TECHNICAL SPECIFICATION

SPÉCIFICATION TECHNIQUE

TECHNISCHE SPEZIFIKATION

CEN/TS 15531-4

May 2011

ICS 35.240.60

English Version

Public transport - Service interface for real-time information relating to public transport operations - Part 4: Functional service interfaces: Facility Monitoring

Transport Public - Service d'échanges de données temps réel pour le Transport en Commun - Partie 4: interfaces de service fonctionnel: Supervision des services et des équipements

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Ref. No. CEN/TS 15531-4:2011: E

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Foreword

This document (CEN/TS 15531-4:2011) has been prepared by Technical Committee CEN/TC 278 “Road transport and traffic telematics”, the secretariat of which is held by NEN.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document describes the SIRI Facility Monitoring service, one of a modular set of services for the exchange of Real-time information. The Facility Monitoring service (SIRI-FM) is concerned with the exchange of information about alterations to the availability of facilities for passengers among systems, including equipment monitoring, real-time management and dissemination systems.

The SIRI Facility Monitoring service (SIRI-FM) is an additional service based on the European Technical Specification known as "SIRI" − Service Interface for Real-time Information. SIRI provides a framework for specifying communications and data exchange protocols for organisations wishing to exchange Real-time Information (RTI) relating to public transport operations.

SIRI is presented in three parts:

a) context and framework, including background, scope and role, normative references, terms and definitions, symbols and abbreviations, business context and use cases (CEN/TS 15531-1);

b) the mechanisms to be adopted for data exchange communications links (CEN/TS 15531-2);

c) data structures for a series of individual application interface modules (CEN/TS 15531-3):

    1) Production Timetable (SIRI-PT);

    2) Estimated Timetable (SIRI-ET);

    3) Stop Timetable (SIRI-ST);

    4) Stop Monitoring (SIRI-SM);

    5) Vehicle Monitoring (SIRI-VM);

    6) Connection Timetable (SIRI-CT);

    7) Connection Monitoring (SIRI-CM);

    8) General Message (SIRI-GM).

Additional documents are used for additional functional services, to date these are:

d) Facilities Management (SIRI-FM) (this document, CEN/TS 15531-4);

e) Situation Exchange (SIRI-SX): The SIRI Situation & Incident Exchange service is used to exchange information messages between identified participants in a standardised structured format suitable for travel information services. It enables messages to be sent and to be revoked. Messages are assigned validity periods in addition to the actual content (CEN/TS 15531-5).

The XML schema can be downloaded from http://www.siri.org.uk/, along with available guidance on its use, example XML files, and case studies of national and local deployments. The SIRI-FM service is included in version 1.3 of the schema onwards.

It is recognised that SIRI is not complete as it stands, and it is designed such that it can be extended over the coming years. Further work is directed by a SIRI Management Group which exists at European level, based on the composition of SG7.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

Public transport services rely increasingly on information systems to ensure reliable, efficient operation and widely accessible, accurate passenger information.

Well-defined, open interfaces have a crucial role in improving the economic and technical viability of Public Transport Information Systems of all kinds. Using standardised interfaces, systems can be implemented as discrete pluggable modules that can be chosen from a wide variety of suppliers in a competitive market, connecting diverse systems, rather than as monolithic proprietary systems from a single supplier. Interfaces also allow the systematic automated testing of each functional module, vital for managing the complexity of increasing large and dynamic systems. Furthermore, individual functional modules can be replaced or evolved, without unexpected breakages of obscurely dependent function.

The SIRI framework is a European Technical Specification that provides a specification for a number of functional interfaces that allow public transport data of specific types to be exchanged readily using structured interfaces.

The SIRI: **Facility Monitoring (SIRI-FM)** service defined in this document enables the exchange of information on the current status of facilities. It provides a short description of the facility itself, the availability status and specifically the impact of the availability status for various categories of disabled or incapacitated people. The service provides all the current relevant information relating to all facilities fulfilling a set of selection criteria. Both query and publish subscribe interactions are supported.

1 Scope

This Technical Specification specifies an additional SIRI functional service to exchange information about changes to availability of Public Transport facilities between monitoring systems and servers containing real-time public transport vehicle or journey time data. These include the control centres of transport operators, as well as information systems that deliver passenger travel information services.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

CEN/TS 15531-1:2007, *Public transport — Service interface for real-time information relating to public transport operations — Part 1: Context and framework*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in CEN/TS 15531-1:2007 and the following apply.

For each term, it is indicated whether the term derives from TransModel (ENV 12896 version 5.0) and its extension IFOPT (CEN/TS 28701:2010), or whether the term is specific to SIRI (CEN/TS 15531 (all parts)).

3.1
facility [SIRI]
equipment or service that provides a specific convenience or service to passengers

EXAMPLES Ticket machines, elevators, mechanical stairs, toilets, porterage, left luggage, etc.

NOTE A facility may be an equipment, a service, a personal device or a reserved area.

3.2
facility condition [SIRI]
particular mode of being of a facility; describing its state and availability

3.3
facility class [SIRI]
categorisation of the type of a facility

EXAMPLE Equipment, service, personal device or reserved area.

3.4
passenger accessibility assessment [IFOPT]
categorisation of the ACCESSIBILITY characteristics of a PASSENGER to indicate their requirements for ACCESSIBILITY

EXAMPLE That are unable to navigate stairs, or lifts, or have visual or Auditory impairments. PASSENGER ACCESSIBILITY TYPE corresponds to one or more ACCESSIBILITY LIMITATIONs, allowing the computation of paths for passengers with constrained mobility. For example, Wheelchair, No Lifts, No Stairs.

3.5
user need [IFOPT]
ACCESSIBILITY requirement of a PASSENGER