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Tillförlitlighetsverksamhet – Del 3-14: Riktlinjer – Underhåll och underhållsstöd

Dependability management – Part 3-14: Application guide – Supportability and support

Som svensk standard gäller europastandarden EN IEC 60300-3-14:2024. Den svenska standarden innehåller den officiella engelska språkversionen av EN IEC 60300-3-14:2024.

Nationellt förord

Europastandarden EN IEC 60300-3-14:2024

består av:

- europastandardens ikraftsättningsdokument, utarbetat inom CENELEC
- IEC 60300-3-14, Second edition, 2024 Dependability management Part 3-14: Application guide Supportability and support

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 60300-3-14, utg 1:2008 med eventuella tillägg, ändringar och rättelser gäller ej fr o m 2027-09-13.

ICS 03.100.40; 03.120.01

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English Version

Dependability management - Part 3-14: Application guide - Supportability and support (IEC 60300-3-14:2024)

Gestion de la sûreté de fonctionnement - Partie 3-14: Guide d'application - Supportabilité et soutien (IEC 60300-3-14:2024)

Zuverlässigkeitsmanagement - Teil 3-14: Anwendungsleitfaden - Unterstützbarkeit und Unterstützung (IEC 60300-3-14:2024)

This European Standard was approved by CENELEC on 2024-09-13. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

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European foreword

The text of document 56/2050/FDIS, future edition 2 of IEC 60300-3-14, prepared by TC 56 "Dependability" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60300-3-14:2024.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2025-06-13 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2027-09-13 document have to be withdrawn

This document supersedes EN 60300-3-14:2004 and all of its amendments and corrigenda (if any).

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The text of the International Standard IEC 60300-3-14:2024 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standard indicated:

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IEC 60300-1
              NOTE Approved as EN IEC 60300-1
IEC 60300-3-1 NOTE Approved as EN 60300-3-1
IEC 60300-3-3 NOTE Approved as EN 60300-3-3
IEC 60300-3-4 NOTE Approved as EN IEC 60300-3-4
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IEC 60706-3
IEC 60706-5
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IEC 60812
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IEC 61025
              NOTE Approved as EN 61025
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IEC 61703
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IEC 62309	NOTE Approved as EN 62309
IEC 62402	NOTE Approved as EN IEC 62402
IEC 62508	NOTE Approved as EN 62508
IEC 62550	NOTE Approved as EN 62550
IEC 62741	NOTE Approved as EN 62741
IEC 62960	NOTE Approved as EN IEC 62960
IEC 31010	NOTE Approved as EN IEC 31010



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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Dependability management –
Part 3-14: Application guide – Supportability and support

Gestion de la sûreté de fonctionnement – Partie 3-14: Guide d'application – Supportabilité et soutien

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

DEPENDABILITY MANAGEMENT -

Part 3-14: Application guide - Supportability and support

FOREWORD

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IEC 60300-3-14 has been prepared by IEC technical committee 56: Dependability. It is an International Standard.

This second edition cancels and replaces the first edition published in 2004. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) consistency with the other core dependability standards prepared by IEC TC 56;
- b) expansion of supportability and support principles and activities in dependability.

The text of this International Standard is based on the following documents:

Draft	Report on voting
56/2050/FDIS	56/2055/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2 and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all parts in the IEC 60300 series, published under the general title *Dependability* management, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- · withdrawn, or
- revised.

INTRODUCTION

This document provides guidance on how to identify and apply appropriate analysis and assurance techniques for supportability and support on an item. This document includes good practice, the measures appropriate for requirements and how to evaluate them. This document also includes the relationship with other dependability attributes together with the elements of an effective supportability and support programme. Support, in the context of this document, is the provision of quality resources to enable an item to perform as required. Supportability focuses on:

- · identifying and quantifying:
 - support for a defined item in a given context of use;
 - time to provide that support;
 - resourcing, cost and quality of the support activity;
 - quality of the delivered support;
- influencing the design of an item and support arrangements to achieve value over the item's life.

A primary objective of "designing for item supportability" is to influence the support activity during operations and maintenance. However, supportability is not just an attribute of the design as it is also dependent on the conditions of use and the organization providing the support arrangements. Achieving the desired capabilities inherent in an item design implies that the necessary support capability is also designed, implemented and continuously evolved to align with changes to the item's configuration and its conditions of use including the capability of the managing organization and its suppliers. Supportability of an item ensures that:

- support requirements to achieve a desired item capability are balanced and known;
- financial capability to deliver that support is known for the short and long term;
- there is a desired balance between item design, the design of the support and the design of the organization delivering that support in order to achieve technical and financial requirements.

Support is a major contributor to the overall costs for an item to operate smoothly throughout its life for a given life profile. The current trend is to extend the life of an item by ensuring spares and other support resources are readily available over a longer period of time (particularly for items which will have problems such as obsolescence. The current trend also aims to ensure that parts are retired and recycled in a sustainable manner. Supportability will benefit from innovative solutions if it is to meet these future sustainability and circularity demands.

An item which is easily supported is better able to withstand adversity and recover from it. Such an item is more resilient and less reliant on the people and systems that can be affected by serious adverse events and situations.

An effective supportability and support programme ensures that the customer will have increased confidence in the support organization, with lower life cycle costs, improved availability and fewer modifications due to supportability deficiencies. In turn, this will result in improved customer confidence in the item leading to improved sales as well as improved sales for future items from the same company.

This document is one of the "top-level" interrelated dependability standards that provide managers and technical personnel with guidance on how to effectively plan and implement dependability activities. Other documents in the suite are:

- IEC 60300-1 which highlights the importance and benefits of managing dependability. It gives guidance on dependability activities and how to integrate them into an existing management system and life cycle processes;
- IEC 60300-3-4 which provides guidance for writing dependability requirements in specifications, together with the means of assuring the achievement of those requirements;
- IEC 60300-3-10 which provides guidance on how to identify and apply appropriate analysis and assurance techniques for maintainability (and maintenance);
- guidance documents to cover reliability and availability which are under development.

DEPENDABILITY MANAGEMENT -

Part 3-14: Application guide - Supportability and support

1 Scope

This part of IEC 60300 introduces the dependability attribute of supportability (and support) and the relationship with related dependability attributes of reliability, maintainability and availability.

This document can be used at any time during an item's life to guide the planning and implementing of supportability and support activities focused on achieving an intended balance of performance, cost and risk. All activities can be tailored to the nature of the item and its conditions of use.

Guidance is offered on how supportability and support activities can be applied at any life cycle stage for newly designed items, existing items available for commercial procurement, or for items during their operational life.

This document considers the life cycle implications by formally managing risks associated with the management and delivery of activities to create, operate, maintain and refurbish an item to achieve its stated purpose.

This document describes the:

- nature of supportability and support;
- role of supportability and support in achieving item value over its life;
- trade-offs associated with supportability and support to achieve desired balance of cost, performance and risk during the life of an item;
- importance of aligning the structure of an organization with its objectives, with the ultimate aim of improving efficiency and effectiveness in order to deliver the required supportability and support.

2 Normative references

There are no normative references in this document.