



演讲主题：ITIL项目实施经验分享

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Title: IT架构师

“卓越服务之道”IBM CIO高峰论坛





时间安排

- ITIL实施的挑战和IBM的应对措施
- 自由讨论和问答





行业中领先**CIO**希望能够通过减少**IT**在运行维护方面的支出，来达到**4**个目标

1. 表明对**IT**的有效管理
2. 为支持业务战略目标而制定的**IT**计划提供空间
3. 在不额外增加企业对**IT**的投入的基础上，继续增加在技术研发方面的投入
4. 削减整体**IT**成本

一个公司如果在 **IT** 运维方面的支出低于行业的平均水平，
就可以得到更好的业务表现

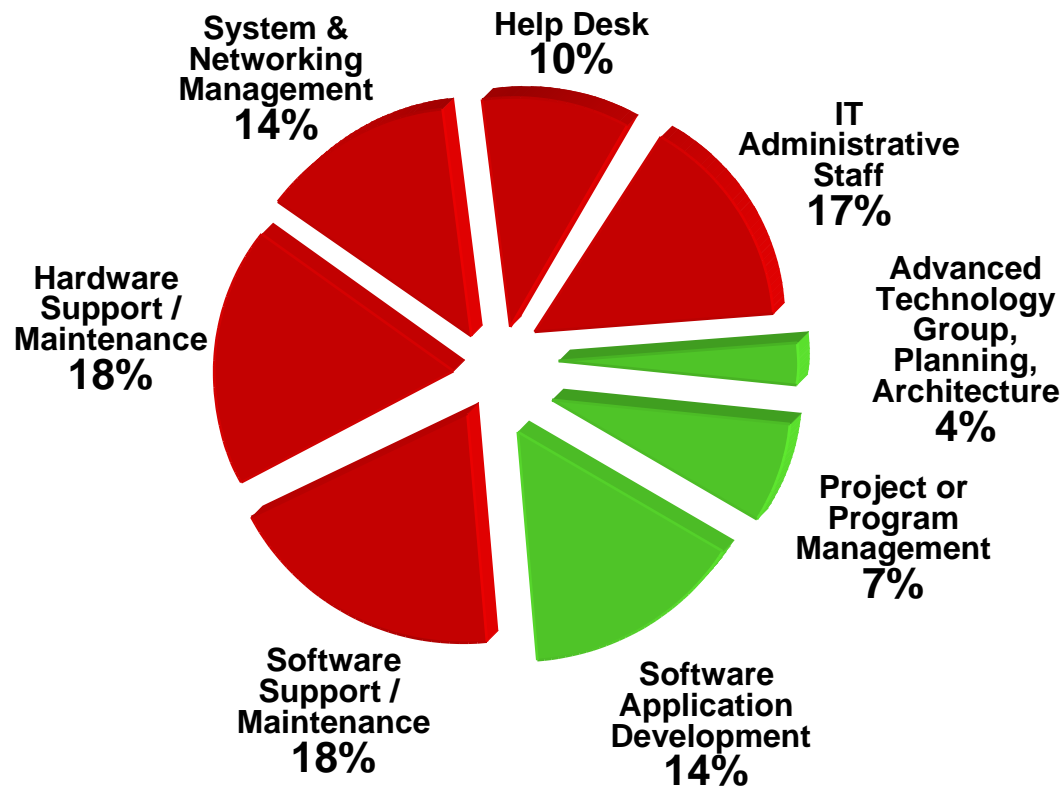
Source: Forrester research “US IT Spending Benchmarks For 2005” 24 May 2005





CIO希望能够提高IT运行的效率和效能

2005 Total IT Spending on IT Internal Staff¹



2006年，77% 的企业将提高IT的运行效率作为企业运营的最高优先级²

Source 1: Gartner Research “U.S. IT Spending and Staffing Survey, 2005, Table 5” dated 2 November 2005

Source 2: Forrester research “North America’s 2006 Enterprise IT Spending Outlook” 3 February 2006





IT服务管理和ITIL

IT Service Management

“IT服务管理就是通过对人员、流程、技术和信息的集成管理来确保向客户提供有价值的高质量和低成本的IT服务。”

借助于有效的流程、组织、信息和技术，对IT组织所具备的各种能力进行管理

- 管理IT以实现业务目标
- 管理IT服务的全部生命周期
- 包含ISO IEC 20000, ITIL和PRM-IT描述各种管理流程

IT Infrastructure Library (ITIL)

The IT Infrastructure Library (ITIL) 是描述被行业广泛接受的IT服务管理最佳的管理实践。

企业通常首先根据ITIL推荐的管理实践来改善IT服务管理



服务策略|服务设计| 服务移交| 服务运维| 服务持续改进





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ITIL是否可以包治百病？





ITIL在中国经历了五到六年落地实施的历程，对提升中国用户的**IT**管理水平做出了很大的贡献。但同时也让我们对**ITIL**理论框架对运维管理的适用性有了深刻的理解

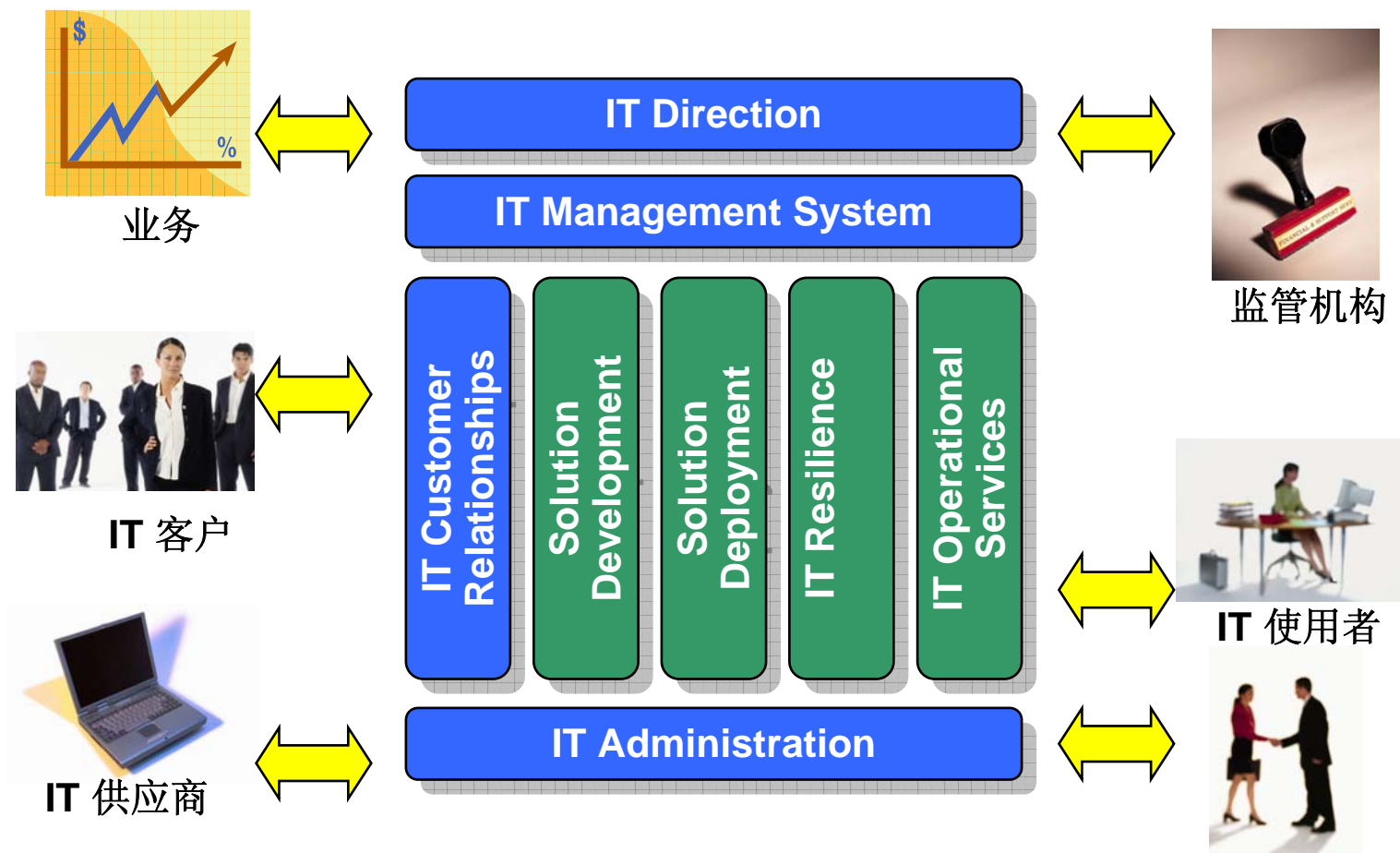
ITIL理论框架对指导运维管理不足的几个领域

- **ITIL**的理论框架只是从流程角色的角度对岗位提出了要求，而缺乏从数据中心业务管理的角度提出完整的职能框架
- **ITIL**的框架缺乏可以落地的管控模型
- **ITIL**的成熟度模型适用于已经熟悉流程化运作的企业，对于中国企业普遍习惯于行政化管理和依赖个人能力的现状，**ITIL**目前的成熟度模型不能够提供有效的、针对实施步骤的指导
- **ITIL**的框架对于运维组织的规模有一定的要求，并不完全适用于小型的**IT**运维组织
- **ITIL**的框架目前不提供对于组织变革的过程控制模型和方法
- **ITIL**的框架也没有说明如何整合第三方维护厂商的服务，以及对第三方维护厂商的管理和服务质量的监控





ITIL并不是IT管理的全部，IBM从CIO的视角总结了IT管理8个方面（IBM的PRM-IT）





IBM PRM-IT 流程模型: 涵盖了8个领域的 41 个流程

IT Governance and Management System

- IT Governance and Management System Framework
- IT Governance and Management Capabilities
- IT Management System Operation
- IT Governance and Management System Evaluation

IT Customer Relationships

- Stakeholder Requirements Management
- IT Customer Transformation Management
- Service Marketing and Sales
- Service Level Management
- Customer Satisfaction Management

IT Direction

- IT Strategy
- IT Research and Innovation
- Architecture Management
- Risk Management
- IT Portfolio Management
- Program and Project Management

Solution Development

- Solution Requirements
- Solution Analysis and Design
- Solution Build
- Solution Test
- Solution Acceptance

Solution Deployment

- Change Management
- Release Management
- Configuration Management

IT Operational Services

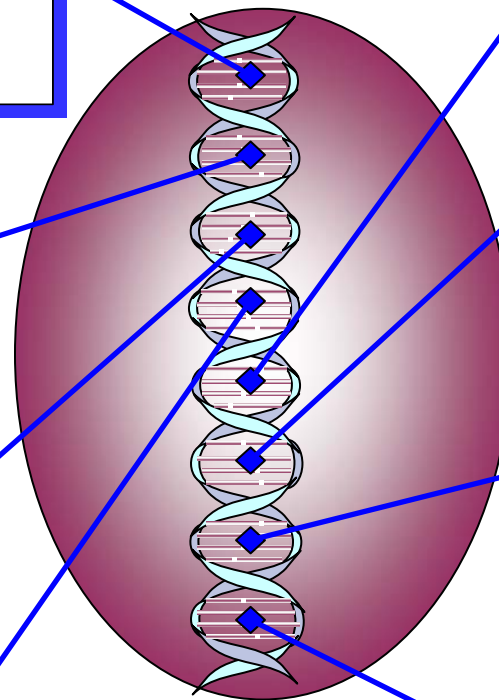
- Service Execution
- Data Management
- Event Management
- User Contact Management
- Incident Management
- Problem Management

IT Resilience

- Compliance Management
- Security Management
- Availability Management
- Capacity Management
- Facility Management
- IT Service Continuity Management

IT Administration

- Financial Management
- Asset Management
- Supplier Relationship Management
- Service Pricing and Contract Administration
- Workforce Management
- Knowledge Management



PRM-IT





IBM PRM-IT 流程模型包含了ITIL 核心的10个流程

IT Governance and Management System

- IT Governance and Management System Framework
- IT Governance and Management Capabilities
- IT Management System Operation
- IT Governance and Management System Evaluation

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- IT Customer Transformation Management
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- Capacity Management
- Facility Management
- IT Service Continuity Management

IT Administration

- Financial Management
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- Workforce Management
- Knowledge Management

PRM-IT

Core Alignment Process



IBM PRM-IT 的流程模型: ITIL alignment

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- IT Governance and Management Capabilities
- IT Management System Operation
- IT Governance and Management System Evaluation

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PRM-IT

Core Alignment Process
Extended Alignment Process



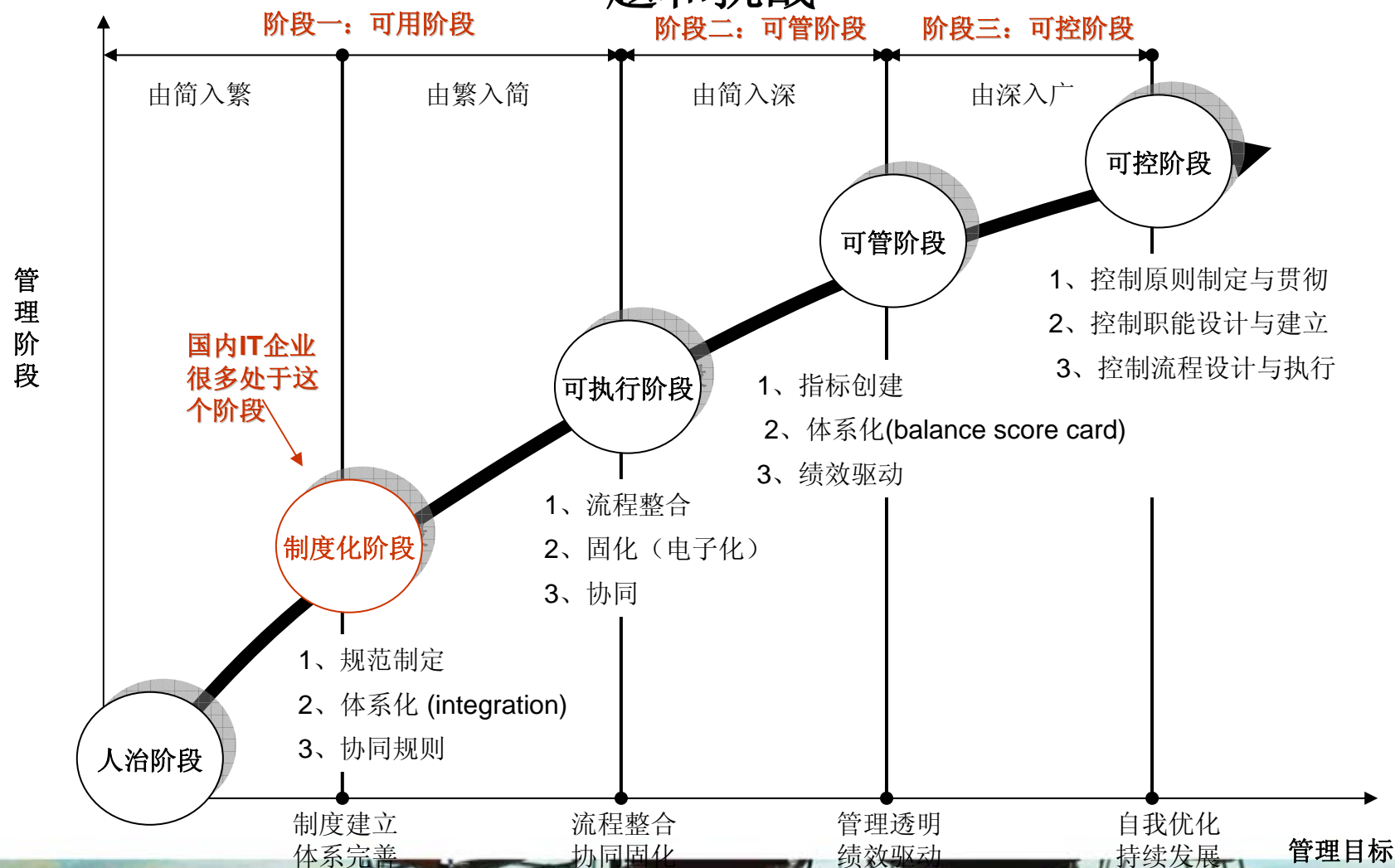
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ITIL是否可以一步到位？





IT管理体系建设需要分阶段逐步提升，各阶段面临不同的问题和挑战





项目实施样例

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管理阶段	步骤模块	当期项目建设内容		建议时间
可用阶段	一	<ul style="list-style-type: none">•即目前在建项目，初步建立服务平台：事件、操作管理流程•机房为监控预留接口		2006/10
	二	<ul style="list-style-type: none">•初步建立IT资产管理平台•子系统集成：资产为CMDB预留接口、		2006/12
	三	<ul style="list-style-type: none">•以构建服务管理流程体系主要框架与流程为主•包括问题、服务请求、告警、配置、变更管理流程•CMDB:建立围绕配置流程、资产管理的CMDB•子系统集成：资产与CMDB集成	<ul style="list-style-type: none">•以构建监控管理平台体系为主•包括网络管理、系统管理、桌面管理和集中事件管理平台•CMDB:与监控管理数据实现集成、互动•子系统集成：各监控子模块与事件管理平台集成，桌面管理和资产管理的集成	2007/05
可管阶段	四	<ul style="list-style-type: none">•以构建业务服务管理视图(A)和流程完善(B)为主•包括BSM、应用管理、知识管理、发布管理、SLA、服务目录等•CMDB（SKMS）：扩展到对知识管理等的支持•子系统集成：BSM与CMDB集成、报表门户集成		2008
可控阶段	五	<ul style="list-style-type: none">•以全面完善IT管理体系，通过ISO20000为目标•包括流程完善、监控完善和管理制度完善等		2009





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项目建设分阶段图例

1

2

3

4

5

管理分析（报表）系统+服务门户（Portal）

业务服务管理

服务流程管理平台

服务战略

需求管理、组合管理、财务管理
业务关系管理

服务设计

服务目录管理、SLA管理、容量管理
可用性管理、持续性管理、供应商管理

服务移交

变更管理、配置管理、知识管理、
发布部署管理、测试评估管理

服务运营

事件管理、操作管理、问题管理、
服务请求管理、告警管理、访问管理

服务持续改进

CMDB

监控管理平台

业务视图展示

告警监控

综合报表

告警关联

告警过滤

故障管理

性能管理

配置管理

网络管理

系统管理

机房管理

桌面管理

应用管理

其他监控

资产管理平台

合同管理

资产管理

采购管理

备件管理



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ITIL如何适用不同的客户？





从理论和最佳实践 ... 到有效的实施

您需要用正确的信息武装起来的训练有素的人员，来执行明确的、依靠技术手段得以自动化的流程，为它们所支持的业务提供高质量的IT服务。IBM根据项目经验提炼的实施指引和模板作为实施的基础，加快了实施进度，降低了风险。

人员

- 角色、团队和功能
- 技能要求
- 工作描述
- 绩效指标
- 员工水平
- 资源获取
- 培训课程
- 员工培训



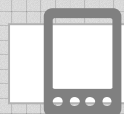
流程

- 技术和信息要求
- 政策和治理
- 流程设计
- 详细工作流
- 工作流程实施
- 程序



技术

- ITSM 架构
- 工具要求
- 工具评估和选择
- 工具安装
- 开发环境
- 客户化和集成
- 测试
- 部署



信息

- 信息要求
- 数据模式
- 信息流
- 接口和集成
- 测量
- 报告





ITIL实施的技术架构需要考虑的因素

- 在服务管理中需要包含多种技术，这些不同的技术和平台都需要整合
- 90年代的平台架构不能提供服务管理所要求的集成性
- 流程系统不应该成为一个新的孤立系统
- 流程和服务应该构建在同一的集成平台，平台的集成性是成功实施的关键
- IBM提供了整合的技术平台集成流程和服务，包括
 - 人员集成（门户和统一认证）
 - 流程集成（支持IT管理的各种流程）
 - 信息集成（统一的CMDB）
 - 技术集成（集成IT监控系统，自动分发和部署系统，邮件，短信，OA，ERP，CRM...）



Service management integrates people, processes, information and technologies to break down silos





企业在实施ITIL时通常都会遇到困难



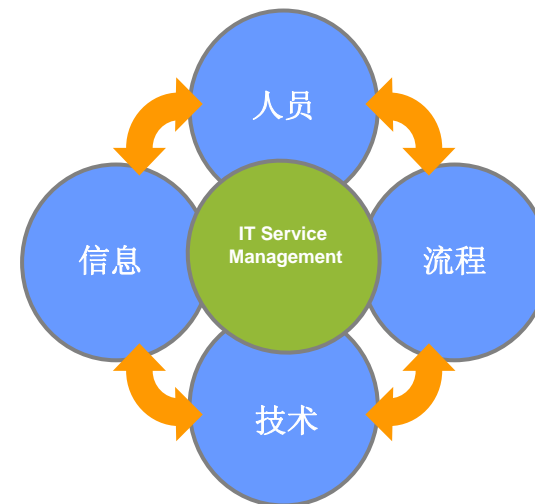
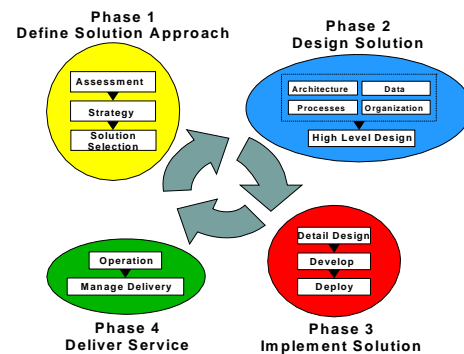
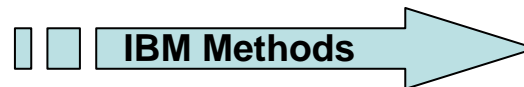
- 理论
- 最佳实践
- 框架
- 方法论

- 现实世界
 - 日常操作
 - 产品化
 - 部署
- 流程和操作步骤
- 实施和部署计划
- 员工培训
- 定制要求





IBM的ITSMDD实施方法可以弥补理论和实践之间的鸿沟



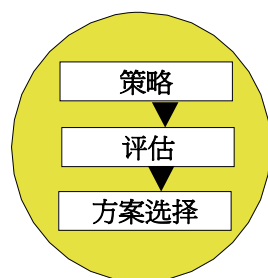


采用IBM ITSMDD 是成功实施ITIL的关键因素

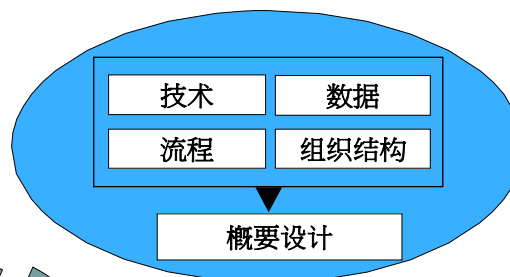
IBM全球服务部ITSMDD生命周期和方法

基于业界最佳实践和对超过400个大企业案例的分析

阶段1: 策略和评估



阶段2: 设计解决方案

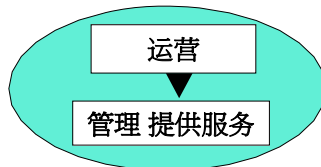


成功的ESM项目遵从生命周期。

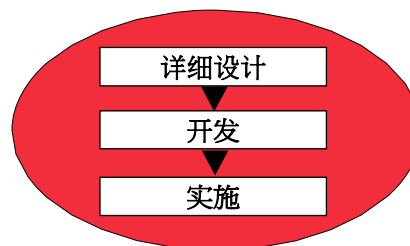
当问题发生时，原因总是因为没有很好地实施生命周期中的一步或多步。

IBM全球服务部平均项目成本较低是因为我们遵从生命周期与方法论，以避免成本超支，返工以及其它常见的导致ITSM项目失败的因素

通过遵从一个经过验证的途径来实施，能够有效地避免返工，中断以及其它由于缺乏经验所导致的问题。



阶段4: 提供服务



阶段 3: 方案实施



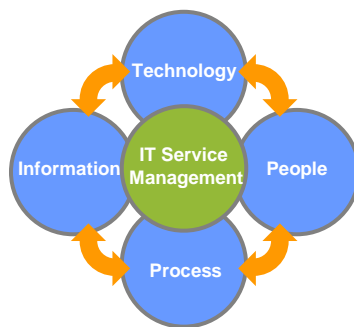


IBM的ITIL设计和实施方法的步骤

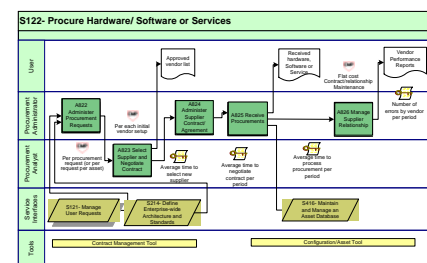
Design of IT Services



1. ITIL认证培训

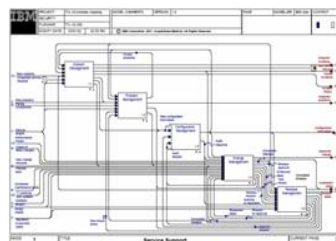


2. 评估并分析客户现有的流程，人员组织和技术要求和数据接口



3. 设计 workflows，数据模型和功能，提出组织建议

Design of IT Service Management Capabilities



4. 设计流程的具体执行步骤



5. 流程培训和工具培训



6. 管理工具的安装，配置和客户化开发



7. 管理政策和控制手段 KPI管理和报表





IBM的ITSMDD方法为企业提供价值

IT Service Management Design

ITSMDD的目标是

- 降低ITIL项目的实施成本
- 改善服务质量
- 将IT服务和业务目标紧密结合



监控，报告



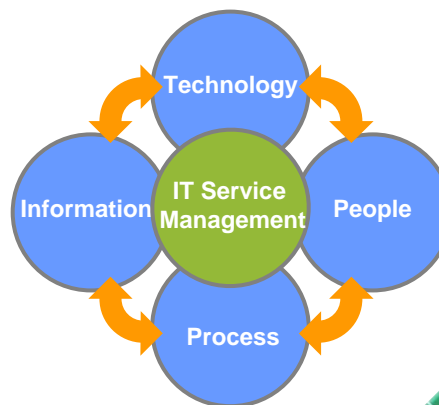
正确的对待客户



建立服务标杆



提供财务和计费模型



定义和交付IT服务



管理服务水平


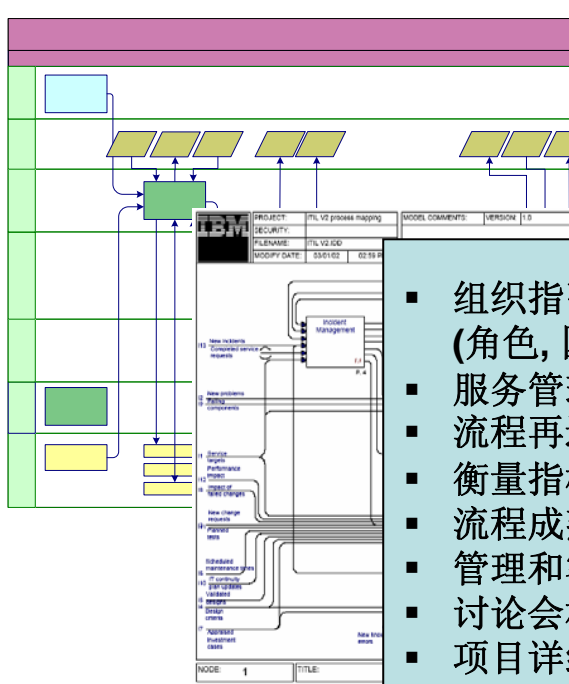


自动化的流程和工作流





IBM的IT服务管理的设计和实施方式包含的实施指引和模板



- 组织指引
(角色, 团队, 职能)
- 服务管理指引
- 流程再造方法: LOVEM
- 衡量指标
- 流程成熟度模型
- 管理和客户调查
- 讨论会材料
- 项目详细计划

5. Change Management Process Overview

Change Management Process Mission Statement

- Change Management will control all changes to all Configuration Items (CIs) in the managed environment by:
 - Ensuring standardized methods, processes, and procedures are used for all changes from the request for change to the post-implementation review
 - Facilitating efficient and prompt handling of all changes
 - Minimizing the impact of Change-related incidents upon service quality thus improving the day-to-day operations of the organization

Process Goals

- Maintain a proper balance between the need for Change against the impact of the Change.
- Minimize the impact of Change-related incidents upon service quality and consequently to improve the day-to-day operations of the organization.
- Maintain open channels of communication in order to promote smooth transitions when Changes take place.

Process Scope

- The process starts with the recognition of the need to put in place and define a management system to control Change, including procedures and policies; it ends with the change being installed and activated.

From the creation of a request, to pre and post-implementation review; analysis and measurement reporting; incidentally managing the Change; design and testing of the Change; implementation of the Change, but also the Change may also be associated with the Change Management.

IT and Software, System Software, Live on and procedures associated with

Service Support

Process Owners: List of those within the organization who may have responsibility and authority for the overall process results. Indicate with an O those who are owners of each of the listed processes

Process	Owner
Configuration Management	
Incident Management	
Problem Management	
Change Management	
Release Management	
Service Desk	

First Line Manager Only: Fill in the appropriate number of employees who are responsible for the process

Process	First Line Manager Only
Configuration Management	
Incident Management	
Problem Management	
Change Management	
Release Management	
Service Desk	

Effective: An effective process is one which produces output that conforms to customer requirements

Efficient: An efficient process is one which produces the required output at the lowest possible cost

Adaptability: An adaptable process is one which is designed to maintain effectiveness and efficiency as requirements change

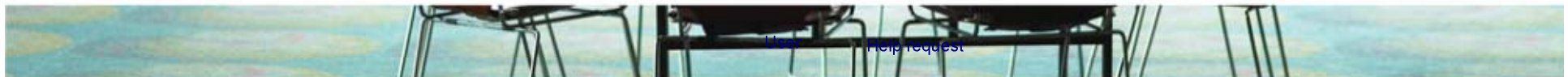
Technology Usage: Degree to which technology has been used to improve the process

Importance: In your opinion, how important is this process for getting the work done

Priority: What priority would you assign to improving this process in relationship to other processes

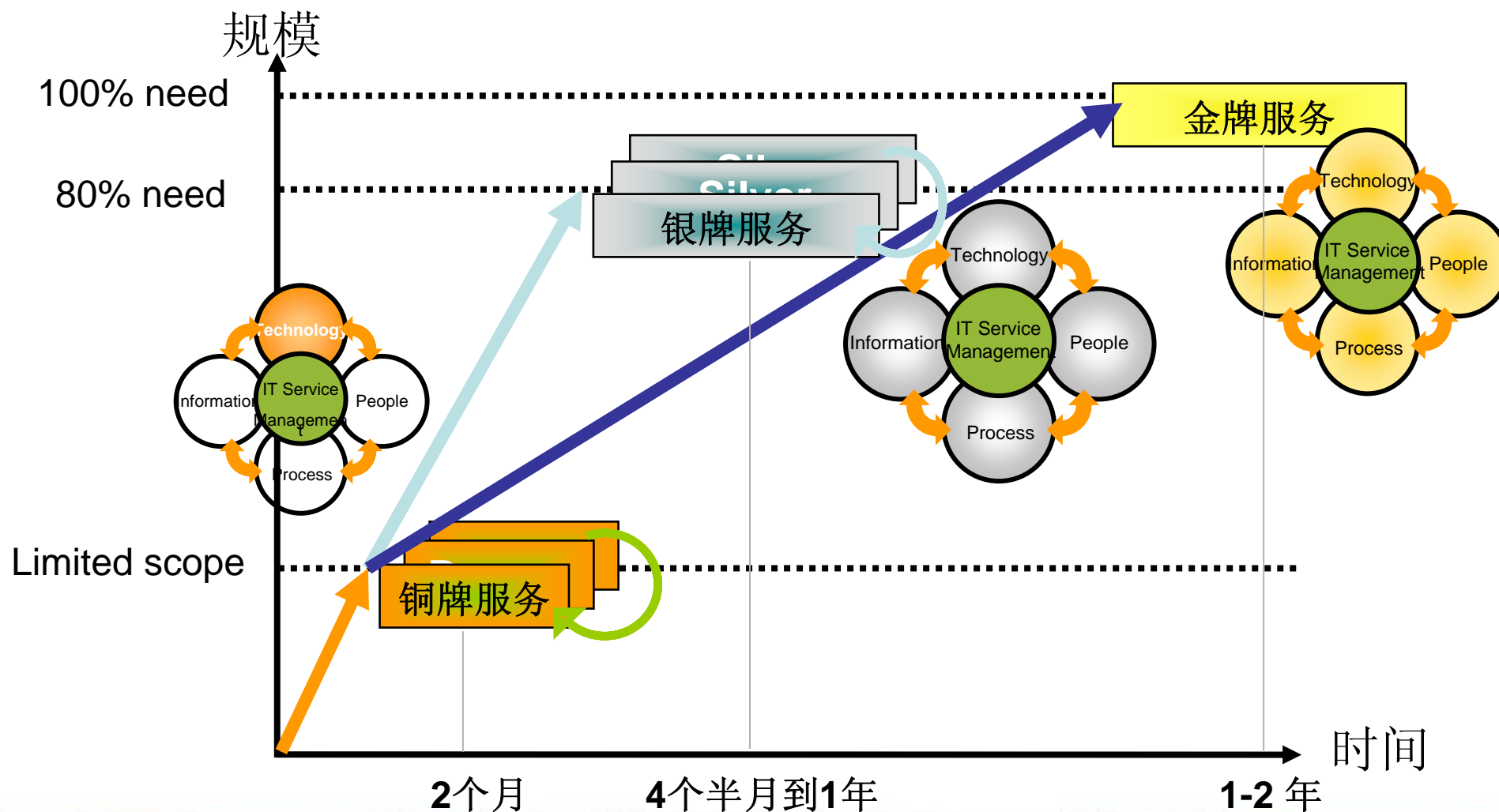
ITIL ONLY First Line Manager: Number of Full Time Equivalent employees working on the process activities

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IBM的ITIL实施根据用户的规模和成熟度、交付时间和对交付系统的要求，可以提供灵活的多层次的服务





时间安排

- ITIL实施的挑战和IBM的应对措施
- 自由讨论和问答





自由讨论和问答

需要更多信息:

- 请访问 www.ibm.com/itsm
- 白皮书 - “IBM Service Management: Practical solutions for today based on 25 years of continuous thought leadership”
- 联系IBM的客户代表和行业销售

