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INTERNATIONAL STANDARD

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Configurable car infotainment services (CCIS) – Part 2: Requirements

Services d'infodivertissements configurables pour les véhicules (CCIS) – Partie 2: Exigences



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Configurable car infotainment services (CCIS) – Part 2: Requirements

Services d'infodivertissements configurables pour les véhicules (CCIS) – Partie 2: Exigences

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

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CONFIGURABLE CAR INFOTAINMENT SERVICES (CCIS) –

Part 2: Requirements

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IEC 63246-2 has been prepared by technical area 17: Multimedia systems and equipment for vehicles, of IEC technical committee 100: Audio, video and multimedia systems and equipment. It is an International Standard.

The text of this International Standard is based on the following documents:

Draft	Report on voting
100/3508/CDV	100/3627/RVC

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

A list of all parts in the IEC 63246 series, published under the general title *Configurable car infotainment services (CCIS)*, can be found on the IEC website.

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This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

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- replaced by a revised edition, or
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INTRODUCTION

The market for car infotainment services (also known as "in-vehicle infotainment systems") has been growing rapidly, as reflected by the growth of the associated industries. It is expected that a variety of car infotainment (or multimedia) devices and services will be developed in the future. Such devices include navigation, cameras, speakers, headrest displays, air-conditioners, thermometers, heated seats, and lights. It is also expected that some devices will be developed to provide 4-dimensional experiences for users.

Car infotainment systems typically include A/V features (such as standard radio and CD players), and two-way communications tools, as well as hands-free phone connections, vehicle voice commands, and other types of interactive audios or videos. Car infotainment systems have evolved to allow passengers to watch movies and other visual media (for example, DVD players installed on the rear seats). Another distinctive feature of future car infotainment systems is mobile device connectivity. Newer vehicles will provide a wide range of systems that allow devices (e.g. smartphones and laptops) to be connected to a variety of services embedded in the vehicle.

From this observation, there is a crucial need for standardization to provide car infotainment users with more enhanced services so as to easily manage and control infotainment devices as well as content within a car.

The purpose of the IEC 63246 series is to specify the general considerations, requirements, framework, and protocols to provide car users with the functionality of managing and controlling device and content resources within a car.

The IEC 63246 series consists of the following parts:

– Part 1: General;
– Part 2: Requirements;
– Part 3: Framework; and
– Part 4: Protocol.

IEC 63246-1 describes the general considerations of CCIS, which includes the CCIS system model and the types of CCIS users with the associated service flows.

IEC 63246-2 describes the requirements for CCIS, which include the CCIS functional entities, the communication model, and the functional requirements.

IEC 63246-3 describes the CCIS framework, which includes the information flows between functional entities and the CCIS operations, such as registration, device monitoring and control, and data transfer.

IEC 63246-4 describes the CCIS protocol, which includes the protocol messages and parameters, protocol procedures, implementation guidelines, etc.

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CONFIGURABLE CAR INFOTAINMENT SERVICES (CCIS) –

Part 2: Requirements

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1 Scope

This part of IEC 63246 specifies the CCIS requirements, which include the general, functional and service requirements for CCIS.

2 Normative references

The following document is referred to in the text in such a way that some or all of their content constitutes requirements 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.

IEC 63246-1, *Configurable car infotainment services – Part 1: General*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 63246-1 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

4 General requirements

4.1 General

Clause 4 describes the general requirements for CCIS. CCIS can provide a wide variety of services for CCIS users, with the help of a CCIS master and CCIS devices. CCIS shall be able to support multiple users and to control and monitor many infotainment devices.

In general, CCIS shall provide the following functionalities:

- user registration and deregistration;
- device registration;
- service provisioning as per the authority;
- device monitoring
- device control; and
- content delivery.

4.2 User registration and deregistration

CCIS provides the services for one or more users at the same time via the CCIS master. Each user shall have a different level of authority to access the devices. To effectively support many users, all users shall be registered and certified with the CCIS master. The profile of the public