



U.S. Department of
Transportation



Intelligent Transportation Systems Standards Fact Sheet

NTCIP 1403

August 2002

Transit Communications Interface Profiles (TCIP) Passenger Information Business Area Standard

Overview

The Transit Communications Interface Profiles (TCIP) is a family of standards that specifies the rules and terms for the automated exchange of information in transit applications, such as operations, maintenance, planning, management, and customer services. TCIP standards define the information and information-transfer requirements among public transportation vehicles (PTVs), transit management centers (TrMCs), other transit facilities, and ITS centers. TCIP standards also identify mechanical and electrical interfaces (physical layer) and methods for ensuring data integrity (data-link layer), specify required message sets, and provide a common set of conformance requirements.

This standard, **NTCIP 1403, TCIP Passenger Information Business Area Standard**, defines the passenger information data elements (called “objects”) that are supported by the TCIP for passenger customer service. The passenger information domain deals with data needs related to providing passengers with the information necessary for planning and taking trips using public transportation. The data element needs that are supported by this standard include data associated with traveler preferences (departure time, arrival time, mode, and cost), expected times of arrival, schedules, and other information related to transit services. The standard also supports transit data element needs of many types of information services, such as customer service information centers, regional traveler information services, and information service providers (ISPs). The information may be supplied to users via the Internet, dynamic message signs, or interactive information kiosks. The passenger information domain relies heavily on the TCIP scheduling business area for support data such as transit schedules and vehicle assignments, and on the TCIP control center business area for real-time travel information.

The NTCIP family of standards is a joint project of the following standards development organizations:

American Association of State Highway and Transportation Officials (AASHTO)

Institute of Transportation Engineers (ITE)

National Electrical Manufacturers Association (NEMA)

(Contact information is shown at the end of this fact sheet)

To obtain a copy of this standard, please contact:

Global Engineering Documents

Web site: <http://global.ihs.com>

Publication Date: December 2000

What is this standard for?

The TCIP passenger information business area standard allows real-time information on schedules, schedule adherence, and transit amenities to be provided to ISPs, TMCs, intermodal transportation operators, other transit managers and, most importantly, transit passengers. It allows the passenger information business area to receive information from TMCs, transit vehicle systems, transit garage management systems (TrGMS), other TrMCs, parking management systems, intermodal transportation service providers, and planning systems.

Who uses it?

This standard is intended for use by transit managers, software vendors and procurement personnel involved in the specification, selection, procurement, installation, operation, or maintenance of electronic transit passenger information applications. In addition, ISPs will use this standard for a variety of traveler information services.

How is it used?

This standard provides a list of objects (data elements) and messages necessary for conducting control center or transit management operations. It must be used in conjunction with the TCIP Framework Standard (NTCIP 1400). The TCIP Framework Standard organizes the information and data transfer requirements among public transportation vehicles, transit management centers, transit facilities, and other ITS centers. The Framework Standard also identifies physical and data link

communication requirements, develops required message sets, and establishes a liaison between the Institute of Transportation Engineers (ITE) and other standards development organizations (SDOs).

Scope

The passenger information business area standard defines the data that are needed to provide passengers with information for planning trips using public transportation services.

Related documents

ISO/IEC 8824: 1994 – Abstract Syntax Notation One (ASN.1)

[IEEE Std 1488-2000 – Trial Use Standard for Message Set Template for Intelligent Transportation Systems](#)

[IEEE Std 1489-1999 – Standard for Data Dictionaries for Intelligent Transportation Systems](#)

[IEEE Std 1512-2000 – Standard for Common Incident Management Message Sets for Emergency Management Centers](#)

[NTCIP 1400 -- Transit Communications Interface Profiles \(TCIP\) Framework Standard](#)

[NTCIP 1401 -- Transit Communications Interface Profiles \(TCIP\) Common Public Transportation \(CPT\) Objects](#)

[NTCIP 1404 -- Transit Communications Interface Profiles \(TCIP\) Scheduling \(SCH\) Business Area Standard](#)

[NTCIP 1405 -- Transit Communications Interface Profiles \(TCIP\) Spatial Representation \(SP\) Business Area Standard](#)

[NTCIP 1408 -- Transit Communications Interface Profiles \(TCIP\) Fare Collection \(FC\) Objects](#)

[NTCIP 1203 -- National Transportation Communications for ITS Protocol \(NTCIP\) Objects for Dynamic Message Signs \(DMS\)](#)

[SAE J2353 – Advanced Traveler Information Systems \(ATIS\) Data Dictionary](#)

[SAE J2354 – Advanced Traveler Information Systems \(ATIS\) Message Sets](#)

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