

# ETSI TS 103 836-3 V2.1.1 (2025-08)



## **Intelligent Transport Systems (ITS); Vehicular Communications; GeoNetworking; Part 3: Network Architecture; Release 2**

ETSI TS 103 836-3 V2.1.1 (2025-08)

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**Reference**RTS/ITS-0081

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**Keywords**autonomic networking, ITS, network, safety

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**ETSI**

650 Route des Lucioles  
F-06921 Sophia Antipolis Cedex - FRANCE

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Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - APE 7112B  
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# Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Intelligent Transport Systems (ITS).

The present document is part 3 of a multi-part deliverable. Full details of the entire series can be found in part 1 [i.5].

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# Introduction

The present document specifies the network architecture for communication-based Intelligent Transport Systems (ITS) using different ITS access technologies, such as ITS-G5. The network architecture provides - in combination with the description of scenarios - a basis for the technical specification of the networking and transport protocols, in particular for GeoNetworking and its related protocols.

The present document first introduces a generic, high-level system view of the network architecture and defines four basic deployment scenarios. Based on the system view, it identifies and describes the main network components and specifies network reference points among them. Central component of the architecture is the ITS station. For this component, an overview of its protocol architecture is given and different options of using the GeoNetworking protocol in combination with transport protocols and protocols of the IP suite are described. Finally, the present document defines frameworks for different aspects of networking and data transport, such as ad hoc communication, addressing, resource management and data congestion control, integration with protocols of the IP suite and others.