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English Version

Air Traffic Management - Specification for software assurance levels

Gestion du trafic aérien - Spécification des niveaux d'assurance logicielle

Flugverkehrsmanagement - Spezifikation für Software-Sicherheitsanforderungsstufen

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 Software Assurance Levels (SWAL)	6
4.1 General.....	6
4.2 Allocation.....	6
4.3 Likelihood assessment	6
4.4 Likelihood justification.....	6
5 SWAL Objectives per Process	6
5.1 General.....	6
5.2 Primary Life Cycle Processes	7
5.2.1 The Acquisition Process	7
5.2.2 The Supply Process	7
5.2.3 The Development Process	7
5.2.4 The Operation Process	7
5.2.5 The Maintenance Process.....	7
5.3 Supporting Life Cycle Processes.....	7
5.3.1 The Documentation Process	7
5.3.2 The Configuration Management Process.....	7
5.3.3 The Quality Assurance Process.....	7
5.3.4 The Verification Process	7
5.3.5 The Joint Review Process	7
5.3.6 The Audit Process	8
5.3.7 The Problem/Change Resolution Process	8
5.4 Organisational Life Cycle Processes.....	8
5.5 COTS processes	8
5.5.1 COTS planning process	8
5.5.2 COTS acquisition process	8
5.5.3 COTS verification process	8
5.5.4 COTS configuration management process.....	8
Bibliography	9

Foreword

This document (CEN/TS 16501:2013) has been prepared by Technical Committee CEN/TC 377 "Air Traffic Management", the secretariat of which is held by DIN.

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Introduction

The European Union launched the "Single European Sky" (SES) Legislation in 2002, which was adopted in 2004.

The SES legislation is based on a framework of 4 regulations, which includes the Interoperability Regulation (EC 552/2004). The objective of the Interoperability Regulation is to ensure interoperability of the European Air Traffic Management Network (EATMN) consistent with air navigation services.

An increasing proportion of functions of the EATMN are implemented by software and these functions are becoming more safety-critical. It is therefore necessary to define guidance on how to standardise the assurances that may be provided for software.

1 Scope

This Technical Specification specifies the technical, operational and maintenance requirements for Software Assurance Levels to support the demonstration of compliance with some elements of the Essential Requirements “Safety” and “Principles governing the construction of systems” of the Regulation (EC 552/2004) of the European Parliament and of the Council on the interoperability of the European Air Traffic network (“the Interoperability regulation”).

This Technical Specification on Software Assurance Levels (SWAL) is intended to apply to software that is part of the EATMN, focusing only on its “ground” segment and providing a reference against which stakeholders can assess their own practices for software specification, design, development, operation, maintenance, evolution and decommissioning.

Requirements in the present document which refer to “should” statements or recommendations in the normatively referenced material are to be interpreted as fully normative (“shall”) for the purpose of compliance with the present document.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EUROCAE ED-153 (August 2009), *Guidelines for ANS software safety assurance*.¹⁾

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

ANS

Air Navigation Service

3.2

COTS

Commercial off the shelf software

commercially available application sold by vendors through public catalogue listings and not intended to be customised or enhanced

3.3

EATMN

European Air Traffic Management Network

3.4

EC

European Community

3.5

EU

European Union

3.6

EUROCAE

European Organisation for Civil Aviation Equipment

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