BS EN 14908-4:2014

BSI Standards Publication

Open Data Communication in Building Automation, Controls and Building Management — Control Network Protocol

Part 4: IP Communication

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National foreword

This British Standard is the UK implementation of EN 14908-4:2014. It supersedes BS EN 14908-4:2006 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee RHE/16, Performance requirements for control systems.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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English Version

Open Data Communication in Building Automation, Controls and Building Management - Control Network Protocol - Part 4: IP Communication

Réseau ouvert de communication de données pour l'automatisation, la régulation et la gestion technique du bâtiment - Protocole de contrôle du réseau - Partie 4: Communication par IP

Offene Datenkommunikation für die Gebäudeautomation und Gebäudemanagement - Gebäude-Netzwerk-Protokoll - Teil 4: Kommunikation mittels Internet Protokoll (IP)

This European Standard was approved by CEN on 12 April 2013.

CEN 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 CEN 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 CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN 14908-4:2014) has been prepared by Technical Committee CEN/TC 247 “Building Automation, Controls and Building Management”, the secretariat of which is held by SNV.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2014 and conflicting national standards shall be withdrawn at the latest by October 2014.

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

This document supersedes EN 14908-4:2006.

This European Standard is part of a series of standards for open data transmission in building automation, control and in building management systems. The content of this European Standard covers the data communications used for management, automation/control and field functions.

EN 14908-4 is part of a series of European Standards under the general title *Control Network Protocol (CNP)*, which comprises the following parts:

Part 1: *Protocol stack*

Part 2: *Twisted pair communication*

Part 3: *Power line channel specification*

Part 4: *IP-Communication*

Part 5: *Implementation*

Part 6: *Application elements*

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This European Standard has been prepared to provide mechanisms through which various vendors of building automation, control, and building management systems may exchange information in a standardised way. It defines communication capabilities.

This European Standard will be used by all involved in design, manufacture, engineering, installation and commissioning activities.

1 Scope

This European Standard specifies the transporting of the Control Network Protocol (CNP) packets for commercial Building Automation, Controls and Building Management over Internet Protocol (IP) networks using a tunnelling mechanism wherein the CNP packets are encapsulated within IP packets. It applies to both CNP nodes and CNP routers.

The purpose of this European Standard is to ensure interoperability between various CNP devices that wish to use IP networks to communicate using the CNP protocol.

The main body of this European Standard is independent of the CNP protocol being transported over the IP network. The reader is directed to Annex A and Annex B for the normative and informative, respectively, aspects of this specification that are specific to EN 14908-1.

Figure 1 shows a possible configuration of such CNP devices and networks connected to an IP network.

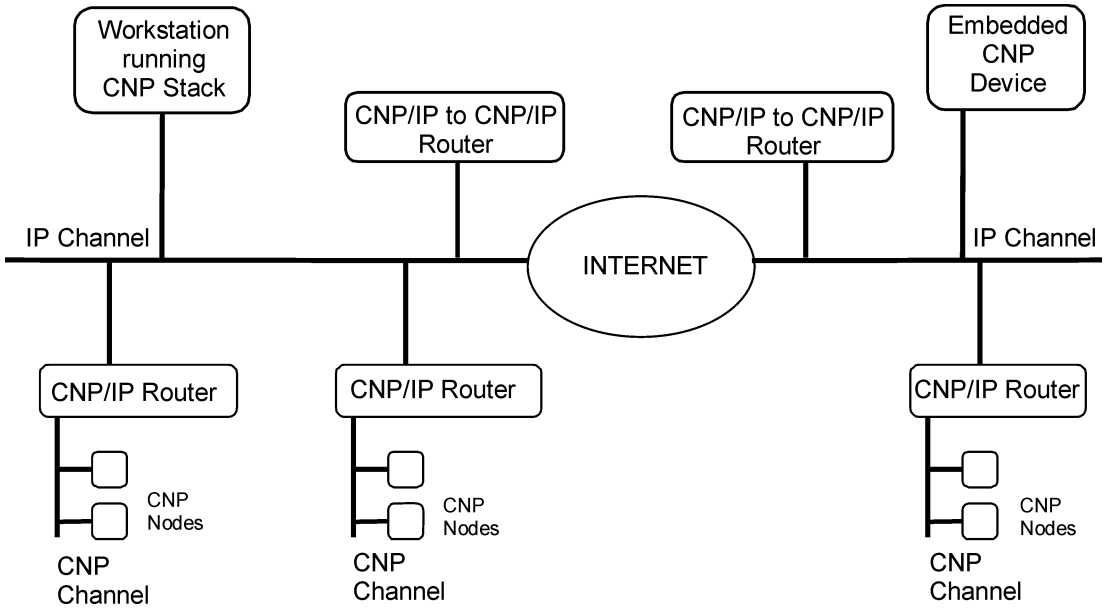

Figure 1 — Typical CNP/IP application

Figure 1 depicts two types of CNP devices: CNP nodes and CNP routers. It should be noted that the routers shown can route packets between typical CNP channels (such as twisted pair or power line) and an IP channel or it can route CNP packets between two IP channels. In this European Standard the IP channel will be defined in such a way to allow it to be used like any other CNP channel.

In the above diagram, the IP network can be considered to be one or more IP channels. This European Standard covers only how CNP packets are transported over IP channels. It does not cover how CNP packets are routed between standard CNP channels and IP channels. This specification is not intended to cover the lower layers (physical, MAC and link layers) of either standard CNP or IP channels.

2 Normative references

Not applicable.