# TECHNICAL REPORT

# ISO/IEC TR 20000-4

First edition 2010-12-01

Information technology — Service management —

Part 4:

Process reference model

Technologies de l'information — Gestion des services — Partie 4: Modèle de référence de processus



#### PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.





#### **COPYRIGHT PROTECTED DOCUMENT**

#### © ISO/IEC 2010

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

### Contents

Page

Forew	/ord	iv
Introd	luction	v
1	Scope	1
2	Normative references	
	Notifiative references	
3	Terms and definitions	1
4	Terms and definitions  Overview of the PRM	1
5	Process descriptions	2
5.1	General	2
5.2		
5.3	Budgeting and accounting for IT services	4
5.4	Business relationship management	4
5.5	Canacity management	5
5.6	Change management	5
5.7	Configuration management	6
5.8	Human resource management	6
5.9	Improvement	7
5.10	Audit	ν
5.11	Information item management	a
5.12	Information security management	40
5.12	Management review	10 10
5.14	Management review	10 14
5.14 5.15	Organizational management	۱۱ 42
5.16 5.16	Problem management	12 12
5.16	Release and deployment management	دا 40
5.1 <i>7</i> 5.18	Risk management	13
5.19	Service continuity and availability management	14
5.20 5.21	Service design Service level management	15
-	Service level management	15
5.22	Service planning and monitoring	16
5.23	Service reporting	
5.24	Service requirements	
5.25	Service transition	
5.26	SMS establishment and maintenance	
5.27	Supplier management	20
Annex	x A (informative) Statement of conformity to ISO/IEC 15504-2	21
Biblio	graphy	23
Figure	es	
Figure	e 1 — Relationships between relevant documents	v
Figure	e 2 — Processes in the process reference model	2

#### **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.

In exceptional circumstances, the joint technical committee may propose the publication of a Technical Report of one of the following types:

- type 1, when the required support cannot be obtained for the publication of an International Standard, despite repeated efforts;
- type 2, when the subject is still under technical development or where for any other reason there is the future but not immediate possibility of an agreement on an International Standard;
- type 3, when the joint technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example).

Technical Reports of types 1 and 2 are subject to review within three years of publication, to decide whether they can be transformed into international Standards. Technical Reports of type 3 do not necessarily have to be reviewed until the data they provide are considered to be no longer valid or useful.

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 TR 20000-4, which is a Technical Report of type 2, was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 7, *Software and systems engineering*.

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

- Part 1: Service management system requirements
- Part 2: Code of practice
- Part 3: Guidance on scope definition and applicability of ISO/IEC 20000-1 [Technical Report]
- Part 4: Process reference model [Technical Report]
- Part 5: Exemplar implementation plan for ISO/IEC 20000-1 [Technical Report]

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

#### Introduction

The purpose of this part of ISO/IEC 20000 is to facilitate the development of a process assessment model (PAM) that will be described in ISO/IEC TR 15504-8.

ISO/IEC 15504-2 describes the requirements for the conduct of an assessment and a measurement scale for assessing process capability. ISO/IEC 15504-1 describes the concepts and terminology used for process assessment.

This process reference model (PRM) is a logical representation of the elements of the processes within service management. Using the PRM in a practical application might require additional elements suited to the environment and circumstances.

The PRM specified in this part of ISO/IEC 20000 describes at an abstract level the processes including the general service management system (SMS) processes implied by ISO/IEC 20000-1. Each process of this PRM is described in terms of a purpose and outcomes. The PRM does not attempt to place the processes in any specific environment nor does it pre-determine any level of process capability required to fulfil the ISO/IEC 20000-1 requirements. The PRM is not intended to be used for a conformity assessment audit or process implementation reference guide.

The relationships between ISO/IEC 20000-1, ISO/IEC TR 24774, ISO/IEC TR 20000-4, ISO/IEC 20000-8, ISO/IEC TR 15504-8 and ISO/IEC 15504-2 are shown in Figure 1.

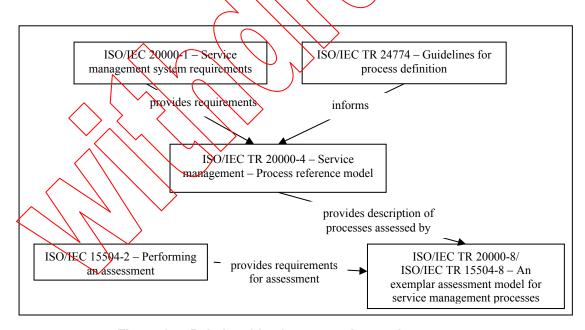


Figure 1 — Relationships between relevant documents

Any organization can define processes with additional elements in order to suit it to its specific environment and circumstances. The purposes and outcomes described in this part of ISO/IEC 20000 are, however, considered to be the minimum necessary to meet ISO/IEC 20000-1 requirements. Some processes cover general strategic aspects of an organization. These processes have been identified in order to give coverage to all the requirements of ISO/IEC 20000-1.

The PRM does not provide the evidence required by ISO/IEC 20000-1. The PRM does not specify the interfaces between the processes.

#### ISO/IEC TR 20000-4:2010(E)

This part of ISO/IEC 20000 contains a PRM for IT service management with description of processes in Clause 5. Annex A provides the statement of conformity for this part of ISO/IEC 20000 in accordance with ISO/IEC 15504-2, *Information technology — Process assessment — Part 2: Performing an assessment.* 



# Information technology — Service management —

#### Part 4:

## **Process reference model**

#### 1 Scope

This part of ISO/IEC 20000 defines a process reference model comprising a set of processes, described in terms of process purpose and outcomes that demonstrate coverage of the requirements of ISO/IEC 20000-1.

#### 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.

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

ISO/IEC 15504-1, Information technology — Process assessment — Part 1: Concepts and vocabulary

