
Pomorska navigacijska in radiokomunikacijska oprema in sistemi - Digitalni vmesniki - 460. del: Več govorcev in poslušalcev - Povezovanje prek eterneta - Varnost in zaščita - Dopolnilo A1 (IEC 61162-460:2018/A1:2020)

Maritime navigation and radiocommunication equipment and systems - Digital interfaces - Part 460: Multiple talkers and multiple listeners - Ethernet interconnection - Safety and security (IEC 61162-460:2018/A1:2020)

Navigations- und Funkkommunikationsgeräte und -systeme für die Seeschifffahrt - Digitale Schnittstellen - Teil 460: Mehrere Datensender und mehrere Datenempfänger - Ethernet-Verbund - Funktionale und Informationssicherheit (IEC 61162-460:2018/A1:2020)

iTeh STANDARD PREVIEW
(standards.iteh.ai)
<https://standards.iteh.ai/catalog/standards/sist/e5889546-a54b-43cd-bf50-4b0a4151dce4/sist-en-iec-61162-460-2018-a1-2020>

Matériels et systèmes de navigation et de radiocommunication maritimes - Interfaces numériques - Partie 460: Émetteurs multiples et récepteurs multiples - Interconnexion Ethernet - Sûreté et sécurité (IEC 61162-460:2018/A1:2020)

Ta slovenski standard je istoveten z: EN IEC 61162-460:2018/A1:2020

ICS:

35.200	Vmesniška in povezovalna oprema	Interface and interconnection equipment
47.020.70	Navigacijska in krmilna oprema	Navigation and control equipment

SIST EN IEC 61162-460:2018/A1:2020 en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN IEC 61162-460:2018/A1:2020](https://standards.iteh.ai/catalog/standards/sist/e5889546-a54b-43cd-bf50-4b0a4151dce4/sist-en-iec-61162-460-2018-a1-2020)

<https://standards.iteh.ai/catalog/standards/sist/e5889546-a54b-43cd-bf50-4b0a4151dce4/sist-en-iec-61162-460-2018-a1-2020>

EUROPEAN STANDARD

EN IEC 61162-460:2018/A1

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2020

ICS 47.020.70

English Version

Maritime navigation and radiocommunication equipment and systems - Digital interfaces - Part 460: Multiple talkers and multiple listeners - Ethernet interconnection - Safety and security (IEC 61162-460:2018/A1:2020)

Matériels et systèmes de navigation et de radiocommunication maritimes - Interfaces numériques - Partie 460: Émetteurs multiples et récepteurs multiples - Interconnexion Ethernet - Sécurité et sécurité (IEC 61162-460:2018/A1:2020)

Navigations- und Funkkommunikationsgeräte und -systeme für die Seeschifffahrt - Digitale Schnittstellen - Teil 460: Mehrere Datensender und mehrere Datenempfänger - Ethernet-Verbund - Funktionale und Informationssicherheit (IEC 61162-460:2018/A1:2020)

This amendment A1 modifies the European Standard EN IEC 61162-460:2018; it was approved by CENELEC on 2020-02-24. 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.



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 IEC 61162-460:2018/A1:2020 (E)**European foreword**

The text of document 80/943/FDIS, future IEC 61162-460/A1, prepared by IEC/TC 80 "Maritime navigation and radiocommunication equipment and systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61162-460:2018/A1:2020.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2020-11-24
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-02-24

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.

Endorsement notice

iTeh STANDARD PREVIEW
(standards.iteh.ai)

The text of the International Standard IEC 61162-460:2018/A1:2020 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 61924-2:2012	NOTE	Harmonized as EN 61924-2:2013 (not modified)
IEC 62288:2014	NOTE	Harmonized as EN 62288:2014 (not modified)

Annex ZA

(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

This Annex ZA replaces the Annex ZA of EN IEC 61162-460:2018.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60945	-	Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results	EN 60945	-
IEC 61162-460	2018	Maritime navigation and radiocommunication equipment and systems - Digital interfaces - Part 460: Multiple talkers and multiple listeners - Ethernet interconnection - Safety and security	EN IEC 61162-460	2018
IEC 62923-1	-	Maritime navigation and radiocommunication equipment and systems - Bridge alert management - Part 1: Operational and performance requirements, methods of testing and required test results	EN IEC 62923-1	-
IEC 62923-2	-	Maritime navigation and radiocommunication equipment and systems - Bridge alert management - Part 2: Alert and cluster identifiers and other additional features	EN IEC 62923-2	-
IEEE 802.1D	2004	IEEE Standard for local and metropolitan area networks - Media Access Control (MAC) Bridges	-	-
IEEE 802.1Q	-	IEEE Standard for Local and metropolitan area networks - Bridges and Bridged Networks	-	-

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN IEC 61162-460:2018/A1:2020](https://standards.iteh.ai/catalog/standards/sist/e5889546-a54b-43cd-bf50-4b0a4151dce4/sist-en-iec-61162-460-2018-a1-2020)

<https://standards.iteh.ai/catalog/standards/sist/e5889546-a54b-43cd-bf50-4b0a4151dce4/sist-en-iec-61162-460-2018-a1-2020>



IEC 61162-460

Edition 2.0 2020-01

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 1
AMENDEMENT 1

**Maritime navigation and radiocommunication equipment and systems – Digital interfaces –
Part 460: Multiple talkers and multiple listeners – Ethernet interconnection –
Safety and security**

[SIST EN IEC 61162-460:2018/A1:2020](https://standards.iteh.ai/catalog/standards/sist/e5889546-a54b-43cd-bf50-4d0445710b1a/iec-61162-460-2018-a1:2020)

[https://standards.iteh.ai/catalog/standards/sist/e5889546-a54b-43cd-bf50-](https://standards.iteh.ai/catalog/standards/sist/e5889546-a54b-43cd-bf50-4d0445710b1a/iec-61162-460-2018-a1:2020)

**Matériels et systèmes de navigation et de radiocommunication maritimes –
Interfaces numériques –
Partie 460: Émetteurs multiples et récepteurs multiples – Interconnexion
Ethernet – Sûreté et sécurité**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

ICS 47.020.70

ISBN 978-2-8322-7764-5

**Warning! Make sure that you obtained this publication from an authorized distributor.
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

FOREWORD

This amendment has been prepared by IEC technical committee 80: Maritime navigation and radiocommunication equipment and systems.

The text of this amendment is based on the following documents:

FDIS	Report on voting
80/943/FDIS	80/951/RVD

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

The committee has decided that the contents of this amendment and the base publication will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN IEC 61162-460:2018/A1:2020](https://standards.iteh.ai/catalog/standards/sist/e5889546-a54b-43cd-bf50-4b0a4151dce4/sist-en-iec-61162-460-2018-a1-2020)
<https://standards.iteh.ai/catalog/standards/sist/e5889546-a54b-43cd-bf50-4b0a4151dce4/sist-en-iec-61162-460-2018-a1-2020>

Introduction to the Amendment

This amendment provides greater clarity to the external security requirements in 6.3, updates the alert management in 8.2.7 and associated tests in 10.11.6 to comply with bridge alert management and provides an improved test of firewalls in 10.8.4.

2 Normative references

Delete the following existing normative references:

IEC 61924-2:2012, *Maritime navigation and radiocommunication equipment and systems – Integrated navigation systems – Part 2: Modular structure for INS – Operational and performance requirements, methods of testing and required test results*

IEC 62288:2014, *Maritime navigation and radiocommunication equipment and systems – Presentation of navigation-related information on shipborne navigational displays – General requirements, methods of testing and required test results*

Add the following new normative references:

IEC 62923-1, *Maritime navigation and radiocommunication equipment and systems – Bridge alert management – Part 1: Operational and performance requirements, methods of testing and required test results*

IEC 62923-2, *Maritime navigation and radiocommunication equipment and systems – Bridge alert management – Part 2: Alert and cluster identifiers and other additional features*

6.3.1 Overview

Replace the existing first and second paragraphs with the following new text:

All traffic from uncontrolled networks is passed or processed through a 460-Gateway or 460-Wireless gateway. A 460-Gateway consists of firewall(s) (see 6.3.2) and may include support for one or any combination of the following functions:

- direct communication (see 6.3.3);
- DMZ with application servers (see 6.3.5.2);
- DMZ with interoperable access to file storage (see 6.3.5.3).

Firewall(s) provide network-access security for the uncontrolled network and the 460-Network. Firewalls for external and internal interfaces may be provided by the same application.

The 460-Gateway components may be implemented in one device or in different devices. Figure 2 shows an example of a 460-Network with a 460-Gateway.

6.3.2.1 External firewall

[SIST EN IEC 61162-460:2018/A1:2020](https://standards.iteh.ai/catalog/standards/sist/e5889546-a54b-43cd-bf50-460a4151dce4/sist-en-iec-61162-460-2018-a1-2020)

Replace the existing paragraph with the following new paragraph:

An external firewall blocks all traffic unless it is registered (i.e. whitelisted) and destined only to equipment in the DMZ. This means that, in principle, all direct communication to or from a 460-Network is not allowed.

6.3.2.2 Internal firewall

Replace the existing paragraph with the following new paragraph:

An internal firewall blocks all traffic unless it is either destined to equipment in a 460-Network and it originates from equipment in the DMZ or it is destined to equipment in the DMZ and it originates from equipment in a 460-Network. All traffic passing through the internal firewall is registered (i.e. whitelisted) in advance.

6.3.5.1 Firewall

Replace the existing title with the following new title:

6.3.5.1 General

Replace the existing second and third bullets with the following new bullets:

- firewall(s) shall be provided which are configured with the combination of source and destination IP address, protocol and destination port number (see 6.3.2);
- all connections between uncontrolled networks and a 460-Network shall be registered (i.e. all network traffic that does not match a set firewall rule shall be blocked by the firewall);