SLOVENSKI STANDARD
SIST EN 50174-1:2009/A2:2014

01-december-2014

Informacijska tehnologija - Polaganje kablov - 1. del: Specifikacija in zagotavljanje kakovosti - Dopolnilo A2

Information technology - Cabling installation - Part 1: Installation specification and quality assurance

Informationstechnik - Installation von Kommunikationsverkabelung - Teil 1: Installationsspezifikation und Qualitätssicherung

Technologies de l'information - Installation de câblages - Partie 1: Spécification de l'installation et assurance de la qualité

Ta slovenski standard je istoveten z: EN 50174-1:2009/A2:2014

ICS:

33.040.50	Vodi, zveze in tokokrogi	Lines, connections and circuits
35.110	Omreževanje	Networking

SIST EN 50174-1:2009/A2:2014   **en**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 50174-1:2009/A2

October 2014

ICS 35.110

English Version

Information technology - Cabling installation - Part 1: Installation specification and quality assurance

Technologies de l'information - Installation de câblages - Partie 1: Spécification de l'installation et assurance de la qualité	Informationstechnik - Installation von Kommunikationsverkabelung - Teil 1: Installationsspezifikation und Qualitätssicherung

This amendment A2 modifies the European Standard EN 50174-1:2009; it was approved by CENELEC on 2014-08-18. 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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

CENELEC

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 50174-1:2009/A2:2014 E

EN 50174-1:2009/A2:2014 – 2 –

Foreword

This document (EN 50174-1:2009/A2:2014) 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 implemented at national level by publication of an identical national standard or by endorsement	(dop)	2015-08-18
•	latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2017-08-18

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

This Amendment covers

– some technical and editorial changes to the Introduction, Clauses 3 and 4.

– a new Annex F.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Introduction

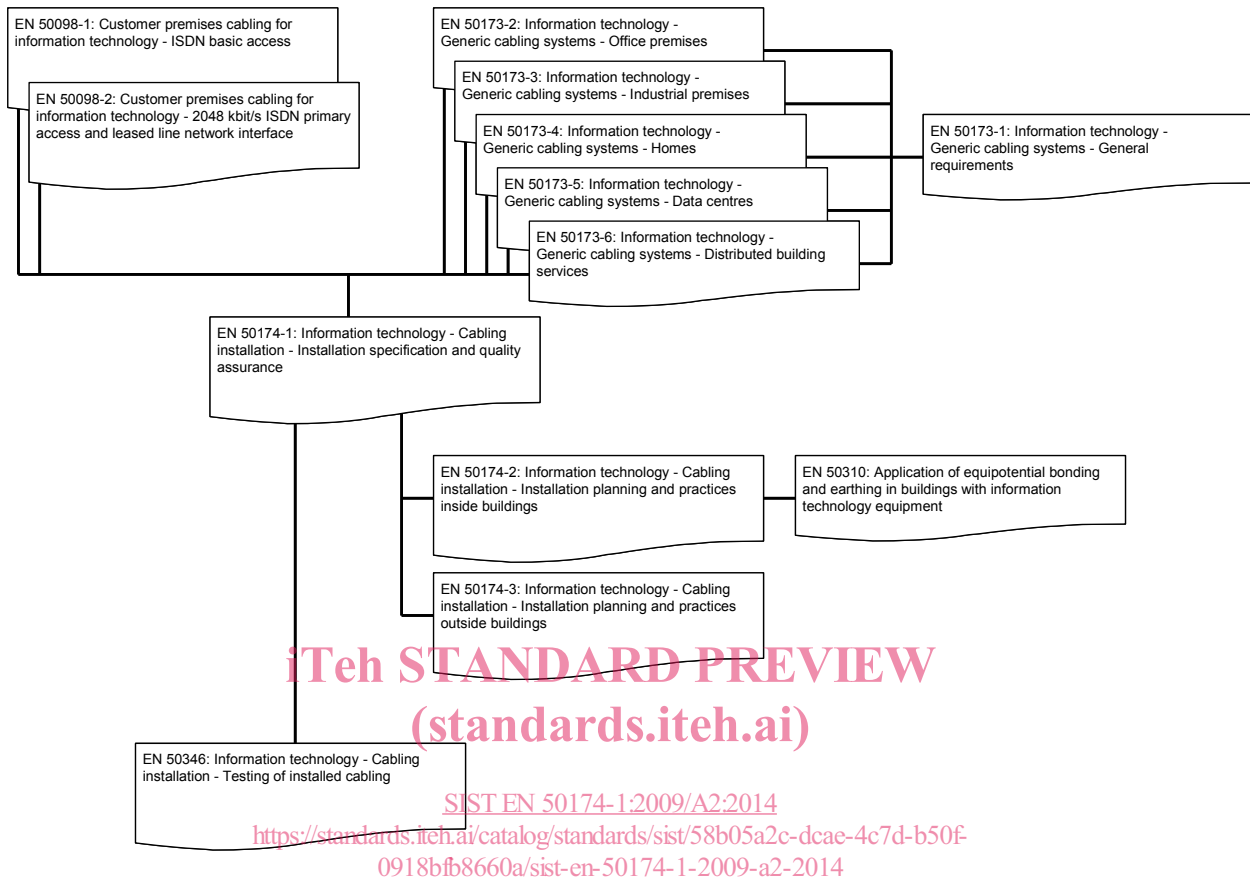*Replace* Figure 1 with the following

**Figure 1 – Schematic relationship between the EN 50174 series
and other relevant standards**

3.1   Terms and definitions

Insert the following definitions and *renumber* the remaining ones accordingly:

**3.1.3
automated infrastructure management system**
integrated hardware and software which automatically records the nature of, and identifies changes to, connections between the cabling infrastructure and of the interconnected transmission and terminal equipment

**3.1.10
discoverable equipment**
equipment with a network address

Note 1 to entry: Discoverable equipment can be treated as non-discoverable equipment per end user choice.

3.2   Abbreviations

Insert the following abbreviations:

AIM   Automated infrastructure management

MAC   Move, add, change

4   Requirements for planning installations of information technology cabling

4.2.2.1 Requirements

Replace the 2nd paragraph *by* the following:

Information technology cables that do not comply with the minimum recommended performance requirements of EN 60332-1-2 shall be either:

a) terminated in an entrance facility which is outside the external fire barrier of the building;

or

b) terminated inside the building, within 2 m (unless an alternative distance is specified by local regulations) of the point of internal penetration of the external fire barrier or any length exceeding 2 m is installed within trunking or conduit that is considered as a fire barrier in accordance with local fire regulations.

> NOTE   This also applies where the cable has to pass through a space between two external fire barriers within a building.

4.2.3.1 Requirements

Insert (after paragraph 3, which starts with "Elements of other supply…") a new 4th paragraph as follows:

Consideration shall be given to the location or construction of pathways within, and pathway systems installed in, escape routes in order to avoid the installed cables and the pathway becoming an obstacle in the event of fire during the periods of evacuation and fire-fighting activity.

4.2.5   Cabinets, frames and racks

4.2.5.1 Requirements

Amend the 4th paragraph *to read*:

The design and dimensions of the cabinets, frames and racks, together with clearances (including those above and below them, as appropriate) shall ensure that:

−   it is possible to install the initial quantity of cables in accordance with the minimum bend radii (during installation, during operation – static and, if relevant, during operation – dynamic). Where multiple cable types (and bundled or dual/shot-gun types) are involved, the largest minimum bend radius shall apply;

−   additional cables, as defined in the installation specification (see 4.1.1), can be subsequently installed in accordance with the minimum bend radii (during installation, during operation – static and, if relevant, during operation – dynamic). Where multiple cable types (and bundled or dual/shot-gun types) are involved, the largest minimum bend radius shall apply;

−   ((the remaining 4 indents remain unchanged)).

4.2.7   Termination points

4.2.7.1 Requirements

Amend the last paragraph to read:

The space allocated to termination points shall allow adequate clearances for the closure containing the termination point to be installed without damage to cabling components and in accordance with the minimum bend radii (during installation, during operation – static and, if relevant, during operation – dynamic). Where multiple cable types (and bundled or dual/shot-gun types) are involved, the largest minimum bend radius shall apply.

4.3   Products and processes

4.3.2   Pathways

4.3.2.1 Requirements

Amend the last paragraph to read:

Draw-boxes shall be large enough to enable the installation of information technology cables in accordance with their minimum bend radii during installation. Where multiple cable types (and bundled or dual/shot-gun types) are involved, the largest minimum bend radius shall apply.

4.5.2   Administration requirements

Amend Table 3 as shown below

Table 3 – Minimum requirements of operational administration systems

	Administration system			
IDENTIFIERS				
Operational complexity level	**1**	**2**	**3**	**Enhanced**
Cords/jumpers	–	–	Yes	Yes
LABELS (fixed to the item or are part of the item)				
Operational complexity level	1	2	3	**Enhanced**
Cords/jumpers (see Note 1)	–	–	Yes	Yes
RECORDS (AND/OR DRAWINGS) that provide information about the item together with other items related to it				
Operational complexity level	1	2	3	**Enhanced**
Cord connections (see Notes 2 and 3)	None	Manual	Electronic	Automated
Discoverable equipment (see Note 3)	None	None	None	Automated
NOTE 1 Labels or other means to identify both ends of a cord. NOTE 2 Manual records include paper-based systems. Electronic records include spreadsheets, databases etc. Automated records include systems that detect connection/disconnection of cords and/or services provided over the cabling. NOTE 3 Automated records include the data from automated infrastructure management (AIM) systems that detect connection/disconnection of cords and/or presence of discoverable equipment to the network. Requirements and recommendations for specifying and operating AIM systems are provided in Annex F.				

Insert the following new Annex F:

Annex F
(normative)

Automated Infrastructure Management (AIM) systems

F.1   Introduction

Sub-clause 4.5.2 refers to "enhanced" administration systems which automatically record both cord connections and discoverable equipment using the data produced by automated infrastructure management (AIM) systems. AIM systems shall be used when it is important to provide a common framework within which:

a)   planners are able to specify their detailed requirements;

b)   operational efficiency and accuracy of the management information provided can be improved.

To support these objectives, Annex F defines the core functions required of such systems (see F.3.1) and also describes other auxiliary features that AIM systems may incorporate (see F.3.2).

F.2   Specifying AIM systems

The AIM system shall meet the requirements defined in F.3.1 and may include additional features as required from F.3.2 noting the usage and operational recommendations of F.4 and F.5 respectively.

F.3   Functions

F.3.1   Functional requirements of AIM systems

NOTE   The following requirements are subject to revision within ISO/IEC 18598 (in development at this time).

An AIM system shall have the facilities to automatically:

a) record the connections between elements of the cabling infrastructure;

b) discover and report the presence of terminal and transmission equipment connected to the cabling infrastructure;

c) monitor the connections and disconnections of a) and b);

d) generate alerts and update records when any connections are modified;

e) facilitate troubleshooting, move-add-change (MAC) activities and auditing of cabling infrastructure;

f) discover and report the configuration of terminal and transmission equipment connected to the cabling infrastructure (e.g. IP and other network addresses);

g) discover and track the physical location of the transmission and terminal equipment connected to the infrastructure;

h) provide integration with CAD-generated drawings or other types of plans to allow for easier interactions with the infrastructure layouts and documentation;

i) generate electronic work orders to support MAC activities, or integrate with work order management systems in order to reduce the time required to implement connectivity changes, and to deliver improved accuracy by minimizing possibilities of human errors.

The records of the AIM system shall be retained in the event of a disruption to the power supply(ies) of the AIM system.

The system should be capable of automatically generating reports about the telecommunications infrastructure.

F.3.2   Auxiliary functions of AIM systems

Other features of AIM systems should be considered during the specification of an AIM system (see ISO/IEC 18598).

NOTE: ISO/IEC 18598 is in development at this time.

F.4   Operational requirements

AIM systems shall be implemented and maintained with an appropriate level of operational discipline, including an auditing regimen to ensure ongoing accuracy.

F.5   Usage recommendations

Annex F recommends the consideration of AIM systems:

a)   within administration systems of operational complexity level 3;

b)   within administration systems of operational complexity level 2 where there is an identified or predicted shortage of staff with the expertise to administer telecommunications cabling;

c)   for the administration of remote sites of any operational complexity level of administration system.