

P15026-1_Revision

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Type of Project: Revision to IEEE Standard 15026-1-2014

PAR Request Date: 01-Jun-2017

PAR Approval Date: 28-Sep-2017

PAR Expiration Date: 31-Dec-2021

Status: PAR for a Revision to an existing IEEE Standard

Root Project: 15026-1-2014

1.1 Project Number: P15026-1_Revision

1.2 Type of Document: Standard

1.3 Life Cycle: Full Use

2.1 Title: ISO/IEC/IEEE 15026-1--Systems and Software Engineering--Systems and Software Assurance--Part 1: Concepts and Vocabulary

Changes in title: ~~IEEE Standard Adoption of ISO/IEC/IEEE 15026-1--Systems and Software Engineering--Systems and Software Assurance--Part 1: Concepts and Vocabulary~~

3.1 Working Group: Working Group for Life Cycle Processes (C/S2ESC/WG_LCP)

Contact Information for Working Group Chair

Name: Teresa Doran

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Contact Information for Working Group Vice-Chair

None

3.2 Sponsoring Society and Committee: IEEE Computer Society/Software & Systems Engineering Standards Committee (C/S2ESC)

Contact Information for Sponsor Chair

Name: Paul Croll

Email Address: pcroll@computer.org

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Contact Information for Standards Representative

None

4.1 Type of Ballot: Individual

4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 10/2017

4.3 Projected Completion Date for Submittal to RevCom

Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 10/2020

5.1 Approximate number of people expected to be actively involved in the development of this project: 10

5.2 Scope: This part of ISO/IEC/IEEE 15026 defines assurance-related terms and establishes an organized set of concepts and relationships to establish a basis for shared understanding across user communities for assurance. It provides information to users of the other parts of ISO/IEC/IEEE 15026 including the combined use of multiple parts. The essential concept introduced by ISO/IEC/IEEE 15026 is the statement of claims in an assurance case and the support of those claims through argumentation and evidence. These claims are in the context of assurance for properties of systems and software within life cycle processes for the system or software product. Assurance for a service being operated and managed on an ongoing basis is not covered in ISO/IEC/IEEE 15026.

Changes in scope: This ~~International part Standard of~~ **ISO/IEC/IEEE 15026** defines assurance-related terms and establishes an organized set of concepts and relationships to establish a basis for shared understanding across user communities for assurance. It provides information to users of the other parts of ~~this ISO/IEC/IEEE International 15026 Standard~~ including the combined use of multiple parts. The essential concept introduced by ~~this ISO/IEC/IEEE International 15026 Standard~~ is the statement of claims in an assurance case and the support of those claims through argumentation and evidence. These claims are in the context of assurance for properties of systems and software within life cycle processes for the system or software product. Assurance for a service being operated and managed on an ongoing basis is not covered in ~~this ISO/IEC/IEEE International Standard~~ **15026**.

5.3 Is the completion of this standard dependent upon the completion of another standard: No

5.4 Purpose: Although ISO standards do not have a "Purpose" Clause, ISO/IEC/IEEE Clause 2.2 Field of Applicability contains: The primary purpose of this part of ISO/IEC/IEEE 15026 is to aid users of the other

Changes in purpose:

parts of ISO/IEC/IEEE 15026 by providing context, concepts, and explanations for assurance, assurance cases, and integrity levels. While essential to assurance practice, details regarding exactly how to measure, demonstrate, or analyse particular properties are not covered.

5.5 Need for the Project: 1. To update definitions for consistency with the rest of the 15026 series (and most immediately, with 15026-3).
2. To support the development of software requiring the demonstration of critical properties.

5.6 Stakeholders for the Standard: Users, acquirers and developers of software which must achieve designated critical properties. This document and the whole 15026 series are important to the high integrity systems community and are also being applied for data-centric systems, cybersecurity and other situations where assurance of critical properties of an IT system is required.

Intellectual Property

6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: No

6.1.b. Is the Sponsor aware of possible registration activity related to this project?: No

7.1 Are there other standards or projects with a similar scope?: No

7.2 Joint Development

Is it the intent to develop this document jointly with another organization?: Yes

Organization: ISO/IEC JTC1

Technical Committee Name: Software and Systems Engineering

Technical Committee Number: SC7

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8.1 Additional Explanatory Notes: 8.1 This is a revision of the existing Part 1 of the International Standard(15026). This revision is entails an update of definitions of terms due to the change of definitions in ISO/IEC 15026-3:2015. There are no changes in the "concepts" elements.

Additional detail from the SC7 New Work Item Proposal (NWIP) Justification section indicates: "Incidentally, revision of Part 4 of this document is being proposed. Therefore the definitions of terms in Part 1 may be changed if necessary, although few changes of definitions are expected in Part 4.

Feedback from use that improve this document, if any, will be reflected in the revised version."

This also begins a revision cycle where the IEEE Adoptions of the ISO/IEC series are planned to be replaced by 'jointly developed' ISO/IEC/IEEE versions of these documents. Based on reports and resolutions from the SC7 & WG7 MAY17 meetings in Kuantan, 15026 parts 1, 2, & 4 are currently in, or scheduled to ballot revisions. Comments are being submitted on the NWIPs to ensure that the ISO/IEC titling is revised to ISO/IEC/IEEE.

15026 multi-part references:

15026-2: Systems and software assurance -- Part 2: Assurance case

15026-3: Systems and software assurance -- Part 3: System integrity levels

15026-4: Systems and software assurance -- Part 4: Assurance in the life cycle

7.2: This project is a joint development under the Partner Standards Development Organization (PSDO) agreement between the IEEE and ISO/IEC JTC 1. IEEE previously adopted the original version of ISO/IEC 15026-1, but for this revision will engage in joint development with ISO/IEC JTC 1/SC7/WG7. An initial revision draft and NWIP for the part 1 revision are currently under ISO ballot and will be ready for IEEE ballot after PAR approvals and ballot invitations.

2.1 The title is being changed (to reflect ISO/IEC/IEEE), since it is no longer an IEEE adoption, but a joint development.