

UN/EDIFACT

DRAFT DOCUMENT

Traffic or travel information request message

This message has undergone only an initial technical assessment which may have found certain technical and presentation problems. These will be solved before the message is submitted as a request for Status 1. Anything shown under Section 5 (or, in some cases, which should have been shown in Section 5 - directory variations) is NOT approved at this stage. Further information on the development of this message can be obtained from the Rapporteur's EDIFACT Board Secretariat. This document is issued for information and comments and is not intended for implementation.

Message Type : TRAREQ
Version : 0
Release : 1
Contr. Agency: RT
Status : 0
Date : 95-03

SOURCE: Western European EDIFACT Board (MD2)

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0. INTRODUCTION

This specification provides the definition of the Traffic or travel information request message (TRAREQ) to be used in Electronic Data Interchange (EDI) between trading partners, involved in administration, commerce and transport.

1. SCOPE

1.1 Functional Definition

The Traffic or travel information request message serves parties that send and/or receive traffic or travel information (e.g. traffic or travel information or control centres, telecommunications services, broadcasters, police, road authorities, public transport operators, breakdown or rescue services, freight operators, individual travellers), requesting traffic or travel information to be selected according to one or more selection criteria (filters).

1.2 Field of Application

The Traffic or travel information request message may be used for both national and international trade. It is based on universal commercial practice and is not dependent on the type of business or industry.

1.3 Principles

This message is meant to comply with the operational requirements of organizations concerning requests for traffic or travel situation

information.

Requests may be placed by a traffic or travel information centre asking for information from another centre; by mobile users requesting information from a central facility; etc.

TRAREQ allows information centres to select the information they require, tailoring their requests to meet their own specific needs. This will reduce unnecessary exchanges, and also provides a tool for meeting out-of-the ordinary needs.

TRAREQ also supports requests from individual travellers.

1. One TRAREQ message conveys one traffic or travel information request. A traffic or travel information request addresses one location or a set of locations which share the same selection (filtering) criteria.
2. One message can be used to request traffic or travel situation information; i.e. event and/or status information. Other types of traffic or travel information can also be required.
3. One message may relate to all relevant information requirements, or to a part of those requirements. Traffic or travel information requests may be split in different messages, e.g. as required at different times of the day; for the different locations involved; or to set different filters at different locations.
4. Use of the TRAREQ message shall be based on agreed operating practices regarding requests for traffic or travel information addressed to the receiving party.
5. A TRAREQ message may specify one or many entities (such as phrase codes, data objects, description categories, etc.), describing the required information.
6. A TRAREQ message may specify information required only once, periodically, or continually (as soon as it is available). All information may be required, or only information meeting specified criteria.
7. Each message can only request information about one particular type (e.g. driver information, public transport). Data element 1001 (Document/message name, coded) of segment BGM can be used to provide further specification of the message type, indicating the type of the information required.
8. A traffic or travel information request may relate to one or more routes or areas. Also, a single request may address one or many traffic or travel situations at a particular time (however, only if the same set of selection criteria applies; otherwise one separate TRAREQ message would cater for each different set of selection criteria). See also principle 1.
9. The TRAREQ message caters for frequent updates (changes, deletions or cancellation). For these purposes, a number of generic terms are used in this specification, to be described as:

beginning of request period - the time from which the information requested in the message is required

end of request period - the time from which the information

requested in the message will cease to be required

- end indicator - indicates that the referenced information requested in the message is no longer needed (e.g. a long term request is to be terminated)
- cancellation indicator - indicates that the referenced request was previously sent out in error
- expiry time - the time by which a response is required; a later response would result in the requested information being useless for practical purposes

10. The Traffic or travel acknowledgement can be provided through the Application error and acknowledgement message (APERAK). The acknowledgement is a message from the receiving party to the party responsible for the request. It provides confirmation and/or availability details (e.g. total number of bytes which fit the selection criteria) of the requested traffic or travel information.

11. The acknowledgement message can be used to refine a request in multiple steps, e.g. when the initial request would result in too many bytes selected. The total availability numbers as provided by the supplier in the APERAK message would then provide the means by which the requester can refine his selection criteria. Such refinement in successive steps may continue until the request is believed to result in a manageable response of traffic or travel information through the Traffic or travel situation information message (TRAVIN).

12. In view of the previous principle, a mechanism is provided by which the requester can indicate if his request is 'final' (i.e. the provider is allowed to send the requested data) or if it is a request for an estimate or a firm quotation (i.e. the provider is to supply an indication of totals and/or prices). The 'request type' in the GIS segment on message top level caters for this mechanism.

13. Each occurrence of the LIN segment group specifies one selection criterion. Two or more selection criteria can be related to each other through the use of logical operators (e.g. AND, OR). The structure of the message is flexible enough to cater for complex requests - however in practice a single AND or OR relation will normally suffice. (A complex request will need to be specified by the user on his data input screen, requiring extensive programming and user interfacing.) The logical operator (when applicable) for each LIN-group will be specified in the GIS segment under LIN.

14. Allowable logical operators are:

- * AND
- * OR - meaning in effect: and/or
- * IF
- * THEN
- * (
- *)

The operators IF and THEN (always used together) can be used only in the case of 'conditional' requests, e.g. when certain data are requested PROVIDED that the average speed on a certain road section

has dropped below a threshold value.

An operator '(' which is specified in the GIS segment of an occurrence of the LIN-group shall be interpreted to PRECEDE the selection criterion as given in the same occurrence of the LIN-group. Similarly, an operator ')' shall be interpreted to FOLLOW the selection criterion given in the same occurrence of the LIN-group. All other operators shall be interpreted to PRECEDE the selection criterion.

In the following examples A, B, C, etc., each stand for one selection criterion. Note that the order of repeated GIS segments within one occurrence of the LIN-group is not important. The correct order of the selection criteria in the formula can be derived from the sequential number in each LIN segment (i.e. data element 1082).

EXAMPLE 1: A and B

- LIN-group where data element 1082=1 details A
- LIN-group where data element 1082=2 details B
- GIS under LIN specifies AND

EXAMPLE 2: A and (B or C)

- LIN-group where data element 1082=1 details A
- LIN-group where data element 1082=2 details B
- 1st GIS under LIN specifies AND
- 2nd GIS under LIN specifies (
- LIN-group where data element 1082=3 details C
- 1st GIS under LIN specifies OR
- 2nd GIS under LIN specifies)

EXAMPLE 3: (A and (B or C)) or D

- LIN-group where data element 1082=1 details A
- 1st GIS under LIN specifies (
- LIN-group where data element 1082=2 details B
- 1st GIS under LIN specifies AND
- 2nd GIS under LIN specifies (
- LIN-group where data element 1082=3 details C
- 1st GIS under LIN specifies OR
- 2nd GIS under LIN specifies)
- 3rd GIS under LIN specifies)
- LIN-group where data element 1082=4 details D
- 1st GIS under LIN specifies OR

EXAMPLE 4: if A then (B or C)

- LIN-group where data element 1082=1 details A
- 1st GIS under LIN specifies IF
- LIN-group where data element 1082=2 details B
- 1st GIS under LIN specifies THEN
- 2nd GIS under LIN specifies (
- LIN-group where data element 1082=3 details C
- 1st GIS under LIN specifies OR
- 2nd GIS under LIN specifies)

2. REFERENCES

See UNTDID, Part 4, Section 2.6, UN/ECE UNSM - General Introduction, Section 1.

3. TERMS AND DEFINITIONS

See UNTDID, Part 4, Section 2.6, UN/ECE UNSM - General Introduction, Section 2.

4. MESSAGE DEFINITION

4.1 Data Segment Clarification

This section should be read in conjunction with the Branching Diagram and the Segment Table which indicate mandatory, conditional and repeating requirements.

0010 UNH, Message header

A service segment starting and uniquely identifying the message. The message type code for the Traffic or travel information request message is 'TRAREQ'.

Note: Traffic/travel information request messages conforming to this document must contain the following data in segment UNH, composite S009:

Data element 0065 TRAREQ
0052 0
0054 1
0051 RT

0020 BGM, Beginning of message

A segment to indicate the beginning of a message and to transmit the identifying number, e.g. by request number within the application. The segment can also be used to provide further specification of the message type (through data element 1001: Document/message name, coded), which indicates the type of the information required. Data element 1225 in this segment can be used where the message cancels or ends an earlier (request) message, given in RFF on message top level.

0030 DTM, Date/time/period

A segment to time-stamp the message. This segment can also be used to indicate other date/times which apply to the message as a whole, such as: - beginning of request period - end of request period - delivery interval (periodic delivery mode)

0040 GIS, General indicator

A segment to provide an indicator, such as delivery mode or request type. The delivery mode can be 'one shot' (information required once only), periodic (information required at specified intervals) or continuous (information required as soon as it is available). The request type can be request for estimate, request for a firm quotation or request for data.

0050 Segment Group 1: RFF-DTM

A group of segments to specify references relating to the whole message, and associated dates and/or times.

0060 RFF, Reference

A segment to indicate a contract reference number and password. It can also be used to indicate a related earlier request message in case of, for example, a modified selection criterion.

0070 DTM, Date/time/period

A segment to provide a date and/or time relating to the reference.

- 0080 NAD, Name and address
A segment to indicate the identity of the message sender within the application.
- 0090 Segment Group 2: LIN-GIS-RFF-DTM-LOC-STS-QTY
A group of segments to define a required traffic or travel information selection criterion. Only one criterion should be set in each occurrence of the segment group. Selection criteria can be related to each other (e.g. A OR B) through the use of parentheses and logical operators (e.g. AND), each of which is to be specified in a separate GIS segment.
- 0100 LIN, Line item
A segment to number each selection criterion, necessary to maintain the correct order of selection criteria in a total formula.
- 0110 GIS, General indicator
A segment to define a logical operator or parenthesis (whose function was further clarified in section 1.3 - Principles). The segment can also be used to indicate the required situation severity threshold, to indicate the required quality index threshold, to set a forecast indicator, or to indicate the threshold crossing direction (> or <) to be applied to a threshold specified in QTY or DTM of this segment group. In the case of thresholds, only information having values of parameters greater than (or less than) the given threshold are being requested.
- 0120 RFF, Reference
A segment to indicate a reference applying to the selection criterion, such as extended location type reference.
- 0130 DTM, Date/time/period
A segment to indicate the times associated with the request. The segment can for example be used to select situations occurring during specified periods of the day or week; to set the minimum duration threshold for messages; or to indicate the preferred measurement period in tables of traffic data.
- 0140 LOC, Place/location identification
A segment to define the geographic coverage of the request.
- 0150 STS, Status
A segment to specify the characteristics of the travel situations (event or status) required, in terms of e.g. phrase code, cause, data object, description category, etc.
- 0160 QTY, Quantity
A segment to indicate a quantity threshold for information selection. The threshold crossing direction (> or <) can be specified by default for each type of quantity, or if so required the threshold crossing direction indicator in the GIS segment (of this segment group) can be used to override the default indicator.
- 0170 UNT, Message trailer
A service segment ending a message giving the total number of segments in the message and the control reference number of the

* STS	STATUS			NA
	Function:			FU
	C601		C	
	C555	STATUS EVENT	C	DI
	9011	Status event, coded	M an..3	
	1131	Code list qualifier	C an..3	
	3055	Code list responsible agency, coded	C an..3	
	C556	STATUS REASON	C	DI
	9013	Status reason, coded	M an..3	
	1131	Code list qualifier	C an..3	
	3055	Code list responsible agency, coded	C an..3	
	9012	Status reason	C an..35	

5.2.2 Composite Variation

* C601				NA
	Desc:			FU
	9015	Status type, coded	M an..3	DI
	1131	Code list qualifier	C an..3	DI
	3055	Code list responsible agency, coded	C an..3	DI

5.2.3 Data Element Variation