

ICS 35.240.60

**Elektromobilität –
Schemata für Identifikatoren für E-Roaming –
Contract ID und EVSE ID; Text Englisch**

Electric mobility –
Schemes of identifiers for E-Roaming –
Contract ID and Electric Vehicle Supply Equipment ID; Text in English

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Bereich Innovation

Foreword

This document aims to be the base for further international standardization of identification schemes in order to allow for a user-friendly and efficient transnational electric mobility experience.

We thank all the participants of the “Fachgruppe Interoperabilität” within the accompanying research of the research program “Information and Communication Technology for Electric Mobility” for their valuable input.

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Introduction

A number of research projects with focus on information and communication technology (ICT) for electric mobility revealed the need for inter-organizationally standardized identifiers of selected entities around an electrically motorized individual traffic (E-Mobility). In particular, the charging and discharging of Electric Vehicles (EV) at an Electric Vehicle Supply Equipment (EVSE) within an existing contract requires a fundamental set of identifiers that are guaranteed to be unique beyond organizational borders.

Considering two main communication scenarios in relation with EVSE (see A.1), the unique identification of the following entities is required or useful for efficient inter-organizational E-Roaming processes: E-Mobility Operator, EVSE Operator, Contract and EVSE.

In order to guarantee the uniqueness of these identifiers, a central issuing authority and coordinated assigning process is needed. However, these issues are not addressed in this document.

1 Scope

This document defines schemes that allow deriving identifiers for objects in the area of E-Mobility. The schemes can be used at human machine interfaces as well as for pure machine-to-machine communication. The schemes aim to be used within communication as defined by standards such as the currently developed ISO/IEC 15118.

Two schemes are defined: Identifiers derived from the first scheme identify the contract between an E-Mobility Operator and its customer. Identifiers derived from the second scheme identify an EVSE of an EVSE Operator.

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.

DIN EN ISO 3166-1:2007: *Codes for the representation of names of countries and their subdivisions — Part 1: Country codes (Alpha-2-Code)*

ITU-T E.164 (11/2010), Series E: *Overall Network Operation, Telephone Service, Service Operation and Human Factors : International operation — Numbering plan of the international telephone service*

ISO/IEC 10646-1:2000, *Universal Multiple-Octet Coded Character Set (UCS) — Part 1: Architecture and Basic Multilingual Plane, Annex D (UTF-8)*, zurückgezogen! Nachfolger ISO/IEC 10646:2011

ISO/IEC 15118-1, Ed. 1.0, 2. Committee Draft: *Road vehicles — Vehicle to grid communication interface — Part 1: General information and use-case definition*

ISOC RFC 2141:1997: *URN Syntax*

ISOC RFC 3406:2002: *Uniform Resource Names (URN) Namespace Definition Mechanisms*

ISOC RFC 3629:2003: *UTF-8, a transformation format of ISO 10646*

ISOC RFC 3986:2005: *Uniform Resource Identifier (URI): Generic Syntax*

ISOC RFC 5234:2008: *Augmented BNF for Syntax Specifications: ABNF*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 15118-1, 2: Committee Draft and the following apply.

3.1

contract ID (EVCOLD)

unique identifier of a contract that is used to enable charging and related services (incl. billing)

3.2

E-Roaming

charging or discharging of Electric Vehicles (EV) at an Electric Vehicle Supply Equipment (EVSE) via an existing contract between an E-Mobility Operator that is not the EVSE Operator of this EVSE

3.3

E-Mobility

electrically propelled road traffic