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Information technology — Service management —

Part 12: Guidance on the relationship between ISO/IEC 20000-1:2011 and service management frameworks: CMMI-SVC®

Technologies de l'information — Gestion des services —

Partie 12: Directives sur la relation entre l'ISO/IEC 20000-1:2011 et les cadres de management du service: CMMI-SVC ®

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/IEC JTC 1, *Information technology*, SC 40, *IT Service Management and IT Governance*.

A list of all parts in the ISO/IEC 20000 series can be found on the ISO website and in the Introduction of this document.

Introduction

This document can assist readers in relating the requirements specified in ISO/IEC 20000-1:2011 to supporting text in one of the most commonly used service management frameworks, CMMI-SVC. Service providers can refer to this guidance as a cross-reference between the two documents to help them to plan and implement a service management system (SMS).

ISO/IEC 20000-1:2011 is the International Standard for service management and specifies requirements that can be used as the basis of a conformity assessment. ISO/IEC 20000-1:2011 can be used in different ways, including:

a) as a source of requirements for service providers on the design, transition, delivery and improvement of services and service management capabilities;

b) to establish a consistent approach for an organization to use with all of its service providers, including those in its supply chain;

c) as an unbiased basis to assess, measure and report service delivery and management capabilities including performance of specific service management processes;

d) as a set of criteria for audit and assessment of a service provider's SMS, including service management processes.

ISO/IEC 20000-1:2011 specifies an integrated process approach when the service provider plans, establishes, implements, operates, monitors, reviews, maintains and improves an SMS. The services can be delivered to internal or external customers.

In ISO/IEC 20000-1:2011, a service is defined as a means of delivering value for the customer by facilitating results that the customer wants to achieve. The definition further notes that a service is generally intangible and that a service can also be delivered to the service provider by a supplier, an internal group or a customer acting as a supplier.

The Capability Maturity Model Integration for Services (CMMI-SVC) draws on concepts and practices from other CMMI models and other service-focused frameworks and models. The CMMI-SVC model covers the activities required to establish, deliver, and manage services. As defined in the CMMI context, a service is an intangible, non-storable product. The CMMI-SVC model has been developed to be compatible with this broad definition.

Service providers can implement and improve the SMS using the requirements specified in ISO/IEC 20000-1, the guidance in the other parts of the ISO/IEC 20000 series and CMMI-SVC. Both the ISO/IEC 20000 series and CMMI-SVC provide guidance to identify, plan, design, deliver, and improve services that deliver value to the business and its customers.

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*

— Part 4: *Process reference model* [Technical Report]

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

— Part 6: *Requirements for bodies providing audit and certification of service management systems*[1)]

— Part 9: *Application of ISO/IEC 20000-1 to cloud services* [Technical Report]

1) To be published.

— Part 10: *Concepts and terminology* [Technical Report]

— Part 11: *Guidance on the relationship between ISO/IEC 20000-1:2011 and service management frameworks: ITIL®*[2] [Technical Report]

— Part 12: *Guidance on the relationship between ISO/IEC 20000-1:2011 and service management frameworks: CMMI-SVC®*[3] [Technical Report]

2) ITIL® is a registered trademark of AXELOS.

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Information technology — Service management —

Part 12: Guidance on the relationship between ISO/IEC 20000-1:2011 and service management frameworks: CMMI-SVC ®

1 Scope

This document provides guidance on the relationship between ISO/IEC 20000-1:2011 and CMMI-SVC V1.3 (through Maturity Level 3). Service providers can refer to this guidance as a cross-reference between the two documents to help them to plan and implement an SMS. An organization employing the practices in the indicated CMMI-SVC process areas can conform to many of the associated ISO/IEC 20000-1 requirements.

The guidance in Clause 4 describes how CMMI-SVC can support the demonstration of conformity to ISO/IEC 20000-1:2011. A description of the purpose and content of both publications in 4.1 and 4.2 is followed by Clause 5, which relates process areas in CMMI-SVC to clauses in ISO/IEC 20000-1:2011. The tables in Annexes A and B relate terms, clauses, and paragraphs in ISO/IEC 20000-1:2011 to CMMI-SVC. Table B.1 is a simplified summary of the correlation seen in Table 3 for those readers who want an overview. The tables indicate those aspects of ISO/IEC 20000-1:2011 and CMMI-SVC that represent the greatest link between the two sets of documents, from the perspective of a service provider.

This document can be used by any organization or person who wishes to understand how CMMI-SVC can be used with ISO/IEC 20000-1:2011, including the following:

a) a service provider that intends to demonstrate conformity to the requirements of ISO/IEC 20000-1:2011 and is seeking guidance on the use of CMMI-SVC to establish and maintain the SMS and the services;

b) a service provider that has demonstrated conformity to the requirements of ISO/IEC 20000-1:2011 and is seeking guidance on ways to use CMMI-SVC to improve the SMS and the services;

c) a service provider that already uses CMMI-SVC and is seeking guidance on how CMMI-SVC can be used to support efforts to demonstrate conformity to the requirements specified in ISO/IEC 20000-1:2011;

d) an appraiser or assessor who wishes to understand the use of CMMI-SVC as support for the requirements specified in ISO/IEC 20000-1:2011.

This document can also be used with the other parts of the ISO/IEC 20000 series.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO/IEC 20000-1:2011, *Information technology — Service management — Part 1: Service management system requirements*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 20000-1:2011 and ISO/IEC/TR 20000-10:2015 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at http://www.iso.org/obp

4 Use of ISO/IEC 20000-1:2011 and CMMI-SVC

4.1 Introduction to ISO/IEC 20000-1:2011

ISO/IEC 20000-1:2011 specifies the general requirements for an SMS in Clause 4. In ISO/IEC 20000-1:2011, Clauses 5 to 9, it specifies the service management processes, as shown in Table 1.

Table 1 — Service management processes in ISO/IEC 20000-1:2011

Process group	Clause	Process
—	5	Design and transition of new or changed services
Service delivery processes	6	Service level management Service reporting Service continuity and availability management Budgeting and accounting for services Capacity management Information security management
Relationship processes	7	Business relationship management Supplier management
Resolution processes	8	Incident and service request management Problem management
Control processes	9	Configuration management Change management Release and deployment management

ISO/IEC 20000-1:2011 requires the application of the methodology known as "Plan–Do–Check–Act" (PDCA) to all parts of the SMS and the services. Figure 1 illustrates how the PDCA methodology can be applied to the SMS, including the service management processes specified in ISO/IEC 20000-1:2011, Clauses 5 to 9 and the services. The PDCA methodology 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 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.

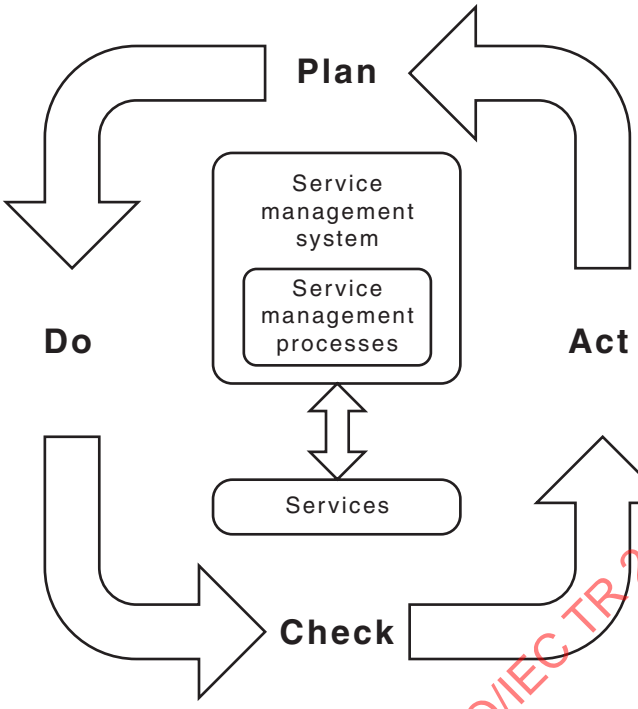

Figure 1 — PDCA methodology applied to service management

Figure 2 illustrates an SMS, including the service management processes. The service management processes and the interfaces 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, the service management objectives, and the scope of the SMS will influence how the service management processes are implemented.

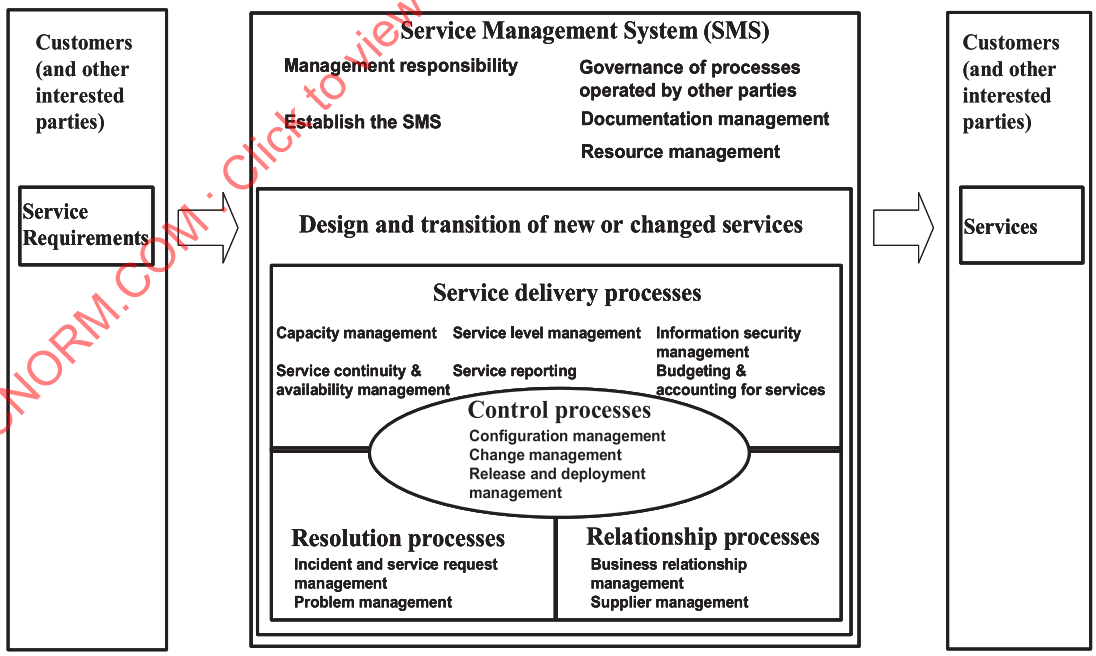

Figure 2 — Service management system

ISO/IEC 20000-1:2011 supports the integration of an 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.

For the service provider, the benefits of the SMS are in its application towards fulfilling service requirements and providing services with value both to customers and the service provider.

The ISO/IEC 20000 series contains requirements in ISO/IEC 20000-1:2011 and guidance in other parts. ISO/IEC 20000-2:2012 is an important reference for a service provider implementing the requirements of ISO/IEC 20000-1:2011. Guidance on the way an organization can implement ISO/IEC 20000-1:2011 in phases is provided in ISO/IEC/TR 20000-5:2013. Extensive guidance is also provided in the other parts of the ISO/IEC 20000 series. The service provider can also use a combination of other guidance and its own experience. One example of other guidance is CMMI-SVC.

4.2 Introduction to CMMI-SVC

CMMI-SVC is one of three CMMI models, referred to collectively as "CMMI." CMMI-SVC is a model of practices and goals for service organizations of all types. These practices are grouped into process areas (PAs), which are collections of goals and practices on a single topic, such as risk, capacity, or continuity. A PA is the major organizing component of every CMMI model, and in CMMI-SVC, these PAs are used for defining and delivering services, improving processes, evaluating organizational capability or maturity, and benchmarking.

All CMMI models include core PAs (for example, Risk Management) that are common to all CMMI models, and specific PAs (for example, Service Continuity) that are related to one of the three disciplines that CMMI covers: acquisition, development, and services. In addition, CMMI models have generic practices (for example, "Train the people performing or supporting the process as needed."). These generic practices can be used to foster improvement by using them alone or with PAs and applying them to any work or part of an organization. Generic goals (for example, "Institutionalize a Managed Process") and practices are also applied during CMMI appraisals to make judgments about organizational capability.

CMMI PAs have goals, practices, and guidance to use as references when developing and improving processes, but they are not processes or process descriptions. Further, a CMMI appraisal is not an assessment of processes. The guidance (also called "informative content" by CMMI users) for using goals and practices accompanies the expression of goals and practices (CMMI experts refer to these as normative content) and this guidance appears throughout the CMMI document. Guidance or informative CMMI material is integrated rather than separated from normative material.

Because CMMI is used to improve practices and evaluate organizational capability, the CMMI has multiple ways to use PAs. All CMMI documents organize the PAs in alphabetical order by acronym for ease of reference. Organizations can use PAs in prescribed maturity levels, allowing organizations to benchmark by using the CMMI appraisal method. This grouping of PAs is called the "staged representation" in CMMI. Organizations can also choose PAs relevant to their business and use the generic practices to improve and evaluate their capability on the topics most important to them. This way of using PAs is called the continuous representation in CMMI. In addition, Table 2 groups the 24 PAs in CMMI-SVC according to business activities (Doing the Work); this grouping is used in training and overviews.

Table 2 — CMMI-SVC Process Areas

Doing the Work	Process Area
Define, Establish, and Deliver Services	Service Delivery (SD) Requirements Management (REQM) Work Planning (WP) Service System Development (SSD)
Monitor and Control Service and Work Products	Capacity and Availability Management (CAM) Work Monitoring and Control (WMC) Configuration Management (CM)
Ensure Service Mission Success	Incident Resolution and Prevention (IRP) Risk Management (RSKM) Service Continuity (SCON) Service System Transition (SST)
Make Work Explicit and Measureable	Measurement and Analysis (MA) Organizational Process Performance (OPP) Quantitative Work Management (QWM) Causal Analysis and Resolution (CAR) Organizational Performance Management (OPM)
Manage Decisions, Suppliers, and Standard Services	Supplier Agreement Management (SAM) Decision Analysis and Resolution (DAR) Strategic Service Management (STSM)
Create a Culture to Sustain Service Excellence	Process and Product Quality Assurance (PPQA) Organizational Process Definition (OPD) Integrated Work Management (IWM) Organizational Training (OT) Organizational Process Focus (OPF)

Service providers choosing to use CMMI-SVC as their guide to implementing service management processes can support the demonstration of conformity against the requirements specified in ISO/IEC 20000-1:2011. To demonstrate conformity to the requirements specified in ISO/IEC 20000-1:2011, the service provider should implement an SMS that encompasses the following requirements of ISO/IEC 20000-1:2011, Clauses 4 to 9.

a) The SMS general requirements, specified in ISO/IEC 20000-1:2011, Clause 4, demonstrating management commitment, governance of processes operated by other parties, control and management of service management documentation and management of resources. These requirements include the operation of continual improvement of the SMS using the PDCA methodology.

b) Management of the service lifecycle including the design, development, and transition of new services, changing services, closure of services or transfer of services to others in a controlled manner, as specified in ISO/IEC 20000-1:2011, Clauses 5 to 9.

c) For the service management processes specified in ISO/IEC 20000-1:2011, Clauses 5 to 9 all processes should be in place and their documented and measurable performance should demonstrate conformance with the requirements specified in these clauses.

The ISO/IEC 20000 series can be used by an organization looking for guidance on how to improve service management, whether or not it is interested in seeking certification. Regardless of the intended

application of ISO/IEC 20000-1:2011, CMMI-SVC can support a service provider to design, transition, deliver and improve the SMS and services.

4.3 Relationships between ISO/IEC 20000-1:2011 and CMMI-SVC

ISO/IEC 20000-1:2011 and CMMI-SVC through Maturity Level 3 demonstrate similarities in their structure and content. Both can be used to demonstrate conformity. In the case of ISO/IEC 20000-1:2011, it is the SMS that is assessed. In the case of CMMI-SVC, it is the capability or maturity of the organization that is assessed.

ISO/IEC 20000-1:2011 and CMMI-SVC rely on system concepts. The ISO/IEC 20000 series has the SMS and CMMI-SVC has the service system. The components of these systems have a strong similarity. Both systems have requirements and guidance regarding continuity, incidents, service requests, capacity, and availability, as demonstrated in the correlation Tables A.1 and B.1.

ISO/IEC 20000-1:2011 is a management system standard that specifies requirements for an SMS. CMMI-SVC is a model of organizational capability. As a model, it presents a framework for developing and delivering services and for improving processes. CMMI-SVC is interpreted by the user to determine what is needed to successfully enable the service system. ISO/IEC 20000-1:2011 specifies the requirements for the SMS; CMMI-SVC users derive their organizational requirements from goals and practices. This difference carries with it architecture, scope, and purpose differences in each document. CMMI-SVC provides detailed guidance on organization-level activities, measurement of services and processes, decision making and risk management. These are core properties of CMMI that could also be useful in the implementation of an SMS that is based on ISO/IEC 20000-1:2011.

While the content of ISO/IEC 20000-1:2011 and CMMI-SVC is largely consistent, topics are organized into different groups, and the detail in accompanying explanations and guidance varies. ISO/IEC 20000-1:2011 specifies requirements for the SMS and other parts of the ISO/IEC 20000 series, including ISO/IEC 20000-2, contain guidance on many aspects of service management. In contrast, CMMI models have guidance integrated throughout a single document.

Many organizations use both the ISO/IEC 20000 series and CMMI-SVC and find value in using them together.

5 Correlation of CMMI-SVC to ISO/IEC 20000-1:2011

The correlation of ISO/IEC 20000-1:2011 clauses to process areas and associated goals and practices in CMMI-SVC is intended to provide a view of the relationships between the two references. Although this correlation cites normative clauses of ISO/IEC 20000-1:2011 and aligns them with CMMI-SVC goals and practices, the correlation itself is informative, not normative. The user should consult the source documents to determine the applicability of requirements and informative guidance. Not all CMMI-SVC goals and practices referenced in this annex are necessary to fulfil the requirements specified in ISO/IEC 20000-1:2011. Not all the requirements specified in ISO/IEC 20000-1:2011 are covered completely in each of the associated CMMI-SVC process areas.

ISO/IEC 20000-1:2011 specifies requirements for an SMS. ISO/IEC 20000-1:2011 is the International Standard for service management and specifies requirements that can be used as the basis of a conformity assessment. It can be used for improvement, benchmarking and for demonstrating conformity to an SMS.

CMMI-SVC enumerates practices and activities specific to process areas within the process area, similar to the ISO/IEC 20000-1:2015 consideration of processes within the SMS. In ISO/IEC 20000-1:2015, activities that enable the service organization to establish central processes, practices, tasks, and procedures are expressed in clauses. This similar content in CMMI is expressed as institutionalization in the generic practices and organizational PAs such as OPD and OPF.

Table 3 shows the correlation to CMMI-SVC through Maturity Level 3 (by process area, with specific goals and practices when relevant) for ISO/IEC 20000-1:2011, Clauses 4 to 9, respectively. For clarity of correlation, the connections are made at the level of subclauses.

To aid users in finding the correlations, whenever possible, CMMI-SVC correlations are listed in order of greatest correlation or in generally the same order as the information in the clauses. If this ordering is not obvious, then service-specific PAs are listed first and are followed by core PAs.

When an entire PA applies to the sub clause, only the PA abbreviation, or abbreviation and goal, appears (for example, SD SG2; SD is the abbreviation for Service Delivery, and SG2 indicates Specific Goal 2 of Service Delivery). If it is best to look at a specific practice for the correlation rather than at the entire PA or goal, the specific practice (SP) will be indicated along with the PA (for example, SD SP2.1, which indicates Service Delivery Specific Practice 2.1, the first practice under Specific Goal 2). When a Generic Goal or Generic Practice is the correlated CMMI content, this is indicated as GG 2, for example, if the entire Generic Goal applies, and as GP 2.1, for example, if the Generic Practice is the clearest correlation.

Grey shading identifies labels that are included for title only. The capitalization of ISO/IEC 20000-1:2011 text is based on normal ISO editorial rules. The capitalization of CMMI-SVC text is that used in CMMI-SVC. When text is directly quoted from CMMI-SVC, style guidelines for CMMI are maintained, such as spelling, use of punctuation, and italics.

Table 3 — Correlation of ISO/IEC 20000-1:2011, Clauses 4 to 9 to CMMI-SVC

ISO/IEC 20000-1: 2011 clause	ISO/IEC 20000-1:2011 paragraph summary	CMMI-SVC PA/Goal/ Practice	CMMI-SVC goal and practice description
4	Service management system general requirements		
4.1	Management responsibility		
4.1.1	Management commitment	GG 2 GG 3	Practices associated with Generic Goals 2 and 3 describe management commitments to institutionalizing managed and defined processes used in delivering service.
4.1.2	Service management policy	GP 2.1	Establish and maintain an organizational policy for planning and performing the process. For additional information, see the elaborations for service-specific PAs.
4.1.3	Authority, responsibility and communication	GP 2.4	Assign responsibility and authority for performing the process, developing the work products, and providing the services of the process.
		GP 2.7	Identify and involve the relevant stakeholders as the process is planned.
		GP 2.10	Review the activities, status, and results of the process with higher level management and resolve issues.
		GP 3.2	Collect process related experiences derived from planning and performing the process to support the future use and improvement of the organization's processes and process assets.
4.1.4	Management representative	GP 2.4	Assign responsibility and authority for performing the process, developing the work products, and providing the services of the process. Note that SD and SSD PAs could also include management representatives in definitions of service and service system.
		OPF SG2	Establish and maintain process action plans including resources to address performance improvements and implementation of process actions.

Table 3 *(continued)*

ISO/IEC 20000-1: 2011 clause	ISO/IEC 20000-1:2011 paragraph summary	CMMI-SVC PA/Goal/ Practice	CMMI-SVC goal and practice description
4.2	Governance of processes operated by other parties	SAM SP 1.3	Establish and maintain supplier agreements.
		SAM SP 2.1	Perform activities with the supplier as specified in the supplier agreement.
		SSD SP 1.1	Collect and transform stakeholder needs, expectations, constraints, and interfaces into prioritized stakeholder requirements. This includes identifying standards and procedures to be followed.
4.3	Documentation management		
4.3.1	Establish and maintain documents	SD SP 1.2	Establish and maintain the service agreement.
		SD SP 2.1	Establish and maintain the approach for service delivery.
		STSM SP 2.2	Establish and maintain descriptions of the organization's defined standard services.
		GP 2.1	Establish and maintain policy.
		GP 2.2	Establish and maintain the plan for performing the process.
		WP SP 2.3	Plan for the management of data.
		OPD SP 1.1	Establish and maintain the organization's set of standard processes.
		IWM SP 1.1	Establish and maintain the defined process from startup and throughout the work.
		CM SP 2.2	Control changes to configuration items.
4.3.2	Control of documents	GP 2.6	Place selected work products of the process under appropriate levels of control.
		WP SP 2.3	Plan for the management of data.
		WMC SP 1.4	Monitor the management of data against the work plan.
4.3.3	Control of records	CM SP 2.2	Control changes to configuration items.
		GP 2.6	Place selected work products of the process under appropriate levels of control.
		WP SP 2.3	Plan for the management of data.
		WMC SP 1.4	Monitor the management of data against the work plan.
4.4	Resource management		
4.4.1	Provision of resources	CAM SP 1.1	Establish and maintain a strategy for capacity and availability management. See the subpractices of SP 1.1 for detail.
		WP SP 2.4	Plan for resources to perform the work.
		GP 2.3	Provide adequate resources for performing the process, developing the work products, and providing the services of the process.

Table 3 *(continued)*

ISO/IEC 20000-1: 2011 clause	ISO/IEC 20000-1:2011 paragraph summary	CMMI-SVC PA/Goal/ Practice	CMMI-SVC goal and practice description
4.4.2	Human resources	GP 2.5	Train the people performing or supporting the process as needed.
		OT SG 2	Training for individuals to perform their roles effectively is provided. (Includes records and assessment.)
		WP SP 2.5	Plan for knowledge and skills needed to perform the work.
4.5	Establish and improve the SMS		
4.5.1	Define scope	WP SP 1.2	Establish a top-level work breakdown structure (WBS) to estimate the scope of the work.
		SD and SSD	Multiple practices in each of these PAs cover specific items mentioned in 4.5.1, including locations and technologies to be used. The practices in these PAs provide input to the scope and operation of an SMS.
4.5.2	Planning and implementing service management	SD SP 2.1	Establish and maintain the approach to be used for service delivery and service system operations.
		WP SP 2.7	Establish the overall work plan.
		SSD SG 2	Service system components are selected, designed, implemented, and integrated.
4.5.3	Implement and operate the SMS	SSD SP 2.4	Implement the service system design.
		SST SP 2.1	Deploy service system components.
		SD SP 3.2	Operate the service system.
4.5.4	Monitor and review the SMS		
4.5.4.1	General	CAM SG 2	Capacity and availability are monitored and analyzed to manage resources and demand.
		MA	Measure and analyze the service performance.
4.5.4.2	Internal audit	GP 2.9	Objectively evaluate adherence of the process and selected work products against the process description, standards, and procedures, and address noncompliance.
		PPQA	Provide staff and management with objective insight into processes and associated work products.
		OPF SP 1.2	Appraise the organization.
4.5.4.3	Management review	GP 2.10	Review the activities, status and results of the process with higher level management and resolve issues.
		WMC	Monitor actual progress and performance against the work plan.
4.5.5	Maintain and improve the SMS		
4.5.5.1	General	OPF SP 1.3	Identify improvements to the organization's processes and process assets.
		GP 2.1	Establish and maintain an organizational policy for planning and performing the process. See OPF elaboration for additional detail.
		OPF SP 2.1	Establish and maintain process action plans to address improvements to the organization's processes and process assets.

Table 3 *(continued)*

ISO/IEC 20000-1: 2011 clause	ISO/IEC 20000-1:2011 paragraph summary	CMMI-SVC PA/Goal/ Practice	CMMI-SVC goal and practice description
4.5.5.2	Management of improvements	OPF SG 3	Organizational process assets are deployed across the organization and process-related experiences are incorporated into organizational process assets.
		GP 3.2	Collect process related experiences derived from planning and performing the process to support the future use and improvement of the organization's processes and process assets. For improvement, this GP would be applied in concert with STSM, SSD, SST, and SD.
5	Design and transition of new or changed services		
5.1	General	STSM SP 1.1	Gather and analyze data about the strategic needs and capabilities of the organization.
		GP 3.1	Establish a defined process. For design or transition of new or changed service system, this GP would be applied in concert with SSD, SD, and SST.
5.2	Plan new or changed services	REQM SP 1.3	Manage changes to requirements as they evolve.
		SSD SP 1.1	Collect and transform stakeholder needs, expectations, constraints, and interfaces into prioritized stakeholder requirements.
		SD SP 2.1	Establish and maintain the approach to be used for service delivery and service system operations.
		WP SP 2.2	Identify and analyze risks.
		SST SG1	Preparation for service system transition is conducted.
5.3	Design and development of new or changed services	SSD SP 2.1	Select service system solutions from alternative solutions.
		SSD SP 2.2	Develop designs for the service system and service system components.
5.4	Transition of new or changed services	SST SG2	The service system is deployed to the delivery environment.
6	Service delivery processes		
6.1	Service level management	STSM SP 2.1	Establish properties of standard services and service levels.
		SD SP 1.2	Establish and maintain the service agreement.
		REQM SG 1	Requirements are managed and inconsistencies with plans and work products are identified.
		CAM SG2	Capacity and availability are monitored and analyzed to manage resources and demand.
		SD SP 3.2	Operate the service system to deliver services in accordance with service agreements.
		IRP SP 3.1	Analyze the underlying causes of selected incidents.
		SAM SG 2	Satisfy supplier agreements.
6.2	Service reporting	CAM SP 2.3	Report capacity and availability management data.
		SD SP 3.2	Operate the service system.
		WMC	Monitor progress and performance against the work plan.

Table 3 *(continued)*

ISO/IEC 20000-1: 2011 clause	ISO/IEC 20000-1:2011 paragraph summary	CMMI-SVC PA/Goal/ Practice	CMMI-SVC goal and practice description
		MA SP 2.4	Communicate results of measurement and analysis activities associated with service performance are provided.
6.3	Service continuity and availability management		
6.3.1	Service continuity and availability requirements	SCON SP 1.1	Identify and prioritize the essential functions that must be performed to ensure service continuity.
		SCON SP 1.2	Identify and prioritize the essential resources required to ensure service continuity.
		CAM SP 1.1	Establish and maintain a strategy for capacity and availability management.
6.3.2	Service continuity and availability plans	SCON SP 2.1	Establish and maintain service continuity plans that enable the organization to resume performing essential functions.
		CAM SP 1.3	Establish and maintain service system representations to support capacity and availability management.
6.3.3	Service continuity and availability monitoring and testing	CAM SP 1.2	Select measures and analytic techniques to be used in managing the capacity and availability of the service system.
		CAM SP 2.2	Monitor and analyze availability against targets.
		SCON SG 3	The service continuity plan is verified and validated.
		WP SP 1.2	Establish a top-level work breakdown structure (WBS) to estimate the scope of the work.
6.4	Budgeting and accounting for services	GP 2.1	Establish and maintain an organizational policy for planning and performing the process.
		WP SP 1.3	Establish and maintain estimates of work product and task attributes.
		WP SP 2.1	Establish and maintain the budget and schedule.
		IWM SP 1.1	Establish and maintain the defined process for start-up and throughout the work.
		WMC SP 1.1	Monitor actual values of planning parameters against the work plan.
		WP SP 3.1	Review all plans that affect the work to understand work commitments aligned with requirements.
6.5	Capacity management	CAM SG 1	Preparation for capacity and availability management is conducted.
		CAM SP 2.1	Monitor and analyze capacity.
		REQM SP 1.1	Understand requirements.
		REQM SP 1.3	Manage changes to requirements as they evolve.
6.6	Information security management		
6.6.1	Information security policy	SM SP 1.1	Establish security objectives.
		SM SP 1.2	Establish an approach to threat assessment.
		SM SP 1.6	Obtain commitment to the security management plan.
6.6.2	Information security controls	SM SP 1.3	Identify security threats.
		SM SP 1.4	Evaluate and prioritize security threats.
		SM SP 1.5	Establish a security management plan.

Table 3 *(continued)*

ISO/IEC 20000-1: 2011 clause	ISO/IEC 20000-1:2011 paragraph summary	CMMI-SVC PA/Goal/ Practice	CMMI-SVC goal and practice description
6.6.3	Information security changes and incidents	SM SP 2.1	Operate the security management system.
		SM SP 2.2	Monitor the security management system.
7	Relationship processes		
7.1	Business relationship management	GP 2.7	Identify and involve the relevant stakeholders of the process as planned.
		WP SP 2.6	Plan stakeholder involvement.
		SD SG 1	Service agreements are established and maintained.
		WMC SP 1.6	Periodically review the work progress, performance, and issues.
		REQM SP 1.3	Manage changes to requirements as they evolve.
		STSM SP 1.1	Gather and analyze data about the strategic needs and capabilities of the organization.
		IRP SG 1	Preparation for incident resolution and prevention is conducted.
		SSD SG 1	Stakeholder needs, expectations, constraints, and interfaces are collected, analyzed, and transformed into validated requirements.
		GP 2.4	Assign responsibility and authority for performing the process, developing the work products, and providing the services of the process.
7.2	Supplier management	GP 2.2	Establish and maintain the plan for performing the process.
		GP 2.4	Assign responsibility and authority for performing the process, developing the work products, and providing the services of the process.
		SAM SP 1.3	Establish and maintain supplier agreements.
		SAM SP 2.1	Perform activities with the supplier as specified in the supplier agreement.
		SAM SP 2.2	Ensure that the supplier agreement is satisfied before accepting the acquired product.
		SAM SP 2.3	Ensure the transition of products acquired from the supplier.
		GP 3.2	Collect process related experiences derived from planning and performing the process to support the future use and improvement of the organization's processes and process assets.
8	Resolution processes		
8.1	Incident and service request management	IRP SP 2.1	Identify incidents and record information about them.
		IRP SP 1.1	Establish and maintain an approach to incident resolution and prevention.
		IRP SP 1.2	Establish and maintain an incident management system for processing and tracking incident information.
		IRP SP 2.5	Communicate the status of incidents.
		SD SP 2.3	Establish and maintain a request management system.
		SD SP 3.1	Receive and process service requests.

Table 3 *(continued)*

ISO/IEC 20000-1: 2011 clause	ISO/IEC 20000-1:2011 paragraph summary	CMMI-SVC PA/Goal/ Practice	CMMI-SVC goal and practice description
		IRP SP 1.2	Establish and maintain an incident management system for processing and tracking incident information.
		GP 2.7	Identify and involve the relevant stakeholders of the process as planned.
		IRP SP 2.4	Monitor the status of incidents to closure.
8.2	Problem management	IRP SG 2	Individual incidents are identified, controlled, and addressed.
		IRP SG 1	Preparation for incident resolution and prevention is conducted.
		IRP SG 3	Causes and impacts of selected incidents are analyzed and addressed.
		GP 3.2	Collect process related experiences derived from planning and performing the process to support the future use and improvement of the organization's processes and process assets.
9	Control processes		
9.1	Configuration management	CM SG 1	Baselines of identified work products are established.
		CM SG 2	Changes to the work products under configuration management are tracked and controlled.
		CM SG 3	Integrity of baselines is established and maintained.
		WP SP 1.2	Establish a top-level work breakdown structure (WBS) to estimate the scope of the work.
9.2	Change management	GP 2.7	Identify and involve the relevant stakeholders of the process as planned.
		SD SP 2.1	Establish and maintain the service delivery approach.
		REQM SP 1.3	Manage changes to requirements as they evolve.
		SST SP 1.2	Establish and maintain plans for specific transitions of the service system.
		SST SP 1.3	Prepare relevant stakeholders for changes in services and service systems.
		SST SG 2	The service system is deployed to the delivery environment.
		CM SP 2.2	Control changes to configuration items.
		GP 3.2	Collect process related experiences derived from planning and performing the process to support the future use and improvement of the organization's processes and process assets.
9.3	Release and deployment management	SST SP 1.1	Analyze the functionality, quality attributes, and compatibility of the current and future service systems to minimize impact on service delivery.
		SST SP 1.2	Establish and maintain plans for specific transitions of the service system.
		SST SG 2	The service system is deployed to the delivery environment.

Table 3 *(continued)*

ISO/IEC 20000-1: 2011 clause	ISO/IEC 20000-1:2011 paragraph summary	CMMI-SVC PA/Goal/ Practice	CMMI-SVC goal and practice description
		SSD SP 3.1	Establish and maintain an approach and an environment for verification and validation.
		CM SP 3.1	Establish and maintain records describing configuration items.
		GP 3.2	Collect process related experiences derived from planning and performing the process to support the future use and improvement of the organization's processes and process assets.

Annex A
(informative)

Correlation of ISO/IEC 20000-1:2011 to CMMI-SVC — Terms and definitions

The correlation of ISO/IEC 20000-1:2011 to CMMI-SVC is based on comparison of terms and definitions used in ISO/IEC 20000-1:2011 and in the CMMI-SVC Glossary. The correlation of these terms and definitions is reflected in Table A.1.

Most terms in ISO/IEC 20000-1:2011 are undefined. In accordance with ISO Directives, undefined terms use their common English dictionary definitions. This use of common English dictionary definitions in ISO/IEC 20000-1:2011 facilitates understanding and translation across many languages and cultures. The correlation of terms in ISO/IEC 20000-1:2011 used with a common English dictionary definition to terms specially defined in CMMI-SVC is in Table A.2.

The CMMI-SVC Glossary does not include terms that use the common English dictionary definition. In some of these cases, a term can be defined in the introduction to a PA. CMMI-SVC uses the terms "service" and "product" with similar meaning and states in its introduction, a "service" is a kind of *product*… Many people routinely think of products and services as two mutually exclusive categories. In CMMI models… products and services are not disjoint categories; a service is considered to be a special variety of *product* (Reference [18], page 12, emphases in original).

The CMMI-SVC Glossary includes some extended explanations of concepts and practices following the initial definition. Table A.1 includes as much of the explanation as is relevant to the comparison of definitions. Quotations from CMMI-SVC are exact and include some uses of "must", and of italics, which are not normally found in ISO documents.

Table A.1 — Correlation of ISO/IEC 20000-1:2011 terms to CMMI-SVC Glossary terms

ISO/IEC 20000-1:2011, Clause 3 terms and definitions	CMMI-SVC Glossary terms and definitions	Commentary
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 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.	availability The term is not defined in the CMMI-SVC Glossary, but defined in the PA text.	The definitions have the same meaning but different wording is used. The CMMI-SVC definition is found in the PA text: "Availability" is the degree to which something is accessible and usable when needed. In the context of services, availability can refer to the set of times, places, and other circumstances in which services are to be delivered, service requests are to be honored, or other aspects of a service agreement are to be valid." CMMI-SVC adds the concept that availability is a quality attribute.
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 changes from those baselines, constitute the current configuration information. NOTE 2 Adapted from ISO/IEC/IEEE 24765:2010.	configuration baseline The configuration information formally designated at a specific time during a product's or product component's life. Configuration baselines plus approved changes from those baselines constitute the current configuration information.	The definitions have the same meaning but different wording is used.
3.3 configuration item CI element that needs to be controlled in order to deliver a service or services	configuration item An aggregation of work products that is designated for configuration management and treated as a single entity in the configuration management process.	ISO/IEC 20000-1:2011 refers to the need to control the CI for service delivery. CMMI-SVC refers to the handling of the CI in the configuration management process.
3.4 configuration management database CMDB data store used to record attributes of configuration items, and the relationships between configuration items, throughout their lifecycle	This term is not defined in the CMMI-SVC Glossary.	The term is used in CMMI-SVC without a special definition. CMMI-SVC PA text defines configuration management as follows: A discipline applying technical and administrative direction and surveillance to (1) identify and document the functional and physical characteristics of a configuration item, (2) control changes to those characteristics, (3) record and report change processing and implementation status, and (4) verify compliance with specified requirements. Note that CMMI-SVC uses both terms, CM and CMDB, but does not define either. A CM system can include CMDB, but CMMI-SVC does not use the term CMDB exclusively.

Table A.1 *(continued)*

ISO/IEC 20000-1:2011, Clause 3 terms and definitions	CMMI-SVC Glossary terms and definitions	Commentary
3.5 continual improvement recurring activity to increase the ability to fulfil service requirements NOTE Adapted from ISO 9000:2005.	process and technology improvements Incremental and innovative improvements to processes and to process, product, or service technologies process improvement a program of activities designed to improve the process performance and maturity of the organization's processes, and the results of such a program.	CMMI-SVC does not define the term "continual improvement" but defines "process and technology improvements" as an incremental activity. ISO/IEC 20000-1:2011 emphasizes the relationship between improvement and fulfilling service requirements. Improvement using the CMMI model can be either continuous or continual, either without interruption or at regular intervals, according to the needs of the organization.
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.	corrective action Acts or deeds used to remedy a situation or remove an error.	The definitions have the same meaning but different wording is used. The definition in CMMI-SVC does not mention reducing the likelihood of recurrence. However, both the IRP and CAR PAs have practices and informative material that make it explicit that reducing the likelihood of recurrence of incidents or adverse outcomes is the goal.
3.7 customer organization or part of an organization that receives a service(s) NOTE 1 A customer can be internal or external to the service provider's organization. NOTE 2 Adapted from ISO 9000:2005.	customer The party responsible for accepting the product or for authorizing payment. The customer is external to the project or work group (except possibly in certain project structures in which the customer effectively is on the project team or in the work group) but not necessarily external to the organization.	The definitions have the same meaning but different wording is used. ISO/IEC 20000-1:2011 refers to receiving a service; CMMI-SVC refers to accepting a product. However, CMMI-SVC also defines service as "A product that is intangible and non-storable." In other words, in CMMI-SVC, a service is "a special variety of a product" rather than separate from a product.[18], p. 12
3.8 document information and its supporting medium [ISO 9000:2005] EXAMPLE 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 20000-1:2011, documents, except for records, state the intent to be achieved.	document A collection of data, regardless of the medium on which it is recorded, that generally has permanence and can be read by humans or machines. Documents include both paper and electronic documents.	The definitions have the same meaning but different wording is used.

Table A.1 *(continued)*

ISO/IEC 20000-1:2011, Clause 3 terms and definitions	CMMI-SVC Glossary terms and definitions	Commentary
3.9 effectiveness extent to which planned activities are realized and planned results achieved [ISO 9000:2005]	This term is not defined in the CMMI-SVC Glossary.	CMMI-SVC uses this term without a special definition.
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	incident An indication of an actual or potential interference with a service. The word “incident” can be used in place of “service incident” for brevity when the context makes the meaning clear.	The definitions have the same meaning but different wording is used.
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 this definition because it is a defined term in this part of ISO/IEC 20000 which would not be appropriate for this definition. NOTE 3 Adapted from ISO/IEC 27000:2009.	This term is not defined in the Glossary.	CMMI-SVC uses this term without a special definition.
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]	This term is not defined in the CMMI-SVC Glossary.	See 3.10 “incident” in this table. CMMI-SVC does not distinguish information security incidents from other incidents. More detail on security incidents is visible in the Security Management PA.

Table A.1 *(continued)*

ISO/IEC 20000-1:2011, Clause 3 terms and definitions	CMMI-SVC Glossary terms and definitions	Commentary
3.13 interested party person or group having a specific interest in the performance or success of the service provider's activity(ies) EXAMPLE 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.	stakeholder A group or individual that is affected by or is in some way accountable for the outcome of an undertaking. Stakeholders can include project or work group members, suppliers, customers, end users, and others.	The definitions have the same meaning but different wording is used.
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.	This term is not defined in the CMMI-SVC Glossary.	CMMI-SVC does not use this term. However, it uses the term "supplier," which is defined as "(1) An entity delivering products or performing services being acquired. (2) An individual, partnership, company, corporation, association, or other entity having an agreement with an acquirer for the design, development, manufacture, maintenance, modification, or supply of items under the terms of an agreement." This definition holds true for both internal and external suppliers.
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	This term is not defined in the CMMI-SVC Glossary.	The term is used in CMMI-SVC without a special definition.
3.16 nonconformity non-fulfilment of a requirement [ISO 9000:2005]	This term is not defined in the CMMI-SVC Glossary.	The term nonconformance is used in CMMI-SVC without a special definition. The term "noncompliance issues" is defined in the PPQA PA: "Noncompliance issues are problems identified in evaluations that reflect a lack of adherence to applicable standards, process descriptions, or procedures."

Table A.1 *(continued)*

ISO/IEC 20000-1:2011, Clause 3 terms and definitions	CMMI-SVC Glossary terms and definitions	Commentary
3.17 organization group of people and facilities with an arrangement of responsibilities, authorities and relationships EXAMPLE 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]	organization An administrative structure in which people collectively manage one or more projects or work groups as a whole, share a senior manager, and operate under the same policies. However, the word "organization" as used throughout CMMI models can also apply to one person who performs a function in a small organization that might be performed by a group of people in a large organization.	The definitions have the same meaning but different wording is used. ISO/IEC 20000-1:2011 indicates that an organization has facilities. CMMI-SVC states that organizations manage projects or work groups and have a senior manager and policies.
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.	This term is not defined in the CMMI-SVC Glossary.	CMMI-SVC does use the terms preventative action and preventive or preventative maintenance, but without special definitions. Examples of proposed preventative actions include changes to the process in question, training, tools, methods, and work products.
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.	This term is not defined in the CMMI-SVC Glossary.	The term is used in CMMI-SVC without a special definition.
3.20 procedure specified way to carry out an activity or a process [ISO 9000:2005] NOTE Procedures can be documented or not.	This term is not defined in the CMMI-SVC Glossary.	The term is used in CMMI-SVC without a special definition.
3.21 process set of interrelated or interacting activities which transforms inputs into outputs [ISO 9000:2005]	process set of interrelated activities, which transform inputs into outputs, to achieve a given purpose.	The definitions have the same meaning but different wording is used. CMMI-SVC adds the concept that a process has a purpose.

Table A.1 *(continued)*

ISO/IEC 20000-1:2011, Clause 3 terms and definitions	CMMI-SVC Glossary terms and definitions	Commentary
3.22 record document stating results achieved or providing evidence of activities performed [ISO 9000:2005] EXAMPLE Audit reports, incident reports, training records or minutes of meetings.	This term is not defined in the CMMI-SVC Glossary.	CMMI-SVC notes that, a "written" record need not be contained in a single document or other artifact. Also, it can be extremely brief for some types of services (e.g. a receipt that identifies a service, its price, its recipient)." This concept is consistent with ISO/IEC 20000-1:2011. The term is used in CMMI-SVC at several places, in varying contexts, without a special definition. "Record" is covered under the "data" definition in the CMMI-SVC Glossary. Data is defined as follows: "Recorded information. Recorded information can include technical data, computer software documents, financial information, management information, representation of facts, numbers, or datum of any nature that can be communicated, stored, and processed."
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	This term is not defined in the CMMI-SVC Glossary.	The term is used in CMMI-SVC without a special definition.
3.24 request for change proposal for a change to be made to a service, service component or the SMS NOTE A change to a service includes the provision of a new service or the removal of a service which is no longer required.	This term is not defined in the CMMI-SVC Glossary.	CMMI-SVC uses the term "change request" without a special definition.

Table A.1 *(continued)*

ISO/IEC 20000-1:2011, Clause 3 terms and definitions	CMMI-SVC Glossary terms and definitions	Commentary
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, or a combination of these. NOTE 4 Risk is often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated likelihood of occurrence. [ISO 31000:2009]	This term is not defined in the CMMI-SVC Glossary.	CMMI-SVC defines risk management in the text as follows: “An organized, analytic process used to identify what might cause harm or loss (identify risks); to assess and quantify the identified risks; and to develop and, if needed, implement an appropriate approach to prevent or handle causes of risk that could result in significant harm or loss.” ISO/IEC 20000-1:2011 covers positive as well as negative effects of deviation whereas CMMI-SVC only includes “harm or loss.” CMMI maintains the distinction in risk management discipline between hazard risk and speculative risk. The Risk Management PA is about hazard risk. However, the CAR PA allows for positive effects of deviation.
3.26 service means of delivering value for the customer by facilitating results the customer wants to achieve NOTE 1 Service is generally intangible. 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.	Service “A product that is intangible and non-storable. Services are delivered through the use of service systems that have been designed to satisfy service requirements.”	The definitions have similar meaning but different wording is used. ISO/IEC 20000-1:2011 explains that services have a customer focus. The discussion of “service” in the front matter of CMMI-SVC makes clear that services are meant to bring about a useful result to customers. Also note that CMMI-SVC uses the terms “service” and “product” with similar meaning and states in its introduction, a “service” is a kind of *product*... Many people routinely think of products and services as two mutually exclusive categories. In CMMI models... products and services are not disjoint categories; a service is considered to be a special variety of *product* (Reference [18] page 12, emphases in original).

Table A.1 *(continued)*

ISO/IEC 20000-1:2011, Clause 3 terms and definitions	CMMI-SVC Glossary terms and definitions	Commentary
3.27 service component single unit of a service that when combined with other units will deliver a complete service EXAMPLE Hardware, software, tools, applications, documentation, information, processes or supporting services. NOTE A service component can consist of one or more configuration items.	service system component "A resource required for a service system to successfully deliver services. The word "component" can be used in place of "service system component" for brevity when the context makes the meaning clear."	The definitions have similar meaning but different wording is used. Service system components can include processes and people, work products, facilities, tools, and consumables. Note that in CMMI-SVC, service systems and components can be at an organizational level or at the level of a specific service. ISO/IEC 20000-1:2011 also explains the relationship of service components with configuration items. In the text of CM, CMMI-SVC describes how to select configuration items. These can be components.
3.28 service continuity capability to manage risks and events that could have serious impact on services in order to continually deliver services at agreed levels	This term is not defined in the CMMI-SVC Glossary.	ISO/IEC 20000-1:2011 includes the concept of unbroken delivery of an agreed level of service and the capability of managing risks and events. CMMI-SVC says that service continuity prepares and applies mitigations and that services can be degraded when service continuity mitigations are in use.
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.	service level agreement "A service agreement that specifies delivered services; service measures; levels of acceptable and unacceptable services; and expected responsibilities, liabilities, and actions of both the provider and customer in anticipated situations. The use of the term "service agreement" always includes "service level agreement" as a subcategory and the former may be used in place of the latter for brevity. However, "service level agreement" is the preferred term when it is desired to emphasize situations in which distinct levels of acceptable service exist, or other details of a service level agreement are likely to be important to the discussion."	The definitions are similar in meaning. CMMI-SVC adds the concept that the SLA includes service measures, as well as responsibilities, liabilities, and expected actions for both the service provider and the customer. ISO/IEC 20000-1:2011 adds the concept of targets in the definition of SLA. In CMMI-SVC, targets are discussed in the CAM PA.
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	This term is not defined in the CMMI-SVC Glossary.	CMMI-SVC uses the term without a special definition.

Table A.1 *(continued)*

ISO/IEC 20000-1:2011, Clause 3 terms and definitions	CMMI-SVC Glossary terms and definitions	Commentary
3.31 service management system (SMS) management system to direct and control the 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.	Service system is defined as follows: "An integrated and interdependent combination of component resources that satisfies service requirements. A service system encompasses *everything* [emphasis in source text] required for service delivery, including work products, processes, facilities, tools, consumables, and human resources."	The definitions have the same meaning but different wording is used. To include some of the sense of management, GPs in GG2 and PAs such as OPF and OPD would also be used. A service system includes management functions including policy and objectives and the capacity to achieve them.
3.32 service provider organization or part of an organization that manages and delivers a service or services to the customer NOTE 1 A customer can be internal or external to the service provider's organization.	This term is not defined in the CMMI-SVC Glossary.	CMMI-SVC uses the term without a special definition. The introduction to CMMI-SVC explains that a service provider does the following: — "institutionalizes selected Project and Work Management, Support, and Service Establishment and Delivery processes — establishes agreements with customers and develops and manages customer and contractual requirements — develops the capability to measure and analyze process performance — ensures that processes are planned in accordance with policy — provides adequate resources, assigns responsibility for performing the process, trains people on the process, and ensures the designated work products of the process are under appropriate levels of configuration management" (Reference [16], punctuation appears as in original)
3.33 service request request for information, advice, access to a service or a pre-approved change	service request a communication from a customer or end user that one or more specific instances of service delivery are desired.	The definitions are similar in meaning. ISO/IEC 20000-1:2011 specifies that a service request is one of four types.

Table A.1 *(continued)*

ISO/IEC 20000-1:2011, Clause 3 terms and definitions	CMMI-SVC Glossary terms and definitions	Commentary
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	service requirements the complete set of requirements that affect service delivery and service system development.	The definitions have the same meaning but different wording is used.
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.	supplier (1) An entity delivering products or performing services being acquired. (2) An individual, partnership, company, corporation, association, or other entity having an agreement with an acquirer for the design, development, manufacture, maintenance, modification, or supply of items under the terms of an agreement.	The meaning is similar. ISO/IEC 20000-1:2011 defines the supplier as being involved throughout the service life cycle, including design, transition, delivery, and improvement. CMMI-SVC PAs such as SSD and SD make it clear that supplier can be involved throughout the service life cycle.
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.	higher level management "The person or persons who provide the policy and overall guidance for the process but do not provide the direct day-to-day monitoring and controlling of the process. (See also "senior manager.") Such persons belong to a level of management in the organization above the immediate level responsible for the process and can be (but are not necessarily) "senior managers." senior manager "A management role at a high enough level in an organization that the primary focus of the person filling the role is the long-term vitality of the organization rather than short-term concerns and pressures.	The meaning is similar. ISO/IEC 20000-1:2011 refers to the highest level of management. CMMI-SVC says policy and guidance can be provided at levels above those providing service monitoring and control, though not necessarily the highest level.

Table A.1 *(continued)*

ISO/IEC 20000-1:2011, Clause 3 terms and definitions	CMMI-SVC Glossary terms and definitions	Commentary
	A senior manager can be any manager who satisfies this description, including the head of the organization. Synonyms for senior manager include "executive" and "top-level manager." However, to ensure consistency and usability, these synonyms are not used in CMMI models."	
3.37 transition activities involved in moving a new or changed service to or from the live environment	transition This term is not defined in the CMMI-SVC Glossary. In the Service System Transition Process Area, CMMI-SVC states: In this process area, the term "transition" refers to the comprehensive process of preparing for, executing, and confirming a deployment of service system components to a fully operational state while maintaining service delivery.	The meaning is similar. ISO/IEC 20000-1:2011 refers to a change to or from a live environment, whereas CMMI-SVC refers to deployments to or from the operational state. The definition in the process area states, "Deployments generally fall into one of three categories: new installation, replacement, or retirement."

To understand the relationship of concepts in ISO/IEC 20000-1:2011 and in CMMI-SVC, it is important to recognize when the same terms have different definitions. Table A.2 lists terms defined in the CMMI-SVC Glossary that appear in ISO/IEC 20000-1:2011, but are not specially defined there. These terms are not defined in ISO/IEC 20000-1:2011 as it uses common English dictionary definitions. Common dictionary definitions can differ from the specified CMMI-SVC definitions.

Table A.2 — CMMI-SVC Glossary terms used in ISO/IEC 20000-1:2011

ISO/IEC 20000-1:2011 (use as defined in common English dictionary)	CMMI-SVC term defined in the CMMI-SVC Glossary
acceptance criteria	The criteria that a deliverable must satisfy to be accepted by a user, customer, or other authorized entity.
audit	An objective examination of a work product or set of work products against specific criteria (e.g. requirements). This is a term used in several ways in CMMI, including configuration audits and process compliance audits.
baseline	A set of specifications or work products that has been formally reviewed and agreed on, which thereafter serves as the basis for further development, and which can be changed only through change control procedures.
catalogue of services	Service catalog: A list or repository of standardized service definitions.
change management	Judicious use of means to effect a change, or a proposed change, to a product or service.
configuration management	A discipline applying technical and administrative direction and surveillance to (1) identify and document the functional and physical characteristics of a configuration item, (2) control changes to those characteristics, (3) record and report change processing and implementation status, and (4) verify compliance with specified requirements.
data	Recorded information.