



**Intelligent Transport Systems (ITS);
OSI cross-layer topics;
Part 11: Interface between networking and
transport layer and facilities layer**

Reference

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Contents

Intellectual Property Rights	4
Foreword.....	4
1 Scope	5
2 References	5
2.1 Normative references	5
2.2 Informative references.....	5
3 Definitions and abbreviations.....	5
3.1 Definitions	5
3.2 Abbreviations	5
4 Architecture	6
5 GeoAware SAP	6
5.1 BTP-DATA.request.....	6
5.2 BTP-DATA.indication	6
Annex A (informative): Bibliography	7
History	8

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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 11 of a multi-part deliverable. Full details of the entire series can be found in part 1 [i.1].

1 Scope

The present document specifies details of the NF interface that is exposed by the networking and transport layer to the facilities layer.

2 References

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the reference document (including any amendments) applies.

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2.1 Normative references

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

- [1] ETSI EN 302 665: "Intelligent Transport Systems (ITS); Communications Architecture".
- [2] ETSI TS 102 636-3: "Intelligent Transport Systems (ITS); Vehicular Communications; GeoNetworking; Part 3: Network architecture".
- [3] ETSI EN 302 636-5-1: "Intelligent Transport Systems (ITS); Vehicular Communications; GeoNetworking; Part 5: Transport Protocols; Sub-part 1: Basic Transport Protocol".

2.2 Informative references

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

- [i.1] ETSI TS 102 723-1: "Intelligent Transport Systems (ITS); OSI cross-layer topics; Part 1: Architecture and addressing schemes".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in [1], [2] and [i.1] apply.

3.2 Abbreviations

For the purposes of the present document, the abbreviations given in [1], [2] and [i.1] apply.

4 Architecture

Figure 1 shows the generic architecture of the ITS-S networking and transport layer as specified in [1] and [2]. The NF interface presented in figure 1 is subject of the present document.

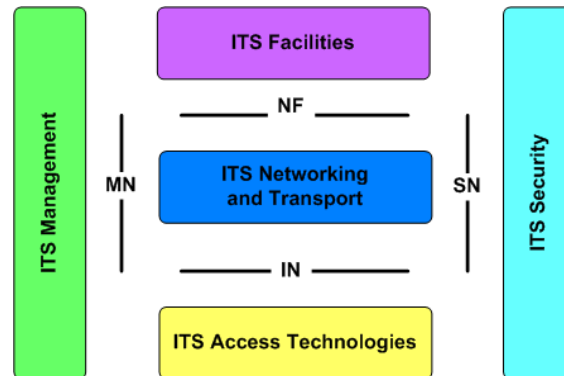


Figure 1: Architecture

The services of the protocols are made available through Service Access Points (SAPs) as specified in [2], i.e. geo-aware SAP $SAP_{GeoAware}$, and the UDP and TCP SAPs SAP_{UDP} and SAP_{TCP} , which are commonly referred to as NF-SAP in [i.1]. The present document specifies $SAP_{GeoAware}$.

The present document does not exclude SAPs exposed by other protocols at the networking and transport layer.

NOTE: SAP_{UDP} and SAP_{TCP} are not further specified in the present document.

5 GeoAware SAP

The $SAP_{GeoAware}$ provides means for transmission and reception of packets. It is exposed by the Basic Transport Protocol (BTP) [3].

5.1 BTP-DATA.request

This service primitive requests transmission of a packet. The parameters of the service primitive shall be as specified in [3], clause A.2.

5.2 BTP-DATA.indication

This service primitive indicates the reception of a packet. The parameters of the service primitive shall be as specified in [3], clause A.3.

Annex A (informative): Bibliography

- ETSI TS 102 723-2: "Intelligent Transport Systems (ITS); OSI cross-layer topics; Part 2: Management information base".
- ETSI TS 102 723-3: "Intelligent Transport Systems (ITS); OSI cross-layer topics; Part 3: Interface between management entity and access layer".
- ETSI TS 102 723-4: "Intelligent Transport Systems (ITS); OSI cross-layer topics; Part 4: Interface between management entity and networking & transport layer".
- ETSI TS 102 723-5: "Intelligent Transport Systems (ITS); OSI cross-layer topics; Part 5: Interface between management entity and facilities layer".
- ETSI TS 102 723-6: "Intelligent Transport Systems; OSI cross-layer topics; Part 6: Interface between management entity and security entity".
- ETSI TS 102 723-7: "Intelligent Transport Systems; OSI cross-layer topics; Part 7: Interface between security entity and access layer".
- ETSI TS 102 723-8: "Intelligent Transport Systems (ITS); OSI cross-layer topics; Part 8: Interface between security entity and network and transport layer".
- ETSI TS 102 723-9: "Intelligent Transport Systems; OSI cross-layer topics; Part 9: Interface between security entity and facilities layer".
- ETSI TS 102 723-10: "Intelligent Transport Systems (ITS); OSI cross-layer topics; Part 10: Interface between access layer and networking & transport layer".
- ETSI TS 102 637-1: "Intelligent Transport Systems (ITS); Vehicular Communications; Basic Set of Applications; Part 1: Functional Requirements".
- ETSI TS 102 637-2: "Intelligent Transport Systems (ITS); Vehicular Communications; Basic Set of Applications; Part 2: Specification of Cooperative Awareness Basic Service".
- ETSI TS 102 637-3: "Intelligent Transport Systems (ITS); Vehicular Communications; Basic Set of Applications; Part 3: Specifications of Decentralized Environmental Notification Basic Service".
- IETF RFC 768: "User Datagram Protocol".
- IETF RFC 793: "Transmission Control Protocol".

History

Document history		
V1.1.1	November 2013	Publication