



# Microsoft Operations Framework

## 微软运行管理框架 概述

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# 主题

- Microsoft® Operations Framework (MOF)起源
- ITIL概览
- 流程模型 (Process Model)
- 团队模型 (Team Model)
- 风险模型 (Risk Model)
- Initial engagement
  - Maturity model

人

流程

技术

# MOF起源

- 5x reboots
- 20x BSOD\*

1,300 Windows NT 4.0 SP3 servers  
at 5 sites

3,300 Windows NT 4.0 SP4 servers  
at 10 sites

All 24x7, professionally run large sites

All downtime included

Best Windows NT® 4.0 SP5 customer

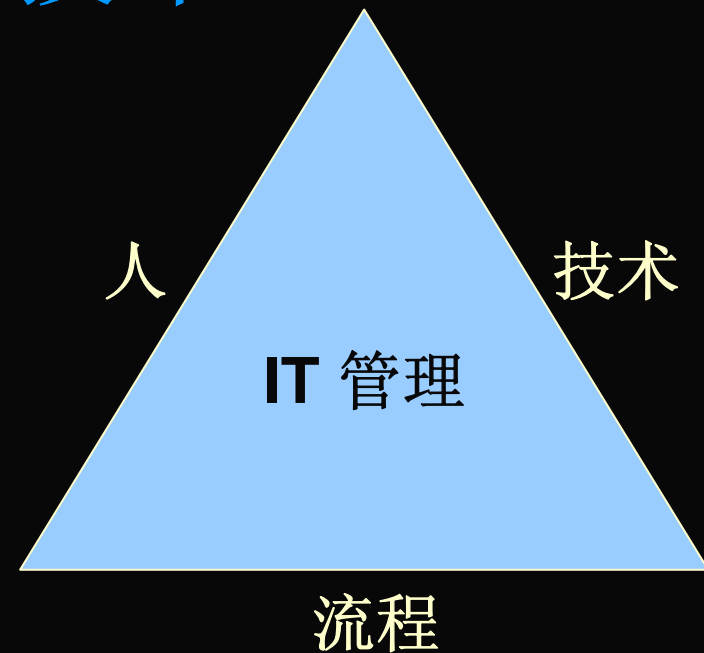
服务器数目	运行年	重启平均间隔时间(天)	蓝屏平均间隔时间(天)	WinNT操作系统可用性	重启次数	蓝屏次数
1,391	593.5	78.4	2,024.4	99.97%	2,763	107

\* BSOD指停止错误，即“Blue Screen of death”错误

# IT管理资源

## 人，流程，技术

- 技术
  - 所有客户的相同要素
- 人
  - 标准的雇员库
  - 多数公司拥有很好的人员
  - 很难去区别
- 流程
  - 在运行很好的企业中，完善的流程管理是一致的
  - 是提高竞争优势的有效方法



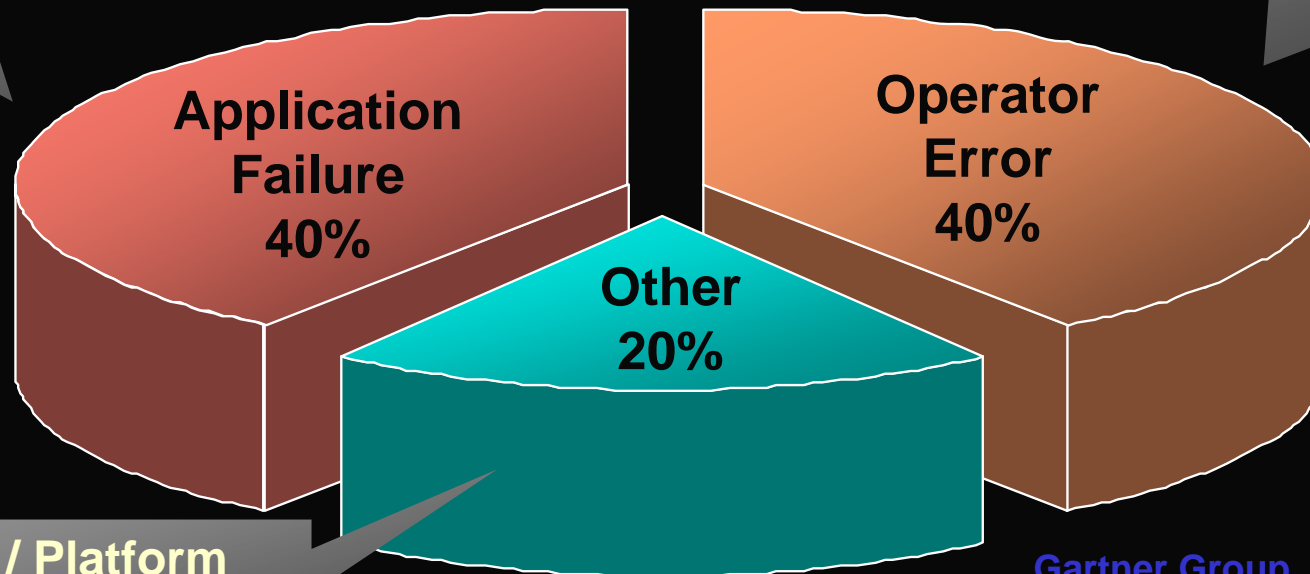
# 人 & 流程实际更重要

## 当机原因

- Untested /App
- Change Management
- Overloaded
- Weak Problem Detection



- Forgot Something
- Lack of Procedures
- Backup Errors / Security



- Hardware / Platform
- Network
- Power and Disaster

Gartner Group

# IT基础框架库

## IT Infrastructure Library

- 10年历史的IT服务管理工业标准
- 40多卷已出版的关于运行最佳方法的书籍
- 由英国政府机构-中央计算机、电信处支持  
(现英国商业部负责)

# IT基础框架库(2)

## IT Infrastructure Library

- 由业界知名公司、专家创作
  - Microsoft® 现在负责两卷的协同创作
- 由英国Stationery Office (TSO)销售
  - itSMF
  - 在线 (<http://www.itsmf.net/books/>)

# ITIL的优势

- 公开领域的业界最佳方法
- 在欧洲广泛接纳并使用
  - 工具厂商提供了支持
  - 顾问公司提供专业知识
- 为构成自己的IT组织提供了稳固的基础

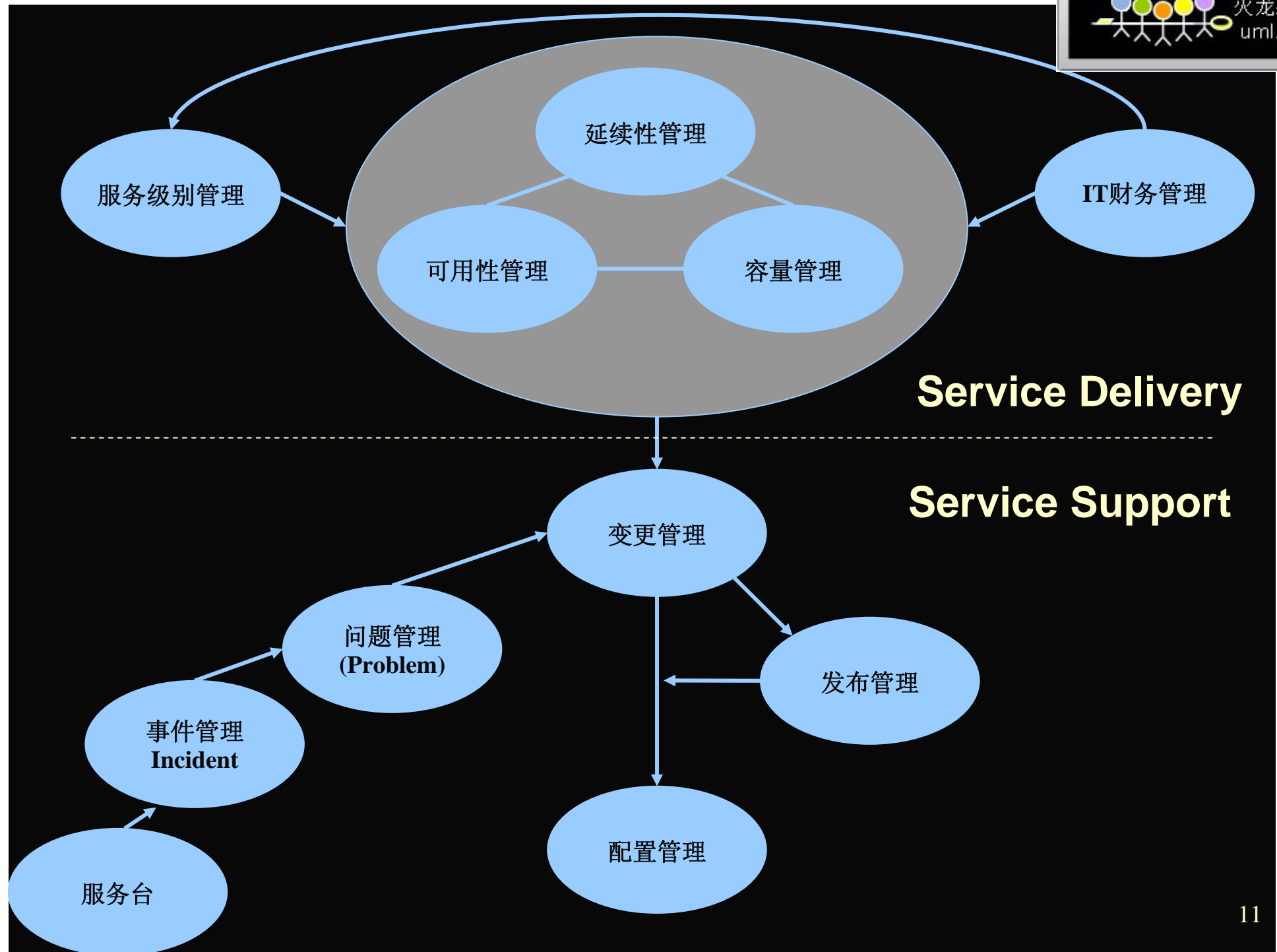


# IT的角色

以恰当的成本提供商务需求的服务

- 符合业务需求?
- 合理的成本?

# ITIL 服务管理功能概览



# 什么是MOF

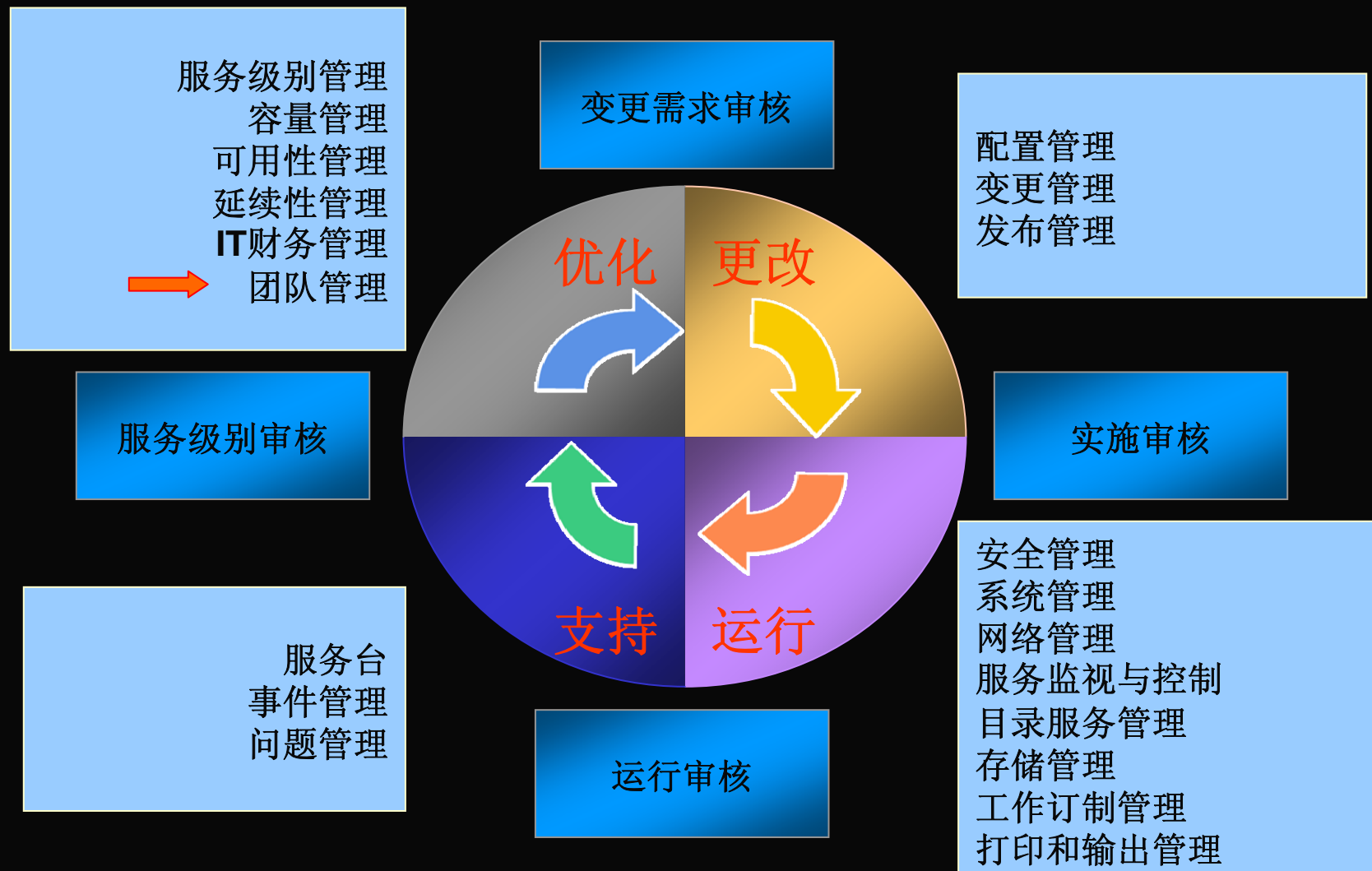
- MOF基于ITIL
- ITIL是概念性的指南；MOF强调实际操作性  
(descriptive描述性/Prescriptive说明性)
- MOF是一个对微软环境进行衡量、管理和改善IT运行的框架
  - 流程模型
    - 运行指南
  - 团队模型
  - 风险模型

# MOF 目标

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- 使IT服务符合业务需求
- 提高IT的敏捷性，使业务更能适应快速变化的社会环境
- 强调人、技术、流程
- 支持管理端到端的**服务**，包括流程和步骤，而不是仅仅是管理服务器和技术
- 利用业界的最佳实践

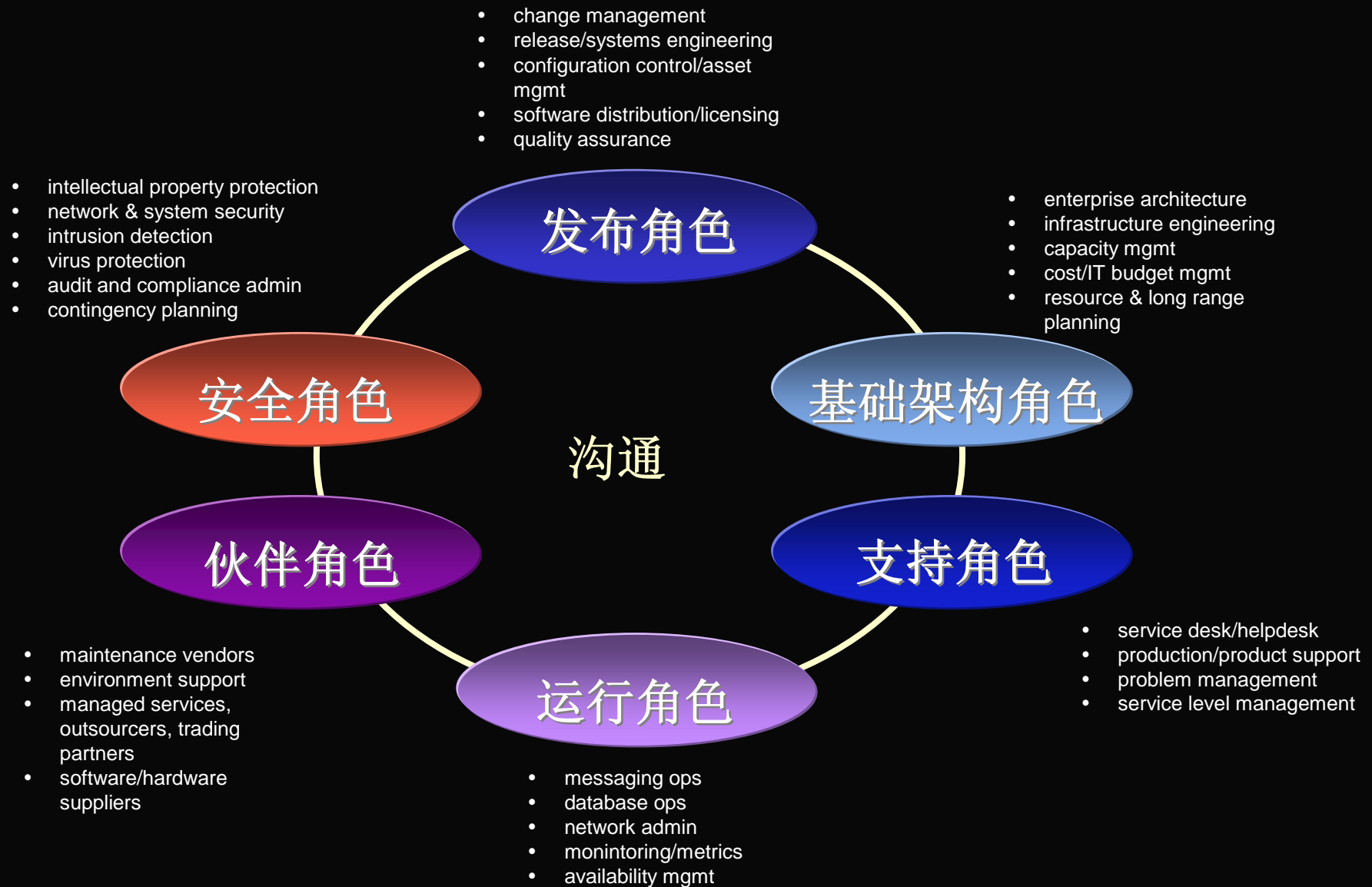
# IT运行的MOF流程模型



# 运行的团队模型

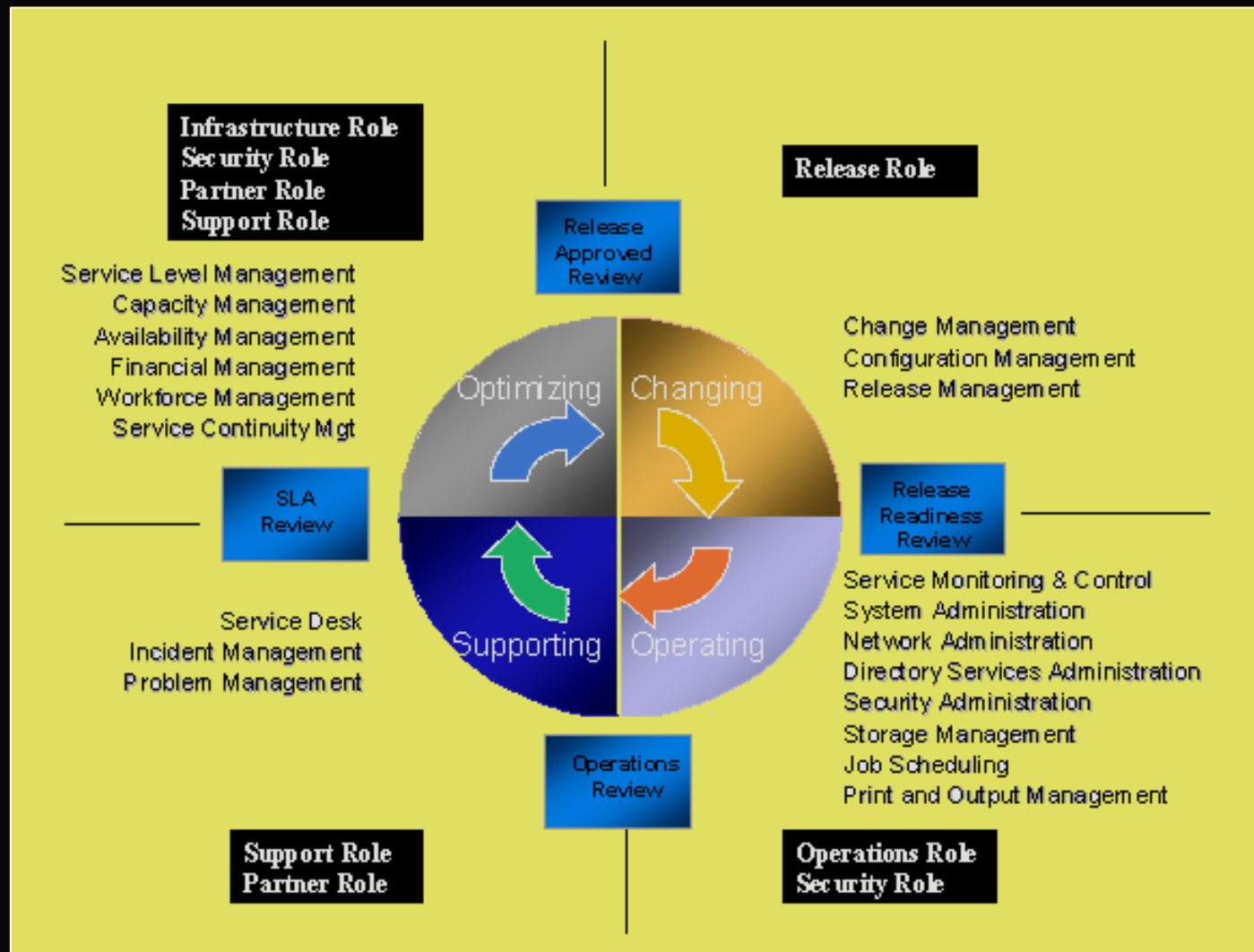
- 最为使用的角色群构成运行团队
  - 独立于人事职称
  - 关键的活动和角色间的竞争
  - 角色组合
  - 角色之间沟通的书面记录

# MOF团队角色





# 流程和团队模型的关系



# 为什么在运行中使用风险模型？

- 业务交易日益依赖IT服务
- IT环境日益复杂
- IT可直接控制的基础架构越来越少
- IT失败在数据中心外表现越来越明显
- 要求更快的系统恢复

*For every way that IT has of enabling business, operations has a new way of disabling business!*

# MOF 风险模型

## 目标

分辨、分析、减轻和撤销环境中的风险

## 风险的特点

Risk is not something to fear, but something to manage

Risk is neither good nor bad

Risk is a fundamental part of operations

## 工具

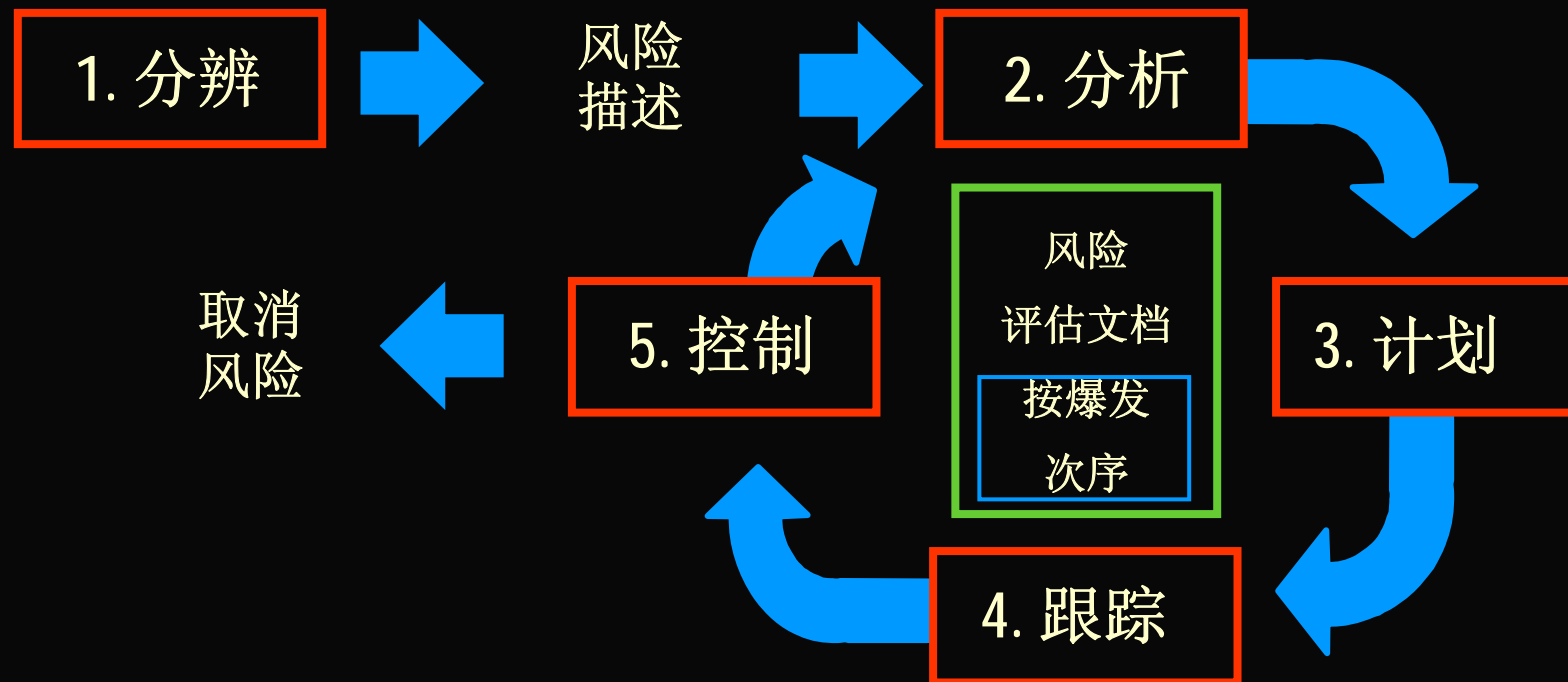
运行管理风险模型

风险评估

# 风险管理的原则

- 将风险管理集成到每个角色和每个功能
- 所有流程负责人负责对相应流程的风险管理
- 积极对待风险分析
- 使用基于风险的安排
- 每个人都要帮助分辨新的风险
- 建立可接受的正规级别
- 持续地分析风险

# 5步风险管理过程



The ongoing deliverable of this process is a **living risk assessment document** and **plan for every process**

# MOF实施起步

- 持续评估
  - 微软企业技术支持服务部+标准评估模板
  - 用户自主评估（周期性进行）
  - 评估流程成熟度
  - 工业标准模型 (SPICE)
- 对需改善领域划分优先级
- 目标是流程改善

# 标准成熟度模型

## 基于 SPICE 模型 (ISO 标准)

- 五个级别
  - 0 Incomplete
  - 1 Performed
  - 2 Managed
  - 3 Established
  - 4 Predictable
  - 5 Optimizing

Level	Label	Help Desk	Problem Management	Change Management	Service Level Management	Configuration Management	Contingency Planning	Release Management	Availability Management	Capacity Management	Description
5	Continuously Improving										<i>[Innovative, proactive]</i> Quantitative process effectiveness and efficiency goals (targets) for performance are established, based on the business goals of the organization. Continuous process improvement against these goals is enabled by quantitative feedback from performing the defined processes and from piloting innovative ideas and technologies.
4	Quantitatively Controlled										<i>[Effective reporting, strategic policy alignment]</i> Detailed measures of performance are collected and analyzed. This leads to a quantitative understanding of process capability and an improved ability to predict performance. Performance is objectively managed. The quality of work products is quantitatively known. The primary distinction from the Well-Defined Level is that the defined process is quantitatively understood and controlled.
3	Well-Defined										<i>[Documented, defined tasks and authorities]</i> Base practices are performed according to a well-defined process using approved, tailored versions of standard, documented processes. The primary distinction from the Planned-and-Tracked Level is that the process of the Well-Defined Level is planned and managed using an organization-wide standard process.
2	Planned and Tracked										<i>[Reactive, defined but fragmented authorities]</i> Performance of the base practices in the process is planned and tracked. Performance according to specified procedures is verified. Work products conform to informal standards and requirements.
1	Performed Informally										<i>[Little process focused actions, no means to execute process]</i> Base practices of the process are partially performed. The performance of these base practices may not be rigorously planned and tracked. Performance depends on individual knowledge and effort. Individuals within the organization recognize that an action should be performed, and there is general agreement that this action is performed as and when required. There are some identifiable work products for the process.
0	Not Performed										<i>[Nothing present]</i> There is general failure to perform the base practices in the process. There are no easily identifiable work products or outputs of the process.
Scores		2	1	2	1	1	0.5	1	1	1	



# Microsoft IT: 我们怎样实施MOF

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# video

## MSIT video

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## 节约开支

	<u>Microsoft</u>
Discretionary	40%
Non-discretionary	60%

## 客户满意度

**Worldwide**

Date	Yes (%)	No (%)
Dec '00	29	23
Oct '01	35	18
Oct '02	43	12
Oct '03	45	11

# Customers and Case Studies



TCO 30 to 40 percent better than industry average, with a further 30 percent improvement in total IT spend since Gartner Study was completed.



**Where supply meets demand**

"MOF brought a paradigm shift to CNF, now we know that when we approve a patch and apply it, there will be follow-up"

**City of  
Hamburg**

Implemented MOF guidance to manage the data center



**Merrill Lynch**

Created Merrill Lynch Framework based on MOF/MSF



Conducted MOF assessment, uses MOF for server management processes

**BOVESPA**

Restructured its IT operational processes using MOF



Commonwealth of PA was an MSM V1 Service Monitoring & Control EAP

Improved processes into their change and configuration environment



MOF applied to RAS service

**Microsoft**

Availability now 99.9%, TCO down 27%, Customer Sat up 22%

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

Slidework suggests removing BT Financial Group logo from above the slide unless needed.  
Christian L. Weaver, 2005-5-7



Microsoft  
**Premier  
Support**

# QUESTIONS?