



**SLOVENSKI STANDARD**  
**SIST EN 50667:2017/A1:2022**

**01-februar-2022**

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**Informacijska tehnologija - Avtomatizirani sistemi upravljanja infrastrukture (AIM) -  
Zahteve, izmenjava podatkov in uporaba - Dopolnilo A1**

Information technology - Automated infrastructure management (AIM) systems -  
Requirements, data exchange and applications

Informationstechnik - Systeme für automatisiertes Infrastruktur-Management (AIM) -  
Anforderungen, Schnittstellen und Anwendungen

Technologie de l'information - Systèmes de gestion d'infrastructure automatisée (AIM,  
Automated infrastructure management) - Exigences, échange de données et  
applications

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**Ta slovenski standard je istoveten z: EN 50667:2016/A1:2021**

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**ICS:**

35.110            Omreževanje            Networking

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EUROPEAN STANDARD

EN 50667:2016/A1

NORME EUROPÉENNE

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ICS 35.110; 35.240.99

English Version

## Information technology - Automated infrastructure management (AIM) systems - Requirements, data exchange and applications

Technologie de l'information - Systèmes de gestion d'infrastructure automatisée (AIM, Automated infrastructure management) - Exigences, échange de données et applications

Informationstechnik - Systeme für automatisiertes Infrastruktur-Management (AIM) - Anforderungen, Schnittstellen und Anwendungen

This amendment A1 modifies the European Standard EN 50667:2016; it was approved by CENELEC on 2021-11-09. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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.

This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN 50667:2016/A1:2021 (E)

## European foreword

This document (EN 50667:2016/A1:2021) has been prepared by CLC/TC 215 “Electrotechnical aspects of telecommunication equipment”, based upon the FDIS for Amendment 1 to ISO/IEC 18598:2016 “Information technology – Automated infrastructure management (AIM) systems – Requirements, data exchange and applications”.

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2022-11-09
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2024-11-09

This amendment adds the following content to EN 50667:2016:

- updates to the data exchange model;
- an Annex E which addresses the optional application of AIM systems to cabling supporting remote powering in accordance with ISO/IEC/IEEE 8802-3 and IEEE 802.3bt-2018;
- an Annex F which addresses formatting of data from field test equipment.

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.

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.

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## 1 Modification to the Scope

Add the following new paragraph after bullet d):

"For AIM systems providing support functionality for remote powering as an option, this document addresses additional administration requirements and recommendations."

## 2 Modification to Clause 3, "Terms, definitions and abbreviations"

In definition 3.1.12, replace "EN 50174-1:2009, 3.1.8" with "EN 50174-1:2018, 3.1.11".

In definition 3.1.16, replace "connector" with "cord".

Replace definition 3.1.17 with:

### "cord

cable unit or element with a minimum of one termination

[SOURCE: EN 50173-1:2018, 3.1.33]"

Replace definition 3.1.28 with:

### "patch panel

panel at a distributor presenting the interface(s) of cabling subsystems to facilitate administrative moves, adds and changes using patch cords or jumpers

Note 1 to entry: The panel also enables interfaces to be connected to transmission equipment using interconnect cords.

[SOURCE: EN 50173-1:2018, 3.1.66]"

Add the following new terms and definitions at the end of 3.1:

### "3.1.32

#### Power over Ethernet

remote powering in accordance with ISO/IEC/IEEE 8802-3

### 3.1.33

#### remote powering

power delivery from power sources to terminal equipment or powered devices over telecommunications cabling

EXAMPLE Power over Ethernet in accordance with ISO/IEC/IEEE 8802-3"

Add the following new abbreviations to 3.2:

"PD powered device

PSE power supply equipment"

## 3 Modification to Clause 4, "Conformance"

Add the following new paragraph after bullet c):

"AIM systems that provide support functionality for remote powering to conform to this document shall conform with the requirements of Annex E in addition to the conformance requirements above."

EN 50667:2016/A1:2021 (E)

#### 4 Modification to Clause 6, "AIM solutions: business benefits"

*Insert the following new subclause after 6.2.5:*

##### "6.2.6 Documentation, monitoring and management of remote powering

AIM systems offering remote powering support provide users with ability to automatically track remote powering usage in an installation to facilitate ease of assessing whether a given cable or cable bundle is capable of supporting specific remote powering types.

Due to the dynamic nature of the remote powering status of cables within a cable bundle (i.e. connections/disconnections from power supply equipment (PSE) ports and connections/disconnections of powered devices (PDs)), the above functionality can be achieved through a combination of

- a) AIM system hardware capability for automatically detecting connection changes,
- b) AIM system software ability to extract end device and remote powering information from PSE using standardized networking protocols, e.g. SNMP, and
- c) AIM system documentation of the electrical characteristics of the cables."

#### 5 Modification to 7.4.3, "Element and attribute definitions"

*In Table 5, replace the description of key "O" with the following:*

"This field and/or attributes to this field need not be present in all AIM systems, but system interoperability shall be provided."

*In Table 9, replace the attributes for "Cord (O)" with the following:*

"ID

Name (O)

Part Number (O)

Colour (O)

Vendor (O)

Length

Connector A

Connector B

Cable

Catalogue image (O)"

*Replace the attributes for "Connector (O)" with the following:*

"ID

Name (O)

Connector Type

Catalogue image (O)"

#### 6 Modification to Annex B, "Field descriptions"

*In Table B.1, replace the description of "Cable" with the following:*

"A physical cable containing either fibre or copper elements"

#### 7 Modification to Annex D, "Optional lower level data exchange framework"

*In Table D.1, replace column Description with the following:*

"Obtains port and cord information"

*Replace column Response with the following:*

"Port status,

Cord Data (optional)"

## **8 Addition of annexes**

*Insert the following new annexes:*

"

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## Annex E (normative)

### AIM systems providing remote powering support

#### E.1 General

Type 4 remote powering in accordance with IEEE 802.3bt:2018 using Ethernet transmission channels will support delivery of up to 90 W per cable.

Due to the dynamic nature of the connectivity changes in a premise, there are many factors which determine remote powering capacity of a cable bundle and cables within that bundle (i.e. conductor and cable diameter, ambient temperature, installation conditions). For example, the number of remote powering cables in a bundle can change with time and monitoring of the number of these cables per bundle can provide the required information.

Cable management software and spreadsheets are not equipped with a mechanism to detect these changes in real time. AIM solutions offering support for remote powering are capable of automatically tracking information relevant to ensure appropriate remote powering delivery.

AIM systems providing support for remote powering shall provide the functionality described in E.2.

#### E.2 Documentation and maintenance of information within AIM software

Once configured, an AIM system providing support for remote powering shall be able to:

- a) define and assign a bundle ID to a single cable or a group of cables;
- b) track the cable bundle size for each bundle from a distributor;
- c) track number of cables in a bundle connected to PSE ports (powered or not);
- d) track number of cables in a bundle delivering PoE (powered);
- e) track PoE Type and Class for every delivering cable in a bundle;
- f) track PoE consumption for every PoE delivering cable in a bundle;
- g) track PoE allocated power for every PoE delivering cable in a bundle;
- h) automatically detect, document and monitor the presence and the remote powering functionality of PoE equipment connected to the network including:
  - 1) PoE type of each PoE capable switch (PSE), including number of PoE pairs (in accordance with ISO/IEC/IEEE 8802-3);
  - 2) PoE class of each PD;
  - 3) PoE consumption on each switch (PSE) port;
  - 4) allocated PoE level on each PSE port.

#### E.3 Management and usage of information within AIM software

Once configured, an AIM system providing support for remote powering shall be able to:

- a) alert users when the number of cables in a bundle exceeds the limit<sup>1</sup> of 24 cables to ensure adequate thermal management for bundled cables by applying mitigation rules in accordance with EN 50174-2;

<sup>1</sup> The limit of 24 cables per bundle is specified in EN 50174-2.



- b) provide ability for indicating if a circuit is powered prior to its disconnection to prevent possible damage to network equipment ports;
- c) be able to generate reports with information necessary for assessment of the existing installation to support PoE containing the following information:
  - 1) bundle size;
  - 2) number of cables connected to PoE switch ports in a bundle;
  - 3) number of powered cables in a bundle;
  - 4) current PoE power usage per bundle;
  - 5) allocated PoE per bundle;
  - 6) average PoE usage per cable in a bundle;
  - 7) average allocated PoE per cable in a bundle.

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## **Annex F** (informative)

### **Data import from field test equipment**

Import formats used for the import of data from field test equipment should be either

— CSV data

or

— XML-data.

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