如何利用 System Center Service Manager 實做 ITIL 流程

SCSM

Lesson objectives

- IT Service Management 的方法論
- 服務管理的必要性
- 意外管理 – Incident Management
- 問題管理 – Problem Management
- 變更管理 – Change Management
- 組態管理 – Configuration Management
- 服務台功能 – Service Desk Function

Methodologies for
IT Service Management

ITIL and MOF

IT Service Management

- **IT Service Management** *(ITSM) is a discipline for managing information technology (IT) systems, philosophically centered on the customer's perspective of IT's contribution to the business*
- **Systems management** *refers to enterprise-wide administration of distributed computer systems*

ITIL

- IT Infrastructure Library was developed by Office of Government Commerce (OGC)
- Current version is v3
- Main difference from v2 – ITIL adopted a Service Lifecycle model (similar to MOF)
  - Service Strategy
  - Service Design
  - Service Transition
  - Service Operation
  - Continual Service Improvement

ITIL version 2

Service Delivery	Service Support
Service Level Management Capacity Management Availability Management Financial Management IT Service Continuity Management	Service Desk (function) Incident Management Problem Management Software Asset Management Configuration Management Change Management Release Management

ITIL version 3

| Service Strategy	Service Design	Service Transition	Service Operation	CSI
Service Portfolio Management IT Financial Management Demand Management	Service Portofolio Design Service Catalogue Management Availability Management Capacity Management Continuity Management Security Management Supplier Management	Change Management Service Asset & Configuration Management Knowledge Management Release Management	Incident Management Problem Management Request Fulfillment Event Management Access Management Service Desk Technical Management IT Operations Management Application Management	Service Reporting Service Measurement Service Level Management

Microsoft Operations Framework

- MOF is a collection of best practices and guidance for establishing and implementing IT Services that are:
  - Reliable
  - Cost effective
- http://www.microsoft.com/MOF

MOF version 3

Changing Quadrant	Operating Quadrant	Supporting Quadrant	Optimizing Quadrant
Change Management Configuration Management Release Management	Directory Services Administration Job Scheduling Network Administration Security Administration Service Monitoring and Control Storage Management System Administration	Incident Management Problem Management Service Desk	Availability Management Capacity Management Financial Management Infrastructure Engineering IT Service Continuity Management Security Management Service Level Management Workforce Management

MOF version 4

- MOF v4 has three phases:
  - Plan
  - Deliver
  - Operate
- Manage Layer spans all phases
- Service Management Functions (SMFs) describe the major activities
- Management Reviews are integrated in the phases
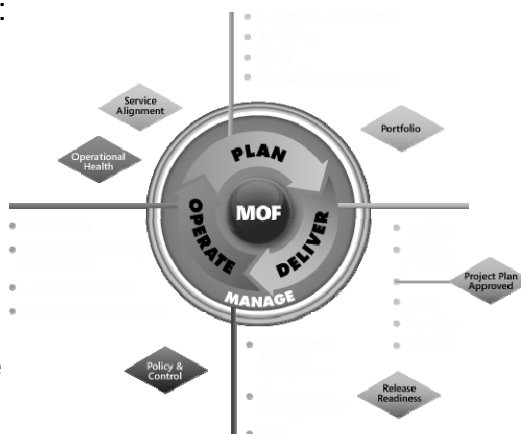
The need for Service Management

Orchestrating People, Processes and Technology

The Today IT Challenges

- Quickly adapt to the ever-changing business needs
- Keep track of current capabilities
- Estimate the business impact of service outages
- Optimize resources, integrate and streamline activities
- Demonstrate compliance and optimize the application of corrective measures

Service Management objectives

Aligning IT to Business	• Deliver value for the IT investment • Ensure IT governance, risk, and compliance • Adapt to ever-changing needs of the organization
Supporting Users and their Devices	• Provide choice and flexibility • Offer support, anywhere, anytime • Increase responsiveness and satisfaction
Managing Data Center Services	• Reduce downtime, lower time to resolution • Improve reliability • Make it easier to manage compliance

What Framework to adopt?

- IT Infrastructure Library (ITIL)
  - De-facto industry standard
  - Platform independent
  - Generic processes
- Microsoft Operations Framework (MOF)
  - Based on ITIL
  - Best practices from Microsoft, partners and customers
  - Includes prescriptive guidance

Incident Management

Restoring service operation and
maintaining service levels

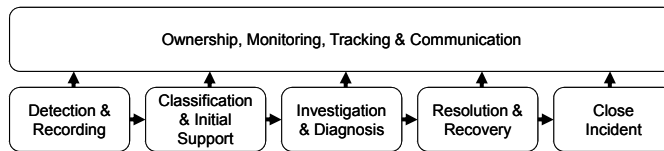# Incident Management   ITIL

- Incident Management – a process to restore normal service operation as quickly as possible with minimum disruption to the business, ensuring that the best achievable levels of availability and service are maintained.

- An Incident is an unplanned interruption to an IT service or reduction in the quality of an IT service.
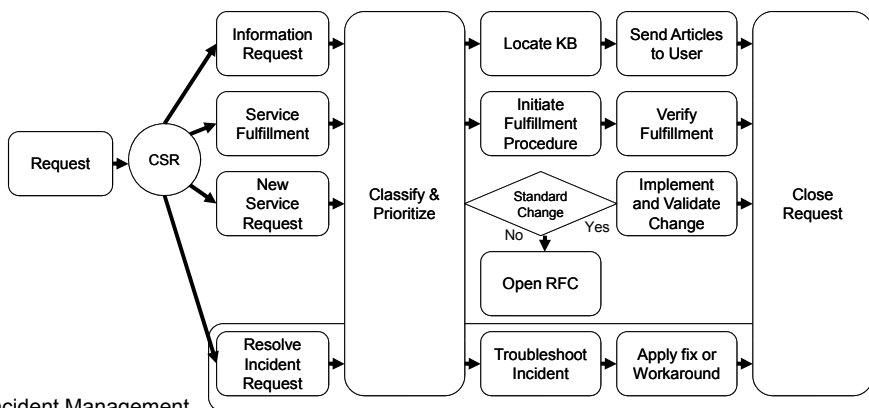
Incident Management process

ITIL

- Incident detection and recording
- Classification and initial support
- Investigation and diagnosis
- Resolution and recovery
- Incident closure
- Incident ownership, monitoring, tracking and communication

Ownership, Monitoring, Tracking & Communication

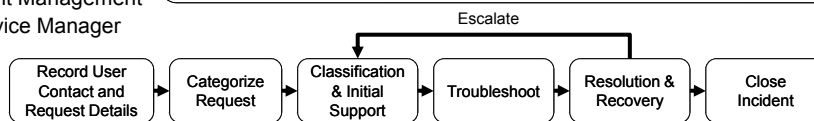| Detection & Recording	Classification & Initial Support	Investigation & Diagnosis	Resolution & Recovery	Close Incident

Incident Management

Customer Service SMF
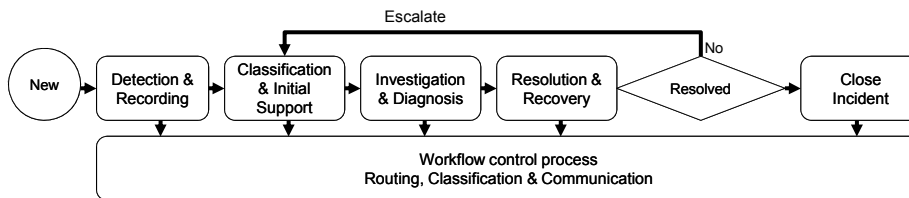
Incident Management in Service Manager

Incident Management

Incident Management
in Service Manager

Incident Request

Incident Management features

- Embed standard process:
  - Define escalations
  - Define categories
- Predefined templates ensure accurate and efficient recording
- History and knowledge base supports fast diagnosis
- Automatic incident creation with Desired Configuration Management (DCM) errors and Operations Manager alerts

System Center

Problem Management

Minimize the adverse effect on the business caused by Incidents and Problems
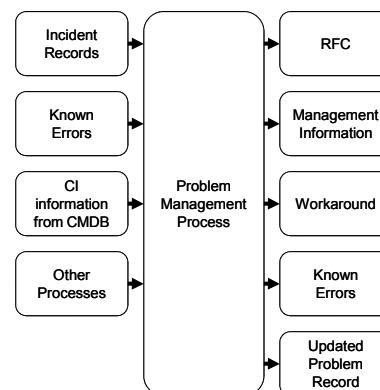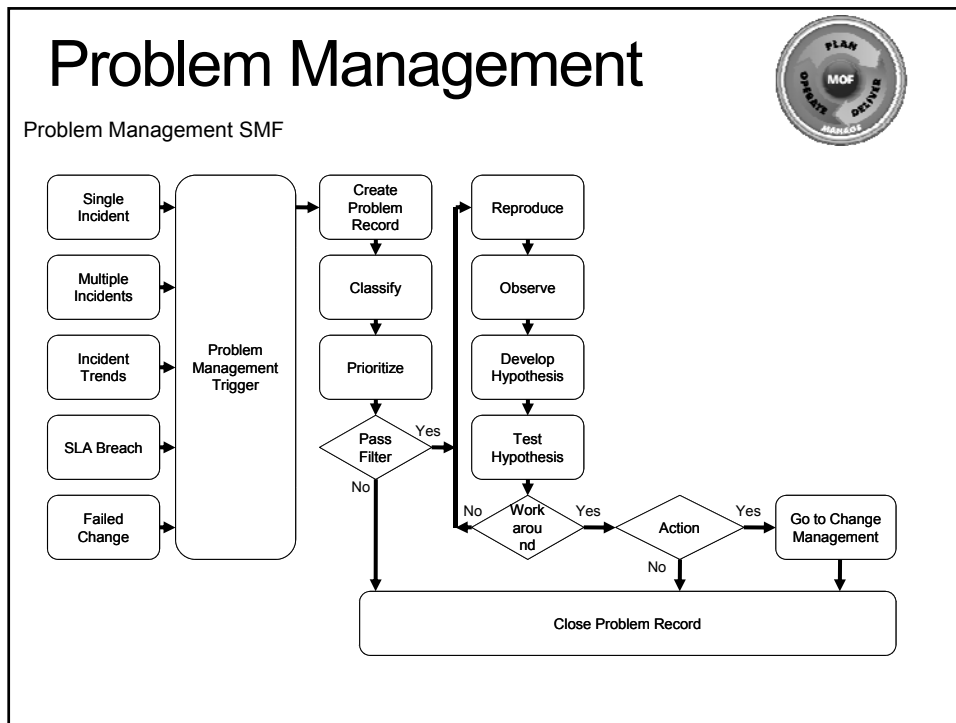
Problem Management   ITIL

- Problem Management – a process to minimize the adverse effect on the business caused by Incidents and Problems and to proactively prevent their occurrence.
- A Problem is an unknown underlying cause of one or more Incidents.
- A Known Error is a problem for which the root cause is known and for which a temporary workaround or permanent alternative has been identified.

Problem Management process

ITIL

- Inputs:
  - Incident Records
  - Known Errors
  - CI Information from CMDB
  - Information from other processes
- Outputs:
  - RFCs (Request for Change)
  - Management Information
  - Workarounds
  - Known Errors
  - Update Problem Records

Incident Records		Problem Management Process		RFC
Known Errors				Management Information
CI information from CMDB				Workaround
Other Processes				Known Errors
				Updated Problem Record

Problem Management

Problem Management SMF

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Change Management

Ensure changes are recorded and managed
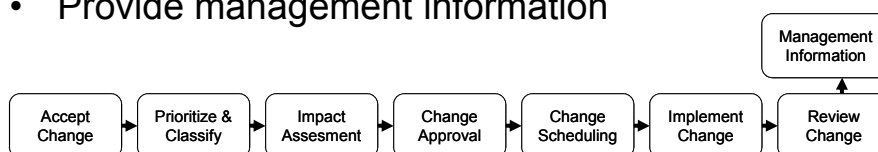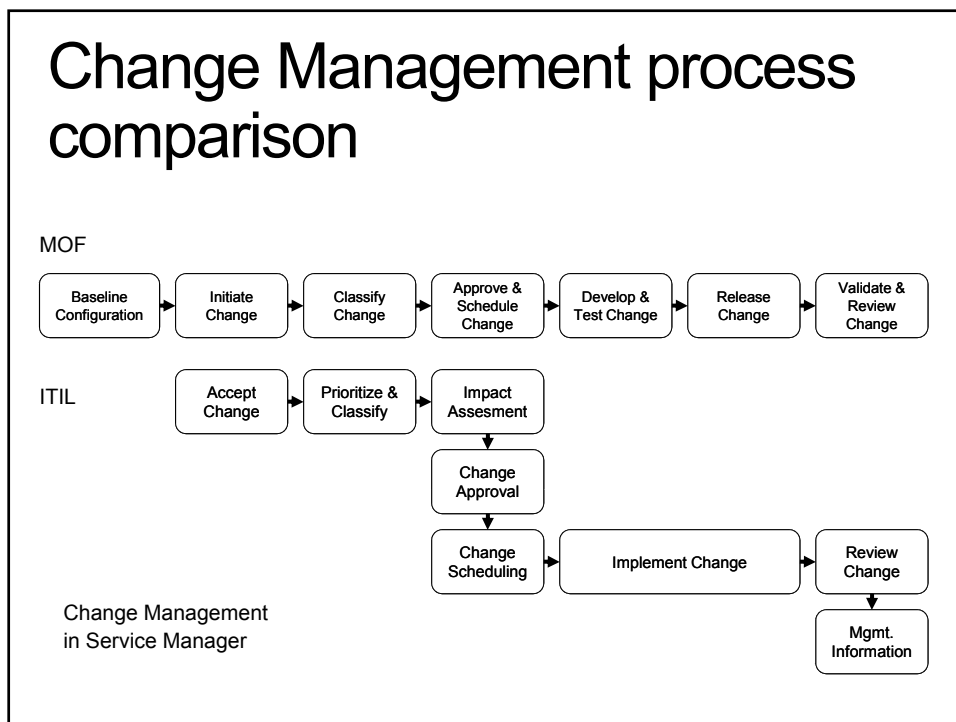
Change Management   ITIL

- Change Management – a process to ensure that changes are recorded, managed, authorized, prioritized, planned, tested, implemented, documented and reviewed in a controlled manner.
- The purpose of Change Management is to respond to the customer changing business requirements while maximizing value and reducing incidents, disruption and re-work and their impact on the business.

Change Management process
ITIL

- Accept Changes
- Prioritize and classify changes
- Coordinate change impact assessment
- Coordinate approval of changes
- Coordinate scheduling of changes
- Coordinate implementation of changes
- Conduct post implementation reviews
- Provide management information

Accept Change → Prioritize & Classify → Impact Assesment → Change Approval → Change Scheduling → Implement Change → Review Change → Management Information

Change Management

Change and Configuration SMF

Baseline Configuration	Initiate Change	Classify Change	Approve & Schedule Change	Develop & Test Change	Release Change	Validate & Review Change
Define Configuration Data	Initiate an RFC	Identify Priority	Route Change to Approval	Design the Change	Release Change	Validate Technical Success
Audit CMS Content	Check Technical Configuration	Identify Category	Process Standard Changes	Identify Configuration Dependencies	Stabilize the Change	Validate Business Success
	Check Business Process	Update the RFC	Analyze Impact	Build & Test Change	Get final Customer Approval	Audit Configuration Database
	Identify Business Impact		Approve, Reject or more Info	Review Change Readiness	Document & Communicate Change	Communicate and Record Change
	Update the RFC		Update the RFC	Update the RFC	Transfer Ownership to Operations	Update the RFC
					Update the RFC	

Change Management process comparison

MOF

Baseline Configuration	Initiate Change	Classify Change	Approve & Schedule Change	Develop & Test Change	Release Change	Validate & Review Change

ITIL

Accept Change	Prioritize & Classify	Impact Assesment

Change Approval

Change Scheduling → Implement Change → Review Change → Mgmt. Information

Change Management in Service Manager

Change Request

Change Management features

- Embed standard processes
  - Review stages and activities
  - Fields for standard information like change type and priority
- Efficiently create change requests:
  - From Configuration Items
  - From incident management
- Fill in information quickly using templates:
  - Predefined templates
  - Flexibility to adapt

Configuration Management

Correlating IT Services and their configuration

Configuration Management ITIL

- Service Asset and Configuration Management – a process to provide a logical model of the IT infrastructure by correlating IT services and physical and logical components needed to deliver these services.

- A Configuration Item (CI) is a component of the infrastructure that is under control of Configuration Management.

- The management of Configuration Items is performed using a Configuration Management Database (CMDB)

Configuration Management

- Plan for Configuration Management databases and activities
- Identify Configuration Items
- Control Configuration Item information
- Perform status accounting
- Perform verification and audit of Configuration Management databases
- Provide management information about Configuration Management quality and operations

ITIL

| Plan CMDB and activities | → | Identify CI | → | Control CI | → | Status Accounting | → | Verification & Audit | → | Management Information |

Configuration Item - Computer

Data Integration

- Connectors sync data from other systems
- Merge automatically mapped data from multiple sources into same CMDB items
- Included with the product
  - Active Directory
  - System Center Configuration Manager
  - System Center Operations Manager
- Create Incidents for Desired Configuration Management (DCM) errors and Operations Manager alerts
- Separate project for: Dynamics, Visual Studio
- External sources:
  - CSV import
  - HP Service Manager, BMC Remedy & Atrium CMDB
  - Partners

Service Desk function

Service Desk serves as a Single Point of Contact between the users and IT Service Management
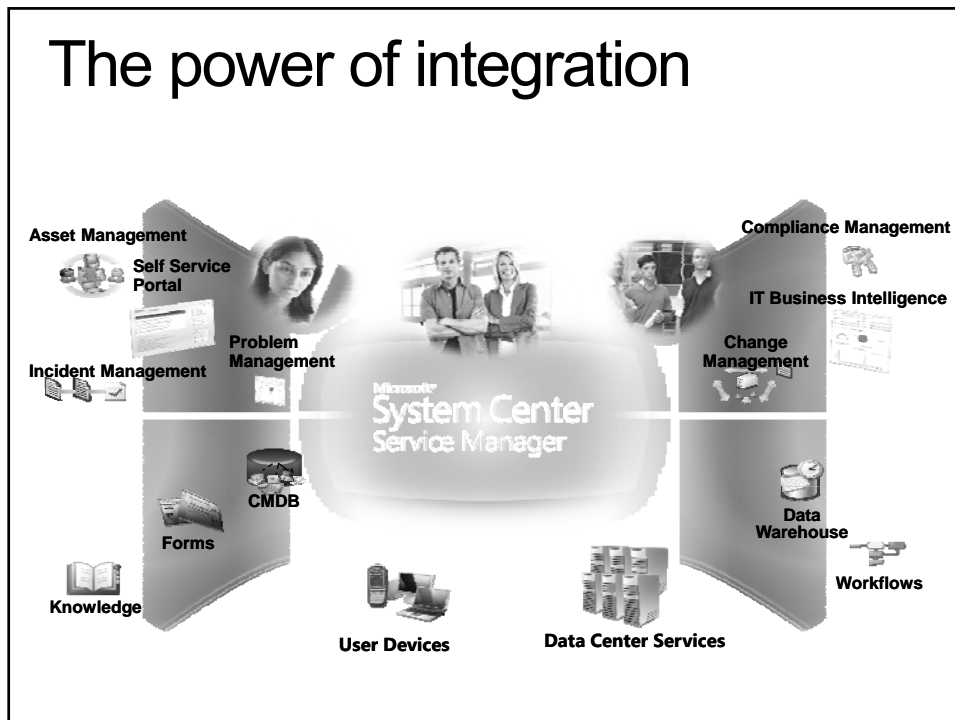
Service Desk   ITIL

- Service Desk – a function that serves as a Single Point of Contact (SPOC) between the users and IT Service Management.
- Service Desk is closely linked with Incident Management and the shared purpose is to restore the normal service to the users as quickly as possible, with reasonable costs.

Service Desk activities   ITIL

- Provide advice and guidance to customers
- Communicate and promote IT services
- Manage and control service communications to customers, suppliers and the business
- Coordinate Incident Management activities
- Manage people, processes and technologies that form the contact infrastructure
- Provide management information about Service Desk quality and operations

The power of integration

Asset Management

Self Service Portal

Problem Management

Incident Management

CMDB

Forms

Knowledge

User Devices

Microsoft
System Center
Service Manager

Data Center Services

Compliance Management

IT Business Intelligence

Change Management

Data Warehouse

Workflows

Summary

- The need for Service Management
- Incident Management
- Problem Management
- Change Management
- Configuration Management
- Service Desk Function

Microsoft

Your potential. Our passion.™