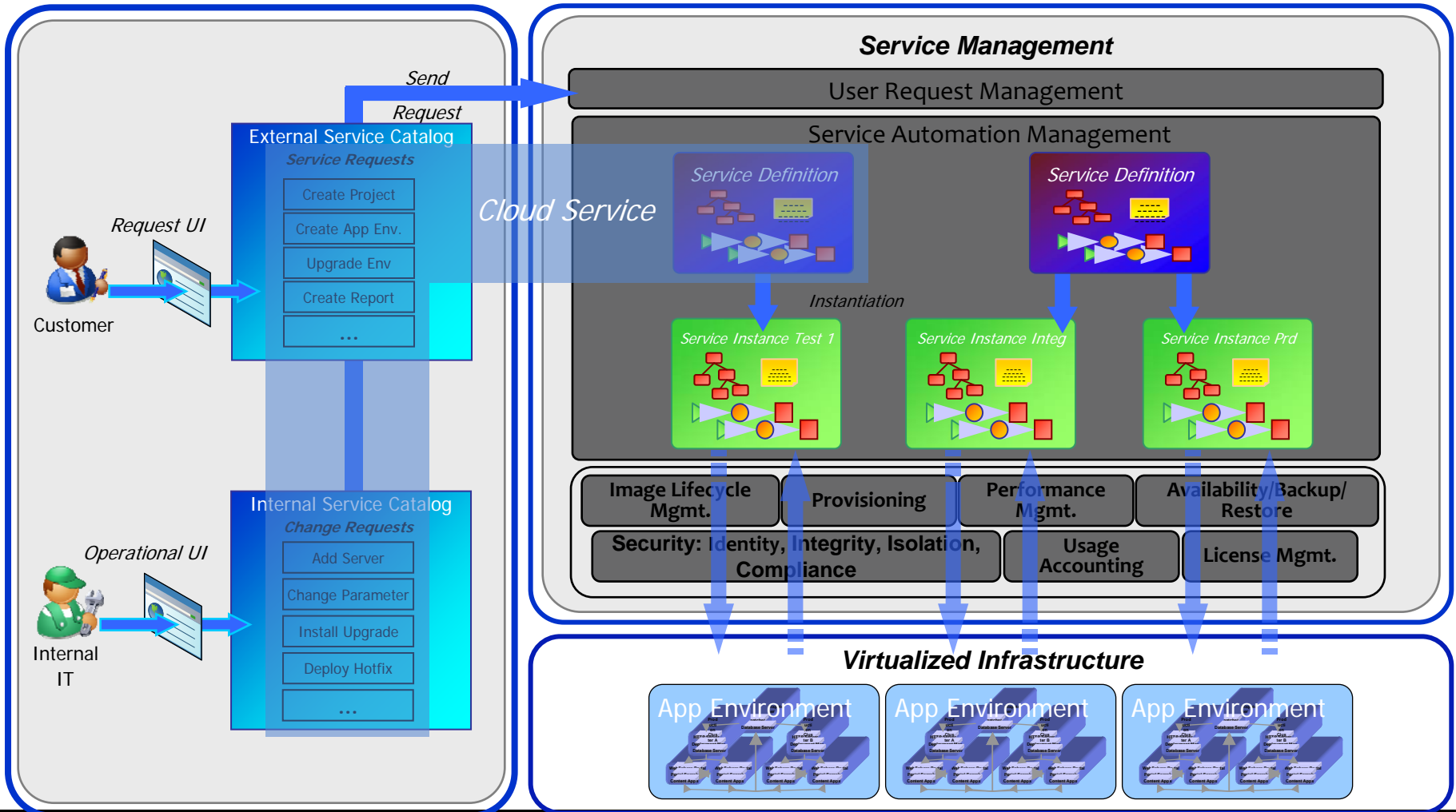




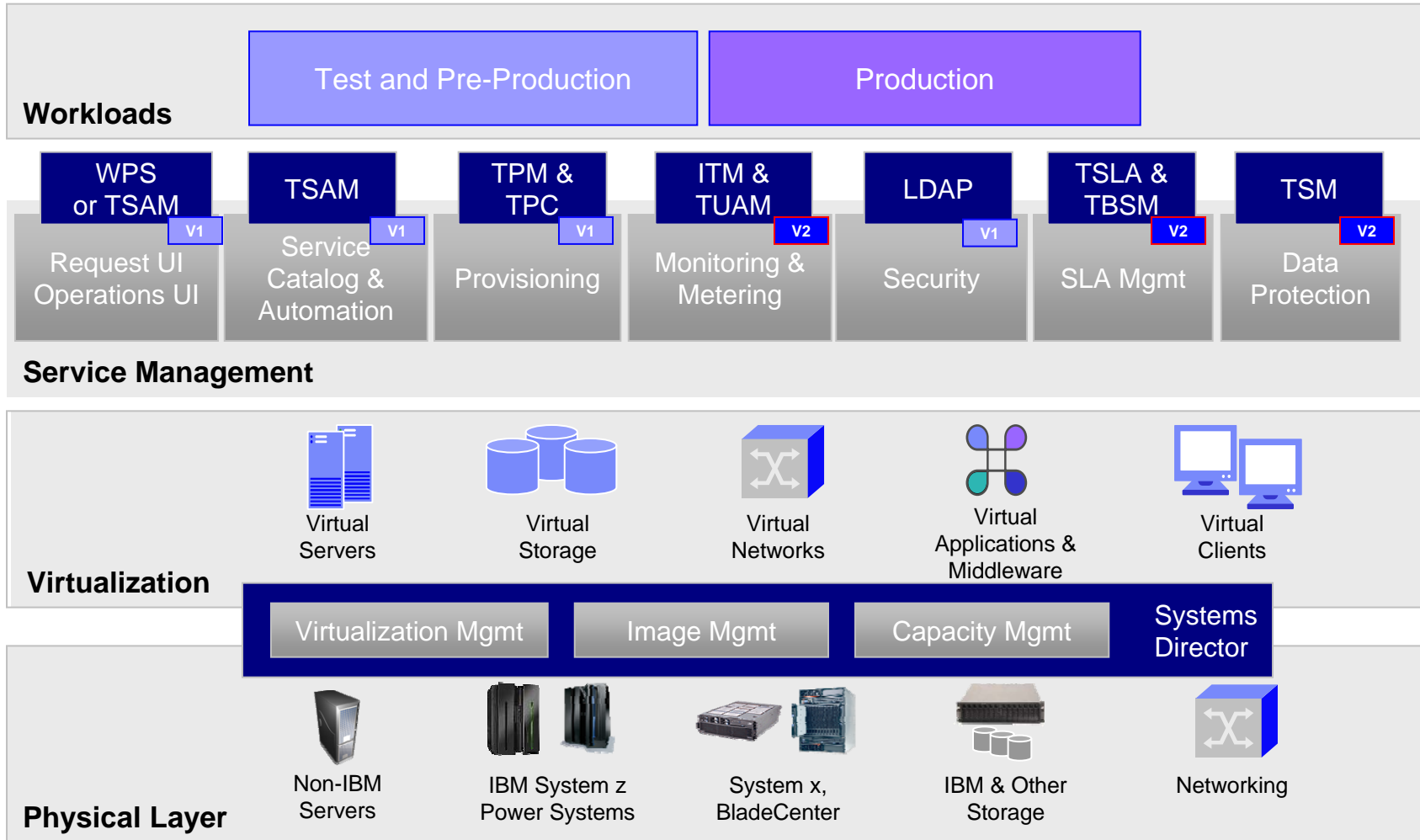
# Cloud Service Management Architecture

Service Request & Operations

IT Infrastructure & Application Provider



# Cloud Solutions Stack



# Integrated Approach to Service Management

## Integrated Solution

An Integrated set of solutions represent the full management of data, processes, tooling and people

## Common Data Model

The core solutions share a common data subsystem for simple data sharing

## Processes that Work Together

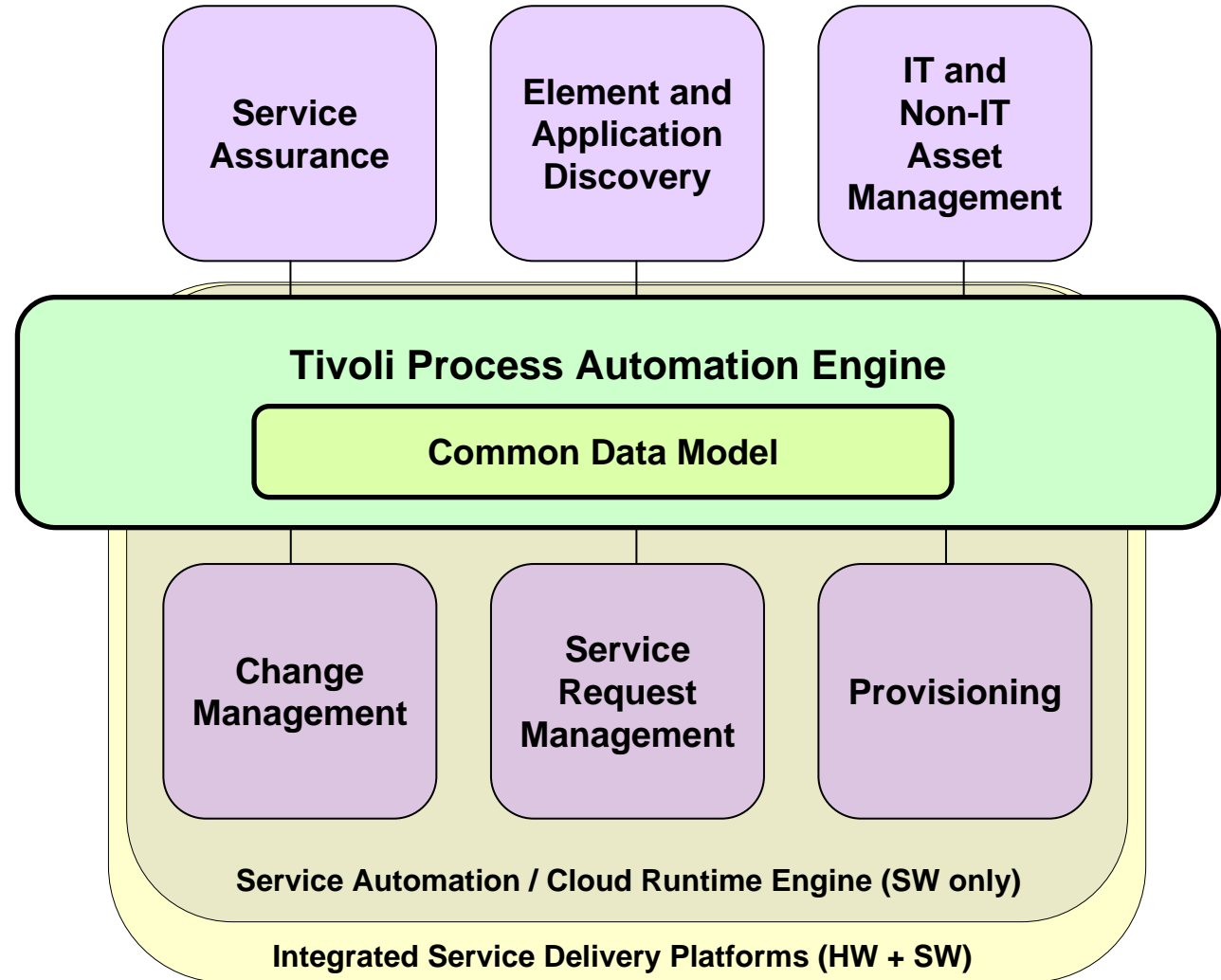
The core solutions share a process workflow automation engine

## No Rip and Replace

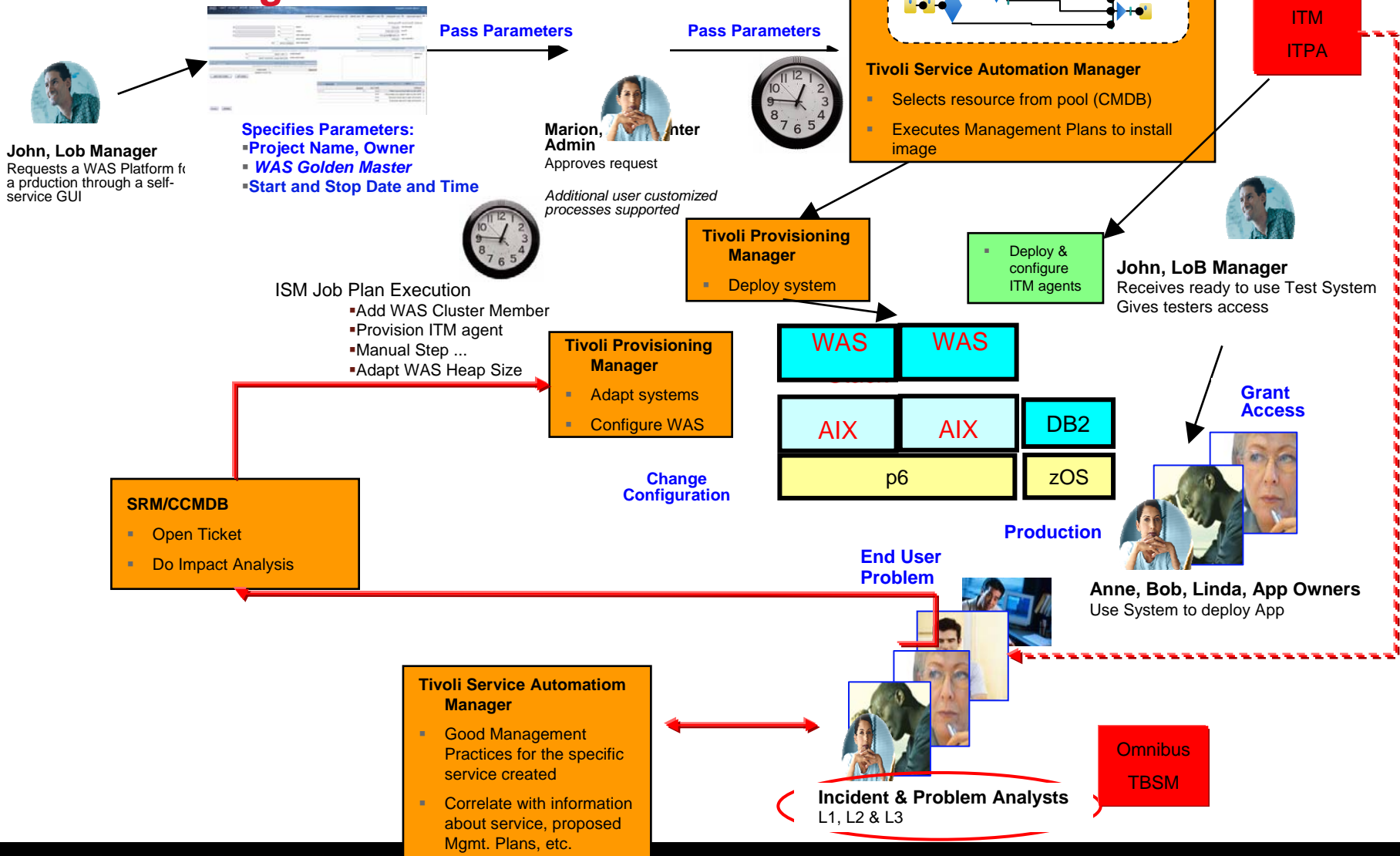
Leverage existing investments in IBM and 3<sup>rd</sup> party IT management tools

## Lower Cost of Ownership

Lower infrastructure and training costs, simple upgrade model



# Process Integrated Fulfillment Scenario



# IBM Tivoli Solutions for POWER7 Systems



Powered by



IBM Tivoli solutions and Power Systems™ enable clients to deploy integrated visibility, control & automation capabilities that help them implement and sustain an optimized and virtualized IT environment.

## Deploy and Optimize

- ✓ Deploy new or existing workloads faster
- ✓ Optimize workloads
- ✓ Reduce energy & improve performance

## Performance and Availability

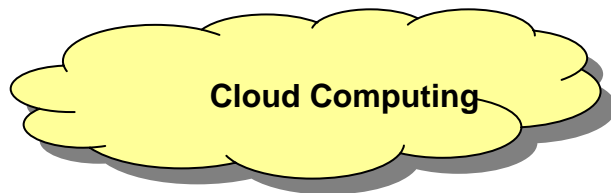
- ✓ Monitor application & server health
- ✓ Identify & resolve performance issues
- ✓ Detect & fix memory leaks

## Protect Applications & Data

- ✓ Backup and restore faster
- ✓ Improve data recovery times
- ✓ Better utilization of resources

# Tivoli Data Center Automation Capabilities

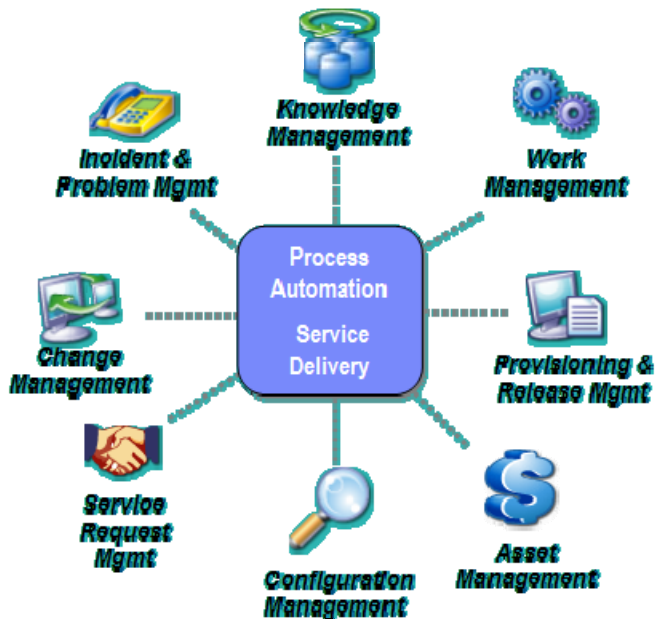
Simplifies user interaction with IT



- ✓ User friendly self-service interface accelerates time to value
- ✓ Service catalog enables standards to drive consistent service delivery

Delivers provisioning to enable automation

- ✓ **Automated provisioning** and de-provisioning speeds service delivery
- ✓ Provisioning **policies** allow release and reuse of assets



Integrated in different offerings:

- ✓ **Standardized services on the IBM Cloud**
- ✓ **Smart Business Cloud**
- ✓ **Smart Business System: IBM CloudBurst 1.2**
- ✓ Integrated with **Tivoli Usage and Accounting Mgr**