SLOVENSKI STANDARD
SIST EN 50136-1-5:2008

01-september-2008

Alarmni sistemi - Sistemi in oprema za prenos alarma - 1-5. del: Zahteve za paketno komutirano omrežje (PSN)

Alarm systems - Alarm transmission systems and equipment - Part 1-5: Requirements for Packet Switched Network PSN

Alarmanlagen - Alarmübertragungsanlagen und -einrichtungen - Teil 1-5: Anforderungen an ein paketvermittelndes Netz (Packet Switched Network PSN)

Systèmes d'alarme - Systèmes et équipements de transmission d'alarme - Partie 1-5: Exigences pour réseaux à commutation de paquets PSN

Ta slovenski standard je istoveten z: **EN 50136-1-5:2008**

ICS:

13.320	Alarmni in opozorilni sistemi	Alarm and warning systems
33.040.40	Podatkovna komunikacijska omrežja	Data communication networks

SIST EN 50136-1-5:2008 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 50136-1-5

March 2008

ICS 13.320; 33.040.40

English version

Alarm systems - Alarm transmission systems and equipment - Part 1-5: Requirements for Packet Switched Network PSN

Systèmes d'alarme -
Systèmes et équipements
de transmission d'alarme -
Partie 1-5: Exigences pour réseaux
à commutation de paquets PSN

Alarmanlagen -
Alarmübertragungsanlagen
und -einrichtungen -
Teil 1-5: Anforderungen
an ein paketvermittelndes Netz
(Packet Switched Network PSN)

This European Standard was approved by CENELEC on 2008-02-01. 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 Central Secretariat or to any CENELEC member.

This European Standard 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 Central Secretariat has the same status as the official versions.

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

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Ref. No. EN 50136-1-5:2008 E

Foreword

This European Standard was prepared by the Technical Committee CENELEC TC 79, Alarm systems.

The text of the draft was submitted to the formal vote and was approved by CENELEC as EN 50136-1-5 on 2008-02-01.

The following dates were fixed:

– latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2009-02-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2011-02-01

Contents

1 Scope

This European Standard specifies the requirements for alarm transmission systems using Packet Switched Networks (PSN), which are additional to those in EN 50136-1-1:1998.

The alarm transmission system using PSN may use wired links, voice grade signalling links, mobile networks, radio or data links and may include ethernet switches, hubs, firewalls, ADSL-routers and DSL-modems. The standard is also applicable to alarm transmission systems in which signalling links are shared with other services within the above descriptions.

2 Normative references

The following referenced documents are indispensable for the application 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 50136-1-1:1998 + A1:2001 + A2:2008 — Alarm systems - Alarm transmission systems and equipment – Part 1-1: General requirements for alarm transmission systems

3 Terms and definitions

For the purpose of this document the terms and definitions given in EN 50136-1-1:1998, 4.7 and in EN 50136-1-1:1998/A2:2008, apply to reflect the additional security required.

4 Objective

The objective of this European Standard is to specify the additional performance characteristics of alarm transmission systems using PSN to ensure suitability for use and compatibility with different types of alarm systems. For compliance with this document alarm transmission equipment and alarm transmission systems shall conform to the details set out in EN 50136-1-1:1998. These additional requirements are to address the specific risks associated with the use of the PSN environment, which may or may not operate over the public network, e.g. internet or a private network e.g. Intranet.

5 Transmission network requirements

5.1 Generalities

PSN used for alarm transmission systems within the scope of this European Standard shall conform to the requirements of EN 50136-1-1:1998 that no spurious alarm outputs shall occur when the alarm transmission system is restored to normal after a fault. In addition the following requirements shall be met (see 5.2 to 5.4).

NOTE 1 Transmission network components:
Network components including ADSL modems, DSL modems, routers, ethernet switches, Ethernet hubs, external firewalls and network wiring etc. may not meet the requirements in the standard for alarm transmission equipment in EN 50136-2-1. Ethernet modules/interfaces at the alarm transceiver are not part of the transmission network.

NOTE 2 Network power fails reporting to alarm receiving centre: Network equipment, which is located at the supervised premises, which is not classified, as being part of the alarm transmission equipment is therefore not required to have a secondary power supply.

5.2 Transmission link requirement

Any unwanted, malformed or otherwise malicious incoming data received from one transmission link at a rate not exceeding the full capacity of the link shall not prevent the link to perform as specified.

5.3 Shared PSN

A shared PSN, not used exclusively for alarm transmission, shall be designed so that the alarm transmission application is not adversely affected by any other application.

5.4 Performance

The PSN and the transceivers form an alarm transmission network that shall be classified according to its ability to meet the performance requirements specified in EN 50136-1-1:1998, Tables 1, 2, 3 and 4.

6 Transceivers or equivalent equipments functional requirements

6.1 Generalities

Any malicious incoming data received from one transmission link shall not affect the operation of the transceiver (SPT and RCT) or the operation of any other transmission link interface. This applies even if the malicious data rate exceeds the capacity of a single link rendering the link unusable.

6.2 Signalling security of messages on PSN

Transceivers located at the supervised premises and the alarm receiving centre will be classified according to their ability to meet the security signalling requirements in EN 50136-1-1:1998, 6.5.

To achieve S1, S2, I1, I2 and I3 encryption and/or hashing techniques shall be used.

When symmetric encryption algorithms are used, key length shall be no less than 128 bits. When other algorithms are deployed, they shall provide similar level of crypto graphical strength. Any hash functions used shall give a minimum of 256 bits output. Regular automatic key changes shall be used with machine generated randomized keys.

Hash functions and encryption algorithms used shall be publicly available and shall have passed peer review as suitable for this application.

These security measures apply to all data and management functions of the alarm transmission system including remote configuration, software/firmware changes of all alarm transmission equipment.

Cryptography used for alarm applications and transmissions shall be fully documented and shall have passed peer review as suitable for this application. This requirement supersedes the encryption algorithm statement in EN 50136-1-1:1998, 6.5.2, final paragraph.

7 Verification of performance

The performance of the alarm transmission system using PSN shall be verified in accordance with EN 50136-1-1:1998, Clause 7.

Bibliography

EN 50136-2-1:1998	Alarm systems – Alarm transmission systems and equipment – Part 2-1: General requirements for alarm transmission equipment
CLC/TS 50131-7:2003	Alarm systems – Intrusion systems – Part 7: Application guidelines
CLC/TS 50136-7:2004	Alarm systems – Alarm transmission systems and equipment – Part 7: Application guidelines
ISO/IEC 27001:2005	Information technology – Security techniques – Code of practice for information security management