Extending Your Mainframe for More Business Value

Extend IT Service Management

Managing IT Service Issues in the Data Center

We are overwhelmed with IT service issues each day. One of my key staff is retiring.

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

Service Oriented Finance Data Center Manager

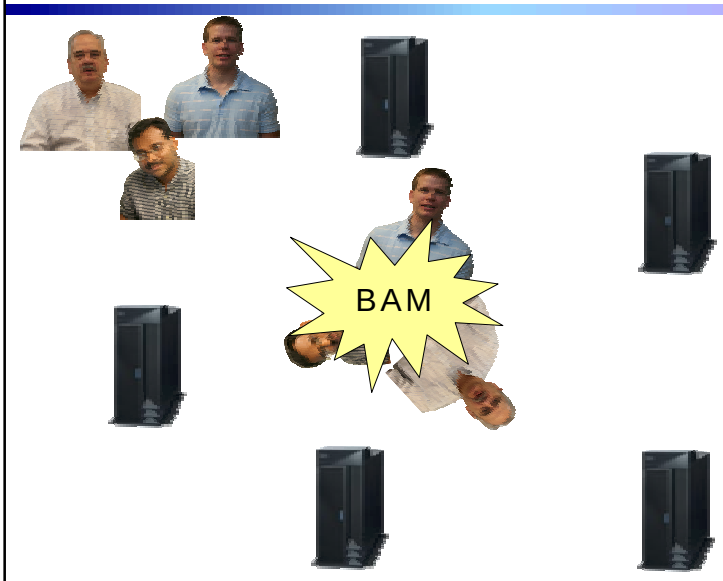
New Employee

Resolving IT Service Issues is Difficult

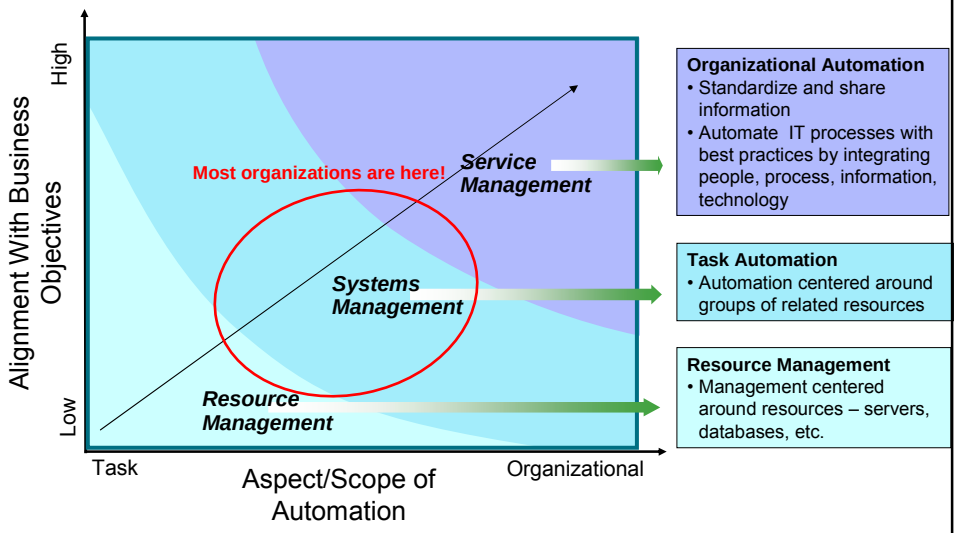
- **It's a people process!**
- **Challenges**
  - Lack of Skills: Staff turnover, knowledge scope, experience level
  - Growing Complexity: Disparate technologies infrastructures
  - Lack of Visibility and Manual Processes: Silos of people, process, information, technology
  - Rapid, Constant Change: Industry consolidation, technology convergence
- **Consequences**
  - Delays, rework, dropped problems

New Employee

Ad Hoc Response to Service Requests are Inefficient



Achieve Higher Efficiency With IT Service Management

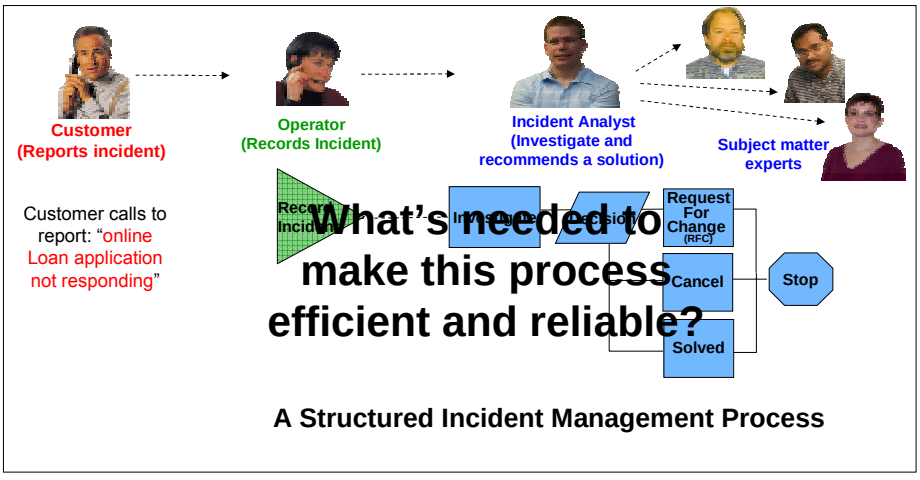


Organizational Automation
- Standardize and share information
- Automate IT processes with best practices by integrating people, process, information, technology

Task Automation
- Automation centered around groups of related resources

Resource Management
- Management centered around resources – servers, databases, etc.

Many People May be Needed to Resolve an IT Service Issue

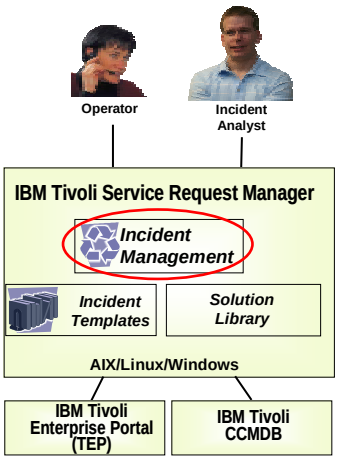


IBM Prescriptive Approach To IT Service Management – Visibility, Control, Automation

- 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**

IBM Tivoli Service Request Manager

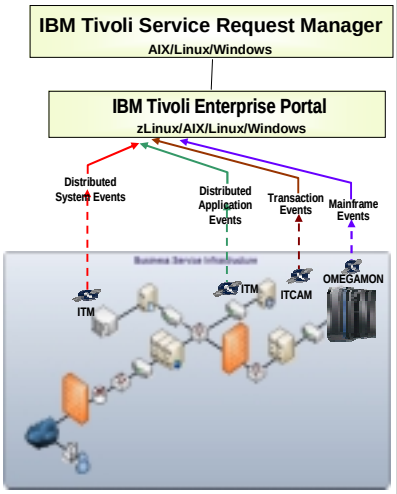
- Central point to control your service requests for help, information and service
- Create incident templates for common service desk calls and library of reusable solutions
  - Use templates to quickly create tickets for incidents, problems, changes
  - View updates and search library for solutions to solve problems quickly
- Automates incident management process
  - Integrates with Operational Management products to automate tasks (for example via IBM Tivoli Enterprise Portal)
  - Integrates with IBM Tivoli Change and Configuration Management Database (CCMDB) to accurately assess IT infrastructure and to process changes



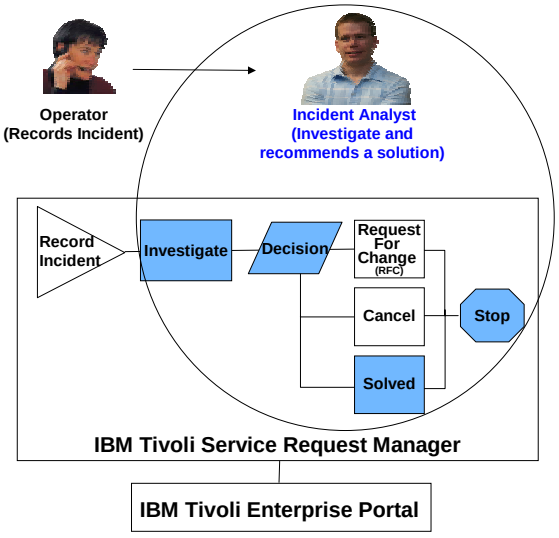
Let's focus on incident management process!

Tivoli Enterprise Portal (TEP)

- Service status/health from various event sources, including:
  - Mainframe events from IBM Tivoli OMEGAMON XE, IBM Tivoli NetView, IBM Tivoli System Automation for z/OS, IBM Tivoli Workload Scheduler for z/OS
  - Distributed system and application events from IBM Tivoli Monitoring (ITM)
  - Transaction events from IBM Tivoli Composite Application Manager (ITCAM)
  - Events from 3rd party monitors
- Detect incidents with *situations*
  - Out-of-the-box supplied *situations* include combination of metrics and thresholds to trigger, identify, notify and solve problems
  - Built-in situation editor allows to customize
- *Expert advice* can help obtain detailed explanation of problems and recommendation for resolution
- *Take action* to automatically resolve recurring problems by running existing or customized scripts



DEMO: Incident Analyst



Investigate

- Incident analyst will select an incident template
- Incident template recommends activities:
  1. Investigate by using **IBM Tivoli Enterprise Portal**
  2. Verify diagnosis that CICS application is not responding
  3. Search for recommended solution in knowledge base

Decision

- Decide on the next step

Solved

- Mark problem as solved

Change Management with IBM Tivoli CCMDB

We worked around that last problem, but we asked our system programmers to make a permanent change.

Service Oriented Finance Data Center Manager

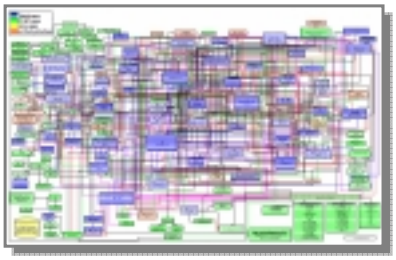
IBM Tivoli Change and Configuration Management Database (CCMDB) can help you manage your change process… Let me show you!

IBM

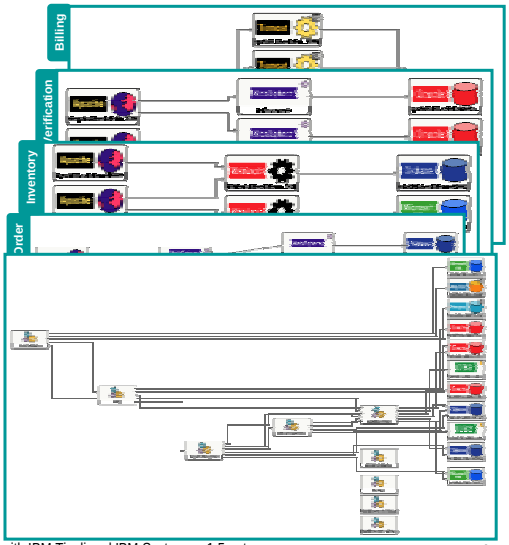
Start By Gaining Visibility with IBM Tivoli Change and Configuration Management Database (CCMDB)…

Discover and Visualize Cross-tier Transactional Dependencies and Applications

Turn this…

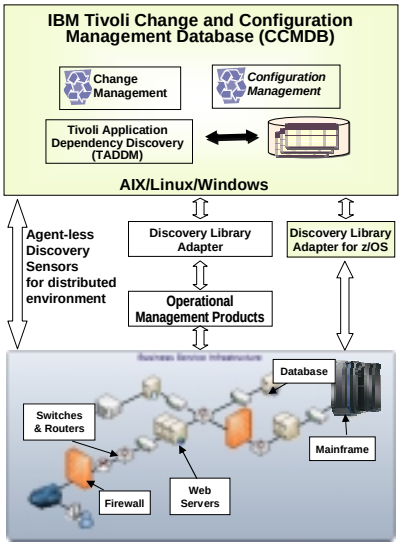


… into clearly understood dependencies



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 Capabilities

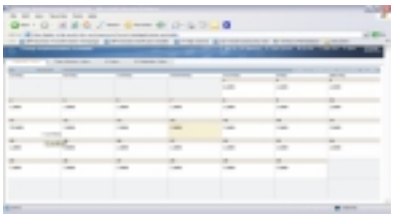
- Web Servers
  - Apache
  - iPlanet/SunOne
  - IIS
  - IBM HTTP Server
- Application Servers
  - **WebSphere (server, cell, node, endpoint, config file, application descriptor)***
  - WebLogic
  - JBoss
  - Apache Tomcat
  - Lotus Domino
  - Oracle Application Server
  - **CICS (region, transaction, program, file)***
- Databases
  - Oracle
  - Sybase
  - **DB2 (subsystem, data sharing group, database, tablespace)***
  - MS SQL
  - PostGres SQL
  - MySQL
  - **IMS (subsystem, sysplex group, transaction, program, database)***

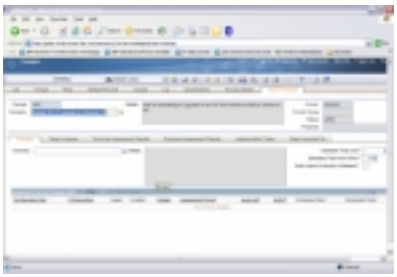
*Discovery on System z

- Applications
  - VMWare ESX Server
  - PeopleSoft (via custom server templates)
  - SAP
  - Siebel (via custom server templates)
  - Netegrity (via custom server templates)
  - **MQ Series (subsystem, sender/receiver channel)***
- 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
  - **z/OS (address space, LPAR, z/VM, sysplex, storage)***
- Routers and Switches
  - Cisco Routers and Switches
  - Extreme Switches Summit
  - HP Procurve Switches (SNMP supported)
- Firewalls and Load Balancers
  - Cisco PIX
  - Netscreen Firewall
  - Checkpoint Firewall (Nokia and Solaris installs)
  - 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 Operational Management Products
  - **IBM Tivoli OMEGAMON XE***
  - **IBM Tivoli NetView***
  - **IBM Tivoli Business Service Manager***
  - **IBM Tivoli Composite Application Manager (CAM)***
  - **IBM Tivoli Provisioning Manager***

Manage Change With IBM Tivoli CCMDB

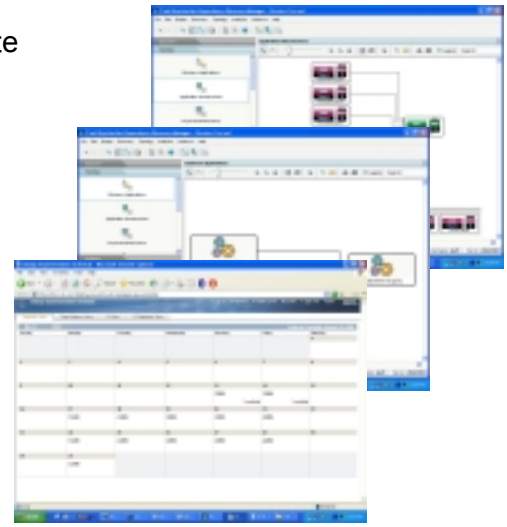
- Associate change window with configuration items (managed assets)
  - Check for schedule conflicts
  - Prevent changes from occurring outside defined window
- Identify the impact of implementing a change
  - Identify and record impacted configuration items using the discovered relationship data
  - Subject Matter Experts can document assessment results
  - Get Approvals from all stakeholders of impacted configuration items before implementing the change
- Out of the box best practices customizable change management process



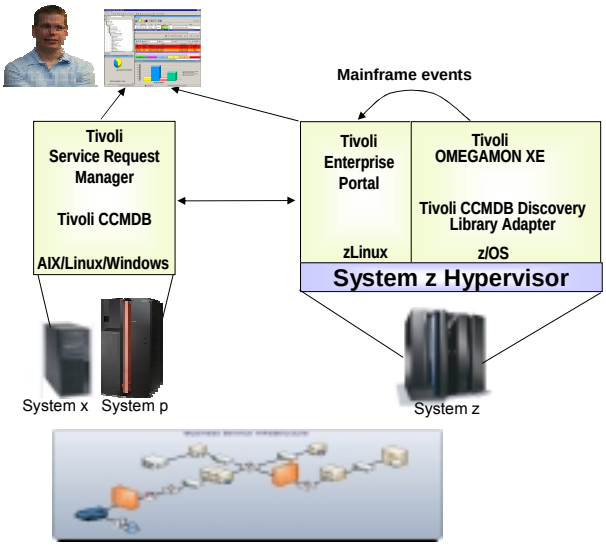


DEMO: Check for Schedule Conflicts

1. Initially schedule the update
2. CCMDB discovers relationships and dependencies
3. CCMDB cross compares defined maintenance windows
4. CCMDB indicates scheduled change has a conflict
5. Reschedule the update



Mainframe Extension Solution – IT Service Management



Summary

Control, gain visibility and automate your IT management processes to cut costs with IBM Service Management!

Successful Employee

IBM