

STN	Informačné technológie Referenčná architektúra pre servisne orientovanú architektúru (SOA RA) Časť 1: Terminológia a koncepty pre SOA	STN ISO/IEC 18384-1 97 4109
------------	--	---

Information technology

Reference Architecture for Service Oriented Architecture (SOA RA)

Part 1: Terminology and concepts for SOA

Technologies de l'information

Architecture de référence pour l'architecture orientée service (SOA RA)

Partie 1: Terminologie et concepts pour SOA

Informationstechnik

Referenzarchitektur für Service Oriented Architecture (SOA RA)

Teil 1: Begriffe und Konzepte für SOA

Táto slovenská technická norma obsahuje anglickú verziu medzinárodnej normy ISO/IEC 18384-1: 2016 a má postavenie oficiálnej verzie.

This Slovak standard includes the English version of the International Standard ISO/IEC 18384-1: 2016 and has the status of the official version.

135192



Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2022

Slovenská technická norma a technická normalizačná informácia je chránená zákonom č. 60/2018 Z. z. o technickej normalizácii.

Anotácia

Táto časť ISO/IEC 18384 stanovuje slovník, usmernenia a všeobecné technické princípy, ktoré sú základom architektúry orientovanej na služby (SOA), vrátane princípov týkajúcich sa funkčného dizajnu, výkonnosti, vývoja, nasadenia a riadenia.

Národný predhovor

Normatívne referenčné dokumenty

Tento dokument neobsahuje žiadne normatívne referenčné dokumenty.

Vypracovanie slovenskej technickej normy

Spracovateľ: Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, Bratislava

Technická komisia: TK 37 Informačné technológie

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Terms and definitions	1
3 Abbreviated terms	8
4 Notations	9
4.1 General.....	9
4.2 UML.....	9
4.3 Entity Relationship.....	9
4.4 Cycles.....	9
4.5 Flows.....	9
5 Conventions	10
6 Conformance	10
7 SOA Concepts	10
7.1 Introduction to SOA.....	10
7.2 Concepts.....	11
7.2.1 Roles.....	11
7.2.2 Services.....	14
7.2.3 Semantics.....	15
7.2.4 Tasks and Activities.....	15
7.2.5 Compositions and Processes.....	15
7.2.6 Service Registration and Discovery.....	18
7.2.7 Service Description, Interfaces, Policies and Contracts.....	19
7.2.8 Service and SOA solution lifecycle.....	23
7.2.9 Loosely coupled.....	27
7.3 Cross Cutting Concerns.....	27
7.3.1 Defining Cross Cutting.....	27
7.3.2 Integration.....	27
7.3.3 Cross Domain interaction.....	27
7.3.4 Service Integration.....	28
7.3.5 Management and Security.....	29
7.3.6 SOA Solution Governance.....	32
8 SOA Architectural Principles	33
8.1 Architectural Principles defined.....	33
8.2 Interoperable — Syntactic, semantic.....	33
8.3 Described.....	34
8.4 Reusable.....	35
8.5 Discoverable.....	36
8.6 Late Bind-able.....	37
8.7 Composable.....	37
8.8 Self-Contained.....	38
8.9 Loosely coupled.....	38
8.10 Manageable.....	39
Annex A (informative) SOA Governance Framework	40
Annex B (informative) Management and Security Concerns	44
Bibliography	50

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 WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/IEC JTC 1, *Information technology*, Subcommittee SC 38, *Cloud Computing and Distributed Platforms*.

ISO/IEC 18384 consists of the following parts, under the general title *Reference Architecture for Service Oriented Architecture (SOA RA)*:

- *Part 1: Terminology and Concepts for SOA*
- *Part 2: Reference Architecture for SOA Solutions*
- *Part 3: Service Oriented Architecture Ontology*

Introduction

Service oriented architecture (SOA) is an architectural style in which business and IT systems are designed in terms of services available at an interface and the outcomes of these services. A service is a logical representation of a set of activities that has specified outcomes, is self-contained, and it may be composed of other services but consumers of the service need not be aware of any internal structure.

SOA takes “service” as its basic element to constitute and integrate information systems so that they are suitable for a variety of solution requirements. SOA enables interactions between businesses without needing to specify aspects of any particular business domain. Using the SOA architectural style can improve the efficiency of developing information systems, and integrating and reusing IT resources. In addition, using the SOA architectural style can help realize agile and rapid response of information systems to ever-changing business needs.

This International Standard describes a single set of SOA technical principles, specific norms, and standards for the world-wide market to help remove confusion about SOA and improve the standardization and quality of solutions.

This International Standard defines the terminology, technical principles, reference architecture, and the ontology for SOA. The targeted audience of this International Standard includes, but is not limited to, standards organizations, architects, architecture methodologists, system and software designers, business people, SOA service providers, SOA solution and service developers, and SOA service consumers who are interested in adopting and developing SOA. For example, this part of ISO/IEC 18384 can be used to introduce SOA concepts and to guide to the developing and managing SOA solutions.

This International Standard contains three parts:

- a) ISO/IEC 18384-1 which defines the terminology, basic technical principles and concepts for SOA;
- b) ISO/IEC 18384-2 which defines the detailed SOA reference architecture layers, including a metamodel, capabilities, architectural building blocks, as well as types of services in SOA solutions;
- c) ISO/IEC 18384-3 which defines the core concepts of SOA and their relationships in the Ontology.

Users of this part of ISO/IEC 18384 will find it useful to read this part of ISO/IEC 18384 for an understanding of SOA basics. This part of ISO/IEC 18384 should be read before reading or applying ISO/IEC 18384-2. For those new to SOA, ISO/IEC 18384-2:2016, Clause 4 provides a high level understanding of the reference architecture for SOA solutions. The remaining clauses provide comprehensive details of the architectural building blocks and trade-offs needed for a SOA solution. ISO/IEC 18384-3 contains the SOA Ontology, which is a formalism of the core concepts and terminology of SOA, with mappings to both UML and OWL. The SOA Ontology can be used independent of or in conjunction with ISO/IEC 18384-1 and ISO/IEC 18384-2.

This part of ISO/IEC 18384 presents and explains basic SOA concepts. It gives definitions for terms that are used in ISO/IEC 18384 with specific meanings that may differ or be more precise than the definitions of those terms found in major English language dictionaries. The terms defined here are used in a unique fashion for SOA. Terms used in their normal English sense are not redefined.

Information technology — Reference Architecture for Service Oriented Architecture (SOA RA) —

Part 1: Terminology and concepts for SOA

1 Scope

This part of ISO/IEC 18384 establishes vocabulary, guidelines, and general technical principles underlying service oriented architecture (SOA), including principles relating to functional design, performance, development, deployment, and management.

koniec náhľadu – text ďalej pokračuje v platenej verzii STN