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Systems and software engineering — Systems and software assurance —

Part 4: Assurance in the life cycle

Ingénierie du logiciel et des systèmes — Assurance du logiciel et des systèmes —

Partie 4: Assurance du cycle de vie

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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.

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 shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 15026-4 was prepared by Joint Technical Committee ISO/TC JTC 1, *Information technology*, Subcommittee SC 7, *Software and systems engineering*.

ISO/IEC 15026 consists of the following parts, under the general title *Systems and software engineering — Systems and software assurance*:

- *Part 1: Concepts and vocabulary* [Technical Report]
- *Part 2: Assurance case*
- *Part 3: System integrity levels*
- *Part 4: Assurance in the life cycle*

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Introduction

In its entirety, ISO/IEC 15026 consists of multiple parts:

- a) ISO/IEC TR 15026-1, *System and software engineering — Systems and software assurance — Part 1: Concepts and vocabulary*

NOTE ISO/IEC TR 15026-1 is intended to be replaced by an International Standard.

- b) ISO/IEC 15026-2, *System and software engineering — Systems and software assurance — Part 2: Assurance case*
- c) ISO/IEC 15026-3, *System and software engineering — Systems and software assurance — Part 3: System integrity levels*
- d) ISO/IEC 15026-4, *System and software engineering — Systems and software assurance — Part 4: Assurance in the life cycle*

Many specialized standards and guidelines address specific application areas and topics related to assurance and use different concepts and terminology when addressing common themes. ISO/IEC TR 15026-1 provides terminology and concepts used in all parts of ISO/IEC 15026.

ISO/IEC 15026-2 provides minimum requirements for the structure and contents of assurance cases that treat claims regarding properties of a system or software product selected for special treatment. The results of performing the life cycle activities and tasks referenced in this part of ISO/IEC 15026 can be recorded in the form of the assurance case described in ISO/IEC 15026-2.

ISO/IEC 15026-3 addresses the assignment of integrity levels for selected elements of a system. Where ISO/IEC 15026-2 is applicable, it can bring useful structure, aid, and direction to defining claims and showing their achievement through the use of integrity levels and accompanying integrity level requirements.

ISO/IEC 15026-2, ISO/IEC 15026-3 and ISO/IEC 15026-4 all use the concepts and vocabulary defined in ISO/IEC TR 15026-1; however, any part can be applied independently of the others and the use of one does not require the use of any others.