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Information technology - Data centre facilities and infrastructures - Part 3-1: Management and operational information

Táto norma obsahuje anglickú verziu európskej normy.

This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/26

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**Information technology - Data centre facilities and infrastructures
- Part 3-1: Management and operational information**

Technologie de l'information - Installation et infrastructures
de centres de traitement de données - Partie 3-1:
Informations de gestion et de fonctionnement

Informationstechnik - Einrichtungen und Infrastrukturen von
Rechenzentren - Teil 3-1: Informationen für das
Management und den Betrieb

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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 Committee for Electrotechnical Standardization
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Europäisches Komitee für Elektrotechnische Normung

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EN 50600-3-1:2026 (E)**European foreword**

This document (EN 50600-3-1:2026) has been prepared by CLC/TC 215 “Electrotechnical aspects of telecommunication equipment”.

The following dates are fixed:

- latest date by which this document has to be (dop) 2027-05-31
implemented at national level by publication of
an identical national standard or by
endorsement
- latest date by which the national standards (dow) 2027-05-31
conflicting with this document have to be
withdrawn

This document supersedes EN 50600-3-1:2016 and all of its amendments and corrigenda (if any).

EN 50600-3-1:2026 includes the following significant technical changes with respect to EN 50600-3-1:2016:

- a) the document has been completely revised and restructured;
- b) new clauses on data centre strategy, organization, data centre management, risk management and quality management have been added;
- c) existing clauses on operational information and parameters and on acceptance test have been included in the clause on operational processes.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a standardization request addressed to CENELEC by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Introduction

The unrestricted access to internet-based information demanded by the information society has led to an exponential growth of both internet traffic and the volume of stored/retrieved data. Data centres are housing and supporting the information technology and network telecommunications equipment for data processing, data storage and data transport. They are required both by network operators (delivering those services to customer premises) and by enterprises within those customer premises.

Data centres need to provide modular, scalable and flexible facilities and infrastructures to easily accommodate the rapidly changing requirements of the market. In addition, energy consumption and water/resource usage of data centres has become critical both from an environmental point of view (reduction of environmental footprint) and with respect to economical considerations (cost of energy) for the data centre operator.

The implementation of data centres varies in terms of:

- a) purpose (enterprise, co-location, co-hosting, or network operator facilities);
- b) security level;
- c) physical size;
- d) accommodation (mobile, temporary and permanent constructions).

The needs of data centres also vary in terms of availability of service, the provision of security and the objectives for energy efficiency. These needs and objectives influence the design of data centres in terms of building construction, power distribution, environmental control, telecommunications cabling and physical security as well as the operation of the data centre. Effective management and operational information is required to monitor achievement of the defined needs and objectives.

Recognizing the substantial resource consumption, particularly of energy, of larger data centres, it is also important to provide tools for the assessment of that consumption both in terms of overall value and of source mix and to provide Key Performance Indicators (KPIs) to evaluate trends and drive performance improvements.

At the time of publication of this document, the EN 50600 series is designed as a framework of standards, technical specifications and technical reports covering the design, the operation and management, the key performance indicators for energy efficient operation of the data centre as well as a maturity model for energy management and environmental sustainability.

This series of documents specifies requirements and recommendations to support the various parties involved in the design, planning, procurement, integration, installation, operation and maintenance of facilities and infrastructures within data centres. These parties include:

- 1) owners, operators, facility managers, IT managers, project managers, main contractors;
- 2) consulting engineers, architects, building designers and builders, system and installation designers, auditors, test and commissioning agents;
- 3) facility and infrastructure integrators, suppliers of equipment;
- 4) installers, maintainers.

This document is intended for use by and collaboration between facility managers, ICT managers, and main contractors.

The inter-relationship of the documents within the EN 50600 series is shown in Figure 1.

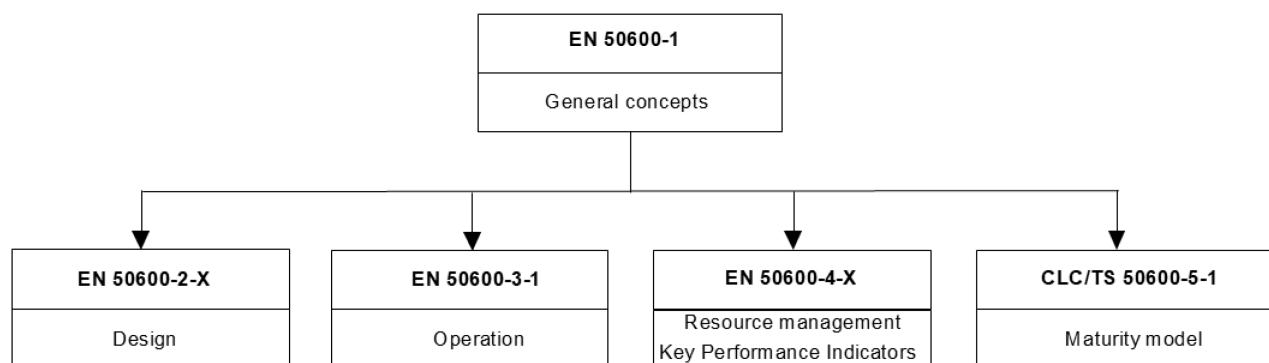
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Figure 1 — Schematic relationship between the EN 50600 series of documents

EN 50600-1 introduces the general concepts relevant for the design and operation of data centres.

EN 50600-2 documents define the requirements for the data centre design and specify requirements and recommendations for particular facilities and infrastructures to support the relevant classification for “availability”, “physical security” and “energy efficiency enablement” selected from EN 50600-1.

EN 50600-3-1 specifies requirements and recommendations for data centre operations, processes and management.

EN 50600-4 documents specify requirements and recommendations for key performance indicators (KPIs) used to assess and improve the resource usage efficiency and effectiveness, respectively, and criteria of resilience of a data centre.

CLC/TS 50600-5-1 specifies the maturity model for energy management and environmental sustainability and refers amongst others to EN 50600-4-X for KPIs as appropriate.

This document addresses the operational and management information (in accordance with the requirements of EN 50600-1). A data centre’s primary function typically is to house large quantities of computer and telecommunications hardware which affects the construction, operation, and physical security. Most of the data centres may impose special security requirements. Therefore, it is important that the planning of a data centre by the designer and the various engineering disciplines that will assist in the planning and implementation of the design of the data centre i.e. electrical, mechanical, security, etc. are carried out in cooperation with the IT and telecommunications personnel, network professionals, the facilities manager, the IT end users, and any other personnel involved.

Figure 2 shows an overview of the document:

- The organization provides the data centre strategy and resources for data centre management and operation.
- Data Centre management organizes all process and resources for data centre operation.
- Operational information and documentation support all data centre activities.



Figure 2 — Data centre management overview

The transition from planning and building to operation of a data centre is considered as part of the acceptance test process in 8.3.

This series of documents does not address the selection of information technology and network telecommunications equipment, software and associated configuration issues.

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1 Scope

This document specifies processes for the management and operation of data centres. The primary focus of this document is the processes necessary to deliver the expected level of resilience, availability, risk management, risk mitigation, capacity planning, security and resource and energy efficiency.

The secondary focus is on organization and data centre management to align the actual and future demands. Only processes specific for data centres are in the scope of this document.

Business processes like people management, financial management, etc. are out of scope.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 50174-1, *Information technology — Cabling installation — Part 1: Installation specification and quality assurance*

EN 50174-2, *Information technology — Cabling installation — Part 2: Installation planning and practices inside buildings*

EN 50600-1, *Information technology — Data centre facilities and infrastructures — Part 1: General concepts*

EN 50600-2 (all parts), *Information technology — Data centre facilities and infrastructures*

EN 50600-2-2:2019, *Information technology — Data centre facilities and infrastructures — Part 2-2: Power supply and distribution*

EN 50600-4 (all parts), *Information technology — Data centre facilities and infrastructures*

CLC/TS 50600-5-1, *Information technology — Data centre facilities and infrastructures — Part 5-1: Maturity Model for Energy Management and Environmental Sustainability*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN