### 国际标准

### ISO/IEC

### 20000-1

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## Information technology — Service management—

Part 1:

Service management system Requirements

信息技术-服务管理-第一部分:

服务管理体系要求



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#### 信息技术----服务管理---第一部分: 要求

#### Information Technology---- Service management---Part 1: requirements

#### **Foreword**

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights.ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 20000-1 was prepared by Joint Technical Committee ISO/IEC JTC 1, Information technology, Subcommittee SC 7, Software and systems engineering. This second edition cancels and replaces the firstedition (ISO/IEC 20000-1:2005), which has been technically revised. The main

#### 前言

ISO (国际标准化组织)和IEC (国际电工协会)组建了世界性的标准化的专业体系。ISO和IEC 的成员单位如对某特定项目感兴趣,可加入由ISO和IEC组织的技术委员会,以参与相关技术工作。ISO和IEC 在双方感兴趣的领域设立联合委员会。与ISO 保持联系的各国际组织(官方的或非官方的)也可参加有关工作。ISO与IEC 在电工技术标准领域建立了联合技术委员会ISO/IEC JTC 1。

国际标准是根据 ISO/IEC 导则第 2 部分的规则起草。

联合技术委员会的主要任务是制定 国际标准。由技术委员会通过的国 际标准草案提交各成员团体投票表 决。国际标准草案需取得至少 75% 参加表决成员团体的同意,才能作 为国际标准正式发布。

本文件中的某些内容有可能涉及一些专利权问题,对此应引起注意, ISO/IEC 不负责识别任何这样的专 利权问题。

ISO/IEC 20000-1 由 ISO/IEC JTC 1/SC 7 信息技术联合技术委员会软件和系统工程分会制定。第二版替代第一版标准(ISO/IEC 20000-1:2005),以及对其进行的技术性修订。主要的不同点如下:

differences are as follows:

.closer alignment to ISO 9001;

.closer alignment to ISO/IEC 27001;

.change of terminology to reflect international usage;

.addition of many more definitions, updates to some definitions and removal of two definitions;

.introduction of the term "service management system";

.combining Clauses 3 and 4 of ISO/IEC 20000-1:2005 to put all management system requirements into one clause;

.clarification of the requirements for the governance of processes operated by other parties;

.clarification of the requirements for defining the scope of the SMS;

.clarification that the PDCA methodology applies to the SMS, including the service management processes, and the services;

.introduction of new requirements for the design and transition of new or changed services.

ISO/IEC 20000 consists of the following parts, under the general title Information technology — Service management: .

Part 1: Service management system requirements .

Part 2: Guidance on the application of service management systems

Part 3: Guidance on scope definition and applicability of ISO/IEC 20000-1 [Technical Report].

Part 4: Process reference model [Technical Report].

--更接近 ISO 9001;

--更接近 ISO/IEC 27001;

--术语的变化,以同国际惯例接轨;

--更多定义的增加,部分定义的更新 和两个定义的删除;

--术语"服务管理体系(SMS)"的引入:

--整合了 ISO/IEC 20000-1:2005 的 条款 3 和条款 4, 使管理体系要求集 中于一个条款;

---其他方运行过程的治理要求的澄 清;

--对服务管理体系(SMS)的范围进行定义等要求的澄清:

--澄清 PDCA 方法论适用于服务管理体系 (SMS),包括服务管理过程及服务;

--设计和转换新的或变更的服务新要求的引入。

ISO/IEC 20000 标准族由下列名为 "信息技术-服务管理"标准构成,包括:

--第1部分:要求

--第2部分:应用服务管理体系指南

--第 3 部分 (技术报告): ISO/IEC 20000-1 范围定义和适用性指南

--第4部分(技术报告): 过程参考

Part 5: Exemplar implementation plan for ISO/IEC 20000-1 [Technical Report]

A process assessment model for service management will form the subject of a future Part 8.

#### Introduction

The requirements in this part of ISO/IEC 20000 include the design, transition, delivery and improvement of services that fulfil service requirements and provide value for both the customer and the service provider. This part of ISO/IEC 20000 requires an integrated process approach when the service provider plans, establishes, implements, operates, monitors, reviews, maintains and improves a service management system (SMS).

Co-ordinated integration and implementation of an SMS provides ongoing control and opportunities for continual improvement, greater effectiveness and efficiency. The operation of processes as specified in this part of ISO/IEC 20000 requires personnel to be well organized and co-ordinated. Appropriate tools can be used to enable the processes to be effective and efficient.

The most effective service providers consider the impact on the SMS through all stages of the service lifecycle, from strategy through design, transition and operation, including continual improvement.

This part of ISO/IEC 20000 requires the application of the methodology known as "Plan-Do-Check-Act" (PDCA) to all parts of the SMS and the services. The PDCA methodology, as applied in this part of ISO/IEC 20000, can be briefly described as follows.

Plan: establishing, documenting and agreeing the SMS. The SMS includes the policies, objectives, plans and processes to fulfil the service

#### 模型

--第 5 部分(技术报告): 实施 ISO/IEC 20000-1 计划的模型

服务管理的一个过程评估模型将在 不久的将来推出,作为第 8 部分的 一个章节。

#### 引言

ISO/IEC 20000 的本部分要求包括设计、转换、交付和改进服务,以满足服务需求并向客户和服务提供方提供价值。ISO/IEC 20000 的本部分要求服务提供方在计划、建立、实施、运行、监控、回顾、维护和改进服务管理体系(SMS)时,采用整体的过程方法。

服务管理体系(SMS)协调一致的整合与实施可提供实时的控制以及更有效和更高效率的持续改进机会。 ISO/IEC 20000 的本部分定义运行的过程要求要很好地组织和协调人员。要求采用适宜的工具以确保过程是有效的和有效率的。

最有效的服务提供方在服务的生命 周期中的所有阶段,从战略到设计、 转换和运行,包括持续改进都要考 虑对服务管理体系(SMS)的影响。

ISO/IEC 20000 的本部分要求已知的"策划-实施-检查-处置"(PDCA)方法论应用于服务管理体系(SMS)和服务的所有部分。本部分采用的PDCA方法论,可以简单描述为:

P-策划:建立文件化和协定的服务管理体系(SMS)。服务管理体系包括满足服务需求的方针、目标、计

requirements.

Do: implementing and operating the SMS for the design, transition, delivery and improvement of the services.

Check: monitoring, measuring and reviewing the SMS and the services against the policies, objectives, plans and service requirements and reporting the results.

Act: taking actions to continually improve performance of the SMS and the services.

When used within an SMS, the following are the most important aspects of an integrated process approach and the PDCA methodology:

- a) understanding and fulfilling the service requirements to achieve customer satisfaction;
- b) establishing the policy and objectives for service management;
- c) designing and delivering services based on the SMS that add value for the customer;
- d) monitoring, measuring and reviewing performance of the SMS and the services;
- e) continually improving the SMS and the services based on objective measurements.

Figure 1 illustrates how the PDCA methodology can be applied to the SMS, including the service management processes specified in Clauses 5 to 9, and the services. Each element of the PDCA methodology is a vital part of a successful implementation of an SMS. The improvement process used in this part of ISO/IEC 20000 is based on the PDCA methodology.

划和过程;

D-实施:实施和运行服务管理体系 (SMS),以设计、转换、交付和改进服务;

C-检查:根据方针、目标、计划和服务需求,对服务管理体系(SMS)进行监视、测量和回顾,并报告结果;

A-处置:采取措施,以持续改进服务管理体系(SMS)和服务的绩效。

当用于服务管理体系(SMS)时,以下内容是整合过程方法和 PDCA 方法论最重要的方面:

- a) 理解和满足服务需求以使客户 满意;
- b) 建立服务管理的方针和目标;
- c)基于为客户增加价值的服务管理体系(SMS)设计和提供服务;
- d) 监视、测量和回顾服务管理体系(SMS)和服务;
- e)基于目标测量以持续改进服务管理体系(SMS)和服务。

图1说明了PDCA方法论可以应用到服务管理体系(SMS),包括定义条款5-9的服务管理过程和服务。PDCA方法论的元素都是成功实施服务管理体系的关键部分。ISO/IEC 20000本部分的改进过程也基于PDCA方法论。

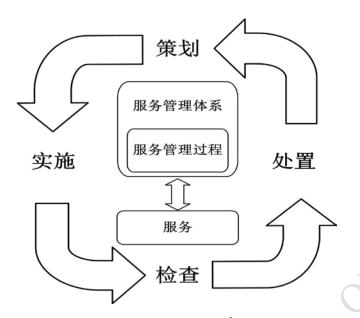


Figure 1 — PDCA methodology applied to service management

This part of ISO/IEC 20000 enables a service provider to integrate its SMS with other management systems in the service provider's organization. The adoption of an integrated process approach and the PDCA methodology enables the service provider to align or fully integrate multiple management system standards. For example, an SMS can be integrated with a quality management system based on ISO 9001 or an information security management system based on ISO/IEC 27001.

ISO/IEC 20000 is intentionally independent of specific guidance. The service provider can use a combination of generally accepted guidance and its own experience.

Users of an International Standard are responsible for its correct application. An International Standard does not purport to include all necessary statutory and regulatory requirements and contractual obligations of the service provider. Conformity to an International Standard does not of itself confer immunity from statutory and regulatory requirements.

图 1 PDCA 方法论在服务管理的应用

ISO/IEC 20000本部分允许服务提供方在组织中将服务管理体系 (SMS)和其他管理体系整合为一体。采用整合的过程方法和PDCA方法论可以使服务提供方能协调或完全整合多个管理体系标准。例如,服务管理体系可以与基于ISO 9001的质量管理体系和基于 ISO/IEC 27001的信息安全管理体系整合。

ISO/IEC 20000的目的是独立的特定的指南。服务提供方可以结合使用其他普遍接受的指南和自身的经验。

国际标准的使用者对标准的正确应 用负责。国际标准并非旨在包括所 有法律法规和服务提供方签署合同 义务的要求。对国际标准的遵守并 不意味着免除遵守法律法规的义 务。 For the purposes of research on service management standards, users are encouraged to share their views on ISO/IEC 20000-1 and their priorities for changes to the rest of the ISO/IEC 20000 series. Click on the link below to take part in the online survey.

ISO/IEC 20000-1 online survey

#### 1 Scope

#### 1.1 General

This part of ISO/IEC 20000 is a service management system (SMS) standard. It specifies requirements for the service provider to plan, establish, implement, operate, monitor, review, maintain and improve an SMS. The requirements include the design, transition, delivery and improvement of services to fulfil service requirements. This part of ISO/IEC 20000 can be used by:

- a) an organization seeking services from service providers and requiring assurance that their service requirements will be fulfilled;
- b) an organization that requires a consistent approach by all its service providers, including those in a supply chain;
- c) a service provider that intends to demonstrate its capability for the design, transition, delivery and improvement of services that fulfil service requirements;
- d) a service provider to monitor, measure and review its service management processes and services;
- e) a service provider to improve the design, transition and delivery of services through effective implementation and operation of an SMS;
- f) an assessor or auditor as the criteria for a conformity assessment of a service provider's SMS to the requirements in this part of ISO/IEC 20000.

我们鼓励使用者分享对ISO/IEC 20000-1 的观点以及对ISO/IEC 20000标准族其他标准修改的优先顺序的意见,进而促进IT服务管理标准的研究。请点击以下链接参加在线调查:

ISO/IEC 20000-1 在线调查

#### 1 范围

#### 1.1 总则

ISO/IEC 20000 的本部分是服务管理体系(SMS)标准。它为服务提供方定义了策划、建立、实施、运行、监视、回顾、维护和提高服务管理体系的要求。该要求包括服务的设计、转换、交付和改进,以满足服务需求。ISO/IEC 20000 的本部分可被用于:

- a) 从服务提供方寻求服务并要保证其服务需求被满足的组织;
- b) 要求对所有供应商,包括供应链,采用一致性方法的组织;
- c) 目的在于展示其服务的设计、 转换、交付和改进能力满足服务需 求的服务提供方;
- d) 监视、测量和评审其服务管理 过程和服务的服务提供方:
- e) 通过有效的实施和运行服务管理体系(SMS)改进服务的设计、转换和交付的服务提供方;
- f) 作为评估服务者的服务管理体系(SMS)满足 ISO/IEC 20000 本部分的准则的评估师或审核员。

Figure 2 illustrates an SMS, including the service management processes. The service management processes and the relationships between the processes can be implemented in different ways by different service providers. The nature of the relationship between a service provider and the customer will influence how the service management processes are implemented.

图 2 说明了服务管理体系(SMS),包括服务管理过程。不同的服务提供方可采用不同的方式处理服务管理过程和过程之间的相关性。供应商和客户之间的实质关系将影响服务管理过程如何实施。

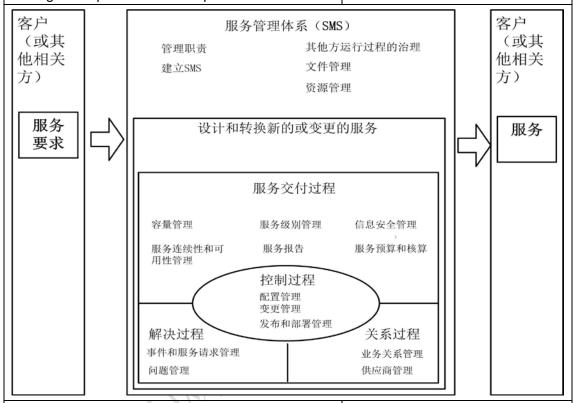


Figure 2 — Service management system

#### 1.2 Application

All requirements in this part of ISO/IEC 20000 are generic and are intended to be applicable to all service providers, regardless of type, size and the nature of the services delivered. Exclusion of any of the requirements in Clauses 4 to 9 is not acceptable when a service provider claims conformity to this part of ISO/IEC 20000, irrespective of the nature of the service provider's organization.

Conformity to the requirements in Clause 4 can only be demonstrated by a service provider showing evidence of fulfilling all of the requirements in Clause 4. A service provider cannot rely on evidence of the governance of processes operated by other parties for the requirements in Clause 4.

#### 图 2 服务管理体系

#### 1.2 应用

ISO/IEC 20000 的本部分是通用的,无论供应商的类型、规模和服务交付的特性,都可被采用。无论服务提供方组织有任何特性,宣称符合ISO/IEC 20000 本部分的服务提供方对条款 4-9 的任何裁剪都是不可接受的。

ISO/IEC 20000 的本部分条款 4 的符合性仅限于服务提供方展示其自身证据,以说明满足条款 4 的所有要求。服务提供方不能将其他方运行过程治理作为条款 4 的证据。

Conformity to the requirements in Clauses 5 to 9 can be demonstrated by the service provider showing evidence of fulfilling all requirements. Alternatively, the service provider can show evidence of fulfilling the majority of the requirements themselves and evidence of the governance of processes operated by other parties for those processes, or parts of processes, that the service provider does not operate directly.

服务提供方可以展示自身证据,以证明符合条款 5-9 的符合性的要求。 另外,服务提供方也可以展示满足 大多数要求的自身证据和不直接操 作的、其他方管理运行全部或部分 过程产生的证据。

The scope of this part of ISO/IEC 20000 excludes the specification for a product or tool. However, organizations can use this part of ISO/IEC 20000 to help them develop products or tools that support the operation of an SMS.

ISO/IEC 20000 的本部分排除特定的产品或工具。然而,组织可以使用 ISO/IEC 20000 的本部分开发支持服务管理体系(SMS)运行的产品和工具。

NOTE ISO/IEC TR 20000-3 provides guidance on scope definition and applicability of this part of ISO/IEC 20000. This includes further explanation about the governance of processes operated by other parties.

注: ISO/IEC 20000-3 提供 ISO/IEC 20000 的本部分范围定义和适用性的指南。这包括更明确的关于其他方管理运行的过程的解释。

#### 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

#### 2 标准参考文献

以下引用的文献对本文件的应用是 不可缺少的。凡是注日期的引用文 件,仅引用的版本适用。凡是不注 日期的引用文件,其最新版本(包 括所有的修订)适用于本标准。

No normative references are cited. This clause is included in order to ensure clause numbering is identical with ISO/IEC 20000-2:—, *Information technology* — Service management — Part 2: Guidance on the application of service management systems.

本条款中没有引用标准参考文献。本条款仅为确保条款的顺序与ISO/IEC 20000-2: 信息技术-信息管理-第2部分: 实施服务管理体系指南保持一致。

#### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

#### 3 术语和定义

下列术语和定义适用于 ISO/IEC 20000-1:2011 的本部分。

#### 3.1 availability

ability of a service or service component to perform its required function at an agreed instant or over an agreed period of time

#### 3.1 可用性 availability

在协定的中断或规定时间段内,服 务组件或服务执行要求功能的能 力。 NOTE Availability is normally expressed as a ratio or percentage of the time that the service or service component is actually available for use by the customer to the agreed time that the service should be available.

注: 可用性通常用客户使用的实际 可用服务或服务组件的时间与约定 服务时间的比率或百分比表示。

#### 3.2 configuration baseline

configuration information formally designated at a specific time during a service or service component's life

NOTE 1 Configuration baselines, plus approved | 注 1: 配置基线, 附加这些基线批准 changes from those baselines, constitute the current configuration information.

NOTE 2 Adapted from ISO/IEC/IEEE 24765:2010.

- 3.3 configuration item CI element that needs to be controlled in order to deliver a service or services
- 3.4 configuration management database CMDB data store used to record attributes of configuration items, and the relationships between configuration items, throughout their lifecycle
- 3.5 continual improvement recurring activity to increase the ability to fulfil service requirements

NOTE Adapted from ISO 9000:2005.

3.6 corrective action

action to eliminate the cause or reduce the likelihood of recurrence of a detected nonconformity or other undesirable situation

NOTE Adapted from ISO 9000:2005.

3.7 customer organization or part of an organization that receives 接受单个或多个服务的组织或组织

3.2 配置基线 configuration baseline

在服务或服务组件生命周期过程中 特定时间段正式指定的配置信息。

的变更单,构成现行的配置信息。

- 注 2: 采纳自 ISO/IEC/IEEE 24765:2010。
- 3.3 配置项 configuration item (CI) 为交付单个或多个服务需求控制的 所有要素。
- 3.4 配置管理数据库 configuration management database (CMDB) 存储用来记录每个配置项的特性和 配置项之间关系的数据。
- 3.5 持续 改进 continual improvement

增强满足服务需求的能力的循环活 动。

注: 改编自 ISO 9000:2005。

3.6 纠正措施 corrective action 为消除已发现的不合格或其他不期 望情况的原因所采取的措施。

注: 改编自 ISO 9000:2005。

3.7 客户 customer

#### a service or services

NOTE 1 A customer can be internal or external to the service provider's organization.

NOTE 2 Adapted from ISO 9000:2005.

3.8 document information and its supporting medium [ISO 9000:2005]

EXAMPLES Policies, plans, process descriptions, procedures, service level agreements, contracts or records.

NOTE 1 The documentation can be in any form or type of medium.

NOTE 2 In ISO/IEC 20000, documents, except for records, state the intent to be achieved.

3.9 effectiveness extent to which planned activities are realized and planned results achieved [ISO 9000:2005]

#### 3.10 incident

unplanned interruption to a service, a reduction in the quality of a service or an event that has not yet impacted the service to the customer

3.11 information security preservation of confidentiality, integrity and accessibility of information

NOTE 1 In addition, other properties such as authenticity, accountability, non-repudiation and reliability can also be involved.

NOTE 2 The term "availability" has not been used in | 注 2: 在本定义中未使用术语"可用 this definition because it is a defined term in this part of ISO/IEC 20000 which would not be appropriate for this definition.

的一部分。

注 1: 客户可以是组织内部的或外部

注 2: 改编自 ISO 9000:2005。

3.8 文件 document 信息及其承载媒介。 [ISO 9000:2005]

例如:方针、计划、过程描述、程 序、服务级别协议、合同文本。

注 1: "documentation"可以是任何 类型的媒介。

注 2: 在 ISO/IEC 20000 中的文件, 除了记录,其陈述的意图都要得以 实现。

#### 3.9 有效性 effectiveness

完成计划的活动并得到计划结果的 程度。

[ISO 9000:2005]

#### 3.10 事件 incident

非计划的服务中断、服务质量的降 低或尚未对客户服务造成影响的事 情。

3.11 信息安全 information security 保护信息的机密性、完整性和可访 问性。

注 1: 另外,也可以涉及其他一些特 性,如真实性、可追责性、不可抵 赖性和可靠性。

性", 因为在 ISO/IEC 20000 的本部 分定义该术语是不适合的。

NOTE 3 Adapted from ISO/IEC 27000:2009.

#### 3.12 information security incident

single or a series of unwanted or unexpected information security events that have a significant probability of compromising business operations and threatening information security
[ISO/IEC 27000:2009]

#### 3.13 interested party

person or group having a specific interest in the performance or success of the service provider's activity or activities

EXAMPLES Customers, owners, management, people in the service provider's organization, suppliers, bankers, unions or partners.

NOTE 1 A group can comprise an organization, a part thereof, or more than one organization.

NOTE 2 Adapted from ISO 9000:2005.

#### 3.14 internal group

part of the service provider's organization that enters into a documented agreement with the service provider to contribute to the design, transition, delivery and improvement of a service or services

NOTE The internal group is outside the scope of the service provider's SMS.

#### 3.15 known error

problem that has an identified root cause or a method of reducing or eliminating its impact on a service by working around it

3.16 nonconformity non-fulfilment of a requirement [ISO 9000:2005]

#### 3.17 organization

group of people and facilities with an arrangement of

注 3: 改编自 ISO27000:2009。

## 3.12 信息安全事件 information security incident

单个或一系列不需要的或非预期 的、有明显的可能性危害业务运行 和威胁信息安全的事情。

[ISO/IEC 27000:2009]

#### 3.13 相关方 interested party

与服务提供方行为或行动的业绩或成就有利益关系的个人或团体。

示例:客户、所有者、员工、管理 方、服务提供方组织内的人员、供 应商银行、工会或合作伙伴。

注 **1**: 一个团体可由一个组织或其一部分组织或多个组织构成。

注 2: 改编自 ISO 9000:2005

#### 3.14 内部团体 internal group

服务提供方组织内部的一部分,与 服务提供方有书面的协定,协助单 个服务或多个服务的设计、转换、 交付和改进。

注:内部团体在服务提供方服务管体系(SMS)的范围之外。

#### 3.15 已知错误 known error

寻找到根本原因或找到减少或降低对服务冲击的规避方法的问题。

3.16 不合格 nonconformity 未满足的要求。 [ISO 9000:2005]

#### 3.17 组织 organization

一组职责、权限和相互关系得到安

responsibilities, authorities and relationships

EXAMPLES Company, corporation, firm, enterprise, institution, charity, sole trader, association, or parts or combination thereof.

NOTE 1 The arrangement is generally orderly.

NOTE 2 An organization can be public or private. [ISO 9000:2005]

#### 3.18 preventive action

action to avoid or eliminate the causes or reduce the likelihood of occurrence of a potential nonconformity or other potential undesirable situation

NOTE Adapted from ISO 9000:2005.

3.19 problem

root cause of one or more incidents

NOTE The root cause is not usually known at the time a problem record is created and the problem management process is responsible for further investigation.

3.20 procedure

specified way to carry out an activity or a process [ISO 9000:2005]

NOTE Procedures can be documented or not.

3.21 process

set of interrelated or interacting activities which transforms inputs into outputs [ISO 9000:2005]

3.22 record

document stating results achieved or providing evidence of activities performed [ISO 9000:2005]

EXAMPLES Audit reports, incident reports, training | 示例: 审核报告,事件报告,培训

排的人员和设施。

示例:公司、集团、商业、企事业 单位、研究机构、慈善机构、代理 商、社团或上述组织的部分或组合。

注 1:安排通常是有序的。

注 2: 组织可以是公有的或私有的。 [ISO 9000:2005]

3.18 纠正措施 corrective action 为避免或消除不合格的起因, 或减 少不合格或其他不期望情况复发的 可能性所采取的措施。

注: 改编自 ISO 9000:2005。

3.19 问题 problem

造成一个或多个事件的根本原因。

注:问题的根本原因在问题创建通 常是未知的,问题管理过程就是负 责探寻这些未知。

3.20 程序 procedure

为进行某项活动或过程所规定的途 径。

[ISO 9000:2005]

注:程序可以是书面的也可以是口 头的。

3.21 过程 process

将输入转化为输出的相互关联或相 互作用的一组活动。

[ISO 9000:2005]

3.22 记录 record

阐明所取得的结果或提供所完成活 动的证据的文件。

[ISO 9000:2005]

records or minutes of meetings.

#### 3.23 release

collection of one or more new or changed configuration items deployed into the live environment as a result of one or more changes

#### 3.24 request for change

proposal for a change to be made to a service, service component or the service management system

NOTE A change to a service includes the provision \ 注:对服务的变更包括准备新的服 of a new service or the removal of a service which is no longer required.

#### 3.25 risk

effect of uncertainty on objectives

NOTE 1 An effect is a deviation from the expected positive and/or negative.

NOTE 2 Objectives can have different aspects (such as financial, health and safety, and environmental goals) and can apply at different levels (such as strategic, organization-wide, project, product and process).

NOTE 3 Risk is often characterized by reference to potential events and consequences, combination of these.

NOTE 4 Risk is often expressed in terms of a | 注 4: 风险在术语中通常表述为一个 combination of the consequences of an event (including changes in circumstances) and the associated likelihood of occurrence.

[ISO 31000:2009]

#### 3.26 service

means of delivering value for the customer by facilitating results the customer wants to achieve

NOTE 1 Service is generally intangible.

记录或会议纪要

#### 3.23 发布 release

作为一个或多个变更的结果而同时 引入现实环境的一个或多个新配置 项或变更的配置项的集合。

3.24 变更请求 request for change 提出的针对服务、服务组件或服务 管理体系 (SMS) 的变更建议。

务或移除不再需要的服务。

#### 3.25 风险 risk

对目标不确定性的影响。

注 1: 影响是对期望的偏离-正面和 (或)负面的。

注 2: 目标可以有不同的方面(例如 财务、健康、安全和环境目标)和 不同的层级(如战略级、组织范围 级、项目级、产品级和过程级)。

注 3: 风险的特点往往参照潜在事件 和后果,或者它们的组合;

事件的后果(包括环境的变更)和 相关后果发生可能性的组合。

[ISO 31000:2009]

#### 3.26 服务 Service

意味着提供价值达到客户期望结果 的服务。

注 1: 服务通常是无形的。

NOTE 2 A service can also be delivered to the service provider by a supplier, an internal group or a customer acting as a supplier.

customer acting as a supplier.

3.27 service component

single unit of a service that when combined with other units will deliver a complete service

EXAMPLES Hardware, software, tools, applications, documentation, information, processes or supporting services.

NOTE A service component can consist of one or more configuration items.

3.28 service continuity

capability to manage risks and events that could have serious impact on a service or services in order to continually deliver services at agreed levels

3.29 service level agreement SLA

documented agreement between the service provider and customer that identifies services and service targets

NOTE 1 A service level agreement can also be established between the service provider and a supplier, an internal group or a customer acting as a supplier.

NOTE 2 A service level agreement can be included in a contract or another type of documented agreement.

3.30 service management

set of capabilities and processes to direct and control the service provider's activities and resources for the design, transition, delivery and improvement of services to fulfil the service requirements

3.31 service management system SMS management system to direct and control the

注 2: 服务提供方、内部团体或客户 自身可以作为提供者交付的服务。

3.27 服务组件 service component 单一的服务单元与其他单元结合时 将交付一套完整的服务。

示例:硬件,软件,工具,应用, 文件,信息和过程或支持服务。

注: 一个服务组件可以有一个或多个配置项构成。

3.28 服务的连续性 service continuity

管理一系列影响单个或多个服务的 风险和事件,持续提供协定级别服 务的能力。

3.29 服务级别协议(SLA) service level agreement

服务提供方与客户之间签署的,明确了服务和服务目标的书面协议。

注 1: 服务级别协议可在服务提供方和供应者、内部团体或作为供应商的客户之间建立。

注 2: 服务级别协议可以包含在合同或其他任何类型的文件化的协定中。

3.30 服 务 管 理 service management

一组能力和过程,指导和控制服务 提供方的活动和资源,设计、转换、 交付和改进服务,以满足服务需求。

3.31 服务管理体系(SMS)service management system

service management activities of the service provider

NOTE 1 A management system is a set of interrelated or interacting elements to establish policy and objectives and to achieve those objectives.

NOTE 2 The SMS includes all service management policies, objectives, plans, processes, documentation and resources required for the design, transition, delivery and improvement of services and to fulfil the requirements in this part of ISO/IEC 20000.

NOTE 3 Adapted from the definition of "quality management system" in ISO 9000:2005.

#### 3.32 service provider

organization or part of an organization that manages and delivers a service or services to the customer

NOTE A customer can be internal or external to the service provider's organization.

#### 3.33 service request

request for information, advice, access to a service or a pre-approved change

#### 3.34 service requirement

needs of the customer and the users of the service, including service level requirements, and the needs of the service provider

#### 3.35 supplier

organization or part of an organization that is external to the service provider's organization and enters into a contract with the service provider to contribute to the design, transition, delivery and improvement of a service or services or processes

NOTE Suppliers include designated lead suppliers but not their sub-contracted suppliers.

管理体系,用来指导和控制服务提供方的服务管理活动。

注 1: 管理体系是一组相关或交互的元素,建立方针和目标并实现这些目标。

注 2: 服务管理体系 (SMS) 包括 所有服务管理的方针、目标、策略、 过程、文件和资源,只要它们满足 ISO/IEC 20000 本部分要求,以及 用于服务的设计、转换、交付和改 进的相关要求。

注 3: 改编自 ISO 9000: 2005 中"质量管理体系"的定义。

3.32 服务提供方 service provider 为客户提供单个或多个服务的组织或组织的一部分。

注:对于服务提供方的组织来说,客户可以是内部的或外部的。

3.33 服务请求 service request 请求提供信息、建议、访问某个服务或预先核准的变更。

3.34 服务需求 service requirement 客户和用户对服务的需求,包括服务级别的要求,以及对服务提供方的要求。

#### 3.35 供应商 supplier

服务提供方组织之外的组织或服务 提供方组织的一部分,与服务提供 方签订合同,协助单个服务或多个 服务或过程的设计、转换、交付和 改进。

注:供应商包括指定的主供应商,但不包括他们的分包商。

#### 3.36 top management

person or group of people who direct and control the service provider at the highest level

NOTE Adapted from ISO 9000:2005.

#### 3.37 transition

activities involved in moving a new or changed service to or from the live environment

## 4 Service management system general requirements

#### 4.1 Management responsibility

#### 4.1.1 Management commitment

Top management shall provide evidence of its commitment to planning, establishing, implementing, operating, monitoring, reviewing, maintaining, and improving the SMS and the services by:

- a) establishing and communicating the scope, policy and objectives for service management;
- b) ensuring that the service management plan is created, implemented and maintained in order to adhere to the policy, achieve the objectives for service management and fulfil the service requirements;
- c) communicating the importance of fulfilling service requirements;
- d) communicating the importance of fulfilling statutory and regulatory requirements and contractual obligations;
- e) ensuring the provision of resources;
- f) conducting management reviews at planned intervals;
- g) ensuring that risks to services are assessed and managed.

#### 4.1.2 Service management policy

Top management shall ensure that the service management policy:

3.36 最高管理者 top management 在最高层指挥和控制服务提供方的一个人或一组人。

注: 改编自 ISO 9000:2005。

#### 3.37 转换 transition

将新的或变更的服务纳入现实环境 或从现实环境移出的一组活动。

#### 4服务管理体系总要求

#### 4.1 管理职责

#### 4.1.1 管理承诺

最高管理者应通过以下活动,对其策划、建设、实施、运行、监控、评审、维护和改进服务管理体系(SMS)和服务提供证据:

- a) 建立和沟通服务管理的范围、 方针和目标;
- b) 确保服务管理计划的创建、实 施和维护,以坚持服务方针、实现 服务目标和满足服务需求;
- c) 传达满足服务需求的重要性;
- d) 传达满足法律法规要求和合同 义务的重要性:
- e) 确保提供资源:
- f) 按照计划的时间间隔实施管理 评审;
- g) 确保已经评估和管理服务风 险。

#### 4.1.2 服务管理方针

最高管理者应确保服务方针:

a)is appropriate to the purpose of the service provider;

b)includes a commitment to fulfil service requirements;

- c)includes a commitment to continually improve the effectiveness of the SMS and the services through the policy on continual improvement in Clause 4.5.5.1:
- d)provides a framework for establishing and reviewing service management objectives;
- e)is communicated and understood by the service provider's personnel;

f)is reviewed for continuing suitability.

## 4.1.3 Authority, responsibility and communication

Top management **shall** ensure that:

- a) service management authorities and responsibilities are defined and maintained;
- b) documented procedures for communication are established and implemented.

#### 4.1.4 Management representative

Top management shall appoint a member of the service provider's management who, irrespective of other

responsibilities, has the authorities and responsibilities that include:

- a)ensuring that activities are performed to identify, document and fulfil service requirements;
- b)assigning authorities and responsibilities for ensuring that service management processes are designed, implemented and improved in accordance with the policy and objectives for service management;

- a) 与服务提供方的宗旨相适应:
- b) 包括对满足服务需求的承诺;
- c) 包括通过条款4.5.5.1的持续改进方针对持续改进服务管理体系(SMS)和服务有效性的承诺;
- d) 提供制定和评审服务管理目标的框架:
- e) 传达至服务提供方的每个人, 并统一认识;
- f) 在持续适宜性方面得到评审。

#### **4.1.3 权限、职责和沟通** 最高管理者<mark>应</mark>:

- a) 已规定确保服务管理的职责、 权限,并沟通;
- b) 已经建立并实施书面的沟通程序。

#### 4.1.4管理者代表

最高管理者应指定服务提供方管理 层的一个成员,无论该成员在其他 方面的职责如何,具有以下方面的 职责和权限:

- a) 确保执行识别、记录和满足服务需求的活动:
- b) 分配权限和职责,确保根据服务管理的方针和目标设计、实施和提高服务管理过程;

c)ensuring that service management processes are integrated with the other components of the SMS;

- d)ensuring that assets, including licences, used to deliver services are managed according to statutory and regulatory requirements and contractual obligations;
- e)reporting to top management on the performance and opportunities for improvement to the SMS and the services.

## 4.2 Governance of processes operated by other parties

For the processes in Clauses 5 to 9, the service provider **shall** identify all processes, or parts of processes, which are operated by other parties. Other parties can be an internal group, a customer or a supplier. The service provider **shall** demonstrate governance of processes operated by other parties by:

- a)demonstrating accountability for the processes and authority to require adherence to the processes;
- b)controlling the definition of the processes, and interfaces to other processes;
- c)determining process performance and compliance with process requirements;
- d) controlling the planning and prioritizing of process improvements.

When a supplier is operating parts of the processes, the service provider shall manage the supplier through the supplier management process. When an internal group or a customer is operating parts of the processes, the service provider shall manage the internal group or the customer through the service level management process.

NOTE ISO/IEC TR 20000-3 provides guidance on scope definition and applicability of this part of

- c) 确保服务管理过程是与其他服务管理体系(SMS)管理组件整合的:
- d)确保用于交付服务的资产(包括许可证),其管理遵从法律法规要求和合同义务;
- e) 向最高管理者报告服务管理体系(SMS)的业绩和任何改进的机会。

#### 4.2其他方运行过程的治理

对于条款5-9的过程,服务提供方应识别所有被其他方全部或部分运行的过程。其他方可以是内部团体、客户或供应商。服务提供方应通过以下活动说明对其他方运行过程的治理:

- a) 说明问责的过程和遵守过程要求的证明:
- b) 控制过程的定义和与其他过程的接口;
- c) 确定过程的性能和对过程需求的遵守;
- **d**) 控制过程改进的计划和优先级。

当供应商运行过程的一部分时,服务提供方应通过供应商管理过程对其进行管理。当内部团体或客户运行部分过程时,服务提供方应通过服务级别管理对内部团体或客户进行管理。

注: ISO/IEC TR 20000-3提供了 ISO/IEC 20000本部分范围定义和

ISO/IEC 20000. This includes further explanation about the governance of processes operated by other parties.

实用性的指导。包括未来对其他方运行过程的解释。

#### 4.3 Documentation management

#### 4.3.1 Establish and maintain documents

The service provider shall establish and maintain documents, including records, to ensure effective planning, operation and control of the SMS. These documents shall include:

- a) documented policy and objectives for service management;
- b) documented service management plan;
- c) documented policies and plans created for specific processes as required by this part of ISO/IEC 20000:
- d) documented catalogue of services;
- e) documented SLAs;
- f) documented service management processes;
- g) documented procedures and records required by this part of ISO/IEC 20000;
- h) additional documents, including those of external origin, determined by the service provider as necessary to ensure effective operation of the SMS and delivery of the services.

#### 4.3.2 Control of documents

Documents required by the SMS shall be controlled. Records are a special type of document and shall be controlled according to the requirements given in Clause 4.3.3.

A documented procedure, including the authorities and responsibilities, shall be established to define the controls needed to:

#### 4.3 文件管理

#### 4.3.1 建立和维护文件

服务提供方应建立和维护包括记录 在内的文件,以确保有效的计划、 运行和控制服务管理体系(SMS)。 这些文件应包括:

- a) 形成服务管理方针和目标的文件:
- b) 形成服务管理计划的文件;
- c) 形成本部分要求的特定过程方 针和策略的文件;
- d) 形成服务目录的文件:
- e) 形成服务级别协议(SLAs)的文件;
- f) 形成服务管理过程的文件;
- g) 形成本部分要求的过程和程序的文件;
- h)附加的文件,由服务提供方确 定保证服务管理体系(SMS)运行 有效和服务交付必要的文件,包括 外部来源文件。

#### 4.3.2 文件控制

服务管理体系(SMS)所要求的文件应予以控制。记录是一种特殊类型的文件,应依据条款4.4.3的要求进行控制。

应编制形成文件的程序,包括权限 和职责,以规定以下方面所需的控 制:

- a) create and approve documents prior to issue;
- b) communicate to interested parties about new or changed documents;
- c) review and maintain documents as necessary;
- d) ensure that changes and the current revision status of documents are identified;
- e) ensure that relevant versions of applicable documents are available at points of use;
- f) ensure that documents are readily identifiable and legible;
- g) ensure that documents of external origin are identified and their distribution controlled;
- h) prevent the unintended use of obsolete documents and apply suitable identification to them if they are retained.

#### 4.3.3 Control of records

Records shall be kept to demonstrate conformity to requirements and the effective operation of the SMS.

A documented procedure shall be established to define the controls needed for the identification, storage, protection, retrieval, retention and disposal of records. Records shall be legible, readily identifiable and retrievable.

#### 4.4 Resource management

#### 4.4.1 Provision of resources

The service provider shall determine and provide the human, technical, information and financial resources needed to:

- a) establish, implement and maintain the SMS and the services, and continually improve their effectiveness;
- b) enhance customer satisfaction by delivering

- a) 文件发布前得到批准;
- b) 通知相关方新的或变更的文件:
- c) 必要时对文件进行评审与维护:
- d) 确保文件的更改和现行修订状态得到识别:
- e) 确保在使用处可获得有关版本的使用文件;
- f) 确保文件清晰、易于识别;
- g) 确保外来文件得到识别并控制 其分发;
- h) 防止作废文件的非预期使用, 若因任何原因而保留作废文件时, 对这些文件进行适当的标识。

#### 4.3.3 记录控制

为符合要求和服务管理体系(SMS) 有效运行<mark>应</mark>保留记录。

应编制形成文件的程序,以规定记录的标识、储存、保护、检索、保存和处置所需的控制记录应保持清晰、易于识别和检索。

#### 4.4 资源管理

#### 4.4.1 资源提供

服务提供方<mark>应</mark>确定和提供以下活动 所需要的人员、技术、信息和财务 资源:

- a) 建立、实施和维护服务管理体系(SMS)和服务,并持续改进它们的有效性:
- b) 通过提供满足服务需求的服务

services that fulfil service requirements.

#### 4.4.2 Human resources

The service provider's personnel performing work affecting conformity to service requirements **shall** be competent on the basis of appropriate education, training, skills and experience. The service provider **shall**:

- a) determine the necessary competence for personnel;
- b) where applicable, provide training or take other actions to achieve the necessary competence;
- c) evaluate the effectiveness of actions taken;
- d) ensure that its personnel are aware of how they contribute to the achievement of service management objectives and the fulfilment of service requirements;
- e) maintain appropriate records of education, training, skills and experience.

#### 4.5 Establish and improve the SMS

#### 4.5.1 Define scope

The service provider shall define and include the scope of the SMS in the service management plan. The scope shall be defined by the name of the organizational unit providing the services, and the services to be delivered.

The service provider shall also take into consideration other factors affecting the services to be delivered including:

- a) geographical location(s) from which the service provider delivers the services;
- b) the customer and their location(s);
- c) technology used to provide the services.

NOTE ISO/IEC TR 20000-3 provides guidance on scope definition and applicability of this part of

增强客户的满意度。

#### 4.4.2 人力资源

基于适当的教育、培训、技能和经验,从事影响服务需求的符合性工作的服务提供方人员应是能够胜任的。服务提供方应:

- a) 确定人员必须的能力;
- b) 适用时,提供培训或采取其他 措施以使人员获得所需的能力;
- c) 评价所采取措施的有效性;
- d) 确保人员认识到他们如何为实 现服务管理目标和满足服务需求做 出贡献;
- e) 确保教育、培训、技能和经验的适当记录。

#### 4.5 建立和改进服务管理体系 4.5.1 定义范围

服务提供方应在服务管理策划中定义和包含服务管理体系(SMS)的范围。范围应定义提供服务的组织单元名称和所交付的服务。

服务提供方<mark>应</mark>考虑其他影响服务交付的因素,包括:

- a) 服务提供方交付服务的地理位置:
- b) 客户和他们的位置;
- c) 用于提供服务的技术。

注: ISO/IEC TR 20000-3 提供了ISO/IEC 20000 本部分的范围定义

#### ISO/IEC 20000.

#### 4.5.2 Plan the SMS (Plan)

The service provider shall create, implement and maintain a service management plan. Planning shall take into consideration the service management policy, service requirements and requirements in this part of ISO/IEC 20000. The

requirements in this part of ISO/IEC 20000. The service management plan shall contain or include a reference to at least the following:

- a) service management objectives that are to be achieved by the service provider
- b) service requirements;
- c) known limitations which can impact the SMS;
- d) policies, standards, statutory and regulatory requirements and contractual obligations;
- e) framework of authorities, responsibilities and process roles;
- f) authorities and responsibilities for plans, service management processes and services;
- g) human, technical, information and financial resources necessary to achieve the service management objectives;
- h) approach to be taken for working with other parties involved in the design and transition of new or changed services process;
- i) approach to be taken for the interfaces between service management processes and their integration with the other components of the SMS;
- j) approach to be taken for the management of risks and the criteria for accepting risks;
- k) technology used to support the SMS;

和适用性的指南。

#### 4.5.2 策划服务管理体系(plan)

服务管理者应创建、实施和维护服务管理策划。策划应考虑服务管理方针、服务需求和ISO/IEC 20000本部分的要求。服务管理策划应包含或包括至少引用以下方面:

- a) 服务提供方要达到的服务管理目标;
- b) 服务需求;
- c)冲击服务管理体系(SMS)的 已知限制:
- d) 方针、标准、法律法规需求和 合同义务;
- e) 权限、职责和过程角色框架;
- f) 针对策划、服务管理过程和服 务的权限和职责;
- g) 完成服务管理目标所需的人员、技术、信息和财务资源;
- h) 涉及设计和转换新的或变更的 服务过程时,与其他方共同工作所 采取的方法:
- i)服务管理过程之间的接口和与服务管理体系(SMS)其他组件整合,要执行的过程;
- j) 管理风险和风险接受准则所采取的方法;
- k) 用于支持服务管理体系(SMS)

I) how the effectiveness of the SMS and the services will be measured, audited, reported and improved.

Plans created for specific processes **shall** be aligned with the service management plan. The service

management plan and plans created for specific processes **shall** be reviewed at planned intervals and, if applicable, updated.

#### 4.5.3 Implement and operate the SMS (Do)

The service provider shall implement and operate the SMS for the design, transition, delivery and improvement of services according to the service management plan, through activities including at least:

- a) allocation and management of funds and budgets;
- b) assignment of authorities, responsibilities and process roles;
- c) management of human, technical and information resources:
- d) identification, assessment and management of risks to the services;
- e) management of service management processes;
- f) monitoring and reporting on performance of service management activities.

#### 4.5.4 Monitor and review the SMS (Check)

#### 4.5.4.1 General

The service provider **shall** use suitable methods for monitoring and measuring the SMS and the services. These methods **shall** include internal audits and management reviews.

的技术;

I) 如何测量、审核、汇报和改进 服务管理体系(SMS)和服务的有 效性。

任何针对特定过程生成的策划都应 与服务管理策划保持一致。服务管 理策划和为特定过程生成的策划应 按照计划的时间间隔评估,如果适 用的话,要进行更新。

## 4.5.3 实施和运行服务管理体系 (Do)

服务提供方应实施和运行服务管理体系(SMS),根据服务管理设计、转换、交付和改进服务,活动至少包括以下:

- a) 资金和开支的分配;
- b) 权限、职责和过程角色的分配;
- c) 管理人员、技术和信息资源:
- d) 识别、评估并管理服务的风险:
- e) 服务管理过程的管理;
- f) 监视和报告服务管理活动的绩效:

#### 4.5.4 监视和评审服务管理体系 (Check)

#### 4.5.4.1 总要求

服务提供方应采用适当的方法来监视、测量服务管理体系(SMS)和服务。这些方法应包括内部审核和管理评审。

任何内部审核和管理评审的目标应

The objectives of all internal audits and management reviews shall be documented. The internal audits and management reviews shall demonstrate the ability of the SMS and the services to achieve service management objectives and fulfil service requirements. Nonconformities shall be identified against the requirements in this part of ISO/IEC 20000, the SMS requirements identified by the service provider or the service requirements.

The results of internal audits and management reviews, including nonconformities, concerns and actions identified, shall be recorded. The results and actions shall be communicated to interested parties.

是书面的。内部审核和管理评审应证明服务管理体系(SMS)和服务达到服务管理目标和满足服务需求的能力。违反ISO/IEC 20000本部分要求、服务提供方自身服务管理体系要求或服务需求的不合格应予以识别。

内部审核管理评审的结果,包括不合格、关注和识别的改进都应记录。 结果和改进都应与相关方沟通。

#### 4.5.4.2 Internal audit

The service provider shall conduct internal audits, at planned intervals, to determine whether the SMS and the services:

- a) fulfil the requirements in this part of ISO/IEC 20000:
- b) fulfil the service requirements and the SMS requirements identified by the service provider;
- c) are effectively implemented and maintained.

There **shall** be a documented procedure including the authorities and responsibilities for planning and conducting audits, reporting results and maintaining audit records.

An audit programme shall be planned. This shall take into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. The audit criteria, scope, frequency and methods shall be documented.

The selection of auditors and conduct of audits shall ensure objectivity and impartiality of the audit.

Auditors shall not audit their own work.

#### 4.5.4.2 内部审核

服务提供方应按照计划的时间间隔进行内部审核,以确定服务管理体系(SMS)和服务是否:

- a) 符合 ISO/IEC 20000 本部分的 要求:
- b)符合服务需求以及服务提供方确定的服务管理体系(SMS)的需求:
- c) 得到有效实施和保持。

应编制形成文件的程序,以规定审核的策划、实施以及报告结果和保持记录的职责和要求。

审核方案应进行策划。应考虑虚拟 审核的过程和区域的状况和重要性 以及以往审核的结果。审核的准则、 范围、频次和方法应形成书面文件。

审核员的选择和审核的实施应确保 审核过程的客观性和公正性。审核 员不应该审核自己的工作。 Nonconformities shall be communicated, prioritized and responsibility allocated for actions. The management responsible for the area being audited shall ensure that any corrections and corrective actions are taken without undue delay to eliminate nonconformities and their causes. Follow-up activities shall include the verification of the actions taken and the reporting of results.

NOTE See ISO 19011 for guidance on management systems auditing.

#### 4.5.4.3 Management review

Top management shall review the SMS and the services at planned intervals to ensure their continued suitability and effectiveness. This review shall include assessing opportunities for improvement and the need for changes to the SMS, including the policy and objectives for service management.

The input to management reviews shall include at least information on:

- a) customer feedback;
- b) service and process performance and conformity;
- c) current and forecast human, technical, information and financial resource levels;
- d) current and forecast human and technical capabilities;
- e) risks;
- f) results and follow-up actions from audits:
- g) results and follow-up actions from previous management reviews;
- h) status of preventive and corrective actions;

不合格应被沟通、分优先顺序并分配职责进行处置。负责受审区域的管理者应确保及时采取必要的纠正措施,以消除所发现的不合格及其原因。跟踪活动应包括对采取措施的验证和验证结果的报告。

注:作为管理体系审核的指南,参见ISO 19011。

#### 4.5.4.3 管理评审

最高管理者应按计划的时间间隔评审服务管理体系(SMS),以确保其持续性的适宜性和有效性。评审应包括评价服务管理体系改进的机会和变更的需要,包括服务管理方针和服务管理目标。

管理评审的输入<mark>应</mark>包括至少以下信息:

- a) 客户反馈;
- b) 服务和过程的绩效和符合性;
- c) 现在和未来人员、技术、信息和财务资源级别;
- d) 现在和未来人员和技术能力:
- e) 风险;
- f) 审核结果和跟踪措施;
- g) 以往管理审核的结果和跟踪措施;
- h) 预防和纠正措施的状况;

i) changes that could affect the SMS and the services;

j) opportunities for improvement.

Records of management reviews shall be maintained.

The records from the management review shall include at least decisions and actions related to resources improvement of the effectiveness of the SMS and improvement of the services.

#### 4.5.5 Maintain and improve the SMS (Act)

#### 4.5.5.1 General

There shall be a policy on continual improvement of the SMS and the services. The policy shall include evaluation criteria for the opportunities for improvement.

There **shall** be a documented procedure including the authorities and responsibilities for identifying, documenting, evaluating, approving, prioritizing, managing, measuring and reporting of improvements. Opportunities for improvement, including corrective and preventive actions, **shall** be documented.

The cause of identified nonconformities shall be corrected. Corrective actions shall be taken to eliminate the cause of identified nonconformities in order to prevent recurrence. Preventive actions shall be taken in order to eliminate the cause of potential nonconformities in order to prevent occurrence.

NOTE For more information on corrective and preventive action, see ISO 9001:2008, Clause 8.5.

#### 4.5.5.2 Management of improvements

Opportunities for improvement shall be prioritized. The service provider shall use the evaluation criteria in the policy on continual improvement, when making decisions on opportunities for improvement.

i) 可能影响服务管理体系(SMS) 的变更;

j) 改进机会。

应保持管理评审的记录。

管理评审的记录应至少包括对资源的决策和处置,服务管理体系(SMS)有效性的改进和服务的改进。

#### 4.5.5 维护和改进服务管理体系 (Act)

#### 4.5.5.1 总要求

应有持续改进服务管理体系(SMS)和服务的方针。方针应包括评价改进机会的准则。

应制定书面的程序,包括识别、记录、评估、批评、排定优先级顺序、管理、测量和报告改进的权限和职责。改进的机会包括纠正和预防措施,应以书面形式确定。

已确定不合格的原因应被纠正。纠正措施应用于消除已确定不合格的原因,防止不合格再次发生。预防措施应用于消除潜在不合格的原因,以预防不合格的发生。

注: 更多纠正和预防措施的信息,参照ISO 9001:2008的条款8.5。

#### 4.5.5.2 管理改进

改进机会<mark>应</mark>排出优先顺序。决策改进机会时,服务提供方<mark>应</mark>使用持续改进方针中的评价标准。

Approved improvements **shall** be planned.

The service provider shall manage improvement activities that include at least:

- a) setting targets for improvements in one or more of quality, value, capability, cost, productivity, resource utilization and risk reduction;
- b) ensuring that approved improvements are implemented;
- c) revising the service management policies, plans, processes and procedures, where necessary;
- d) measuring implemented improvements against the targets set and where targets are not achieved, taking necessary actions;
- e) reporting on implemented improvements.

## 5 Design and transition of new or changed services

#### 5.1 General

The service provider shall use this process for all new services and changes to services with the potential to have a major impact on services or the customer. The changes that are in the scope of Clause 5 shall be determined by the change management policy agreed as part of the change management process.

Assessment, approval, scheduling and reviewing of new or changed services in the scope of Clause 5 shall be controlled by the change management process. The Cls affected by new or changed services in the scope of Clause 5 shall be controlled by the configuration management process.

The service provider shall review outputs from the planning and design activities for new or changed services against the agreed service requirements and the relevant requirements given in Clauses 5.2 and 5.3. Based on the review, the service provider shall accept or reject the outputs. The service

批准的改进应被策划。

服务提供方<mark>应</mark>管理改进活动,至少 包括:

- a) 在质量、价值、能力、成本、 生产率、资源利用率和风险降低等 一个或多个方面设定改进目标;
- b) 确保批准的改进被实施;
- c) 必要时,修订服务管理方针、 策划、过程和程序;
- d) 根据设定的目标测量实施的改进,当目标不能实现时,采取必要的措施;
- e) 报告实施的改进。

#### 5 设计和转换新的或变更的服务

#### 5.1总要求

任何对现有服务或客户有潜在重大 冲击的新服务或对服务的变更,服 务提供方应使用变更管理过程。作 为变更管理过程的一部分,变更管 理方针应确定在条款5范围内的变 更。

评估、批准、安排和评审条款5范围内的新的或变更的服务应由变更管理过程控制。条款5范围内的新的或变更的服务影响配置项(Cls)应由配置管理过程控制。

服务提供方应依据协定的服务需求和条款5.2、5.3相关的要求,评审策划和设计活动的输出。基于评审,服务提供方应接受或拒绝输出。服务提供方应采取必要的措施,保证

provider shall take necessary actions to ensure that the development and transition of the new or changed services can be performed effectively, using the accepted outputs.

新的或变更的服务的开发和转换执行是有效的、是使用接受的输出的。

NOTE The need for a new service or a change to a service can originate from the customer, the service provider, an internal group or a supplier in order to satisfy business needs or to improve the effectiveness of the services.

注:新服务或服务的变更可源于客户,服务提供方、内部团体或供应商,其目的是为满足业务需求或改进服务的有效性。

#### 5.2 Plan new or changed services

# The service provider shall identify the service requirements for the new or changed services. New or changed services shall be planned to fulfil the service requirements. Planning for the new or changed services shall be agreed with the customer and interested parties.

As input to planning, the service provider **shall** take into consideration the potential financial, organizational, and technical impact of delivering the new or changed services. The service provider **shall** also take into consideration the potential impact of the new or changed services on the SMS.

Planning for the new or changed services shall contain or include a reference to at least the following:

a)authorities and responsibilities for design, development and transition activities;

b)activities to be performed by the service provider and other parties including activities across interfaces from the service provider to other parties;

- c)communication to interested parties;
- d)human, technical, information and financial resources;
- e)timescales for planned activities;

f)identification, assessment and management of

#### 5.2 策划新的或变更的服务

服务提供方应识别新的或变更的服务的需求。应策划新的或变更的服务以满足服务需求。策划新的或变更的服务的服务应与客户和相关协商。

作为策划的输入,服务提供方应考虑提供新的或变更的服务,对财务、组织和技术的潜在冲击。服务提供方应同时考虑新的或变更的服务对服务管理体系(SMS)的潜在冲击。

策划新的或变更的服务应至少包含或包括引用以下内容:

- a) 设计、开发和转换活动的权限和职责;
- b) 由服务提供方和其他方执行的 活动,包括从服务提供方到相关方 接口的活动;
- c) 通报给相关方;
- d) 人员、技术、信息和财务;
- e) 策划活动的时间跨度;
- f) 识别、评估和管理风险;

risks;

g)dependencies on other services;

h)testing required for the new or changed services;

i)service acceptance criteria;

j)expected outcomes from delivering the new or changed services, expressed in measurable terms.

For services that are to be removed, the service provider shall plan for the removal of the service(s). Planning shall include the date(s) for the removal, archiving, disposal or transfer of data, documentation and service components. The service components can include infrastructure and applications with associated licences.

The service provider shall identify other parties who will contribute to the provision of service components for the new or changed services. The service provider shall evaluate their ability to fulfil the service requirements. The results of the evaluation shall be recorded and necessary actions taken.

## 5.3 Design and development of new or changed services

The new or changed services shall be designed and documented to include at least:

a)authorities and responsibilities for delivery of the new or changed services;

b)activities to be performed by the service provider, customer and other parties for delivery of the new or changed services;

c)new or changed human resource requirements, including requirements for appropriate education, training, skills and experience;

d) financial resource requirements for delivery of the

- g) 依赖的其他方;
- h)新的或变更的服务的测试要求:
- i) 服务验收准则;
- j) 以可测量术语表示的提供新的 或变更的服务而产生的预期结果。

对于将要删除的服务,服务提供方 应做出服务的删除计划。计划应包 括移除、归档、销毁或传递的数据、 文件和服务组件。服务组件可包括 基础架构和有授权的应用。

服务提供方应识别新的或变更的服务的其他方,只要他们协助提供服务组件。服务提供方应评估他们满足服务需求的能力。应记录评估结构并采用必要的措施。

#### 5.3 设计和开发新的或变更的服务

应设计并以书面形式明确新的或变 更的服务,至少包括:

- a) 交付新的或变更的服务的权限 和职责;
- b) 交付新的或变更的服务所需由 服务提供方、客户和其他方执行的 活动;
- c) 新的或变更的人力资源要求, 包括适当的教育、培训、技巧和经 验要求;
- d) 交付新的或变更的服务的财务

new or changed services;

- e) new or changed technology to support the delivery of the new or changed services;
- f) new or changed plans and policies as required by this part of ISO/IEC 20000;
- g) new or changed contracts and other documented agreements to align with changes in service requirements;
- h) changes to the SMS;
- i) new or changed SLAs;
- j) updates to the catalogue of services;
- k) procedures, measures and information to be used for the delivery of the new or changed services.

The service provider **shall** ensure that the design enables the new or changed services to fulfil the service requirements.

The new or changed services shall be developed in accordance with the documented design.

NOTE For further information about design, see the design and development process in ISO 9001:2008, Clause 7.3 or the architectural design process in ISO/IEC 15288:2008, Clause 6.4.3.

#### 5.4 Transition of new or changed services

The new or changed services shall be tested to verify that they fulfil the service requirements and documented design. The new or changed services shall be verified against service acceptance criteria agreed in advance by the service provider and interested parties. If the service acceptance criteria are not met, the service provider and interested parties shall make a decision on necessary actions and deployment.

资源要求:

- e) 支持交付的新的或变更的服务的新的或变更的技术;
- f) ISO/IEC 20000 本部分要求的 新的或变更的策划和方针;
- g) 与服务需求一致的新的和变更的合同和其他文件;
- h) 对服务管理体系(SMS)的变 更:
- i) 新的或变更的 SLAs;
- i) 服务目录的更新;
- k) 用于交付新的或变更服务的程序、测量和信息。

服务提供方<mark>应</mark>当确保设计以使新的 或变更的服务满足服务需求;

应根据书面的设计开发新的或变更的服务。

注:关于设计的更多信息,参见ISO 9001:2008的条款7.3设计和开发过程或ISO/IEC 15288:2008的条款6.4.3结构化设计过程。

#### 5.4转换新的或变更的服务

应通过对新的或变更的服务测试以证明满足服务需求和设计文件。新的和变更的服务应验收通过,服务验收准则由服务提供方和相关方事先协定。如果未达到服务验收标准,服务提供方和相关方应决定采取必要的措施修正。

The release and deployment management process shall be used to deploy approved new or changed services into the live environment.

Following the completion of the transition activities, the service provider shall report to interested parties on the outcomes achieved against the expected outcomes.

#### 6 Service delivery processes

#### 6.1 Service level management

The service provider **shall** agree the services to be delivered with the customer.

The service provider shall agree a catalogue of services with the customer. The catalogue of services shall include the dependencies between services and service components.

For each service delivered, one or more SLAs shall be agreed with the customer. When creating SLAs, the service provider shall take into consideration the service requirements. SLAs shall include agreed service targets, workload characteristics and exceptions.

The service provider shall review services and SLAs with the customer at planned intervals.

Changes to the documented service requirements, catalogue of services, SLAs and other documented agreements shall be controlled by the change management process. The catalogue of services shall be maintained following changes to services and SLAs to ensure that they are aligned.

The service provider shall monitor trends and performance against service targets at planned intervals. Results shall be recorded and reviewed to identify the causes of nonconformities and opportunities for improvement.

For service components provided by an internal group or the customer, the service provider shall 发布和部署管理过程应应用在实际 环境中部署已批准的新的或变更的 服务。

转换活动完成后,服务提供方应向 相关方汇报期望成果和实际结果的 对比。

#### 6 服务交付过程

#### 6.1服务级别管理

服务提供方应与客户协定交付的服 务。

服务提供方应与客户协定服务目 录。服务目录应包括服务和服务组 件之间的依赖关系。

所交付的每个服务,应与客户协定 在一个或多个服务级别协议(SLAs) 中。当创建服务级别协议时,服务 提供方应考虑服务需求。SLAs应包 括协定的服务目标、工作量特性和 期望。

服务提供方应与客户按照计划的时 间间隔评审服务和SLAs。

变更管理过程应对书面的服务需 求、服务目录、SLAs和其他书面协 议的变更控制。服务和SLAs变更后, 服务目录应及时更新,以确保它们 是一致的。

服务提供方应按照计划的时间间 隔,依据服务目标监视趋势和绩效。 结果应记录和评审以识别造成不合 格的原因和改进的机会。

针对由内部团体或客户提供的服务 组件,服务提供方<mark>应</mark>开发、协定、

develop, agree, review and maintain a documented agreement to define the activities and interfaces between the two parties. The service provider shall monitor performance of the internal group or the customer against agreed service targets and other agreed commitments, at planned intervals. Results shall be recorded and reviewed to identify the causes of nonconformities and opportunities for improvement.

评审和维护书面的协议,以定义双方的活动和接口,依据协定的服务目标和其他协定的承诺。服务提供方应按照计划的时间间隔监视内部团体或客户的绩效。结果应记录和评审以识别不合格的原因和改进的机会。

#### 6.2 Service reporting

The description of each service report, including its identity, purpose, audience, frequency and details of the data source(s), shall be documented and agreed by the service provider and interested parties.

Service reports shall be produced for services using information from the delivery of services and the SMS activities, including the service management processes. Service reporting shall include at least:

- a) performance against service targets;
- b) relevant information about significant events including at least major incidents, deployment of new or changed services and the service continuity plan being invoked;
- c) workload characteristics including volumes and periodic changes in workload;
- d) detected nonconformities against the requirements in this part of ISO/IEC 20000, the SMS requirements or the service requirements and their identified causes;
- e) trend information;
- f) customer satisfaction measurements, service complaints and results of the analysis of satisfaction measurements and complaints.

The service provider shall make decisions and take

#### 6.2服务报告

服务提供方与相关方协定形成书面 服务报告,报告描述应包含识别、 目的、读者、频率和数据源的详情。

针对服务生成的报告应使用所交付服务和服务管理体系(SMS)的信息,包括服务管理过程。服务报告应至少包括:

- a) 与服务级别目标相对应的绩效:
- b) 有关重大事件信息,至少包括 重大事故、部署新的或变更的服务 和触发业务连续性计划;
- c) 工作量特征,包括工作量和周期性变化:
- d) 与 ISO/ IEC 20000 本部分要求、服务管理体系(SMS)要求或服务需求相对应识别出的不合格以及对应的原因;
- e) 趋势信息;
- f) 客户满意度测量、服务投诉和 对满意度测量和投诉的分析。

服务提供方应基于服务报告的发现

actions based on the findings in service reports. The agreed actions shall be communicated to interested parties.

做出决策并采取措施。协定的措施 应与相关方沟通。

## 6.3 Service continuity and availability management

## 6.3.1 Service continuity and availability requirements

The service provider shall assess and document the risks to service continuity and availability of services. The service provider shall identify and agree with the customer and interested parties service continuity and availability requirements. The agreed requirements shall take into consideration applicable business plans, service requirements, SLAs and risks.

The agreed service continuity and availability requirements **shall** include at least:

- a) access rights to the services;
- b) service response times;
- c) end to end availability of services.

# **6.3.2 Service continuity and availability plans**The service provider **shall** create, implement and maintain a service continuity plan(s) and an availability plan(s). Changes to these plans **shall** be controlled by the change management process.

The service continuity plan(s) **shall** include at least:

- a) procedures to be implemented in the event of a major loss of service, or reference to them;
- b) availability targets when the plan is invoked;
- c)recovery requirements;
- d) approach for the return to normal working conditions.

The service continuity plan(s), contact lists and the CMDB shall be accessible when access to normal

#### 6.3服务的连续性和可用性管理

#### 6.3.1服务的连续性和可用性要求

服务提供方应评估并以书面形式明确服务连续性和服务可用性的风险。服务提供方应与客户和相关方识别和协定服务连续性和可用性要求。协定的要求应考虑适用的业务计划、服务需求、SLAs和风险。

协定的服务连续性和可用性要求<mark>应</mark> 至少包括:

- a) 访问服务的权利:
- b) 服务响应时间;
- c) 端到端的可用性。

## **6.3.2服务的连续性和可用性计划** 服务提供方应创建、实施和维护服务连续计划和可用性计划。这些计划的变更应受变更管理控制。

服务连续性计划至少应包括:

- a) 服务重大损失情况下要执行的程序,或对程序的引用;
- b) 计划启动时的可用性目标;
- c) 恢复要求;
- d) 返回正常工作状态的方法;

当正常服务地点的访问被阻止时, <mark>应</mark>具有服务连续性计划、联系清单 service locations is prevented.

The availability plan(s) shall include at least availability requirements and targets.

The service provider **shall** assess the impact of requests for change on the service continuity plan(s) and the availability plan(s).

NOTE The service continuity plan(s) and availability plan(s) can be combined into one document.

## 6.3.3 Service continuity and availability monitoring and testing

Availability of services shall be monitored, the results recorded and compared with agreed targets. Unplanned non-availability shall be investigated and necessary actions taken.

Service continuity plans shall be tested against the service continuity requirements. Availability plans shall be tested against the availability requirements. Service continuity and availability plans shall be re-tested after major changes to the service environment in which the service provider operates.

The results of the tests shall be recorded. Reviews shall be conducted after each test and after the service continuity plan has been invoked. Where deficiencies are found, the service provider shall take necessary actions and report on the actions taken.

## **6.4 Budgeting and accounting for services**There shall be a defined interface between the budgeting and accounting for services process and other financial management processes. There shall be policies and documented procedures for:

- a) budgeting and accounting for service components including at least
- assets including licences used to provide the services.

和配置管理数据库。

服务连续性计划<mark>应</mark>至少包含可用性 要求和目标。

服务提供方<mark>应</mark>评估服务连续性计划 和服务可用性计划的变更需求的影 响。

注:服务连续性计划和可用性计划可整合在一个文件中。

#### **6.3.3**服务的连续性和可用性的监视 和测试

应监视服务可用性,记录结果并与协定的目标比较。应对计划之外的不可用性进行调查并采取必要的措施。

针对服务连续性要求,服务连续性 计划应被测试。可用性计划应针对 服务可用性要求测试。服务提供方 操作运行的服务环境发生重大变化 时,服务连续性和可用性计划应重 新测试。

测试的结果应被记录。每次测试和服务连续性计划启动后,应实施评审。当发现不足时,服务提供方应采取必要的措施并报告采取的措施。

#### 6.4服务的预算和核算

服务的预算和核算过程与其他财务管理过程之间应有明确的接口。应 有方针和书面的程序:

- a) 服务组件的预算和核算至少包括
- **1)** 用于提供服务的资产(包括许可证),

- 2) shared resources,
- 3) overheads,
- 4) capital and operating expenses,
- 5) externally supplied services,
- 6) personnel,
- 7) facilities;
- b) apportioning indirect costs and allocating direct costs to services, to provide an overall cost for each service;
- c) effective financial control and approval.

Costs **shall** be budgeted to enable effective financial control and decision-making for services delivered.

The service provider shall monitor and report costs against the budget, review the financial forecasts and manage costs.

Information shall be provided to the change management process to support the costing of requests for change.

NOTE Many service providers charge for their services. The scope of the budgeting and accounting for services process excludes charging.

## 6.5 Capacity management

The service provider shall identify and agree capacity and performance requirements with the customer and interested parties.

The service provider shall create, implement and maintain a capacity plan taking into consideration human, technical, information and financial resources. Changes to the capacity plan shall be controlled by the change management process.

- 2) 共享资源,
- 3) 管理费用,
- 4) 资金和运行费用,
- 5) 外部供应的服务,
- 6) 人员,
- 7) 设施;
- b) 与服务相关的间接成本和直接 成本的分摊,并为每个服务提供总 体成本:
- c) 有效的财物控制和授权。

应对支出进行预算,使交付的服务 能有效地进行财务控制和业务决 策。

服务提供方<mark>应</mark>对比预算监视并报告 预算的支出,评审财务预报,从而 管理支出。

信息<mark>应</mark>提供给变更管理过程以支持 变更请求的成本计算。

注: 许多服务提供方对他们的服务 计费。服务的预算和核算过程范围 不包括计费。

# 6.5能力管理

服务提供方<mark>应</mark>与客户和相关方明确 和协定能力和性能要求。

服务提供方应生成、实施和维护一个考虑到人员、技术、信息和财务资源的能力计划。能力计划的变更应受变更管理过程的控制。

The capacity plan **shall** include at least:

- a) current and forecast demand for services;
- b) expected impact of agreed requirements for availability, service continuity and service levels;
- c) time-scales, thresholds and costs for upgrades to service capacity;
- d) potential impact of statutory, regulatory, contractual or organizational changes;
- e) potential impact of new technologies and new techniques;
- f) procedures to enable predictive analysis, or reference to them.

The service provider shall monitor capacity usage, analyse capacity data and tune performance. The service provider shall provide sufficient capacity to fulfil

provider shall provide sufficient capacity to fulfil agreed capacity and performance requirements.

# 6.6 Information security management6.6.1 Information security policy

Management with appropriate authority shall approve an information security policy taking into consideration the service requirements, statutory and regulatory requirements and contractual obligations. Management shall:

- a) communicate the information security policy and the importance of conforming to the policy to appropriate personnel within the service provider, customer and suppliers;
- b) ensure that information security management objectives are established;
- c) define the approach to be taken for the management of information security risks and the criteria for accepting risks;

能力计划至少应包含:

- a) 当前和预计的对服务的需要;
- b) 协定的要求对可用性、服务连续性和服务级别的预期冲击;
- c) 服务能力升级的时间跨度、阀值和支出;
- d) 法律、法规、合同或组织变更 的潜在影响;
- e) 新技术和和新技巧的潜在影响:
- f) 能够进行预期分析的程序,或 参考它们;

服务提供方应监视能力使用,分析能力数据并调整性能。服务提供方应提供足够的能力满足协定的能力和性能要求。

## 6.6信息安全

# 6.6.1信息安全方针

拥有适当权限的管理者应批准考虑 到服务需求、法律法规要求和合同 义务的信息安全方针。管理者应:

- a) 向服务提供方、客户和供应商 的适当人员传达信息安全方针以及 遵守该方针的重要性;
- b) 确保建立信息安全管理目标;
- c) 明确管理信息安全风险所采取 的方法和接受风险的准则;

- d) ensure that information security risk assessments are conducted at planned intervals;
- e) ensure that internal information security audits are conducted;
- f) ensure that audit results are reviewed to identify opportunities for improvement.

## 6.6.2 Information security controls

The service provider **shall** implement and operate physical, administrative and technical information security controls in order to:

- a) preserve confidentiality, integrity and accessibility of information assets;
- b) fulfil the requirements of the information security policy;
- c) achieve information security management objectives;
- d) manage risks related to information security.

These information security controls shall be documented and shall describe the risks to which the controlsrelate, their operation and maintenance.

The service provider shall review the effectiveness of information security controls. The service provider shall take necessary actions and report on the actions taken.

The service provider shall identify external organizations that have a need to access, use or manage theservice provider's information or services. The service provider shall document, agree and implementinformation security controls with these external organizations.

**6.6.3 Information security changes and incidents** Requests for change **shall** be assessed to identify:

- d) 确保信息安全风险评估按照计划的时间间隔实施;
- e) 确保信息安全内审的进行;
- f) 确保审核结果被评审以识别改进的机会。

# 6.6.2信息安全控制措施

服务提供方<mark>应</mark>实施和运行物理的、 管理的和技术的信息安全控制措施 以便于:

- a) 保护信息资产的机密性、完整 性和可访问性;
- b) 满足信息安全方针的要求;
- c) 达到信息安全管理的目标;
- d) 管理信息安全相关的风险。

信息安全控制措施<mark>应</mark>以书面形式描述控制措施对<mark>应</mark>的风险,以及控制措施的运行和维护。

服务提供方应评估信息安全控制措施的有效性。信息安全提供者应采取必要的措施并汇报采取的措施。

服务提供方应识别需要访问、使用或管理服务提供方的信息或服务的外部组织。服务提供方应与这些外部组织一起协定和实施信息安全控制措施并形成文件。

**6.6.3信息安全的变更和事件** 变更请求应被评估以确定:

- a) new or changed information security risks;
- b) potential impact on the existing information security policy and controls.

Information security incidents shall be managed using the incident management procedures, with a priority appropriate to the information security risks. The service provider shall analyse the types, volumes and impacts of information security incidents. Information security incidents shall be reported and reviewed to identify opportunities for improvement.

NOTE The ISO/IEC 27000 family of standards specifies requirements and provides guidance to support the implementation and operation of an information security management system.

# 7 Relationship processes

# 7.1 Business relationship management

The service provider shall identify and document the customers, users and interested parties of the services.

For each customer, the service provider shall have a designated individual who is responsible for managing the customer relationship and customer satisfaction.

The service provider shall establish a communication mechanism with the customer. The communication mechanism shall promote understanding of the business environment in which the services operate and requirements for new or changed services. This information shall enable the service provider to respond to these requirements.

The service provider shall review the performance of the services at planned intervals, with the customer.

Changes to the documented service requirements shall be controlled by the change management process. Changes to the SLAs shall be co-ordinated

- a) 新的或变更的信息安全风险;
- b) 对已有信息安全方针和控制措施的潜在影响。

信息安全事件应采用事件管理流程管理,其优先级别与信息安全风险相适应。服务提供方应分析信息安全事件的类型、数量和冲击。信息安全事件应报告和评审以识别改进的机会。

注: ISO/IEC 27000标准族提出了明确要求为支持实施和运行信息安全管理体系提供指导。

# 7.关系过程

# 7.1业务关系管理

服务提供方<mark>应</mark>识别并记录服务的客 户、用户和相关方。

对于每个客户,服务提供方<mark>应</mark>指定 专人负责管理客户关系和客户满意 度。

服务提供方应与客户建立沟通机制。沟通机制应事先了解业务环境对服务运行和新的或变更服务的要求。该信息应使服务提供方响应这些要求。

服务提供方和客户<mark>应</mark>按计划的时间 间隔评审服务的绩效。

形成书面的服务需求的变更应受变 更管理过程的控制。SLAs的变更应 with the service level management process.

The definition of a service complaint shall be agreed with the customer. There shall be a documented procedure to manage service complaints from the customer. The service provider shall record, investigate, act upon, report and close service complaints. Where a service complaint is not resolved through the normal channels, escalation shall be provided to the customer.

The service provider shall measure customer satisfaction at planned intervals based on a representative sample of the customers and users of the services. The results shall be analysed and reviewed to identify opportunities for improvement.

# 7.2 Supplier management

The service provider may use suppliers to implement and operate some parts of the service management processes. An example of supply chain relationships is illustrated in Figure 3.

与服务级别管理过程协调。

服务投诉的定义应与客户协商一致。应有书面的程序管理来自客户的投诉,服务提供方应记录、调查、采取措施、报告和关闭服务投诉。当服务投诉不能通过正常渠道解决时,应为客户提供升级服务。

通过对服务的客户和用户进行代表性的抽样调查,服务提供方应按照计划的时间间隔测量客户满意度。该结果应用于分析和评审以识别改进的机会。

# 7.2供应商管理

服务提供方可使用供应商实施和运行部分服务管理过程。图**3**说明了一个供应链关系的示例。

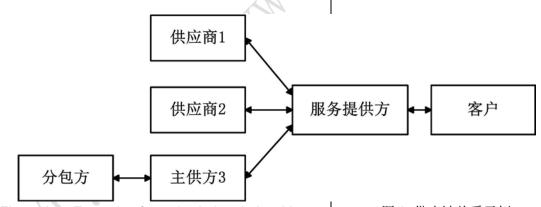


Figure 3 — Example of supply chain relationships

For each supplier, the service provider shall have a designated individual who is responsible for managing the relationship, the contract and performance of the supplier.

The service provider and the supplier **shall** agree a documented contract. The contract **shall** contain or includea reference to:

a) scope of the services to be delivered by the

图 2 供应链关系示例

对于每个供应商,服务提供方<mark>应</mark>有一个指定的个体负责管理与供应商的关系、合同和绩效。

服务提供方和供应商应协定书面合同。合同应包含或包括以下引用:

a) 供应商交付的服务的范围;

supplier;

- b) dependencies between services, processes and the parties;
- c) requirements to be fulfilled by the supplier;
- d) service targets;
- e) interfaces between service management processes operated by the supplier and other parties;
- f) integration of the supplier's activities within the SMS;
- g) workload characteristics;
- h) contract exceptions and how these will be handled;
- i) authorities and responsibilities of the service provider and the supplier;
- j) reporting and communication to be provided by the supplier;
- k) basis for charging;
- I) activities and responsibilities for the expected or early termination of the contract and the transfer of services to a different party.

The service provider **shall** agree with the supplier service levels to support and align with the SLAs between the service provider and the customer.

The service provider shall ensure that roles of, and relationships between, lead and sub-contracted suppliers are documented. The service provider shall verify that lead suppliers are managing their sub-contracted suppliers to fulfil contractual obligations.

- b) 服务、过程和相关方的依赖关系:
- c) 供应商须满足的要求;
- d) 服务目标;
- e) 供应商和其他方在服务管理过程运行中的接口:
- f) 将供应商活动整合至服务管理 体系(SMS):
- g) 工作量特性;
- h) 合同中的例外情形以及该如何 处理例外;
- i) 服务提供方和供应商的权限和职责:
- j) 供应商提供的报告和通告;
- k) 支付基础;
- I) 预期的或提前结束合同和将服 务传递到不同方的活动和职责。

服务提供方<mark>应</mark>与供应商协定服务级别,以支持服务提供方与客户订立的SLAs,并保持一致。

服务提供方应确保主供方与分包方 之间的角色和关系并形成文件。服 务提供方应证实主供应商为满足合 同义务而对分包方进行了管理。 The service provider shall monitor the performance of the supplier at planned intervals. The performance shall be measured against service targets and other contractual obligations. Results shall be recorded and reviewed to identify the causes of nonconformities and opportunities for improvement. The review shall also ensure that the contract reflects current requirements.

Changes to the contract shall be controlled by the change management process.

There **shall** be a documented procedure to manage contractual disputes between the service provider and the supplier.

NOTE 1 services. The scope of the supplier management process excludes the selection of suppliers and the procurement of

NOTE 2 Further examples of supply chain relationships are shown in ISO/IEC TR 20000-3.

### 8 Resolution processes

- **8.1 Incident and service request management**There **shall** be a documented procedure for all incidents to define:
- a) recording;
- b) allocation of priority;
- c) classification;
- d) updating of records;
- e) escalation;
- f) resolution;
- g) closure.

There shall be a documented procedure for managing the fulfilment of service requests from recording to closure. Incidents and service requests

服务提供方应按照计划的时间间隔监视供应商的绩效。测量的绩效应与服务目标和其他合同义务比较。其结果应被记录和评审,识别不合格的原因和改进的机会。评审应确保合同反映现实的要求。

合同的变更<mark>应</mark>受变更管理过程控制。

应具备解决服务提供方和供应商合同纠纷的书面的程序。

注1: 供应商管理的范围不包括功放 的选择和服务的采购。

注**2:** 更进一步的供应链关系的示例 见ISO/IEC TR 20000-3。

#### 8解决过程

# 8.1事件和服务请求管理

应以书面程序形式对所有事件进行 明确:

- a) 记录:
- b) 分配优先顺序;
- c) 分类;
- d) 记录更新;
- e) 升级;
- f) 解决;
- g) 关闭。

应有书面的程序管理服务请求从记录到关闭的全过程。事件和服务请

**shall** be managed according to the procedures.

When prioritizing incidents and service requests, the service provider **shall** take into consideration the impact and urgency of the incident or service request.

The service provider shall ensure that personnel involved in the incident and service request management process can access and use relevant information. The relevant information shall include service request management procedures, known errors, problem resolutions and the CMDB. Information about the success or failure of releases and future release dates, from the release and deployment management process, shall be used by the incident and service request management process.

The service provider shall keep the customer informed of the progress of their reported incident or service request. If service targets cannot be met, the service provider shall inform the customer and interested parties and escalate according to the procedure.

The service provider shall document and agree with the customer the definition of a major incident. Major incidents shall be classified and managed according to a documented procedure. Top management shall be informed of major incidents. Top management shall ensure that a designated individual responsible for managing the major incident is appointed. After the agreed service has been restored, major incidents shall be reviewed to identify opportunities for improvement.

#### 8.2 Problem management

There **shall** be a documented procedure to identify problems and minimize or avoid the impact of incidents and problems. The procedure for problems **shall** define:

a) identification;

求应根据该程序管理。

当排定时间和服务请求的优先顺序时,服务提供方应考虑事件和服务请求的影响和紧急程度。

服务提供方应确保涉及事件和服务请求管理流程的个人能访问和使用相关信息。相关信息应包括服务请求管理流程、已知错误、解决的问题和配置配置管理数据库。从发布部署管理过程得到的发布成功或失败的信息、未来的发布日期,应被事件和服务请求管理过程使用。

服务提供方应及时向客户通告所报告的事件或服务请求的进展。如果服务目标不能满足,服务提供方应通知客户和相关方,并依据程序进行升级。

服务提供方应与客户协定重大事件的书面化定义。重大事件应依据书面的程序分类和管理。重大事件应通知最高管理者。最高管理者应确保指定专人负责管理重大事件。当协定的服务恢复后,重大事件应被评审以识别改进的机会。

#### 8.2问题管理

应有书面的程序来识别、最小化或避免事件和问题的影响。该程序应 定义:

a) 识别;

- b) recording;
- c) allocation of priority;
- d) classification;
- e) updating of records;
- f) escalation;
- g) resolution;
- h) closure.

Problems shall be managed according to the procedure.

The service provider shall analyse data and trends on incidents and problems to identify root causes and theirpotential preventive action.

Problems requiring changes to a CI shall be resolved by raising a request for change.

Where the root cause has been identified, but the problem has not been permanently resolved, the service provider shall identify actions to reduce or eliminate the impact of the problem on the services. Known errorsshall be recorded.

The effectiveness of problem resolution **shall** be monitored, reviewed and reported.

Up-to-date information on known errors and problem resolutions **shall** be provided to the incident and service request management process.

#### 9 Control processes

#### 9.1 Configuration management

There shall be a documented definition of each type of CI. The information recorded for each CI shall ensureeffective control and include at least:

a) description of the CI;

- b) 记录;
- c) 分配优先顺序;
- d) 分类;
- e) 记录更新;
- f) 升级;
- g) 解决;
- h) 关闭。

问题应根据该程序管理。

服务提供方<mark>应</mark>分析事件和问题的数据和趋势,以识别根本原因和潜在预防措施。

问题所需的配置项(CI)变更<mark>应</mark>通过提交变更请求解决。

当发现根本原因,但问题并没有彻底解决时,服务提供方应采取措施以减轻或消除问题对服务的影响。 己知错误应被记录。

应对问题解决的有效性监视、评审和报告。

已知错误的更新信息和问题解决方案应提供给事件和服务请求管理过程。

## 9 控制过程

## 9.1配置管理

每种类型的配置项<u>应</u>有书面的定义。每个配置项记录的信息<u>应</u>确保 是有效控制的,并至少包含:

a) 配置项的描述;

- b) relationship(s) between the CI and other CIs;
- c) relationship(s) between the CI and service components;
- d) status;
- e) version;
- f) location;
- g) associated requests for change;
- h) associated problems and known errors.

Cls shall be uniquely identified and recorded in a CMDB. The CMDB shall be managed to ensure its reliability and accuracy, including control of update access.

There **shall** be a documented procedure for recording, controlling and tracking versions of Cls. The degree of control **shall** maintain the integrity of services and service components taking into consideration the service requirements and the risks associated with the Cls.

The service provider shall audit the records stored in the CMDB, at planned intervals. Where deficiencies are found, the service provider shall take necessary actions and report on the actions taken.

Information from the CMDB **shall** be provided to the change management process, to support the assessment of requests for change.

Changes to CIs shall be traceable and auditable to ensure integrity of the CIs and the data in the CMDB.

A configuration baseline of the affected CIs shall be

- b) 配置项和其他配置项之间的关系:
- c) 配置项和服务组件之间的关系:
- d) 状态;
- e) 版本:
- f) 位置;
- g) 相关的变更请求;
- h) 相关的问题和已知错误。

配置项应是唯一可识别的,并记录在CMDB中。CMDB应管理以确保其可靠性和准确性,包括更新访问控制。

应有书面的程序记录、控制和跟踪 配置项的版本。考虑到服务需求和 配置项的相关风险,控制程度应保 证服务和服务组件的完整性。

按照计划的时间间隔,服务提供方 应审核储存在配置管理数据库中的 记录。当发现缺失时,服务提供方 应采取必要的措施并报告采取的措 施。

配置管理数据库中的信息应提供给 变更管理过程,以支持对变更请求 的评估。

对配置项的变更<mark>应</mark>是可追溯的和可 审核的,以保证配置和配置管理数 据库中数据的完整性。

部署一个发布到现实环境前, 应确

taken before deployment of a release into the live environment.

Master copies of CIs recorded in the CMDB shall be stored in secure physical or electronic libraries referenced by the configuration records. This shall include at least documentation, licence information, software and, where available, images of the hardware configuration.

There **shall** be a defined interface between the configuration management process and financial asset management process.

NOTE The scope of the configuration management process excludes financial asset management.

# 9.2 Change management

A change management policy shall be established that defines:

- a) Cls which are under the control of change management;
- b) criteria to determine changes with potential to have a major impact on services or the customer.

Removal of a service **shall** be classified as a change to a service with the potential to have a major impact. Transfer of a service from the service provider to the customer or a different party **shall** be classified as a change with potential to have a major impact.

There **shall** be a documented procedure to record, classify, assess and approve requests for change.

The service provider shall document and agree with the customer the definition of an emergency change. There shall be a documented procedure for managing emergency changes.

All changes to a service or service component shall be raised using a request for change. Requests for change shall have a defined scope.

定受影响配置项的配置基线。

记录在配置管理数据库中配置项的 主要副本应存储在安全的物理介质 或电子库中以便于被配置记录引 用。配置项至少包括文件、许可证 信息、软件,如果可能的话应提供 硬件配置图。

配置管理过程和财务资产管理过程 <mark>应</mark>有明确的接口。

注:配置管理过程不包含财务资产 管理过程。

# 9.2变更管理

应建立变更管理方针,明确:

- a) 变更管理控制下的配置项;
- b) 判定变更时服务或客户有潜在 重大影响的准则。

删除服务应被分类为对服务有潜在 重大影响的变更。服务从服务提供 方转移到客户或不同方应被分类为 有潜在重大影响的变更。

<u>中</u>有书面程序记录、分类、评估和 批准变更请求。

服务提供方与客户<mark>应</mark>书面协定紧急 变更的定义。<mark>应</mark>有书面的程序管理 紧急变更。

所有对服务或服务组件的变更应提 出变更请求。变更请求应有明确的 All requests for change shall be recorded and classified. Requests for change classified as having the potential to have a major impact on the services or the customer shall be managed using the design and transition of new or changed services process. All other requests for change to CIs defined in the change management policy shall be managed using the change management process.

Requests for change shall be assessed using information from the change management process and other processes.

The service provider and interested parties shall make decisions on the acceptance of requests for change. Decision-making shall take into consideration the risks, the potential impacts to services and the customer, service requirements, business benefits, technical feasibility and financial impact.

Approved changes **shall** be developed and tested.

A schedule of change containing details of the approved changes and their proposed deployment dates **shall** be established and communicated to interested parties. The schedule of change **shall** be used as the basis for planning the deployment of releases.

The activities required to reverse or remedy an unsuccessful change **shall** be planned and, where possible, tested. The change **shall** be reversed or remedied if unsuccessful. Unsuccessful changes **shall** be investigated and agreed actions taken.

The CMDB records shall be updated following the successful deployment of changes.

The service provider shall review changes for effectiveness and take actions agreed with

范围。

应对所有变更请求进行记录和分类。分类为对服务或客户有潜在重大影响的变更请求,应采用设计和转换新的或变更的服务过程管理。所有其他定义在变更管理方针中的配置项的变更请求应由变更管理过程管理。

应对变更请求进行评估,评估信息 采自变更管理过程和其他过程。

服务提供方和相关方应对变更请求做出决定。做决定应考虑风险、对服务和客户潜在的冲击、服务需求、业务收益、技术便利性和财务影响。

批准的变更应被开发和测试。

变更安排,包含被批准变更的细节和它们建议的部署日期,应被建立并通告相关方。变更安排应作为计划发布部署的基础。

应策划取消或补救不成功变更需要的相关活动,有条件尽量进行测试。若不成功,变更应取消或补救。不成功变更应被调查并协定采取的措施。

配置管理数据库中的记录<mark>应</mark>随成功 部署的变更更新。

服务提供方<mark>应</mark>评审变更的有效性并与相关方协定要采取的措施。

interested parties.

Requests for change shall be analysed at planned intervals to detect trends. The results and conclusions drawn from the analysis shall be recorded and reviewed to identify opportunities for improvement.

9.3 Release and deployment management

The service provider shall establish and agree with the customer a release policy stating the frequency and type of releases.

The service provider shall plan with the customer and interested parties the deployment of new or changed services and service components into the live environment. Planning shall be coordinated with the change management process and include references to the related requests for change, known errors and problems which are being closed through the release. Planning shall include the dates for deployment of each release, deliverables and methods of deployment.

The service provider shall document and agree with the customer the definition of an emergency release. Emergency releases shall be managed according to a documented procedure that interfaces to the emergency change procedure.

Releases shall be built and tested prior to deployment. A controlled acceptance test environment shall be used for the building and testing of releases.

Acceptance criteria for the release shall be agreed with the customer and interested parties. The release shall be verified against the agreed acceptance criteria and approved before deployment. If the acceptance criteria are not met, the service provider shall make a decision on necessary actions and deployment with interested parties.

变更请求应根据计划的时间间隔分析以识别趋势。由分析得出的结果和结论应予以记录和评审以识别改进的机会。

# 9.3发布和部署管理

服务提供方<mark>应</mark>建立并与客户协定发 布策略,描述发布的频率和类型。

服务提供方应与客户和相关方策划、部署新的或变更的服务和服务组件到实际环境中去。策划应与变更管理过程协调并包含对相关的变更请求、已知错误和通过该发布所关闭问题的引用。策划应包括对每个发布的部署日期、部署的可行性和部署的方法。

服务提供方应与客户协定紧急发布的书面定义。紧急发布应根据与紧急变更程序接口的书面的程序管理。

部署前,<mark>应</mark>建立和测试发布。建立和测试发布<mark>应</mark>在可控的验收测试环境下进行。

发布的验收准则应与客户和相关方协定。对比协定的验收准则,发布应被验证并在部署前获批。如果验收准则无法满足,服务提供方应与相关方决定采取的必要措施及部署。

The release **shall** be deployed into the live environment so that the integrity of hardware, software and other service components is maintained during deployment of the release.

The activities required to reverse or remedy an unsuccessful deployment of a release shall be planned and, where possible, tested. The deployment of the release shall be reversed or remedied if unsuccessful. Unsuccessful releases shall be investigated and agreed actions taken.

The success or failure of releases shall be monitored and analysed. Measurements shall include incidents related to a release in the period following deployment of a release. Analysis shall include assessment of the impact of the release on the customer. The results and conclusions drawn from the analysis shall be recorded and reviewed to identify opportunities for improvement.

Information about the success or failure of releases and future release dates **shall** be provided to the change management process, and incident and service request management process.

Information shall be provided to the change management process to support the assessment of the impact of requests for change on releases and plans for deployment.

发布<mark>应</mark>部署至实际环境中,并在发 布部署中保持硬件、软件和其他服 务组件的完整性。

应对撤销或修复不成功发布的部署 所需的活动进行策划,有可能的话, 进行测试。如果不成功,应撤销或 修复发布部署。不成功的发布应予 以调查并采取协定的措施。

应对成功和失败的发布进行测量和分析。测量内容应包括发布之后某段时间内与发布有关的事件。分析应包括发布对客户影响的评估。应对分析的结果和结论进行记录并评审以识别改进的机会。

有关发布成功或失败和未来发布日期的信息,应提供给变更管理过程、 事件和服务请求管理过程。

信息应提供给变更管理过程,以支持针对发布的变更请求和对策划的部署的评估。

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