



# MOF- 微軟的ITIL實戰策略

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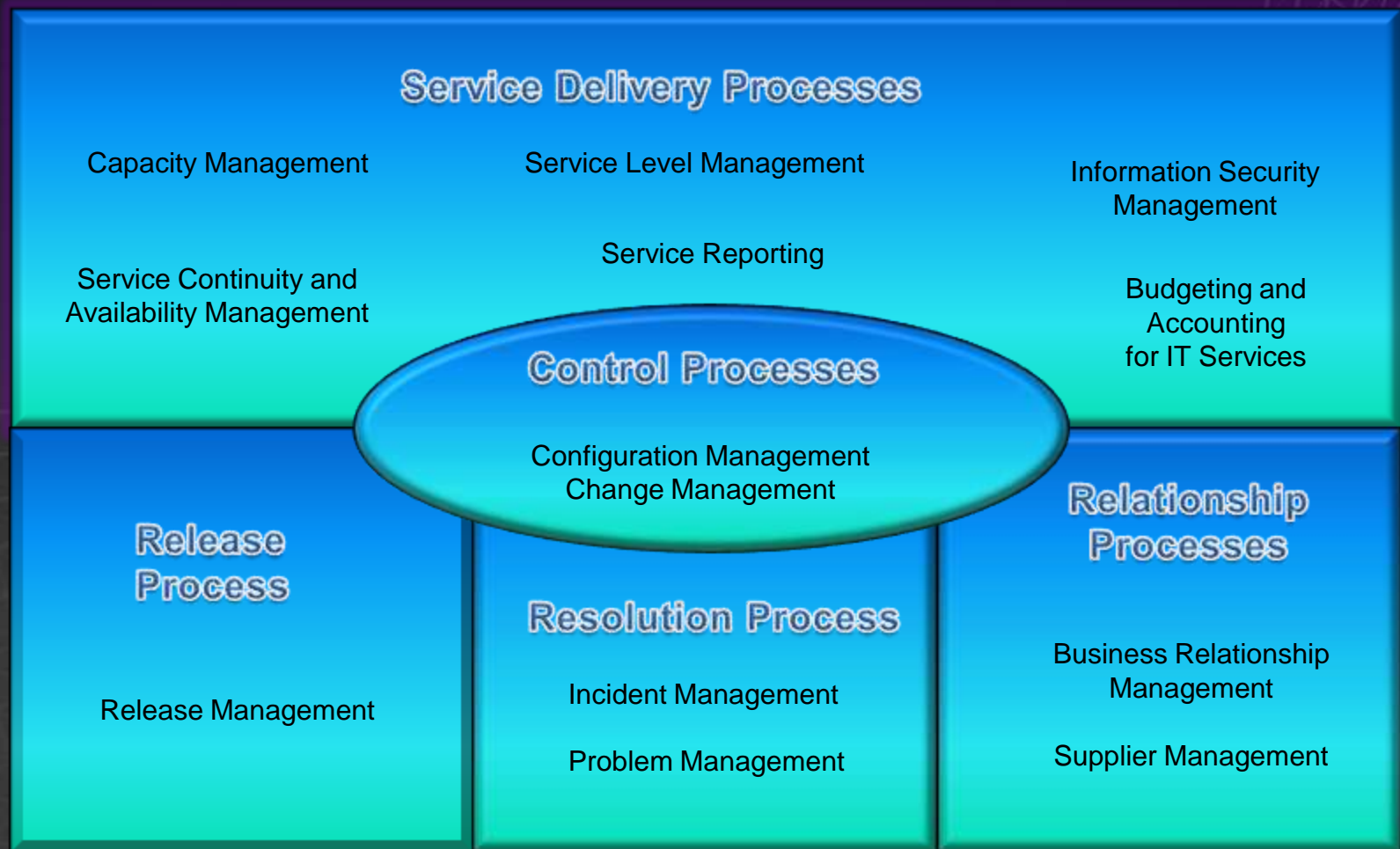
# Agenda

- ISO 20000, ITIL and MOF 簡介
- ISO 20000, ITIL and MOF 之間的關係
- MOF V4 介紹
- MOF Job Aids, Solution Accelerators 及 Service Offering 介紹
- 總結

# Service Management 服務管理

- ISO/IEC 20000-1:2005 條款 2.14
  - Management of services to meet the **business requirement**
- itSMF
  - Service Management is a set of specialized organization capabilities for providing value to customers in the form of services
  - The capabilities include all of the **processes, methods, functions, roles and activities** that a Service Provider uses to enable them to deliver services to their customers

# ISO 20000 服務管理流程



# ITIL

- Information Technology Infrastructure Library
- ITIL 是 IT 服務管理 Best Practice 的 framework, 由英國的 Office of Government Commerce (OGC) 開發而成, 廣為全球所使用
- 包含一系列的核⼼書籍, 提供具品質的 IT 服務的指引
  - V1 – Published between 1989 and 1995 (31 books)
  - V2 – Published between 2000 and 2004 (11 books, 2 main books are Service Support and Delivery)
  - V3 – Published in 2007 (5 core books)

# ITIL

## ITIL V3 架構

### Service Strategy (SS)

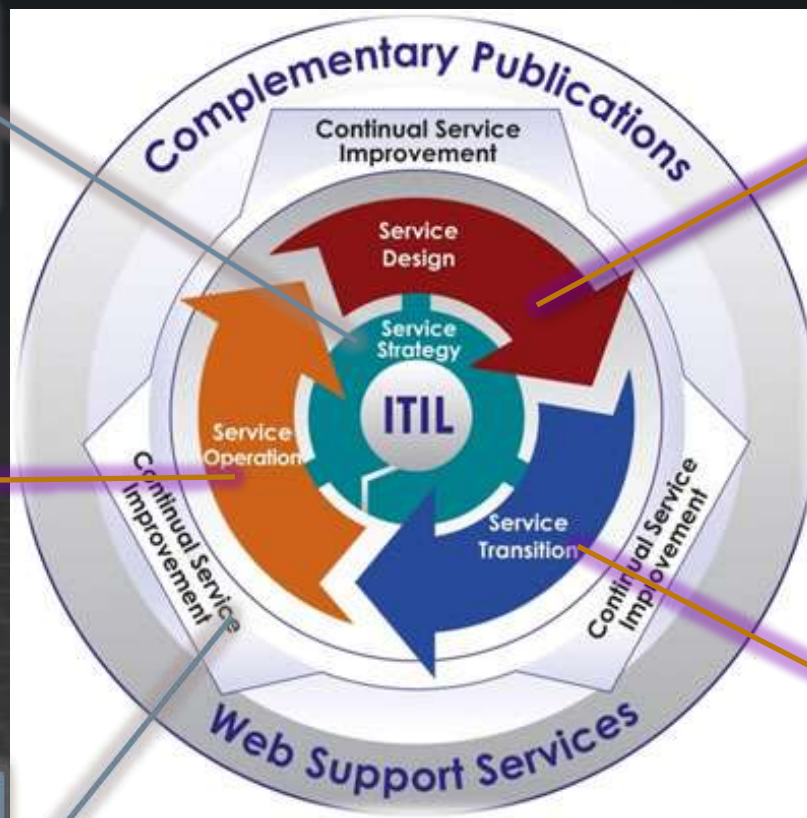
針對服務管理的建置定義政策與策略，同時與企業的策略聯結

### Service Operation (SO)

針對服務每天的執行及其生命週期提供最佳的支援

### Continual Service Improvement (CSI)

每一階段服務的效能可被量測以確認持續地符合企業的需求



### Service Design (SD)

描述如何使用策略來產生服務的設計與規格

### Service Transition (ST)

如何將規格建立在實體環境中的細節

Source: OGC

# MOF

- Microsoft Operation Framework
- Microsoft 提出的產業 Best Practices, 涵蓋資料中心在管理上的原則, 程序及經過驗證的實作
  - 建構在 ITIL – IT Infrastructure Library
  - 客戶與合作夥伴的經驗
- 一個提供專業化 IT 服務的方法論, 且可立即運用在持續性服務改善的 framework
- 提供完整 IT 服務生命週期的指引 (Guidance)
- 支援 ITIL, COBIT, and ISO 20000
- MOF 指引包含
  - 白皮書
  - Service Management Function 手冊 (程序的描述)
  - 產品操作手冊
  - 解決方案服務

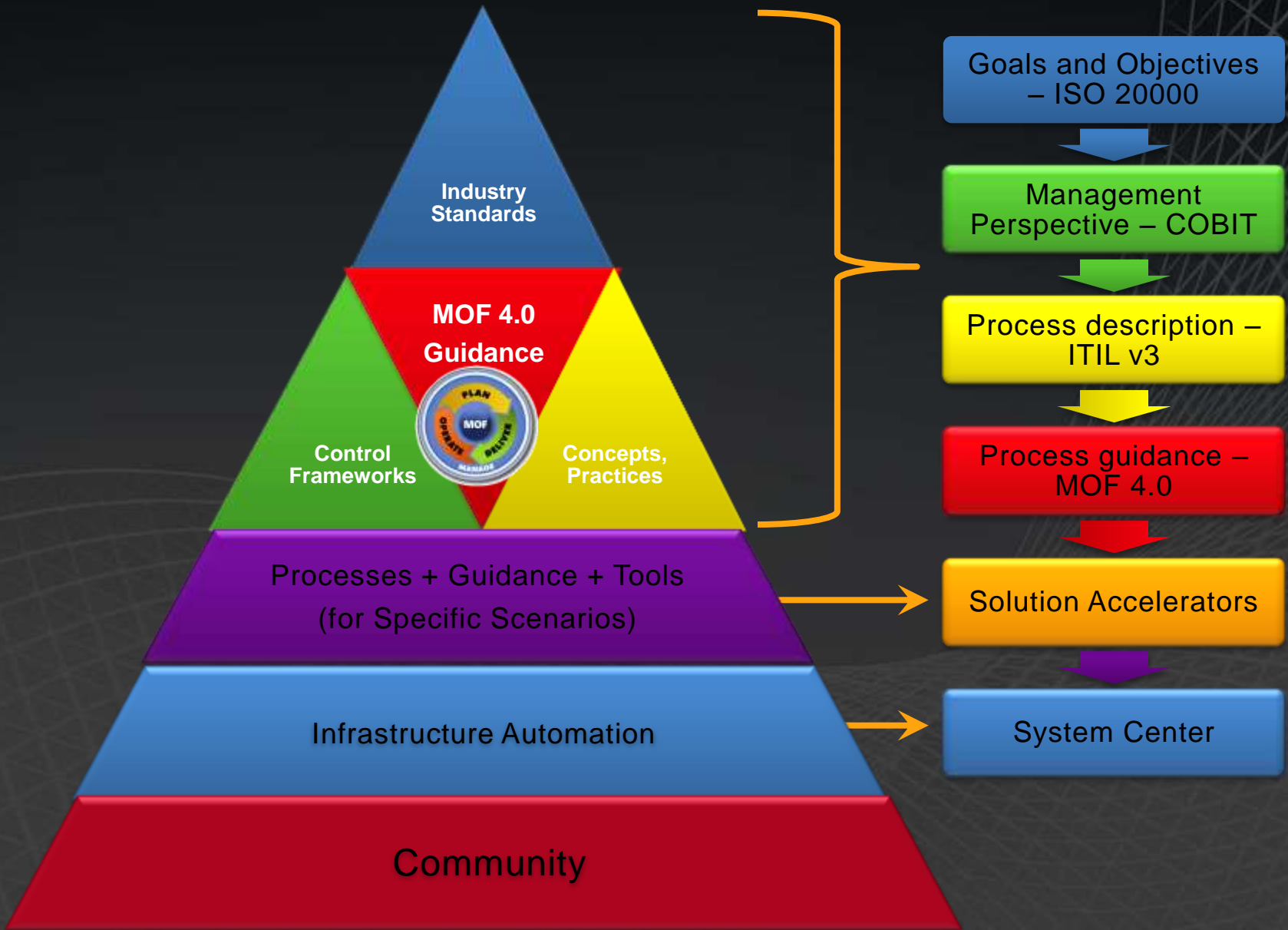
# MOF 4.0

- 提供 IT 服務生命週期各階段詳細的目標, 活動以及權責
- Manage layer 提供各階段 ( Plan, Deliver, 及 Operate) 的支援
- Service Management Functions (SMFs) 提供每個階段主要活動的細節
- 整合 Management Reviews 到各階段





# ISO 20000 與 ITIL, MOF的關係



# ISO 20000 與 ITIL, MOF的關係

- ISO 20000 vs ITIL
- ISO 20000 vs MOF
- ITIL vs MOF

# ISO 20000 與 ITIL, MOF的關係

## ISO 20000 vs ITIL V3

ISO 20000	ITIL V3
<b>6. Service Delivery Processes</b>	
6.1 Service Level Management	CSI 4.6 Service Level Management
6.2 Service Reporting	CSI 4.2 Service Reporting
6.3 Service Continuity and Availability Management	SD 4.4 Availability Management SD 4.5 IT Service Continuity Management (ITSCM)
6.4 Budgeting and Accounting for IT Services	SS 5.1 IT Financial Management
6.5 Capacity Management	SD 4.3 Capacity Management
6.6 Information Security Management	SD 4.6 Information Security Management (ISM)
<b>7. Relationship Processes</b>	
7.2 Business Relationship Management	SD 4.2.5.9 Developing Contacts and Relationships with the Business
7.3 Supplier Management	SD 4.7 Supplier Management
<b>8. Resolution Processes</b>	
8.2 Incident Management	SO 4.1 Event Management SO 4.2 Incident Management
8.3 Problem Management	SO 4.4 Problem Management
<b>9. Control Processes</b>	
9.1 Configuration Management	ST 4.3 Service Asset and Configuration Management
9.2 Change Management	ST 4.2 Change Management
<b>10. Release Process</b>	
10.1 Release Management	ST 4.4 Release and Deployment Management

# ISO 20000 與 ITIL, MOF的關係

## ISO 20000 vs MOF

ISO 20000	MOF V4
<b>6. Service Delivery Processes</b>	
6.1 Service Level Management	Plan: Business/IT Alignment SMF
6.2 Service Reporting	Plan: Business/IT Alignment SMF Operate: Service Monitoring and Control SMF ..
6.3 Service Continuity and Availability Management	Plan: Reliability SMF
6.4 Budgeting and Accounting for IT Services	Plan: Financial Management SMF
6.5 Capacity Management	Plan: Reliability SMF
6.6 Information Security Management	Plan: Reliability SMF, Policy SMF
<b>7. Relationship Processes</b>	
7.2 Business Relationship Management	Plan: Business/IT Alignment SMF
7.3 Supplier Management	Plan: Policy SMF
<b>8. Resolution Processes</b>	
8.2 Incident Management	Operate: Customer Service SMF
8.3 Problem Management	Operate: Problem Management SMF
<b>9. Control Processes</b>	
9.1 Configuration Management	Manage: Change and Configuration SMF
9.2 Change Management	Manage: Change and Configuration SMF
<b>10. Release Process</b>	
10.1 Release Management	Deliver: Deploy SMF, Stabilize SMF

# ISO 20000 與 ITIL, MOF的關係

## ITIL vs MOF



# MOF 4.0

Connects service management concepts to practical tasks and activities

- Encompasses the entire IT service lifecycle
- Integrates governance, risk, and compliance
- Provides concise and meaningful guidance



# MOF 4.0 is Designed to be Practical, Understandable, Concise

- Phases describe **goals, activities, accountabilities**
  - What should the phase accomplish?
  - What general objectives and controls should be considered?
  - Who is involved?
- **Service Manage Functions, (SMFs)** offer the details
  - SMFs map to major activities in phases
  - Focus on what to do and how
- **Management Reviews** are integrated in the phases
  - Provide checkpoints
  - Identify areas for improvement



# Plan SMFs

The Plan Phase provides guidance on how to plan for and optimize an IT service strategy



## Business/IT Alignment Includes:

- Define Service Strategy
- Identity and map IT Service
- Measure Demand
- Develop IT Service Portfolio
- Establish Service Level Management

## Reliability Includes:

- Capacity Management
- Continuity Management
- Confidentiality Management
- Integrity Management
- Availability Management

## Policy Includes:

- Security
- Privacy
- Appropriate Use
- Partner
- Asset Protection

## Financial Management includes :

- Establish service requirements and plan budget.
- Manage finances.
- Perform IT accounting and reporting



# Deliver SMFs

The Deliver Phase helps IT professionals more effectively design and deliver IT services, infrastructure projects, or packaged product deployments.



# Operate SMFs

The Operate Phase helps IT professionals efficiently operate, monitor, and support deployed services in line with agreed-to service level agreement (SLA) targets.



Customer Service Includes:

- Service Desk
- Incident Management

# Manage SMFs

The Manage Layer establishes decision-making processes and the use of risk management, change management, and controls throughout the IT service lifecycle



Policy &  
Control

- Governance, Risk, and Compliance
- Change and Configuration
- Team

Governance, Risk, and Compliance Includes:

- Establish IT governance.
- Assess, monitor, and control risk.
- Comply with directives

Change and Configuration Includes:

- Manage changes.
- Know the current state of configuration at all times.
- Reduce risk of negative impact from changes to the organization

Team Includes:

- Understand the key principles for effectively organizing IT.
- Understand accountabilities and role types.
- Identify organizational changes needed.
- Align responsibilities.
- Assign roles.

# Management Reviews Drive Clarity

- Provide checkpoints and connections between phases
- Ensure business objectives are being met and the service is on track



# MOF Job Aids

- [MOF Job Aids - Plan.zip](#)
- [MOF Job Aids - Deliver.zip](#)
- [MOF Job Aids - Operate.zip](#)
- [MOF Job Aids - Manage.zip](#)

下載路徑

<http://www.microsoft.com/downloads/details.aspx?familyid=457ED61D-27B8-49D1-BACA-B175E8F54C0C&displaylang=en>



# Solution Accelerators

## SOLUTIONACCELERATORS

Act faster. Go further.

### PLAN

- Microsoft Assessment and Planning
- SharePoint Capacity Planning Tool
- Data Encryption Toolkit
- Windows Vista Security Guide
- Office Security Guide
- Windows Server 2008 Security Guide

### DELIVER

- Microsoft Deployment Toolkit 2008
- Assessment and Deployment Solution
- Infrastructure Planning and Design Series
- External Collaboration Toolkit for SharePoint
- Upgrade Toolkit for Windows SharePoint Services Sites and Templates
- SharePoint Cross-site Configurator
- Data Encryption Toolkit
- Assessment and Deployment Solution

### OPERATE

- Offline VM Servicing Tool
- Microsoft Forefront Integration Kit for Network Access Protection
- Security Compliance Management
- Network Monitoring Management Pack for System Center Essentials
- SharePoint Monitoring Toolkit
- SharePoint Asset Inventory Tool
- Business Application SLA Reporting
- Malware Removal Starter Kit
- Data Encryption Toolkit

### MANAGE

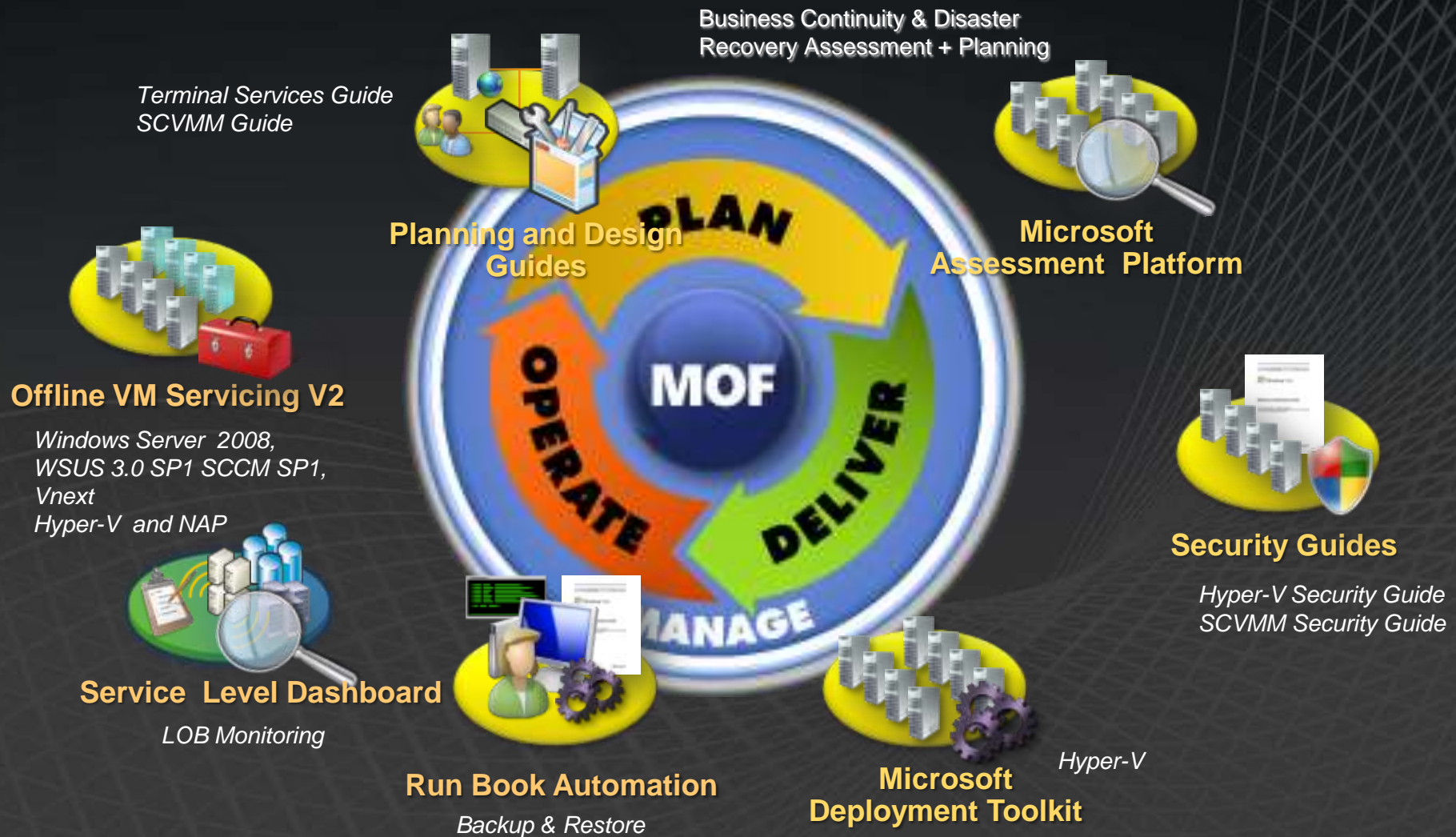
- Microsoft Operations Framework 4.0
- Microsoft Assessment and Planning
- Fundamental Computer Investigation Guide for Windows
- Windows Vista Security Guide
- Office Security Guide
- Windows Server 2008 Security Guide

## SOLUTIONACCELERATORS

Act faster. Go further.

[www.microsoft.com/solutionaccelerators](http://www.microsoft.com/solutionaccelerators)

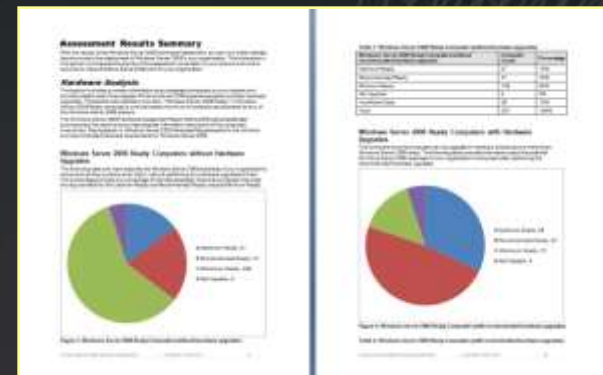
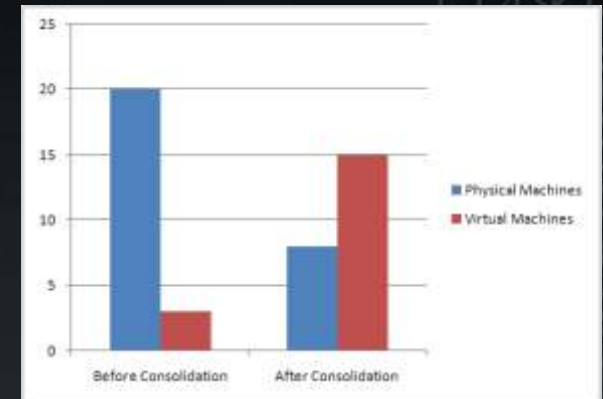
# MOF 4.0 + Solution Accelerators



# Microsoft Assessment and Planning (MAP)

## Assessment Tools

The screenshot shows the Microsoft Assessment and Planning Solution Accelerator interface. The main window is titled "z-company002 database is ready to use". It provides instructions on how to start an assessment and lists several prerequisites for a successful inventory, such as local administrative privilege and Windows Firewall exceptions. A sidebar on the left contains navigation options: Assessment, Virtualization, Deployment, Security, Operations, and Product Information. The right sidebar, titled "Actions", includes sections for "Inventory" (Select a database, Capture performance metrics), "Reports and Proposals" (Summary of available reports, Prepare a Windows Vista Readiness Report, etc.), "Useful Information" (Microsoft Solution Accelerator, Check for updates), and "Feedback" (Contact Us).



- Collects inventory of existing servers, desktops and applications agentlessly
- Offers recommendations of server/application virtualization candidates
- Works with the ROI Tool to generate customer-specific ROI calculations

[Microsoft.com/MAP](http://Microsoft.com/MAP)



# MOF 4.0 Automated Through System Center



Microsoft®  
System Center  
Capacity Planner 2007

Microsoft®  
System Center  
Operations Manager 2007

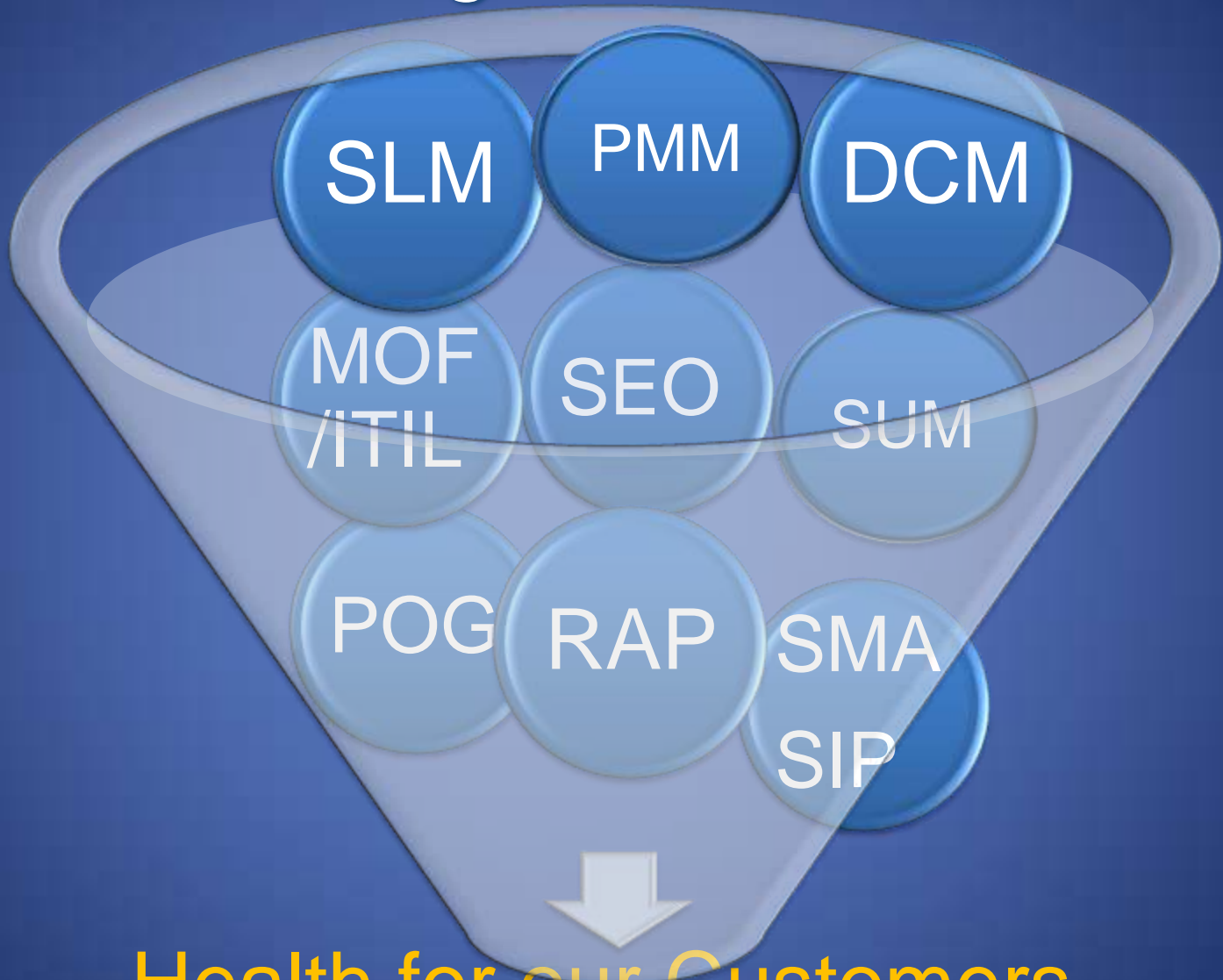
Microsoft®  
System Center  
Service Manager

Microsoft®  
System Center  
Configuration Manager

Microsoft®  
System Center  
Data Protection Manager

Microsoft®  
System Center  
Virtual Machine Manager

# Services Offering



Health for our Customers

# Great Solutions Collection

Solution	Process Area Component	Technology Component
<p><b>SLM</b> Service Level Management for: Exchange, Windows &amp; SQL</p> <p>Based on SCOM</p>	<p>Service Level Management</p> <p>Proactive Problem Management Process</p> <p>SLAs, OLAs, MPR</p>	<p>Score Card Tool that measures key metrics against availability targets and performance standards; includes major problem review workflow for outages</p>
<p><b>DCM</b> Desired Configuration Monitoring for: Exchange, Windows, Security Baseline &amp; SQL,</p> <p>Based on SCCM</p>	<p>Change, Release &amp; Configuration Mgmt</p> <p>Release Policy &amp; Plans</p> <p>Change Calendar and scorecard</p>	<p>DCM tool for reporting and compliance monitoring MSIT XML configuration templates with MSIT settings and values by server role</p>
<p><b>PMOM</b> Proactive Monitoring with SCOM for AD and Exchange</p>	<p>Incident &amp; Problem Management</p> <p>SCOM Rules Record of Change</p>	<p>Management Pack Implementation Review &amp; SCOM Tuning</p> <p>MSIT Custom Rules</p>

# Service Level Management (SLM)

- Objective: “*to define, agree, record, and manage levels of service*”
- Deliverables:
  - (12+ whiteboard sessions)
  - Service Map
  - Up to 5 OLAs, and up to 5 SLAs
  - Service Review Meeting Planning Guide
  - MOM /SCOM SLA Scorecard for Exchange
- Tools
  - Scorecard via MOM/SCOM
- Time Frame:
  - 2 weeks (simple) to 4 weeks (complex)



# Defining Business Value of SLM

- Do you **track availability** today?
- Do you know the **business impact** when messaging is down (cost of unavailability) ?
- Is messaging availability based on **SLAs** with the business?
- Do you review outage **trends**?
- **Can you quantify the number of outages caused by changes (planned vs. unplanned)?**
- **Can you quantify the number of outages that could have been avoided by having OLAs in place?**
- Could OLAs help improve **incident escalation and problem resolution times?**
- Could this data help improve resource allocation based on availability data?

# SLM Deliverables



## Modeling

- Service Map

## Performance Standards

- Service Level Agreements (SLAs)
- Operating Level Agreements (OLAs)

## Measurement

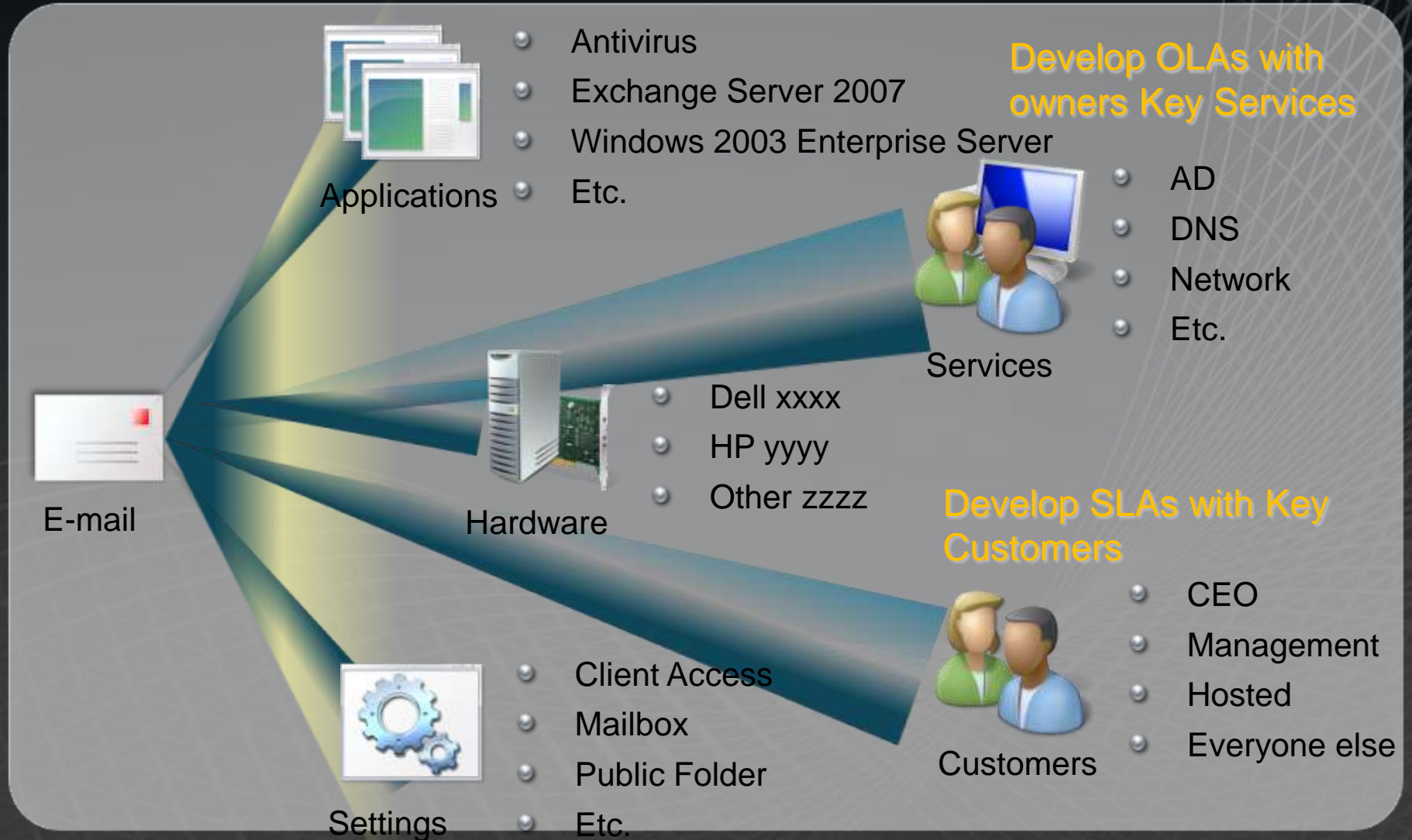
- SLA Scorecard Accelerator Tool

## Communications

- Service Review Meetings
- Microsoft IT's Action Item Tool

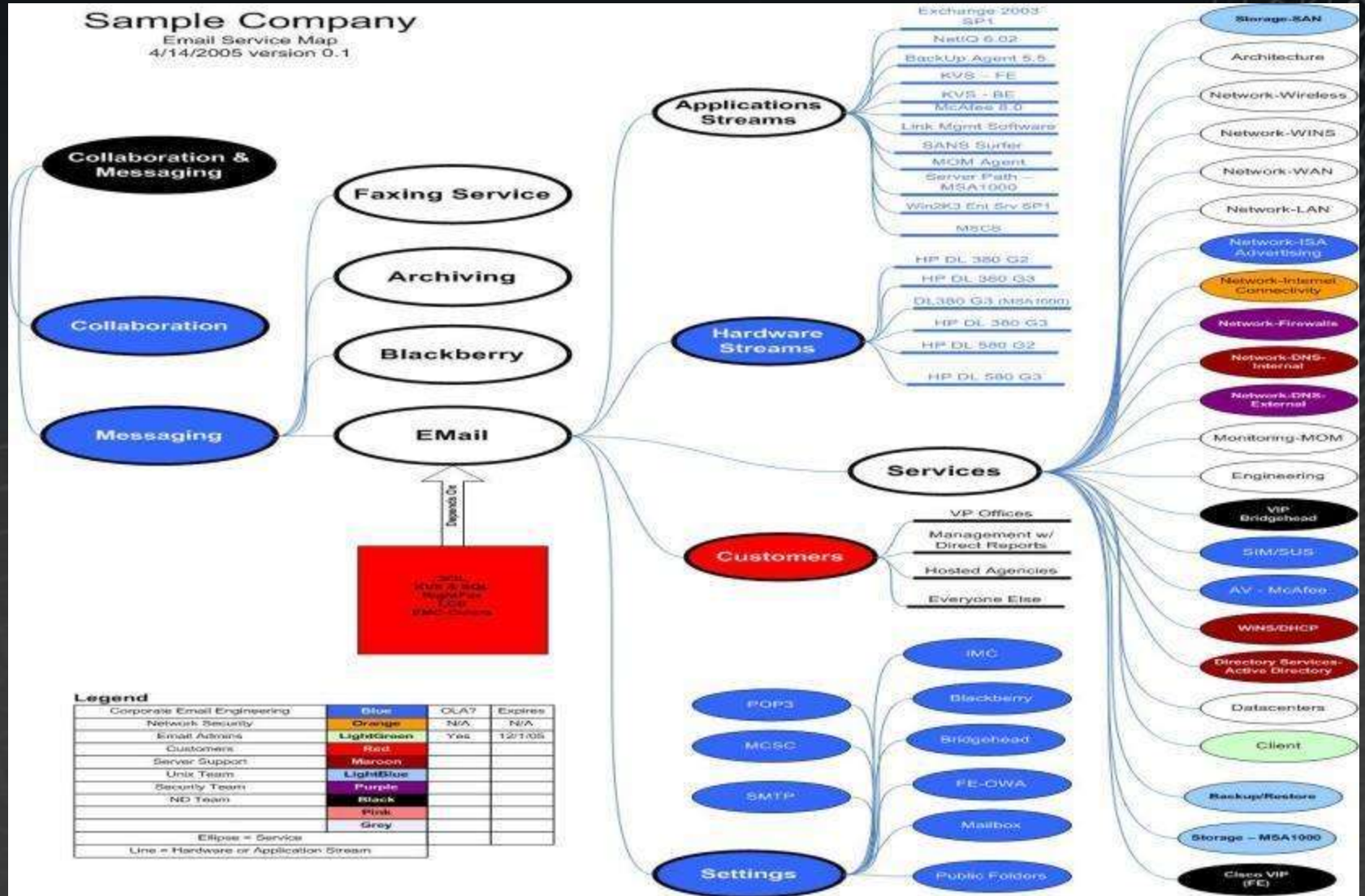
# Example Service Map - Messaging

## Defining Dependencies that Impact Availability



# Service Map

## Defining Messaging Dependencies that Impact Availability





# Scorecard for Operations Manager 2007 - Metrics

SLM Scorecard v3 - Windows Internet Explorer

http://localhost/SLMv3Reporting/SSR5/ReportExecution.aspx

Service Level Management Scorecard v3

Welcome OPEXDEMO\Administrator

**Scorecard Main Report**

Report Date:

1 of 1 | 100% | Find | Next | Select a format | Export

	SLA Target	2/3/2008	1/27/2008	1/20/2008	1/13/2008	February	YTD
<a href="#">Windows 2003</a>							
Windows Operating System Availability	99.999%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%
<a href="#">Exchange 2003</a>							
Mailbox Service Availability	99.990%	100.000%	100.000%	92.857%	50.000%	100.000%	79.167%

Start | SLM Scorecard v3 - W... | Local intranet | 100% | 7:09 PM

# Scorecard for Operations Manager 2007 - Metrics



## Service Level Management Scorecard v3

Report Date  ...

**Generate Report**

1 of 1 100% Find | Next Select a format Export

	SLA Target	10/28/07	10/21/07	10/14/07	10/07/07	October	YTD
<a href="#">SQL 2005</a>							
SQL 2005 Analysis Services	99.990%	100.000%	100.000%	31.818%	100.000%	82.955%	98.414%
SQL DB Engine	99.990%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%
SQL 2005 Reporting Services	99.990%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%
SQL 2005 Integration Services	99.990%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%
<a href="#">Windows 2003</a>							
Windows Server 2003 Operating System Availability	99.990%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%

- Scorecard Main
- Exchange 2003
  - Daily
  - Weekly
  - Monthly
- SQL 2005
  - Daily
  - Weekly
  - Monthly
- Windows 2003
  - Daily
  - Weekly
  - Monthly
- MPR
  - MPR List
  - MPR Report
  - MPR Piecharts
- Administration
  - General Settings
  - Set SLA Targets
  - MPR Administration
  - Display Settings
    - Scorecard Main
    - SQL 2000
    - Exchange 2003
    - SQL 2005
    - Windows 2003

# Scorecard for Operations Manager 2007 - Measures



- Scorecard Main
- Exchange 2003
  - Daily
  - Weekly
  - Monthly
- SQL 2005
  - Daily
  - Weekly
  - Monthly
- Windows 2003
  - Daily
  - Weekly
  - Monthly
- MPR
  - MPR List
  - MPR Report
  - MPR Piecharts
- Administration
  - General Settings
  - Set SLA Targets
  - MPR Administration
  - Display Settings
    - Scorecard Main
    - SQL 2000
    - Exchange 2003
    - SQL 2005
    - Windows 2003

## Service Level Management for Windows 2003

Report Date  ...

**Generate Report**

1 of 1 100% Find | Next Select a format Export

	SLA Target	10/28/07	10/21/07	10/14/07	10/07/07	October	YTD	
Availability Metrics								
<input type="checkbox"/> <u>Windows Server 2003 Operating System Availability</u>	99.990%	100.000%	100.000%	100.000%	100.000%	100.000%	100.000%	<a href="#">View Outages</a>
Performance Measures								
<input type="checkbox"/> <u>Memory % Committed Bytes in Use</u>		846	680	460		1,986	1,986	
<input type="checkbox"/> <u>Memory Available Megabytes</u>		25,699	58,548	35,737		119,984	119,984	
<input type="checkbox"/> <u>Memory Page Reads per Second</u>		0	0	0		0	0	
<input type="checkbox"/> <u>Memory Page Writes per Second</u>		5	10	8		23	23	
<input type="checkbox"/> <u>Memory Pages per Second</u>		186	232	151		569	569	
<input type="checkbox"/> <u>Page File Percentage Use</u>		107	136	27		270	270	
<input type="checkbox"/> <u>Processor % Processor Time Total</u>		70	53	116		239	239	
<input type="checkbox"/> <u>System Context Switches per Second</u>		169,357	113,682	136,279		419,318	419,318	
<input type="checkbox"/> <u>System Processor Queue Length</u>		7	0	14		21	21	

# Scorecard for Operations Manager 2007 - Outages



Service L

- Scorecard Main
- Exchange 2003
  - Daily
  - Weekly
  - Monthly
- SQL 2005
  - Daily
  - Weekly
  - Monthly
- Windows 2003
  - Daily
  - Weekly
  - Monthly
- MPR
  - MPR List
  - MPR Report
  - MPR Piecharts
- Administration
  - General Settings
  - Set SLA Targets
  - MPR Administration
  - Display Settings
    - Scorecard Main
    - SQL 2000
    - Exchange 2003
    - SQL 2005
    - Windows 2003

From Date  ... To Date  ... **Generate Report**

Outages are shown for: SQL 2005 Analysis Services

Start Date	End Date	Duration	Server Name	Group	Maintenance Mode	SLA Impact	Category
<input type="checkbox"/> 10/13/2007 5:11:11 PM	10/13/2007 5:11:12 PM	0	red-msit-slas2.redmond.corp.microsoft.com	Europe	Unplanned maintenance	Impacting	Other (Unplanned):Changed to UnplannedOther
<input type="checkbox"/> 10/13/2007 5:11:12 PM	10/13/2007 6:12:13 PM	61	red-msit-slas2.redmond.corp.microsoft.com	Europe	Planned maintenance	Non Impacting	Other (Planned):PlannedOther Last with TimeVars
<input type="checkbox"/> 10/13/2007 5:11:12 PM	10/13/2007 6:12:13 PM	61	red-msit-slas2.redmond.corp.microsoft.com	Europe	Planned maintenance	Non Impacting	Other (Unplanned):Changed to UnplannedOther
<input type="checkbox"/> 10/13/2007 6:12:13 PM	10/13/2007 6:12:13 PM	0	red-msit-slas2.redmond.corp.microsoft.com	Europe	Planned maintenance	Non Impacting	Other (Planned):PlannedOther Last with TimeVars
<input type="checkbox"/> 10/13/2007 7:00:00 PM	10/13/2007 8:00:00 PM	60	red-msit-slas2.redmond.corp.microsoft.com	Europe	Unplanned maintenance	Impacting	Other (Unplanned):PlannedOther Last with TimeVars
<input type="checkbox"/> 10/17/2007 10:00:00 AM	10/17/2007 11:00:00 AM	60	red-msit-slas2.redmond.corp.microsoft.com	Europe	Planned maintenance	Non Impacting	Other (Planned):TEST MM ENTRY
<input type="checkbox"/> 10/17/2007 7:17:39 PM	10/17/2007 7:27:49 PM	10	red-msit-slas2.redmond.corp.microsoft.com	Europe	Planned maintenance	Non Impacting	Other (Planned):for red-msit-slas2 unplanned maint
<input type="checkbox"/> 10/22/2007 9:05:13 PM	10/22/2007 9:05:13 PM	0	red-msit-slas2.redmond.corp.microsoft.com	Europe	Planned maintenance	Non Impacting	Other (Planned):Changed to PlannedOther
<input type="checkbox"/> 10/22/2007 9:05:13 PM	10/22/2007 9:35:35 PM	30	red-msit-slas2.redmond.corp.microsoft.com	Europe	Planned maintenance	Non Impacting	Other (Unplanned):
<input type="checkbox"/> 10/22/2007 9:05:13 PM	10/22/2007 9:35:35 PM	30	red-msit-slas2.redmond.corp.microsoft.com	Europe	Planned maintenance	Non Impacting	Other (Planned):Changed to PlannedOther

1 2 3 4 5 6 7 8 9

# 總結

## Implementing MOF/ITIL Processes and Best Practices

- Working with people to change attitude to increase Operational excellence
- Implementing Kingdom processes:
  - Change, Configuration, and Release Management
  - Service Desk (with the approved tool), Incident, and Problem Management
  - Service Level Management
  - Availability Management
  - Continuity Management
  - Financial Management

# Help achieve ISO/IEC 20000 certification

- Prepare your IT for the ISO 20000 certification

# ITSM & Operations

- .. It is a journey
- .. Implementing MOF/ITIL is never an objective!!  
Improving IT-Business services via MOF/ITIL best practices is the real gain/objective

The Microsoft logo is displayed in a bold, white, sans-serif font. The letters are closely spaced, and the 'i' in 'Microsoft' has a dot. A registered trademark symbol (®) is located at the top right of the 't'.

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