

<b>STN</b>	<b>Intelligentné dopravné systémy (ITS) Vozidlové komunikácie Geosieťovanie</b> <b>Časť 4: Geografické riešenie a smerovanie pre komunikácie bod-bod a bod-viac bodov</b> <b>Oddiel 1: Funkcie nezávislé od médií</b>	<b>STN EN 302 636-4-1 V1.4.1</b>  87 2636
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Intelligent Transport Systems (ITS); Vehicular Communications; GeoNetworking; Part 4: Geographical addressing and forwarding for point-to-point and point-to-multipoint communications; Sub-part 1: Media-Independent Functionality

Táto norma obsahuje anglickú verziu európskej normy.  
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**Intelligent Transport Systems (ITS);  
Vehicular Communications;  
GeoNetworking;  
Part 4: Geographical addressing and forwarding for  
point-to-point and point-to-multipoint communications;  
Sub-part 1: Media-Independent Functionality**

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# Foreword

This European Standard (EN) has been produced by ETSI Technical Committee Intelligent Transport Systems (ITS).

The present document is part 4, sub-part 1 of a multi-part deliverable. Full details of the entire series can be found in part 1 [2].

National transposition dates	
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# Modal verbs terminology

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## Introduction

The GeoNetworking protocol is a network layer protocol that provides packet routing in an ad hoc network. It makes use of geographical positions for packet transport. GeoNetworking supports the communication among individual ITS stations as well as the distribution of packets in geographical areas.

GeoNetworking can be executed over different ITS access technologies for short-range wireless technologies, such as ITS-G5 and infrared. The ITS access technologies for short-range wireless technologies have many technical commonalities, but also differences. In order to reuse the GeoNetworking protocol specification for multiple ITS access technologies, the specification is separated into media-independent and media-dependent functionalities.

Media-independent functionalities are those which are common to all ITS access technologies for short-range wireless communication to be used for GeoNetworking. The media-dependent functionalities extend the media-independent functionality for a specific ITS access technology. Therefore, the GeoNetworking protocol specification consists of the standard for media-independent functionality and at least one standard for media-dependent functionality. However, it should be noted that the media-dependent extensions do not represent distinct protocol entities.

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# 1 Scope

The present document specifies the media-independent functionality of the GeoNetworking protocol.

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## 2 References

### 2.1 Normative references

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The following referenced documents are necessary for the application of the present document.

- [1] ETSI EN 302 665 (V1.1.1): "Intelligent Transport Systems (ITS); Communications Architecture".
- [2] ETSI EN 302 636-1 (V1.2.1): "Intelligent Transport Systems (ITS); Vehicular Communications; GeoNetworking; Part 1: Requirements".
- [3] ETSI EN 302 636-2 (V1.2.1): "Intelligent Transport Systems (ITS); Vehicular Communications; GeoNetworking; Part 2: Scenarios".
- [4] ETSI EN 302 636-3 (V1.2.1): "Intelligent Transport Systems (ITS); Vehicular Communications; GeoNetworking; Part 3: Network architecture".
- [5] Void.
- [6] ETSI EN 302 636-5-1 (V1.2.1): "Intelligent Transport Systems (ITS); Vehicular Communications; GeoNetworking; Part 5: Transport Protocols; Sub-part 1: Basic Transport Protocol".
- [7] ETSI EN 302 636-6-1 (V1.2.1): "Intelligent Transport Systems (ITS); Vehicular Communications; GeoNetworking; Part 6: Internet Integration; Sub-part 1: Transmission of IPv6 Packets over GeoNetworking Protocols".
- [8] ETSI EN 302 931 (V1.1.1): "Intelligent Transport Systems (ITS); Vehicular Communications; Geographical Area Definition".
- [9] ETSI TS 102 731: "Intelligent Transport Systems (ITS); Security; Security Services and Architecture".
- [10] ETSI TS 103 097: "Intelligent Transport Systems (ITS); Security; Security header and certificate formats".
- [11] ETSI TS 102 894-2: "Intelligent Transport Systems (ITS); Users and applications requirements; Part 2: Applications and facilities layer common data dictionary".

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- [i.1] Void.
- [i.2] ETSI TS 102 723-8: "Intelligent Transport Systems (ITS); OSI cross-layer topics; Part 8: Interface between security entity and network and transport layer".
- [i.3] ETSI TS 102 940: "Intelligent Transport Systems (ITS); Security; ITS communications security architecture and security management".
- [i.4] Void.
- [i.5] IETF RFC 2578: "Structure of Management Information Version 2 (SMIPv2)".
- [i.6] National Imagery and Mapping Agency (NIMA), US Department of Defense: "World Geodetic System 1984 - Its Definition and Relation with Local Geodetic Systems", Third Edition - Amendment 1, NIMA TR 8350.2.
- [i.7] IETF RFC 2579: "Textual Conventions for SMIPv2".
- [i.8] IEEE 802.3:2008™: "IEEE Standard for Information Technology - Telecommunications and information exchange between systems-Local and metropolitan area networks - Specific requirements - Part 3: Carrier Sense Multiple Access with Collision Detection (CSMA/CD) Access Method and Physical Layer Specifications".
- [i.9] ETSI TS 102 965: "Intelligent Transport Systems (ITS); Application Object Identifier (ITS-AID); Registration".
- [i.10] ETSI TS 103 613: "Intelligent Transport Systems (ITS); Access layer specification for Intelligent Transport Systems using LTE Vehicle to everything communication in the 5,9 GHz frequency band".
- [i.11] ETSI TS 102 636-4-2: "Intelligent Transport Systems (ITS); Vehicular Communications; GeoNetworking; Part 4: Geographical addressing and forwarding for point-to-point and point-to-multipoint communications; Sub-part 2: Media-dependent functionalities for ITS-G5".

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