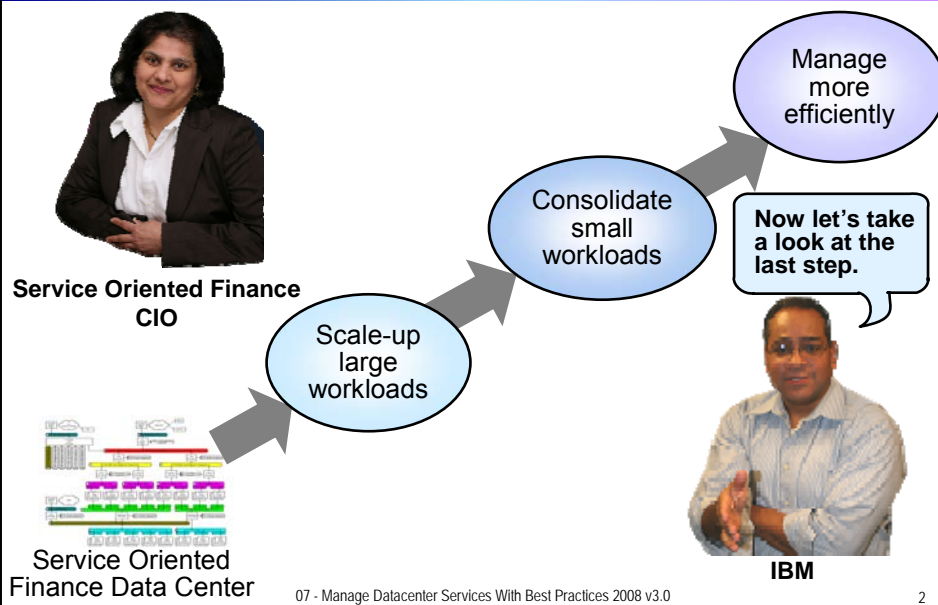


# Building a Better Infrastructure With IBM Middleware on IBM Power Systems

Manage Datacenter Services  
With Best Practices

## Three Steps to Optimizing IT



# Managing Service Requests in the Data Center

We get hundreds of service requests each day.

My new employees don't have the experience to handle them.

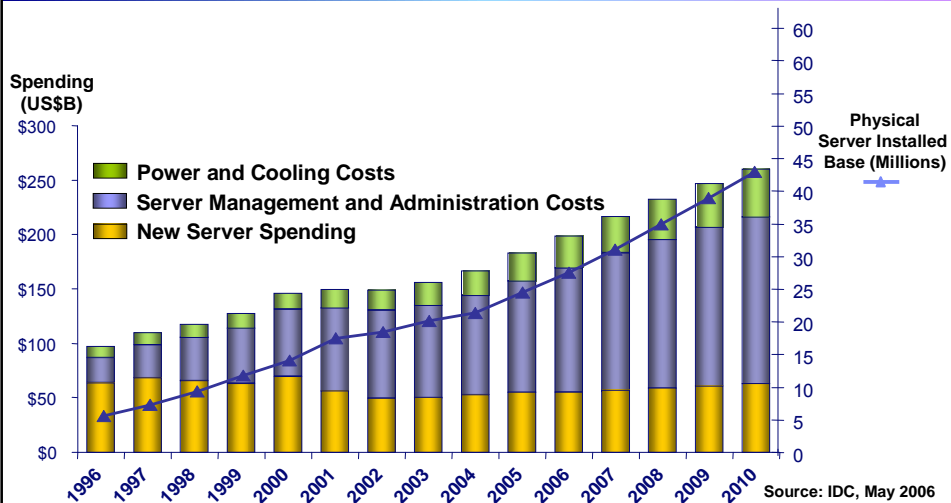


**Service Oriented Finance  
Data Center Manager**



**New Employee**

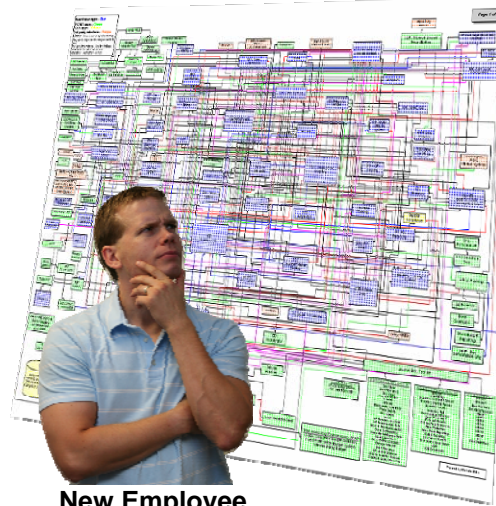
# Rising Server Management Costs



Total cost of ownership (TCO) for servers continues to rise significantly, even as total server spending remains nearly flat - Management costs are the reason, driven by the increasing number of systems

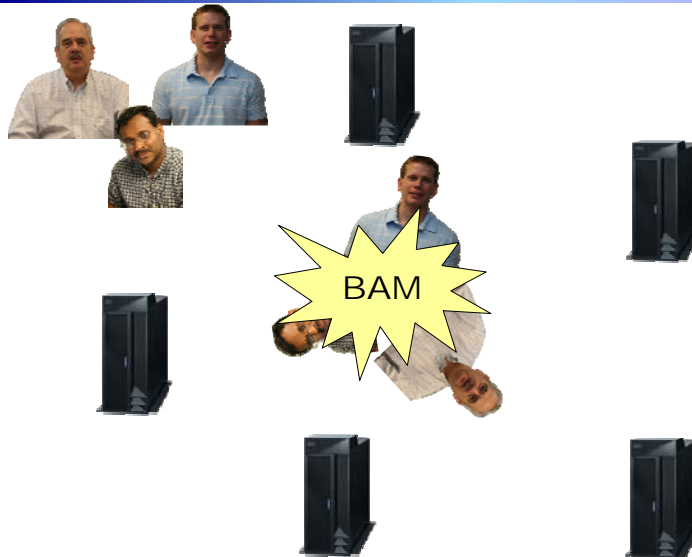
## Achieving IT Efficiency is Difficult

- **It's a people process!**
- **Challenges**
  - ▶ **Lack of skills:** Staff turnover, knowledge scope, experience level
  - ▶ **Growing complexity:** Disparate technologies infrastructures
  - ▶ **Lack of visibility and manual processes:** Silos of people, process, information, technology
  - ▶ **Rapid, constant change:** Industry consolidation, technology convergence
- **Consequences**
  - ▶ Delays, rework, dropped problems

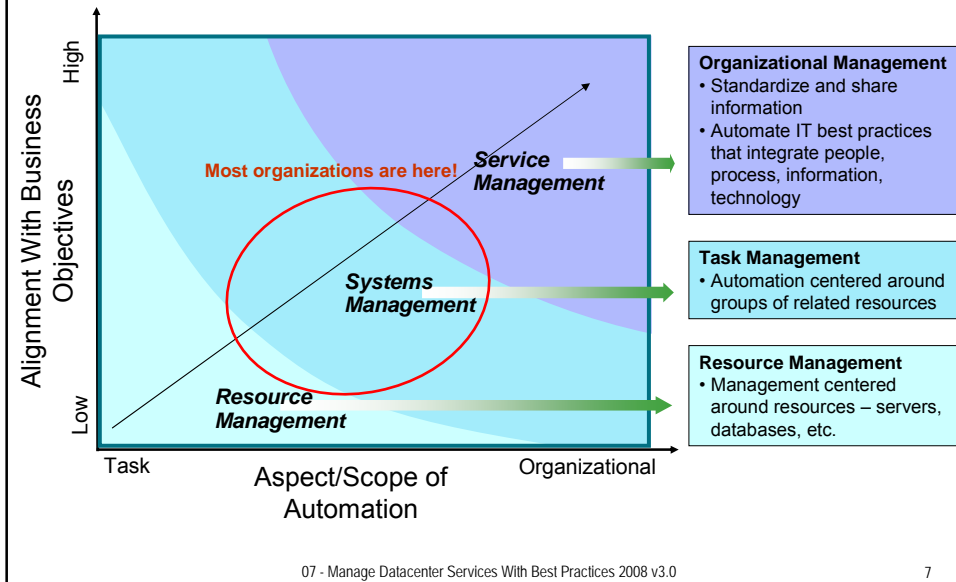


**New Employee**

## Ad Hoc Response to Service Requests are Inefficient



## Achieve Higher Efficiency With Service Management



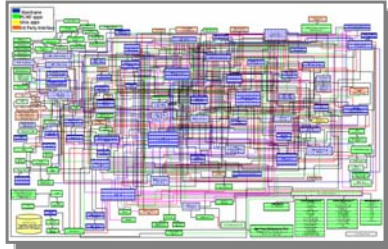
## IBM Prescriptive Approach To IT Service Management – Visibility, Control, Automation

- **Visibility** -- Know what you have to efficiently manage changes
  - ▶ **IBM Tivoli Change and Configuration Management Database (CCMDB)** standardizes and shares data on configuration and change histories, automates configuration and change processes
- **Control** -- Establish a process to manage customer requests for service issues
  - ▶ **IBM Tivoli Service Request Manager** provides a single point to submit tickets for service requests, view updates and search solutions
- **Automation** -- Automate core IT management processes to efficiently resolve issues and increase employee productivity
  - ▶ **Tivoli Enterprise Portal** and **IBM Operational Management** products integrate with **IBM Tivoli Service Request Manager** and **IBM Tivoli CCMDB**

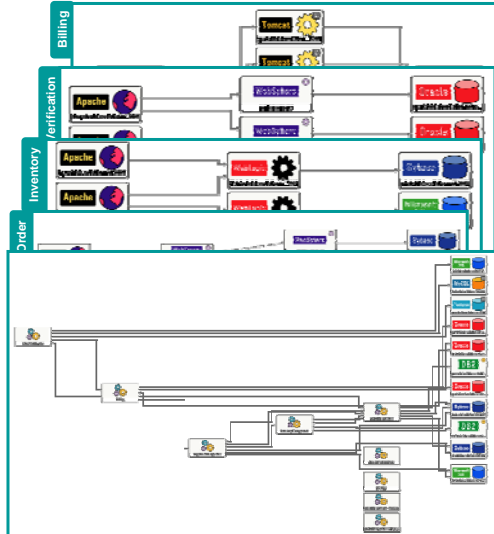
# Gain Visibility With IBM Tivoli Change and Configuration Management Database (CCMDB)...

Discover and Visualize Cross-tier Transactional Dependencies and Applications

Turn this...



... into clearly understood dependencies

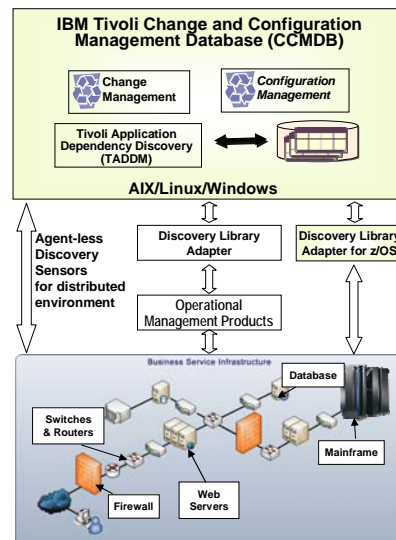


# IBM Tivoli CCMDB – Application Dependency Discovery, Change and Configuration Management

## Configuration management database

- ▶ Discover assets in environment
  - 200 out-of-the-box sensors discover distributed data center components
  - Discovery library adapter for z/OS discovers z/OS elements, CICS, DB2, IMS, MQ, WebSphere
  - Discovery adapters for various other data sources
- ▶ Gives single master view from disparate configuration data sources
- ▶ Automated dependency mapping

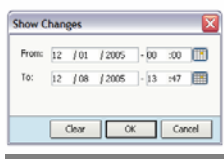
## Integrated configuration and change management processes



# IBM Tivoli CCMDB -- Discovery Sensors

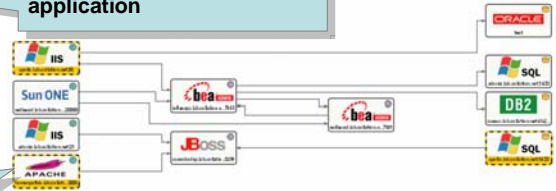
- Web Servers
  - ▶ Apache
  - ▶ iPlanet/SunOne
  - ▶ IIS
  - ▶ IBM HTTP Server
- Application Servers
  - ▶ WebSphere
  - ▶ WebLogic
  - ▶ JBoss
  - ▶ Apache Tomcat
  - ▶ Lotus Domino
  - ▶ Oracle Application Server
  - ▶ CICS
- Databases
  - ▶ Oracle
  - ▶ Sybase
  - ▶ DB2
  - ▶ MS SQL
  - ▶ PostGres SQL
  - ▶ MySQL
  - ▶ IMS
- Applications
  - ▶ VMWare ESX Server
  - ▶ PeopleSoft (via custom server templates)
  - ▶ SAP
  - ▶ Seibel (via custom server templates)
  - ▶ Netegrity (via custom server templates)
  - ▶ MQ Series
- Universal Data Sensor for 3rd Party Applications
  - ▶ CiscoWorks
- Services
  - ▶ MS Active Directory
  - ▶ SunOne Directory Server
  - ▶ WFS (Samba)
- Supported Hosts/OS
  - ▶ Red Hat Linux, Suse Linux
  - ▶ AIX, HP-UX, Solaris
  - ▶ Windows
  - ▶ OpenVMS
  - ▶ z/OS
- Routers and Switches
  - ▶ Cisco Routers and Switches
  - ▶ Extreme Switches Summit
  - ▶ HP Procurve Switches (SNMP supported)
- Firewalls
  - ▶ Cisco PIX
  - ▶ Netscreen Firewall
  - ▶ Checkpoint Firewall (Nokia and Solaris installs)
- Load Balancers
  - ▶ Alteon Load Balancer
  - ▶ F5 Big IP Load Balancer
  - ▶ F5 DNS Server
- Storage Devices
  - ▶ Emulex HBAs
  - ▶ Brocade Switches (SNMP supported)
  - ▶ Disk Arrays, SAN switches (via TPC)

# IBM Tivoli CCMDB – Changes Automatically Tracked and Recorded



1) Select change history window to identify changed components in any application

2) Changed configuration items are easily identified



3) View detailed history of the changes by attribute

Type	Component	Change	Date	Attribute	Old Value	New Value	ID
Apache	homepaths_lab_collig	Updated	12/04/2004 15:01 PST	appExecutors	Jun.Focal/apache/bin/13342	Jun.Focal/apache/bin/13342	
ApacheWebContainer	homepaths_lab_collig	Updated	12/04/2004 15:01 PST	ApacheWebContainer	Jun.Focal/apache	Jun.Focal/apache	13342
ApacheWebContainer	homepaths_lab_collig	Updated	12/04/2004 15:01 PST	ApacheWebContainer	10	20	13342
ApacheWebContainer	homepaths_lab_collig	Updated	12/04/2004 15:01 PST	ApacheWebContainer	100	100	13342
ProcessPool	homepaths_lab_collig	Updated	12/04/2004 15:01 PST	homepaths_lab_collig	Jun.Focal/apache/bin/_httpd -d Jun.Focal/	Jun.Focal/	13420

## Process Management with IBM Tivoli

How do we keep track of all the service requests to make sure that they are handled properly?



**Service Oriented Finance  
Data Center Manager**

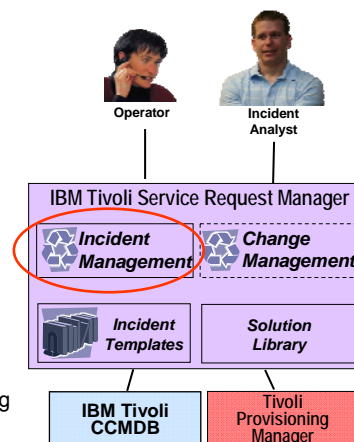
**IBM Tivoli Service Request Manager** provides a service desk to help you centrally manage your service issues. It can also automate your core IT processes such as incident and change... Let me show you!



**IBM**

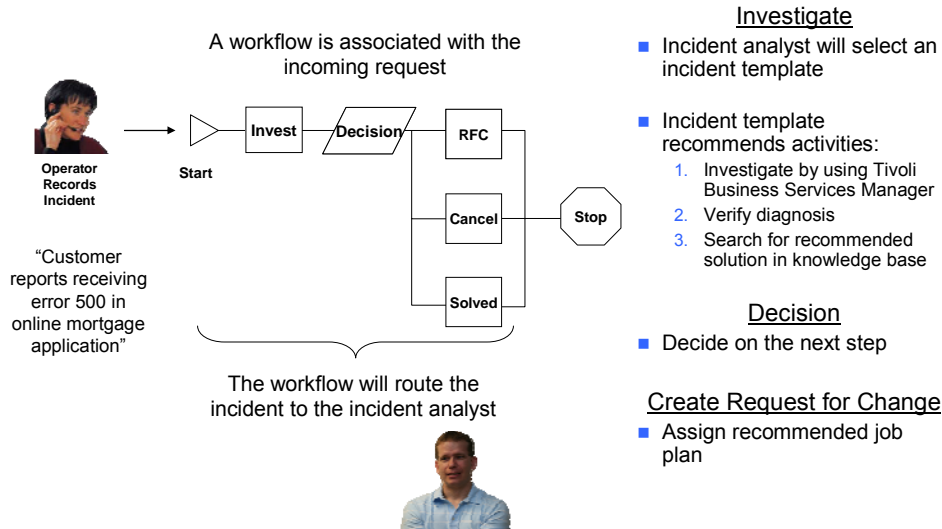
## IBM Tivoli Service Request Manager -- One Solution for Unified Process Management

- Central point to manage responses to customer requests for help, information and service
- Create incident templates for common service desk calls and library of reusable solutions
  - ▶ Use templates to quickly create tickets for incidents, problems, changes
  - ▶ View updates and search library for solutions to solve problems quickly
- Automates incident and change management processes
  - ▶ Integrates with CCMDB to accurately assess IT infrastructure
  - ▶ Integrates with Operational Management products to automate tasks (for example: Tivoli Provisioning Manager)



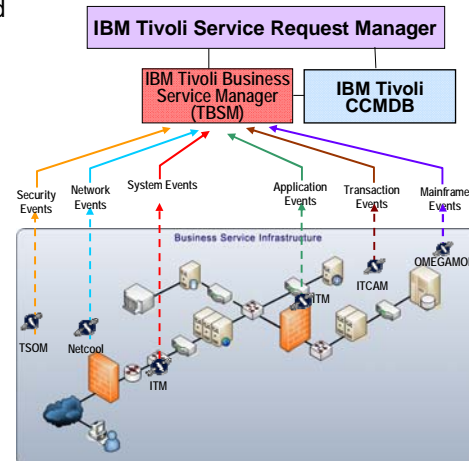
**Let's focus on incident management process!**

## DEMO: Incident Analyst



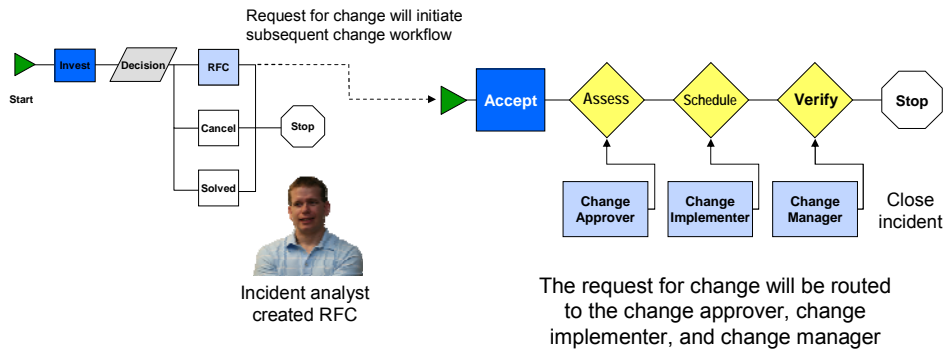
## IBM Tivoli Business Service Manager (TBSM)

- Display health of business services and service level agreements
- Service definition from IBM Tivoli CCMDB
- Service status/health from various event sources, including:
  - Transaction events from IBM Tivoli Composite Application Manager (ITCAM)
  - System and application events from IBM Tivoli Monitoring (ITM)
  - Mainframe events from IBM Tivoli OMEGAMON
  - Network events from IBM Tivoli Netcool/Precision
  - Security events from IBM Tivoli Security Operations Manager (TSOM)
  - Events from 3<sup>rd</sup> party monitors





## DEMO: Change Implementer



### Change Implementer

- Follow recommended activities in the job plan
  - ▶ Assess the change impact by using CCMDB
  - ▶ Use Tivoli Provisioning Manager to execute the change
    - Schedule update

## IBM Tivoli Provisioning Manager (TPM)

- Automates manual tasks of provisioning and configuring environments
  - ▶ Operating systems
  - ▶ Patches
  - ▶ Middleware
  - ▶ Applications
  - ▶ Storage and network devices
  - ▶ Virtual environments
- Tasks automated through best practice automation workflows
  - ▶ Pre-built workflows describe provisioning steps
  - ▶ Automation package developer environment to customize for data center best practices and procedures
  - ▶ Automatic workflow execution with verification at each step

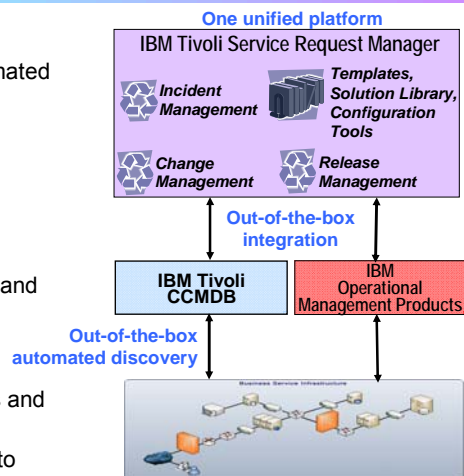
## IBM Service Management Portfolio

- Service management platform to gain visibility
  - ▶ IBM Tivoli Change and Configuration Management Database (CCMDB) discovers and federates IT information spread across the enterprise
- Process management products to automate IT processes
  - ▶ Tivoli Service Request Manager
  - ▶ Tivoli Release Process Manager
  - ▶ Tivoli Availability Process Manager
  - ▶ Tivoli Storage Process Manager
  - ▶ Tivoli Capacity Process Manager
- Operational management products to automate tasks
  - ▶ Business application management products
    - Tivoli Business Service Manager
  - ▶ Server, network and device management products
    - Tivoli Provisioning Manager
  - ▶ Security management products
  - ▶ Storage management products

Products discussed in this presentation

## IBM Service Management – One Integrated, Unified Platform

- IBM Tivoli CCMDB
  - ▶ Comprehensive out-of-the-box automated discovery, mapping and tracking of changes
  - ▶ Serves as a platform for process management
- IBM Tivoli Service Request Manager
  - ▶ Unified platform for incident, change and release processes
  - ▶ Built-in tools allow users to quickly and easily make changes to workspace, user interface, workflows and reports
  - ▶ Integrates with operational products to automate tasks within processes

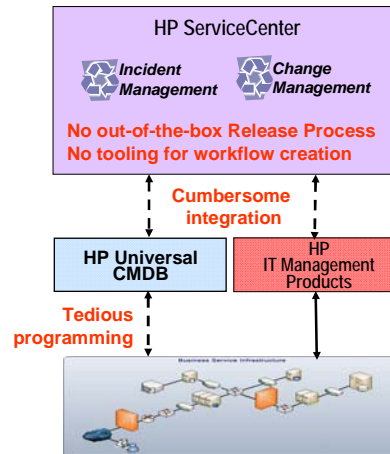


**IBM rated #1 IT Service Management Vendor!\***

\*Ovum Summit Report: [ftp://ftp.software.ibm.com/software/tivoli/whitepapers/ITSM\\_Vendor\\_Report\\_Card\\_-\\_Turner\\_12-06.pdf](ftp://ftp.software.ibm.com/software/tivoli/whitepapers/ITSM_Vendor_Report_Card_-_Turner_12-06.pdf)

## HP Service Management – Lacks Integration, Tedious Programming Required

- HP Universal CMDB
  - ▶ HP Universal Configuration Management Database (CMDB) requires tedious programming to create maps and complex discovery patterns
- HP ServiceCenter
  - ▶ Limited to incident and change process
  - ▶ No tooling for workflow creation and modification
  - ▶ Lacks out-of-the-box integration with HP Universal CMDB and HP IT management products for automating tasks within processes
- Result: Costly service engagements



Source: IBM SWG Competitive Research, 2007

07 - Manage Datacenter Services With Best Practices 2008 v3.0

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## Tivoli Service Request Manager Reference



- “We were able to integrate our entire ITIL framework and automate our service and support delivery capabilities through the IBM asset and service management solutions.” - **Sharad Joshi, Assistant Vice President, Enterprise Services Group, Birlasoft.**
- Benefits
  - ▶ Nearly 80 percent decrease in the number of help desk calls each day
  - ▶ 22 percent reduction in the number of service tickets
  - ▶ 10 percent decrease in incident resolution times
  - ▶ 6 month return on investment

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## Summary

Gain visibility and automate your IT management processes to cut costs with IBM Service Management!



**Successful  
Employee**



**IBM**

