



Microsoft®

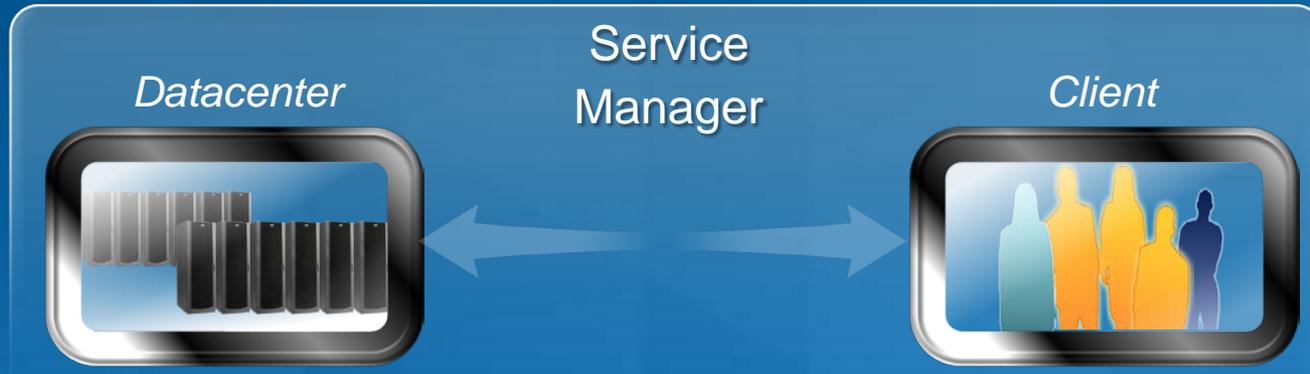
System Center

Service Manger Overview and Building a CMDB with Microsoft System Center Products

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Microsoft US Education

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Manager, Enterprise Management &
Monitoring Services

Addressing the Challenges with System Center



**Improve
Service Delivery**

**Demonstrate
Compliance**

**Decrease
Costs**



Microsoft®
System Center

Physical

Virtual

**Microsoft Platform
Skills + Technology
+ Ecosystem**

**Knowledge
Best Practices
+ Design**

**Automation
Action + Workflow +
Optimization**

**Integration and
Centralization**

Service Manager : The Power is in the Integration



SELF SERVICE



**COMPLIANCE
AND RISK**



IT ANALYST



IT MANAGEMENT



Active Directory

Microsoft
System Center
Configuration Manager

Microsoft
System Center
Operations Manager

opalis

Microsoft®

System Center Service Manager

Integrated Platform for Orchestrating People, Process, and Technology

INTEGRATED

CMDB

IT Process and
Workflow
Automation

Service Maps



EFFICIENT

Self Service Portal

Automated
Notifications

Knowledge Base



BUSINESS ALIGNED

IT Business
Intelligence

Compliance and
Risk Management

Asset Lifecycle
Management



Incident Management

Restore Service Quickly

- Accurate and Efficient Recording
- Automation through workflows
- Integrated Experience

- Incident KPI reports
- Knowledge reduces time
- Problem management - pro active approach to Incident management
- Create problem from multiple incidents
- Link problem to incidents, change requests
- Auto resolve incidents

The screenshot displays the Microsoft Operations Manager (MOM) Incident Management console. The main window shows a problem titled "PR1128 : Pro tip memory utilization errors from Virtual Machine Manager" with a status of "Resolved". The console is divided into several sections:

- Work Items:** A table listing related incidents.
- Configuration Items: Computers, Services and People:** A table for related configuration items.
- Knowledge Articles:** A table listing knowledge articles.
- Attached Files:** A table for files attached to the incident.

On the right side, there is a "Tasks" pane with actions such as "Change Status", "Close", "Create Change Request", "Print", "Reactivate", and "Resolve".

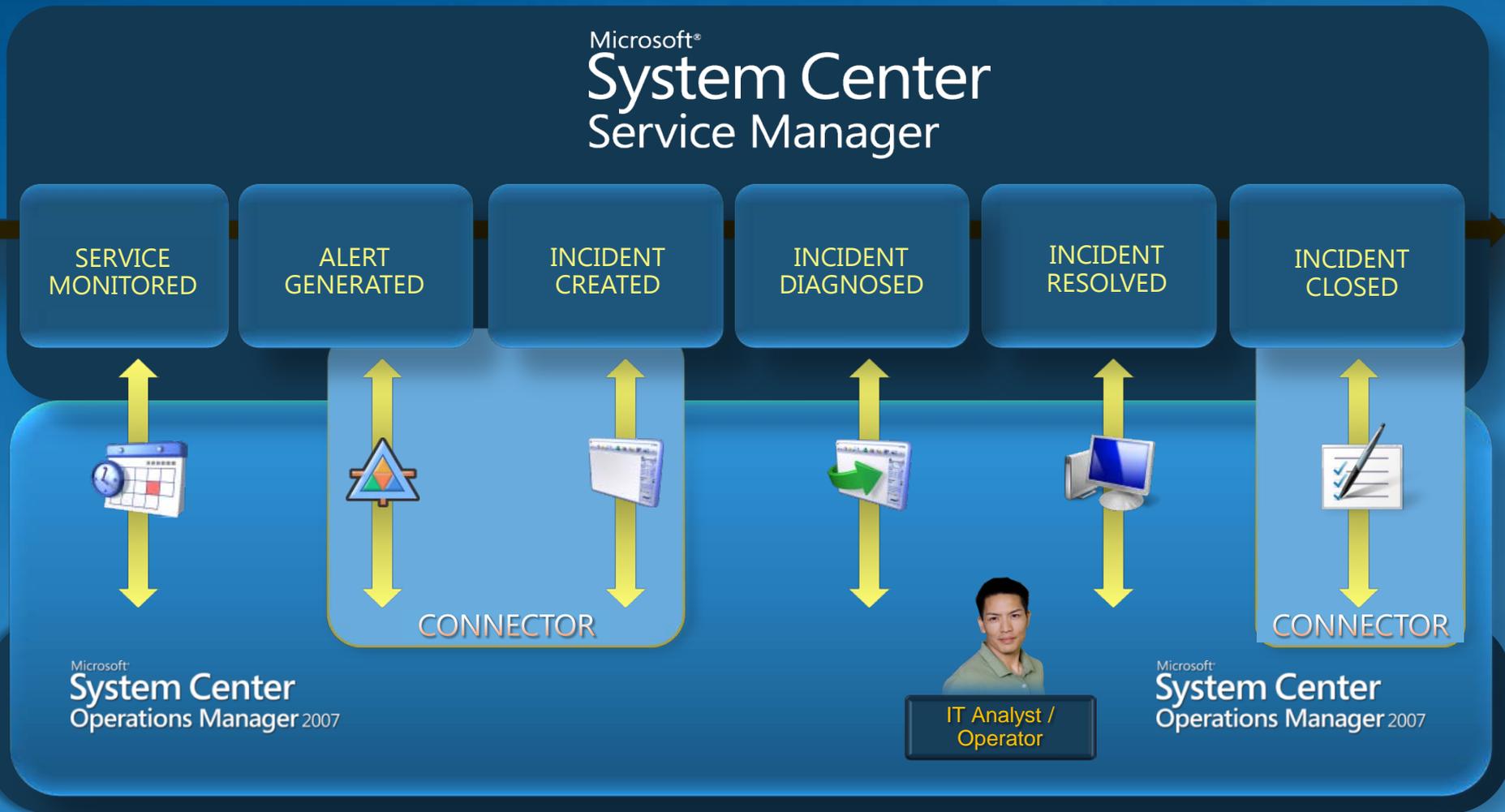
ID	Type	Title	Status	Last Modified
IR602	Operations Manager-Generated Incident	IR602 - PRO Mer	Active	3/1/2010 6:53:40 AM
IR1098	Operations Manager-Generated Incident	IR1098 - PRO Mer	Active	3/14/2010 1:49:27 AM
IR784	Operations Manager-Generated Incident	IR784 - PRO Mer	Active	3/5/2010 4:17:43 AM
IR1024	Operations Manager-Generated Incident	IR1024 - PRO Mer	Active	3/12/2010 6:17:31 PM
IR944	Operations Manager-Generated Incident	IR944 - PRO Mer	Active	3/8/2010 3:48:23 AM

ID	Type	Name	Status	Last Modified
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ID	Type	Name	Last Modified
KA10	Knowledge Article	KA10: Pro tip memory utilization errors	3/14/2010 9:02:30 PM

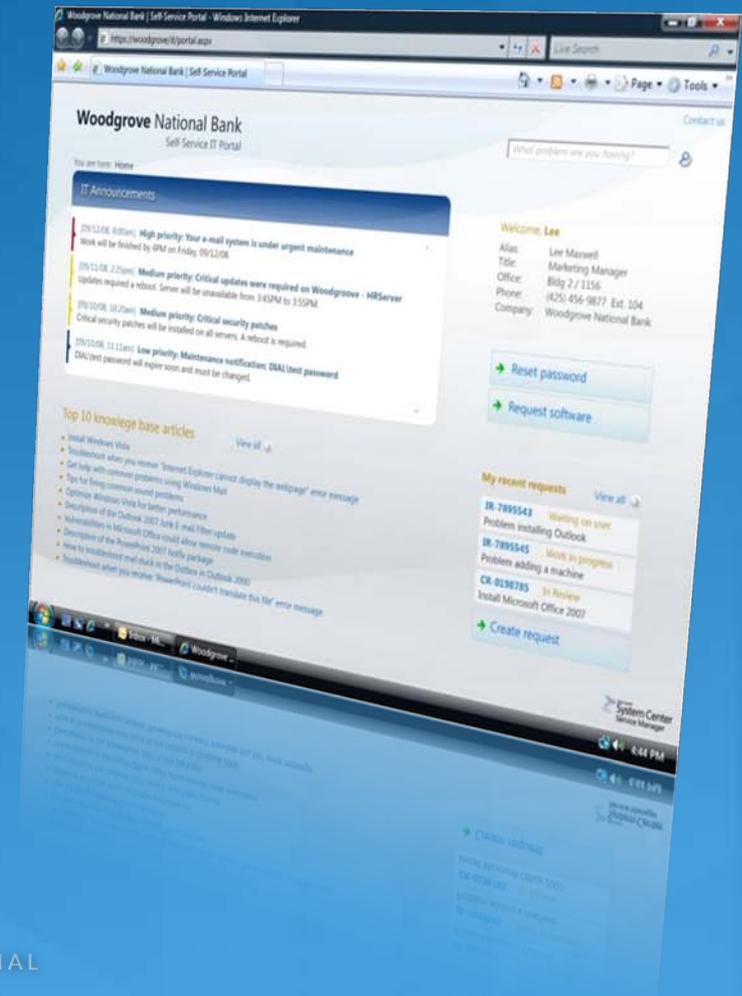
File Name	Attached By	Size (KB)	Attached Date
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Scenario: Automating SCOM Alert → Incident



Integrated Self-Service Portal

- Provision Software
- Reset Passwords
- Create/view service requests
- View announcements
- Search/view knowledge base



Scenario: Automating End-user Software Request

Microsoft® System Center Service Manager

Create
Packages &
Programs



Configure
SM Portal



User
Requests
Software



Manager
Approves
Request



Advertisement
Delivered



Software
Deployed



Microsoft®
System Center
Configuration Manager



End User



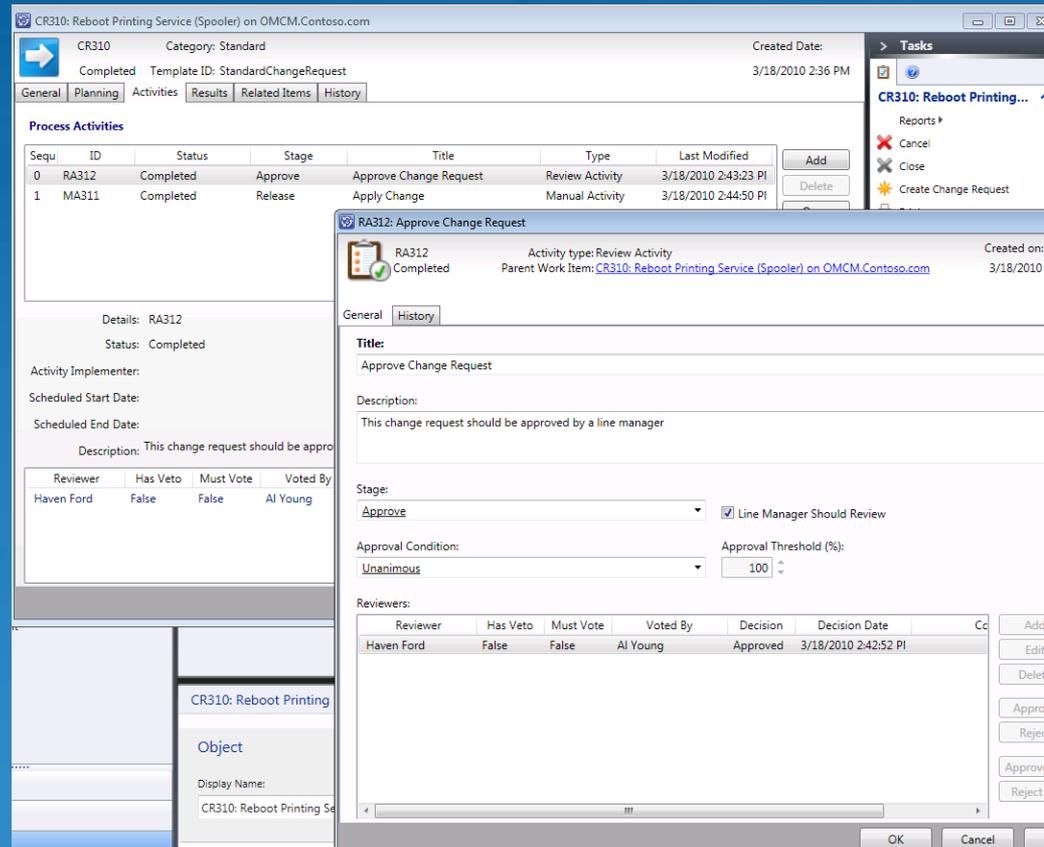
Manager

Microsoft®
System Center
Configuration Manager

Change Management

Minimize errors and reduce risk

- Standard processes
 - Introduce changes in IT environment
 - Minimize disruption to ongoing operations
- Efficiently create change requests through templates
 - OOB Change Models
 - Easy to Configure
- Integration with CMDB, Incident, Problem Mgmt



The screenshot displays the Microsoft Change Management interface. The main window shows a change request (CR310) titled "Reboot Printing Service (Spooler) on OCMC.Contoso.com". The status is "Completed" and the template ID is "StandardChangeRequest". The "Process Activities" table lists two activities:

Sequ	ID	Status	Stage	Title	Type	Last Modified
0	RA312	Completed	Approve	Approve Change Request	Review Activity	3/18/2010 2:43:23 PM
1	MA311	Completed	Release	Apply Change	Manual Activity	3/18/2010 2:44:50 PM

The "Details" section for activity RA312 shows it is "Completed" and implemented by "Haven Ford". The description is "This change request should be approved by a line manager". The "Reviewers" table shows that "Haven Ford" has vetoed the request, while "Al Young" has approved it.

Reviewer	Has Veto	Must Vote	Voted By	Decision	Decision Date
Haven Ford	False	False	Al Young	Approved	3/18/2010 2:42:52 PM

Scenario -- Always Ready for an IT Audit



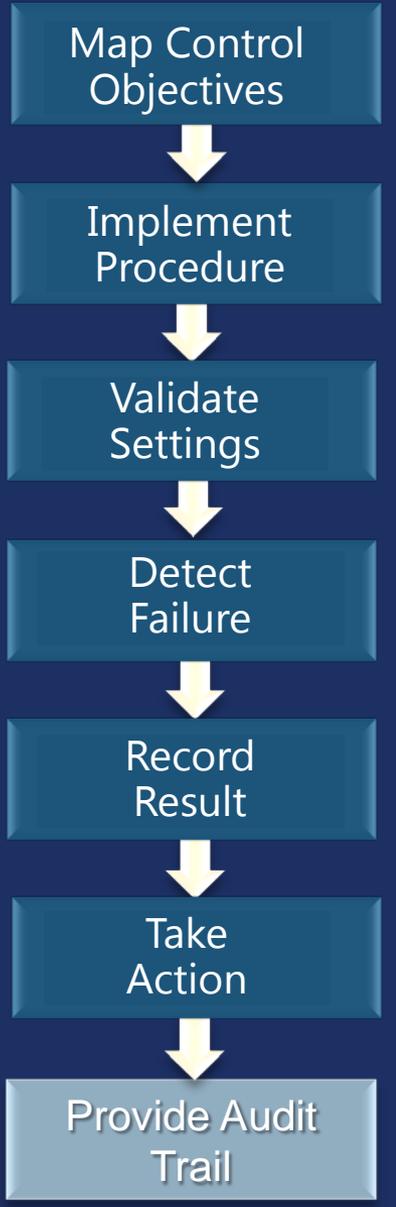
**GRC
Program
Manager**

Microsoft
**System Center
Service Manager**



**Operations
Engineer**

Managing Compliance



Activities

- Process controls
- Configuration settings
- Monitoring



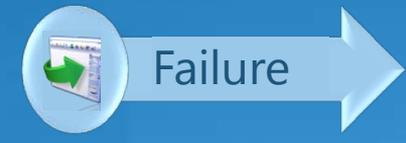
Automation

Microsoft System Center Configuration Manager

Microsoft System Center Operations Manager 2007



Reporting



Actions

- Change control
- GRC incident/issue
- GRC problem



Audit Trail

- Compliance Reports
- Compliance History



Scenario: Automating Compliance with DCM

Microsoft® System Center Service Manager

CLIENT
MANAGED



DCM
DRIFT

INCIDENT
CREATED



INCIDENT
DIAGNOSED



CHANGE
REQUESTED



REMEDIATION
ACTION



Microsoft®
System Center
Configuration Manager



IT Analyst /
Operator

Microsoft®
System Center
Configuration Manager

Data Warehouse: Business Intelligence for IT



Integrated across System Center

- Demonstrate performance
- Identify opportunities for service improvements

Data Warehouse repository database

- Database Performance
- Model data and prune to the right subsets
- Built on SQL Reporting services
- Model-driven

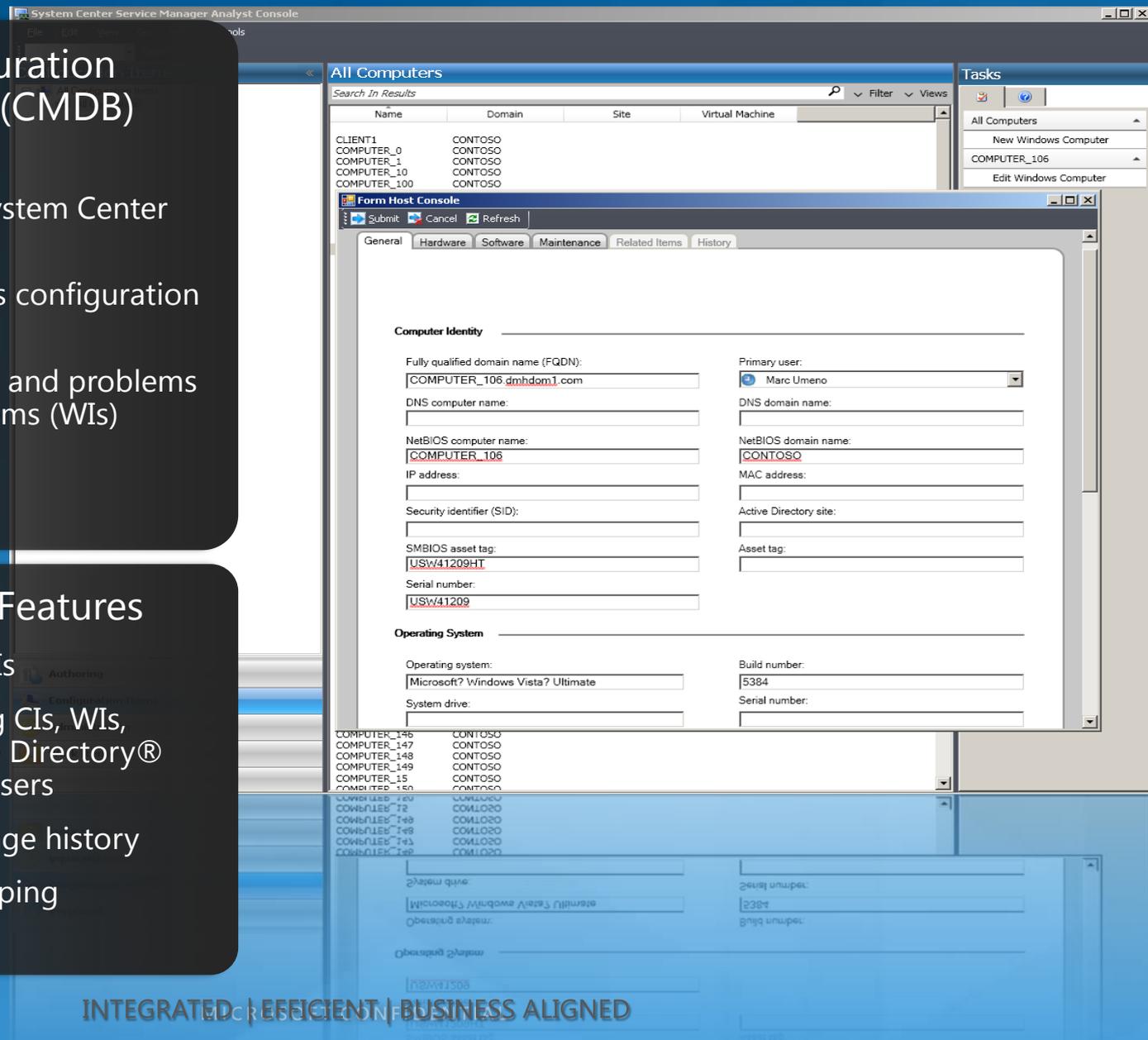
Integrated System Center CMDB

Service Manager Configuration Management Database (CMDB) Schema

- Common schema across System Center products
- IT assets are represented as configuration items (CIs)
- Incidents, change requests, and problems are represented as work items (WIs)

Service Manager CMDB Features

- Create, update, and view CIs
- Create relationships among CIs, WIs, IT professionals, and Active Directory® Domain Services (AD DS) users
- Automatically track CI change history
- Service definition and mapping



CMDB Creation – Auto-Discovery or Not?

- Auto-Discovery collects data that is not valuable
- Significant time can be spent going through data
- Most efficient method of creating a CMDB a discovery of information from systems of record
- A CMDB product should be flexible to receive information from multiple products, not just the vendor selling the CMDB

Active Directory Connector

- Syncs with your AD Domain
- Uses a Service Manager service account to do discovery
- Can point to individual OUs or entire Domain

Edit AD Connector: WIN Domain User Connector

General

Domain/OU

Select objects

Enter a name and description for the connector

Name:
Active Directory Domain User Connector

Description:

Enable this connector

Domain/OU

Select a domain or organizational unit

Server Information

Specify which Active Directory domain or organizational unit (OU) to connect to.

Use the domain: [redacted].edu

Let me choose the domain or OU

LDAP://OU=PEOPLE,DC=[redacted].edu

Credentials

Run As account:
Operational System Account

Select objects

Select objects

Select objects

You can select all computers, printers, users and user groups from the specified domain or organizational unit (OU), or you can select individual computers, printers, users or user groups.

All computers, printers, users and user groups

Select individual computers, printers, users or user groups

Selected Objects

ConfigMgr Connector

Syncs with your SCCM Hierarchy

Uses a Service Manager service account to do discovery

General Hardware Software Related Items Notes History

Computer Identity

Principal name: [redacted]@edu Primary user: Brian Doherty

DNS Name: [redacted]@edu DNS Domain Name: [redacted]@edu

NetBIOS Computer Name: JHMMSCOMB5L NetBIOS Domain Name: [redacted]

IP Address: 10.10.10.100 MAC Address:

Active Directory SID: S-1-5-71-1214440330-[redacted]-725345643-3547792 Active Directory Site:

SMBIOS Asset Tag: Last Inventory Date: Thursday, March 31, 2011 11:19:00 AM

Serial Number: [redacted] Is virtual machine:

Operating System

Operating System Version Display Name: Windows Server 2003 Build Number: 3790

System Drive: C:\WINDOWS\system32 Serial Number: 76868-643-3957747-50214

Manufacturer: Microsoft Corporation OS Language: 1033

Install Date: 03/20/2008 13:28:00.000 Windows Directory: C:\WINDOWS

Processor (concrete) Intel(R) Xeon(R) CPU X5355 @ 2.66GHz Properties

General Related Items History

Display Name: Intel(R) Xeon(R) CPU X5355 @ 2.66GHz

Configuration Item

Asset Status: Notes:

Windows Logical Hardware Component

Device Identifier: CPU2 Device Name: Intel(R) Xeon(R) CPU X5355 @ 2.66GHz

Device Description: Intel(R) Xeon(R) CPU X5355 @ 2.66GHz

Processor (abstract)

Family: 2 Max Clock Speed: 2660

Type: 3 Brand Identifier: 0

Processor Cache: 73 CPU Key: 1783

Is Mobile: False Is Multicore: True

Processor (concrete)

Manufacturer: GenuineIntel Speed: 2660

Data Width: 64 Revision: 3847

Version: Model 15, Stepping 7 Perfmon Instances: 2

Operations Manager Connector

- Syncs with your SCOM Site
- Choose Management Packs defined in SCOM to be synced
- Can pull alert data for assigning incidents

Management Packs

Select the configuration items to import or reconcile with Operations Manager

The management packs that are new to Service Manager are marked as such and the configuration items from Operations Manager will be imported and kept synchronized. Please note that only those configuration items derived from a pre-defined list of classes in the configuration file will be imported.

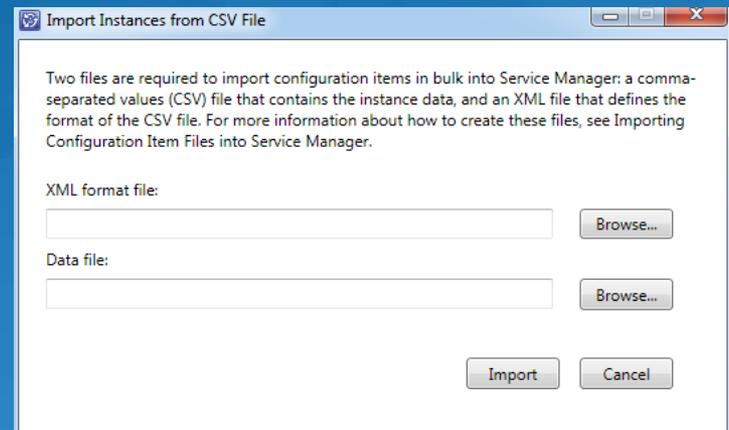
Refresh

Management Packs	Operations Manager Version	
<input checked="" type="checkbox"/> Microsoft.Windows.Server.2000	6.0.6667.0	7.0.0
<input checked="" type="checkbox"/> Microsoft.Windows.Library	6.1.7221.0	7.0.0
<input checked="" type="checkbox"/> Microsoft.SystemCenter.ACS.Internal	6.1.7221.0	6.1.0
<input checked="" type="checkbox"/> Microsoft.Windows.Server.2008.Discovery	6.0.6667.0	7.0.0
<input checked="" type="checkbox"/> Microsoft.Windows.Client.XP	6.0.6729.0	7.0.0
<input checked="" type="checkbox"/> Microsoft.Windows.Server.2003	6.0.6667.0	7.0.0
<input checked="" type="checkbox"/> eXcSoftware.nonWindows	7.0.0.8	7.0.0
<input checked="" type="checkbox"/> Microsoft.Windows.Cluster Library	6.1.7221.0	6.1.0

Select all

Custom Connectors

- Data can be uploaded from any source by using a CSV or XML file
- Future State of custom data imports is Opalis (System Center Orchestrator)
- Opalis brings a high level of customized automation and connectors to other systems



Custom Service Manager Forms

- For data that cannot be collected dynamically
- Meet with all stakeholders to determine any categories and fields required for your organization

New Virtual Server Form New Virtual Server ID: {0}

General Information | **Virtual Server Information** | Additional Services Requested | Request Information

System Information

Server Name: JHIMMSOMES1.win.ad.jhu.edu	Server Description: Operations Manager 2007 Management !
Primary Server Function: Application	Server Type: Virtual
System Status: Production	Warranty Expiration: 11/16/2011
<input type="checkbox"/> Cluster Node? (Please Check if yes)	Server Project:
<input type="checkbox"/> Candidate for Emergency Shutdown?	
<input type="checkbox"/> DR-Standby? (Please check if yes)	

Contact Information

System Owner: Brian Doherty	Direct Report: John Taylor
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New Virtual Server Form New Virtual Server ID: {0}

General Information | Virtual Server Information | **Additional Services Requested** | Request Information

Virtual Server Configuration

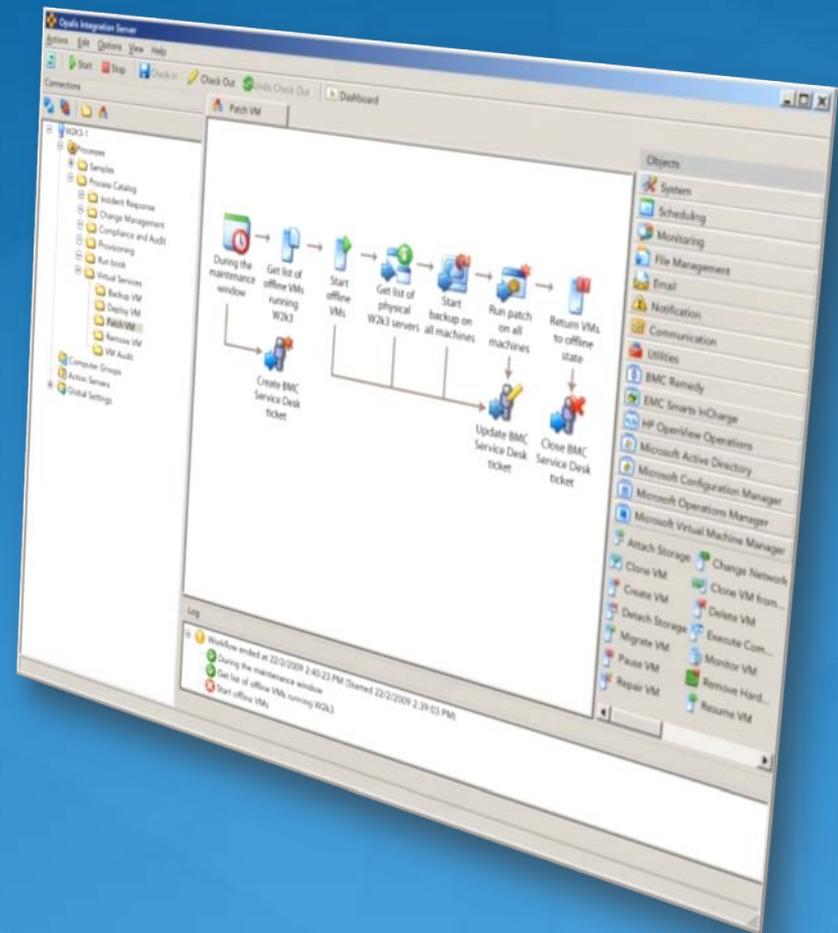
Data Center: 1830 DataCenter	System Uptime SLA: 24 x 7
Operating System Requested: Image - DCS x64 Windows Server 200	Virtual Memory Requested: 6GB
Boot Partition Size: 30	Data Partition Size:
CPU's Requested: 2	Additional Data Partition: 30

Additional Configuration Information

Network Load Balancing Required? No	Multiple IP addresses Required? No
SRM Requested: No	

Service Manager – Opalis Integration

- Provides pre-built activities that allow Opalis workflows to interact with Service Manager
- Automates interactions with other System Center products
- Interoperates with 3rd Party Service Desk Systems
- Service Manager Integration Pack Available Q3CY2010



Workflows

- Important to map out workflows of current operations in Visio beforehand
- Work on approval structure of these workflows
- Work towards automation of the workflows with Opalis

The screenshot shows a software interface for managing a request. The title bar reads 'CR195: New Virtual Server Request'. The main area has tabs for 'General', 'Planning', 'Activities', 'Results', 'Related Items', and 'History'. The 'Activities' tab is active, displaying a table of process activities. The table has columns for 'Sequ', 'ID', 'Status', 'Stage', 'Title', 'Type', and 'Last Modified'. There are also 'Add', 'Delete', 'Open', 'Up', and 'Down' buttons to the right of the table. Below the table, there are fields for 'Details', 'Status', 'Activity Implementer', 'Scheduled start date', 'Scheduled end date', and 'Description'. At the bottom, there are 'OK', 'Cancel', and 'Apply' buttons.

Sequ	ID	Status	Stage	Title	Type	Last Modified
0	AC199	In Progress			New Virtual Server	4/4/2011 5:02:39 PM
1	RA198	Pending		Manager Approval Activity	Review Activity	4/4/2011 4:33:45 PM
2	MA197	Pending		Deploy Monitoring Activity	Manual Activity	4/4/2011 4:33:50 PM
3	MA196	Pending		Add to Backup Manual Activity	Manual Activity	4/4/2011 4:33:50 PM

Details: JHIMMSOMEBS1.win.ad.jhu.edu
Status: In Progress

Activity Implementer:
Scheduled start date:
Scheduled end date:
Description:

Lessons Learned

- If you need to create web forms for Service Manager, wait until Service Manager 2012!
- Get familiar with Opalis
- Ensure that you define any custom inventory fields in SCCM by editing the Service Manager mof file
- Provide Service Manager at least 4 Processors and 12GBs of RAM for the Data Warehouse
- Data coming from multiple sources can be redundant, ensure you define the authoritative source

Summary – Service Manager

Flexible *solutions* to automate common IT processes

- ITIL / MOF
- Workflows
- Self-service

Deep *integration* with other System Center products

- Configuration Mgr
- Operations Mgr
- Active Directory

Comprehensive, extensible *platform* for orchestrating people, processes, and systems

- Public SDK
- Tools for IT and Dev
- Connectors



Incident and Problem



Change



Portal



Workflows



Authoring



Knowledge Base



CMDB



Data Warehouse

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