



BSI Standards Publication

**Intelligent transport systems — Pre-emption of
ITS communication networks for disaster and
emergency communication — Use case scenarios**

National foreword

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**Intelligent transport systems —
Pre-emption of ITS communication
networks for disaster and emergency
communication — Use case scenarios**

*Systèmes intelligents de transport — Préréemption des réseaux de
communication ITS pour les secours en cas de catastrophe et les
communications d'urgence — Scénarios de cas d'utilisation*





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Contents

Page

Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Use cases	2
4.1 Disaster information dissemination.....	2
4.2 Alive information (“I am alive” message).....	2
4.3 Rescue information.....	2
4.4 Person finder.....	2
4.5 Information dissemination in a refugee.....	2
4.6 Doctor and refugee information exchange.....	2
4.7 Public authorities information exchange.....	2
5 Assumed requirements	2
5.1 Disaster information dissemination.....	2
5.1.1 Communications requirements: functional.....	2
5.1.2 Communications requirements: performance.....	3
5.1.3 Communications requirements: security and security threats and risk.....	3
5.1.4 Information urgency level and lifetime.....	3
5.1.5 Information sender and information destination.....	3
5.2 Alive information (“I am alive” message).....	3
5.2.1 Communications requirements: functional.....	3
5.2.2 Communications requirements: performance.....	3
5.2.3 Communications requirements: security and security threats and risk.....	3
5.2.4 Information urgency level and lifetime.....	3
5.2.5 Information sender and information destination.....	3
5.3 Rescue information.....	4
5.3.1 Communications requirements: functional.....	4
5.3.2 Communications requirements: performance.....	4
5.3.3 Communications requirements: security and security threats and risk.....	4
5.3.4 Information urgency level and lifetime.....	4
5.3.5 Information sender and information destination.....	4
5.4 Finding of persons.....	4
5.4.1 Communications requirements: functional.....	4
5.4.2 Communications requirements: performance.....	4
5.4.3 Communications requirements: security and security threats and risk.....	4
5.4.4 Information urgency level and lifetime.....	4
5.4.5 Information sender and information destination.....	4
5.5 Information dissemination in refugees.....	5
5.5.1 Communications requirements: functional.....	5
5.5.2 Communications requirements: performance.....	5
5.5.3 Communications requirements: security and security threats and risk.....	5
5.5.4 Information urgency level and lifetime.....	5
5.5.5 Information sender and information destination.....	5
5.6 Doctor and refugee information exchange.....	5
5.6.1 Communications requirements: functional.....	5
5.6.2 Communications requirements: performance.....	5
5.6.3 Communications requirements: security and security threats and risk.....	5
5.6.4 Information urgency level and lifetime.....	5
5.6.5 Information sender and information destination.....	5
5.7 Information exchange between public authorities.....	6
5.7.1 Communications requirements: functional.....	6

5.7.2	Communications requirements: performance.....	6
5.7.3	Communications requirements: security and security threats and risk.....	6
5.7.4	Information urgency level and lifetime.....	6
5.7.5	Information sender and information destination.....	6

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 204, *Intelligent transport systems*.

Introduction

This document presents use case scenarios in support of future development of standards for ad-hoc wireless network communication under disaster and emergency cases.

Under certain natural disaster situations such as earthquake, tsunami, hurricane, and snowstorms, the existing commercial telecommunication infrastructure, either wireless or wired networks, can be destroyed. In order to provide communication means for the disaster areas, some ad-hoc networks may need to be established.

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Intelligent transport systems — Pre-emption of ITS communication networks for disaster and emergency communication — Use case scenarios

1 Scope

This document provides the outcome of discussions on use case scenarios and assumed requirements for using ad-hoc wireless networks under disaster and emergency conditions including related priority, security and urgency aspects of communication requirements.

2 Normative references

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.

ISO 15662, *Intelligent transport systems — Wide area communication — Protocol management information*

ISO 21210, *Intelligent transport systems — Communications access for land mobiles (CALM) — IPv6 Networking*

ISO 21217, *Intelligent transport systems — Communications access for land mobiles (CALM) — Architecture*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 15662, ISO 21210 and ISO 21217, and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

information sender

person(s) or organization(s) that send a message for disaster use cases

Note 1 to entry: Messages may include the information for a disaster, damage area, damage level, vital and safety information, refugee camp and rescue supply.

3.2

information destination

person(s) or organization(s) to which an *information sender* (3.1) wants to provide information

3.3

information urgency level

level of allowable time to deliver the information from an *information sender* (3.1) to an information destination

3.4

information lifetime

time period during which information is effective