



# **Extending Your Mainframe For More Business Value**

Extend IT Service Management

# Managing IT Service Issues In The Data Center

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**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.**



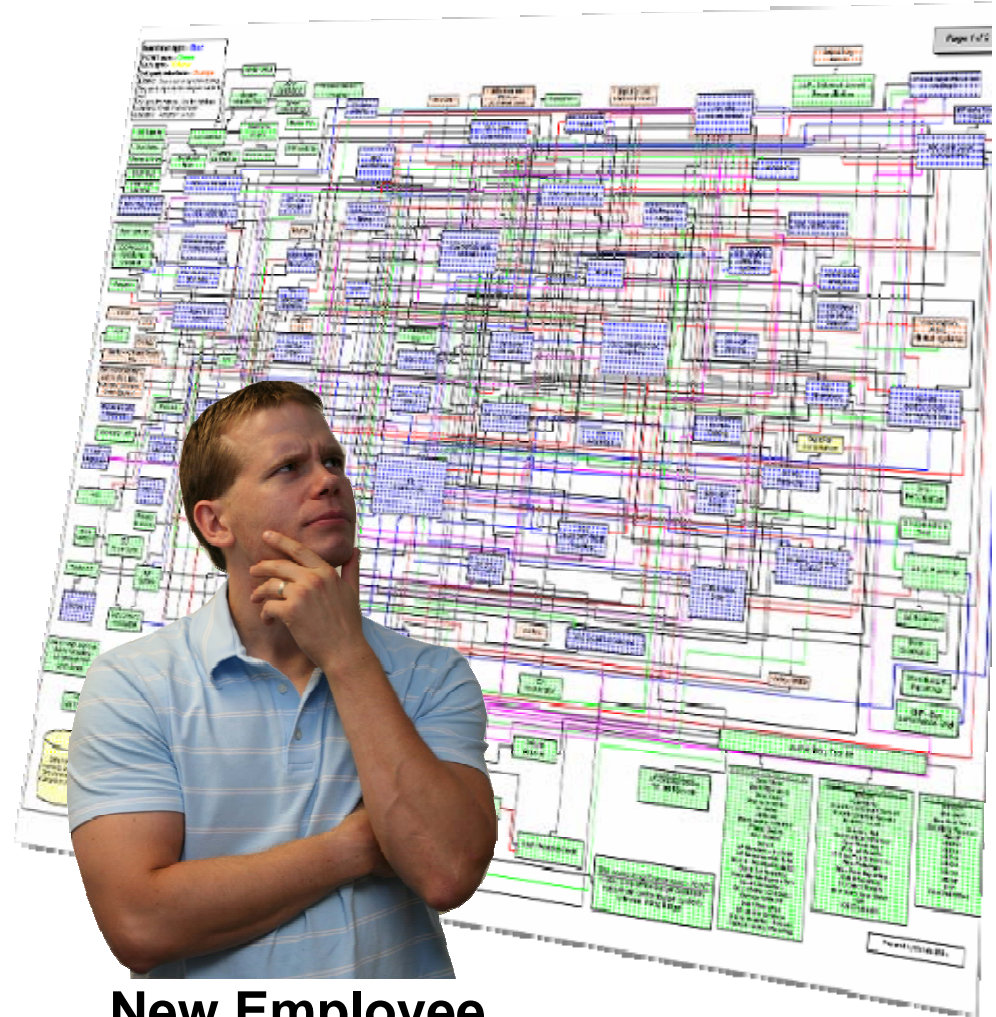
**Service Oriented Finance  
Data Center Manager**



**New Employee**

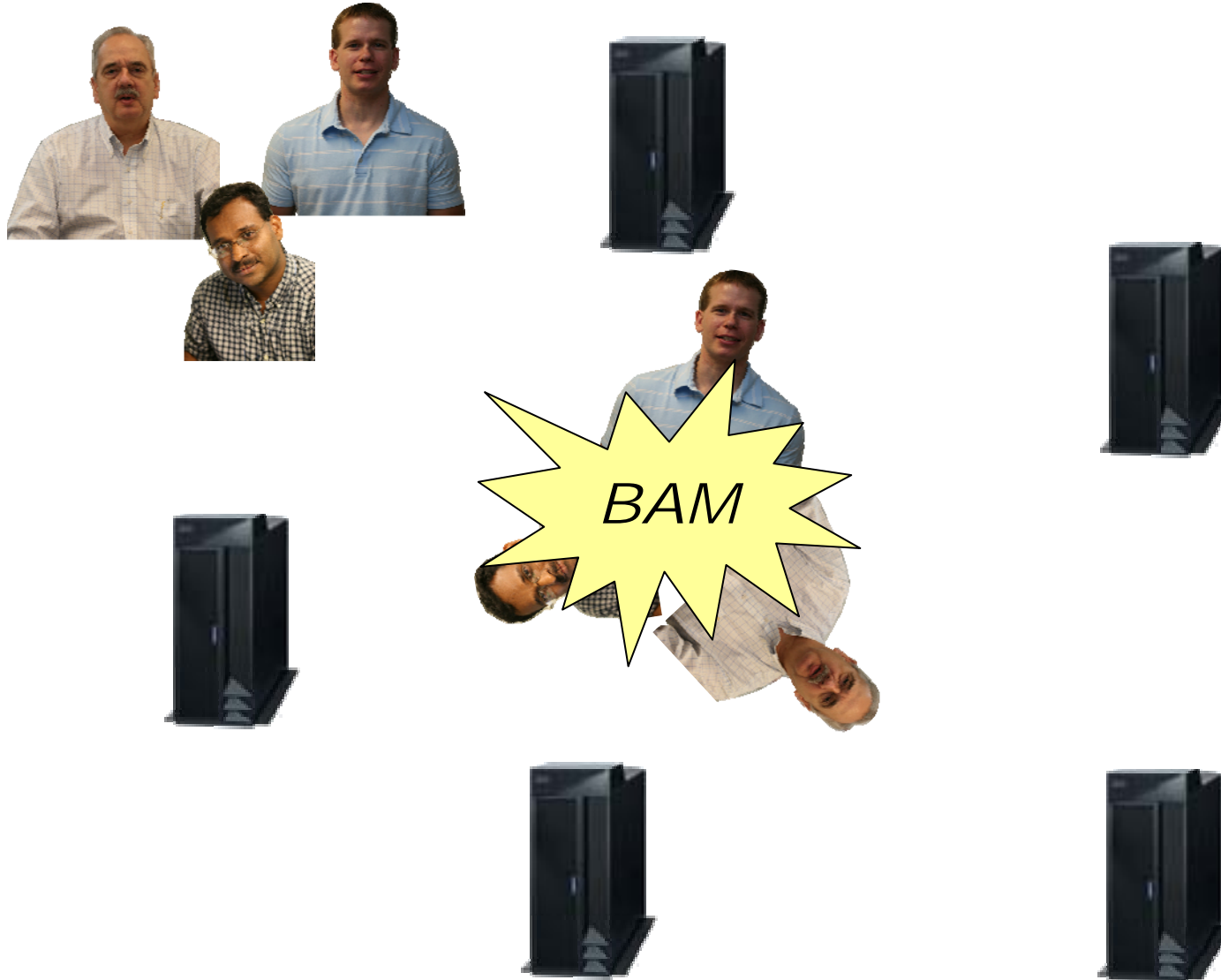
# Resolving IT Service Issues Is Difficult

- 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

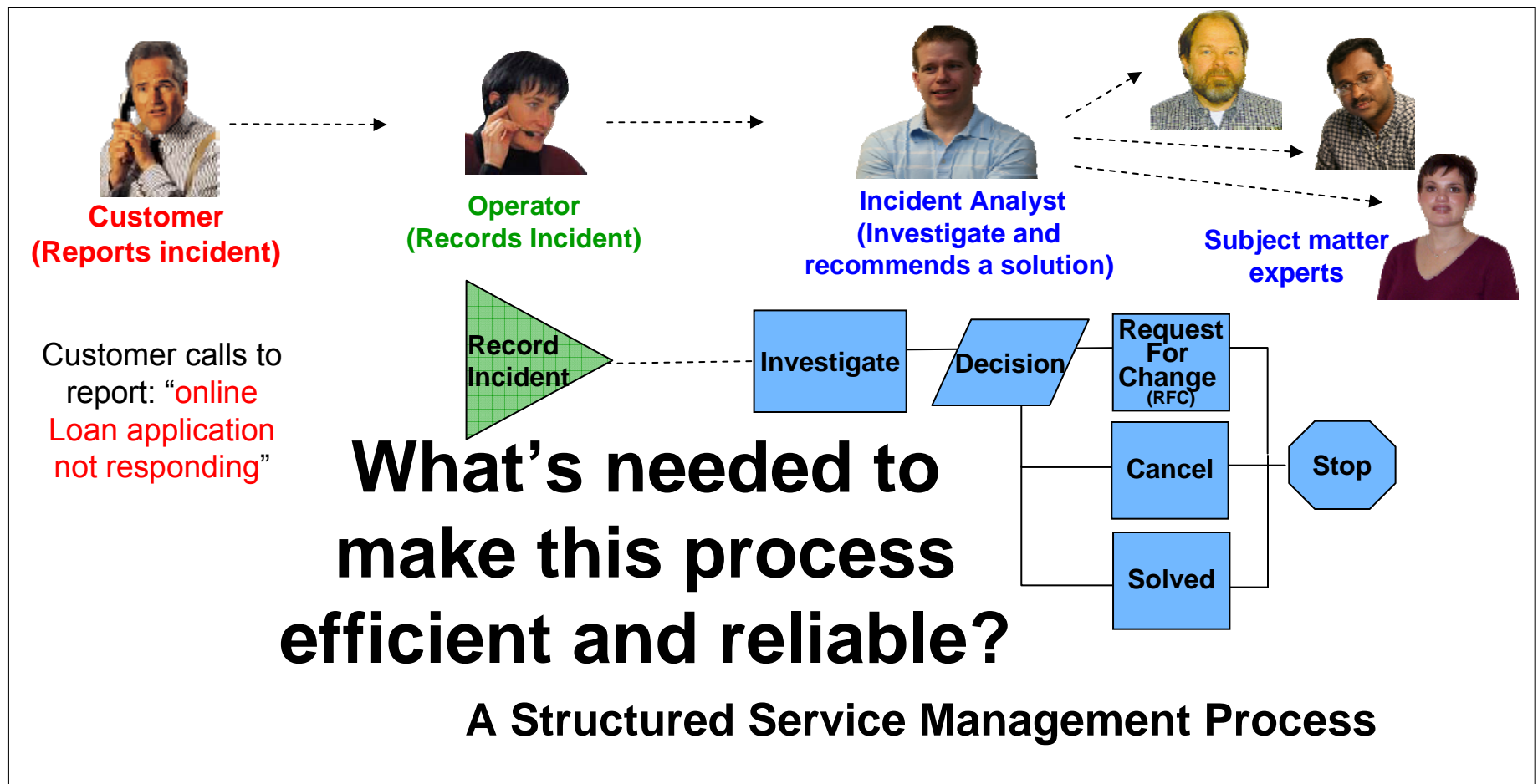


**New Employee**

# Ad Hoc Response To Service Requests Are Inefficient



# Many People May be Needed To Resolve An IT Service Issue



# IBM Prescriptive Approach To IT Service Management

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## Visibility

**What is actually installed in my environment?**

*Respond faster and make better decisions*

## Control

**Structured process to resolve issues**

*Improve quality and reduce mistakes*

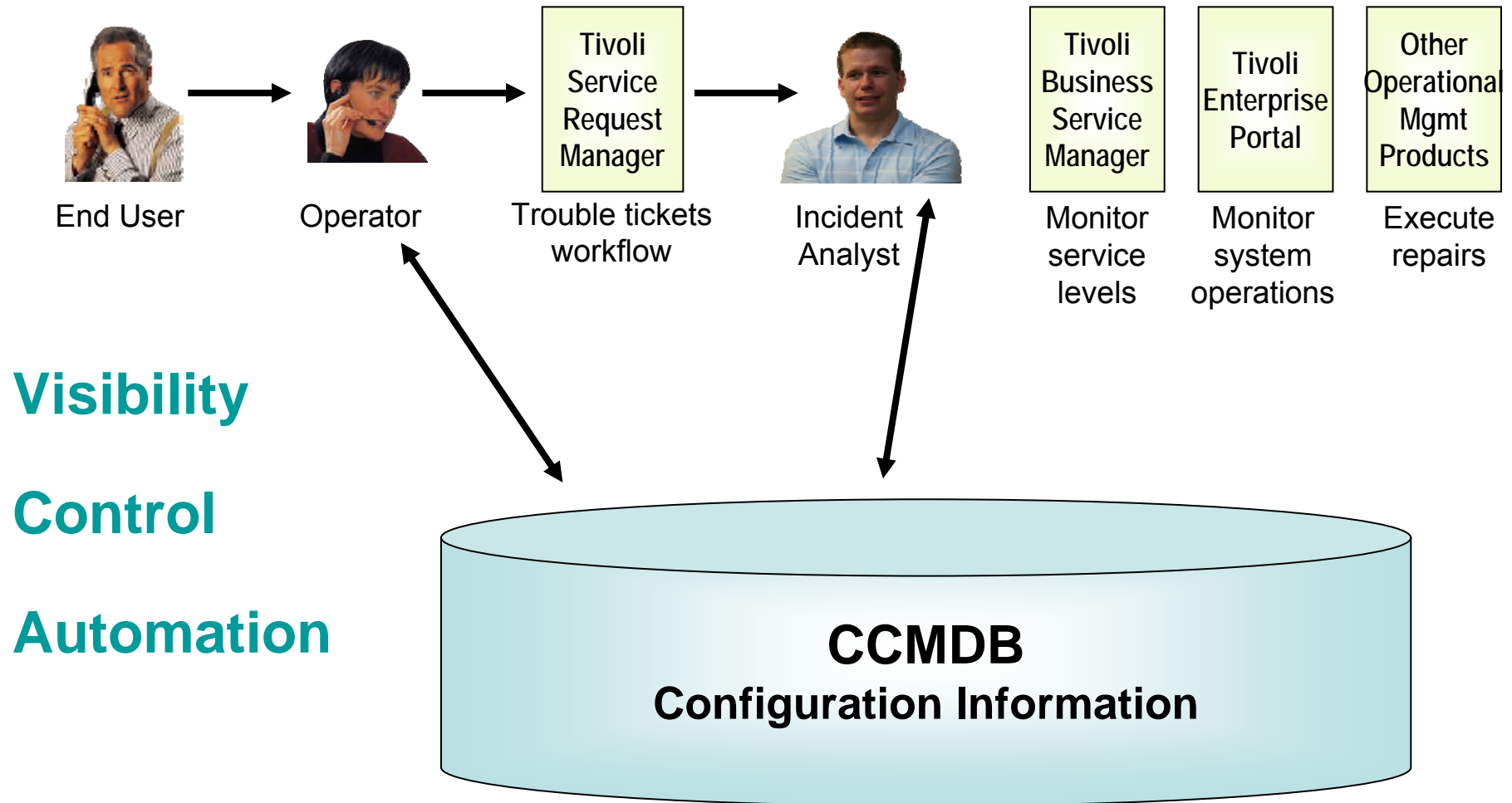
## Automation

**Use tools to automate repeating tasks**

*Lower costs and build agility*

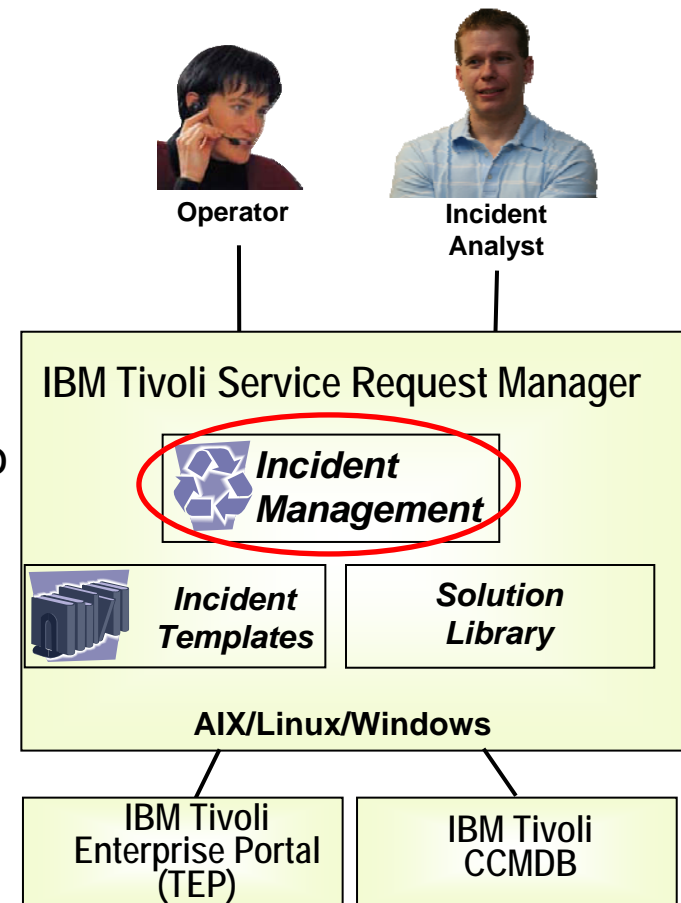


# IBM Tivoli Service Management Center For System z



# 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

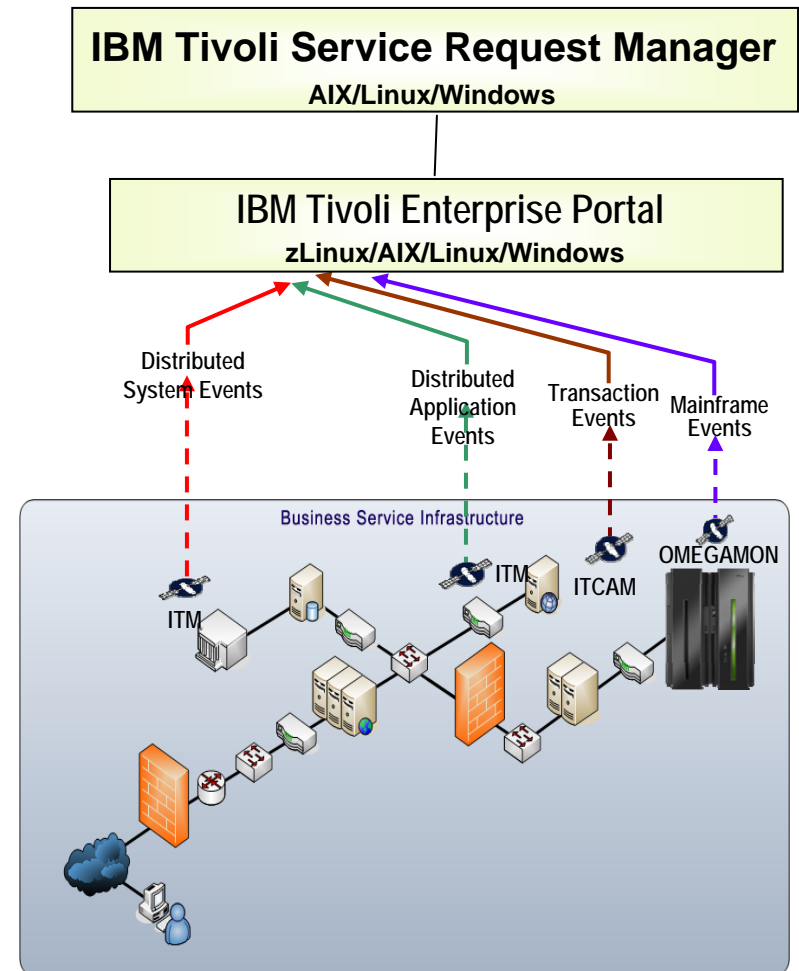


**Let's focus on incident management process!**

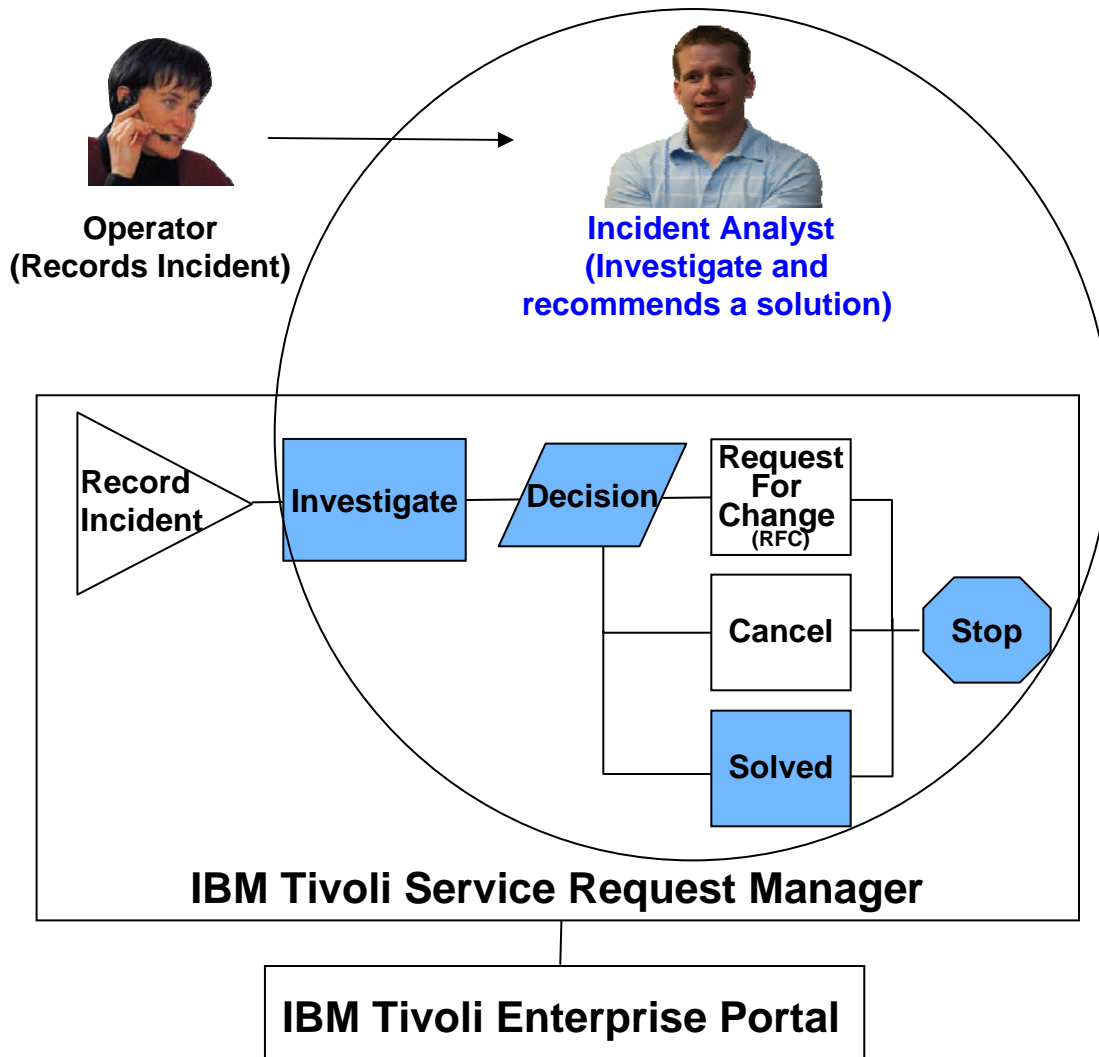


# Tivoli Enterprise Portal (TEP)

- Service status/health from various event sources, including:
  - ▶ Mainframe events from OMEGAMON, NetView, System Automation for z/OS, Workload Scheduler for z/OS
  - ▶ Distributed system and application events from Tivoli Monitoring
  - ▶ Transaction events from Tivoli Composite Application Manager
  - ▶ Events from 3<sup>rd</sup> 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* helps 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!

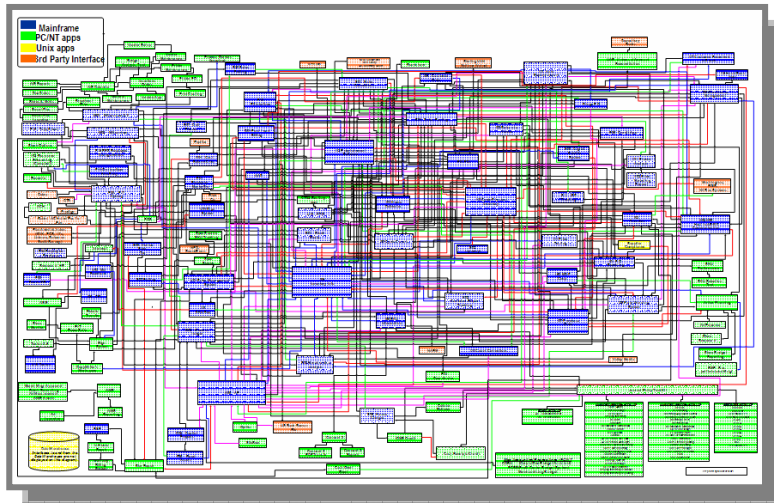


**IBM**

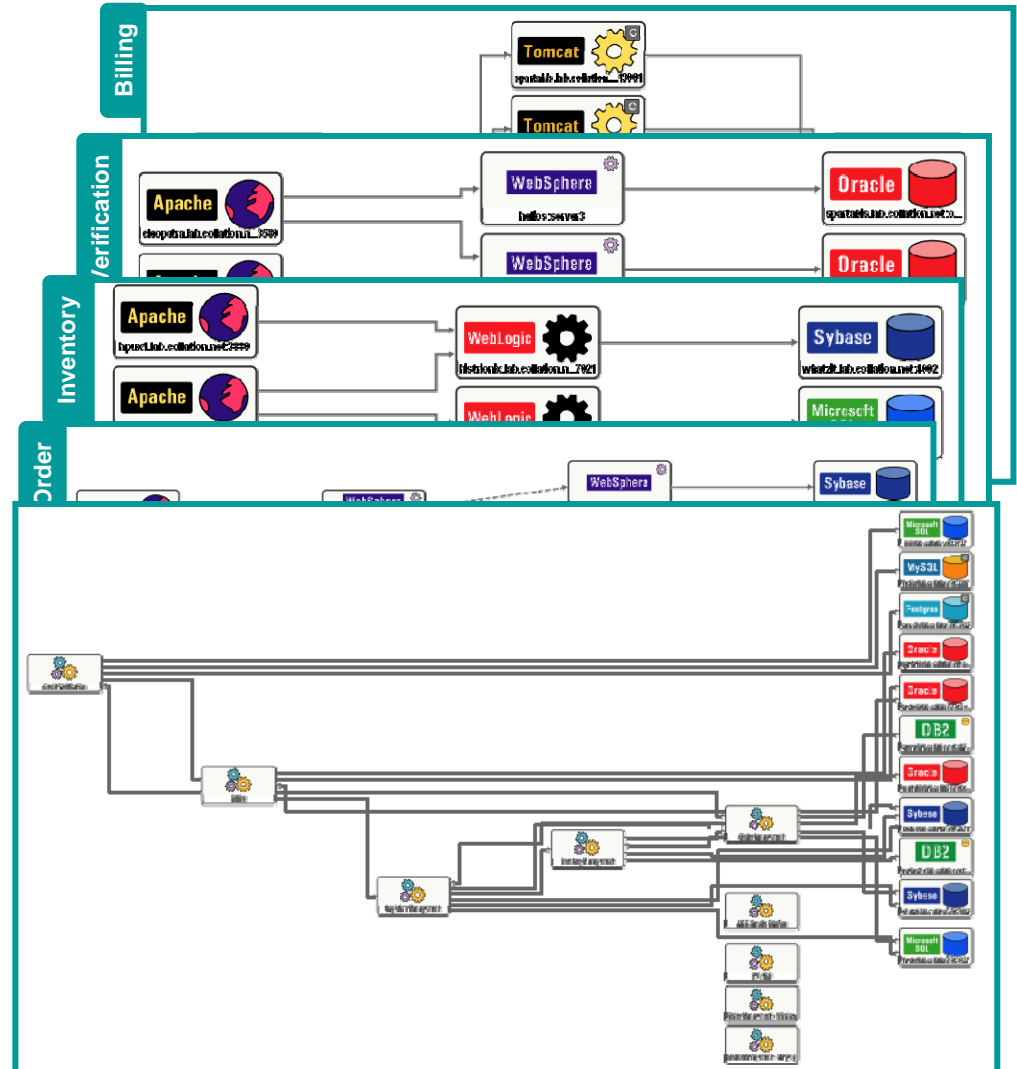
# Start By Gaining Visibility With IBM Tivoli Change And Configuration Management Database (CCMDB)...

Discover and Visualize Cross-tier Transactional Dependencies and Applications

Turn this...



... into clearly understood dependencies

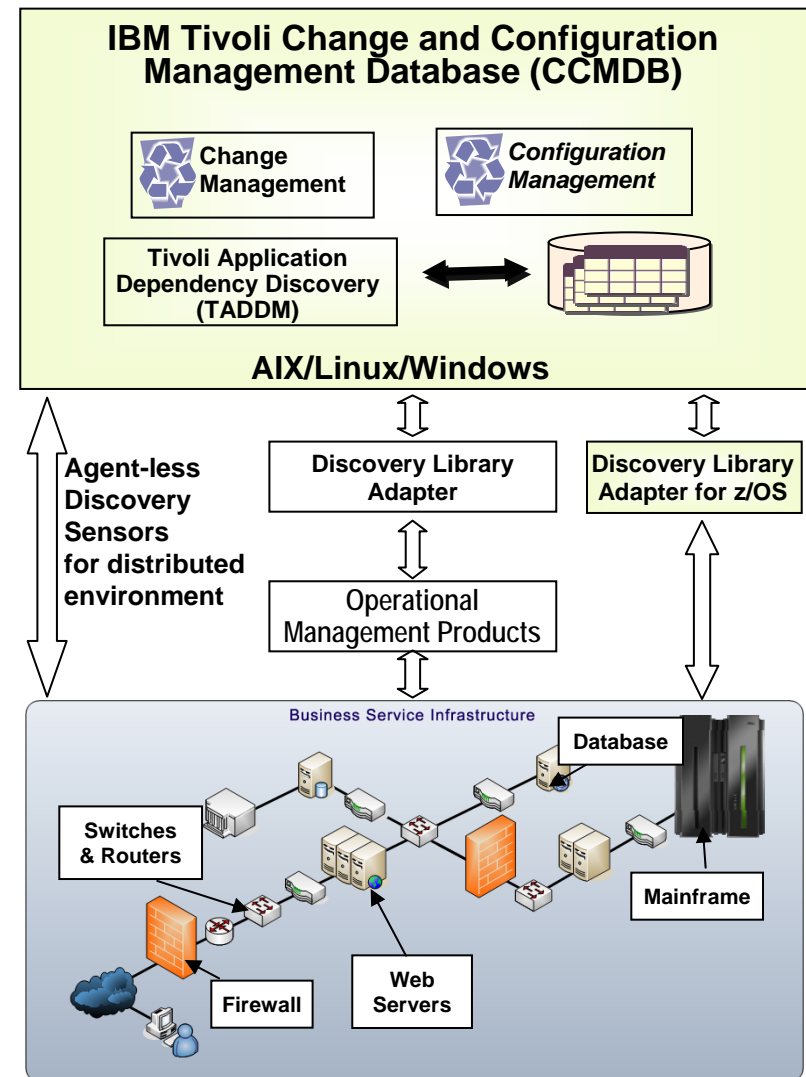


# IBM Tivoli CCMDB – Application Dependency Discovery, Change And Configuration Management

## ■ 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



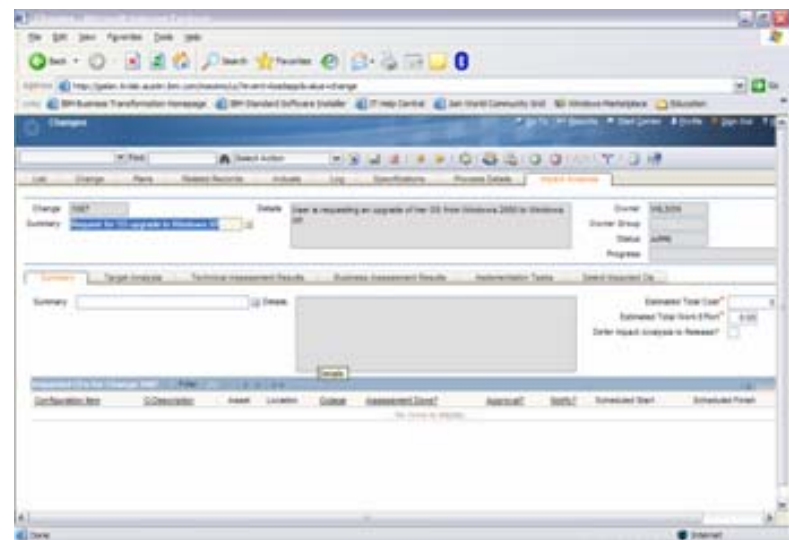
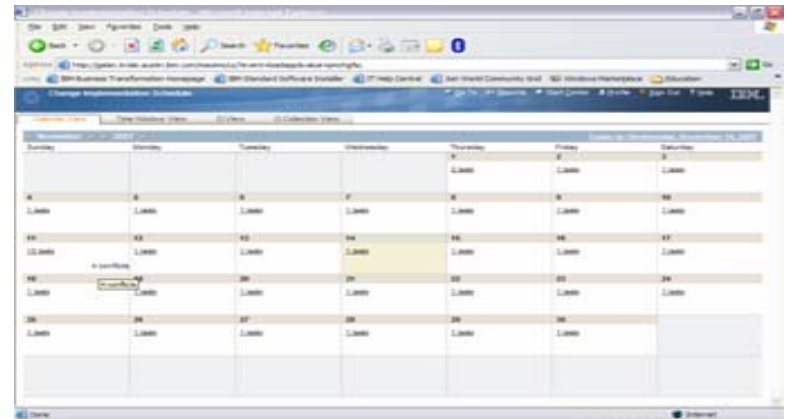
# IBM Tivoli CCMDB Discovery Capabilities

- 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)\***
- 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\***

\*Discovery on System z

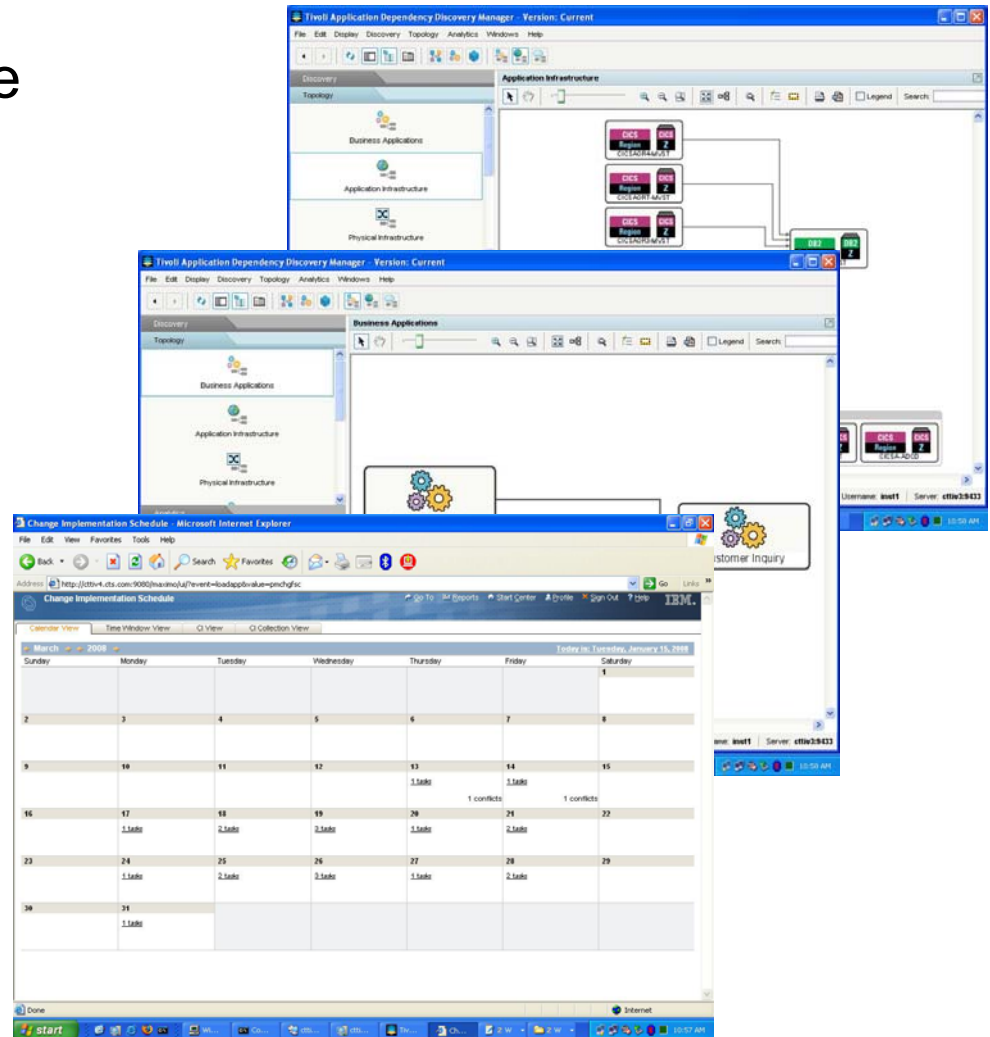
# Manage Change With IBM Tivoli CCMDB

- 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



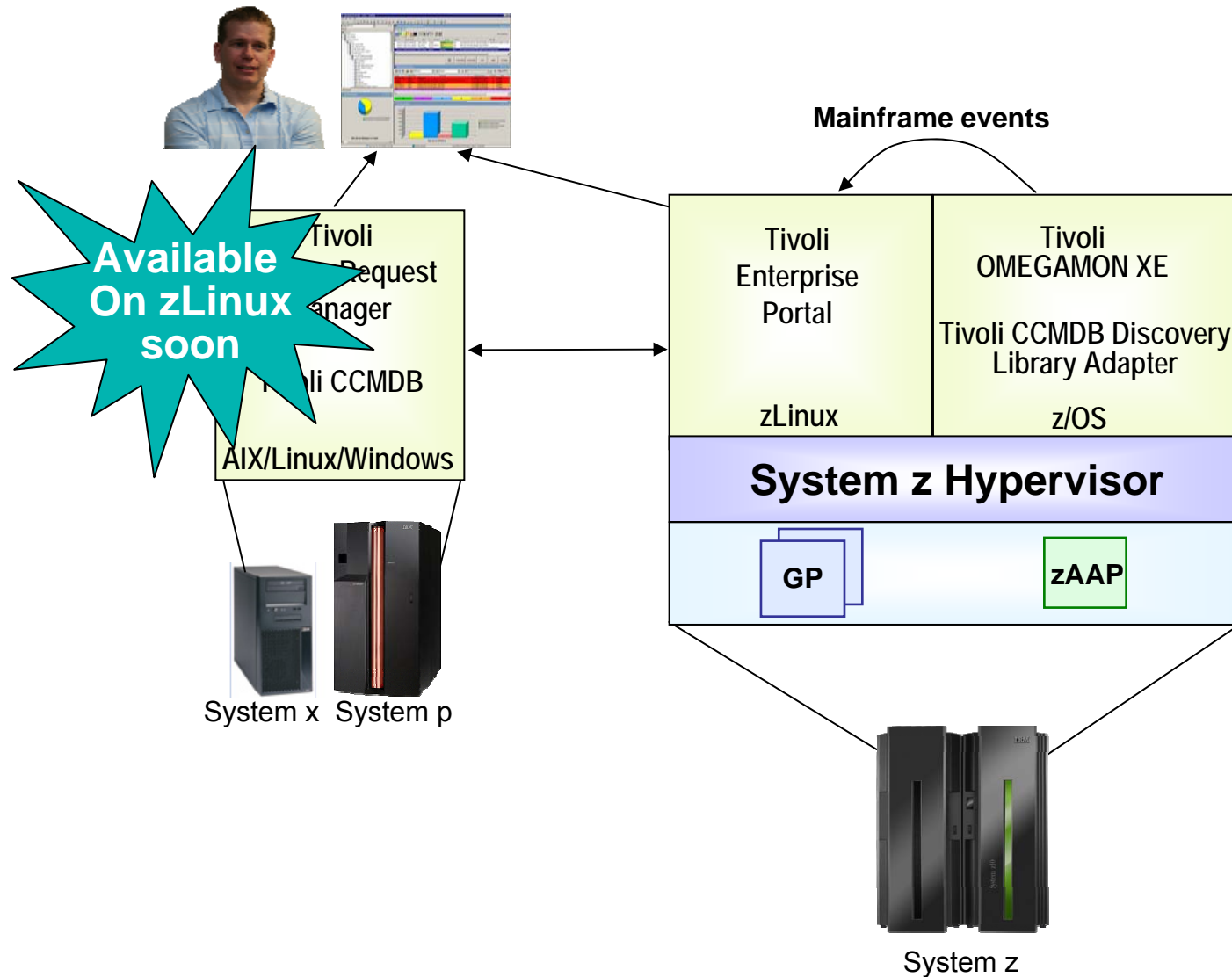
# DEMO: Check For Schedule Conflicts

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

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



**Successful  
Employee**



**IBM**

