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**Združevanje aplikacij v elektropodjetjih - Sistemski vmesniki za upravljanje distribucije - 9. del: Vmesniški standard za odbiranje stanja električnih števecv in krmiljenje (IEC 61968-9:2009)**

Application integration at electric utilities - System interfaces for distribution management - Part 9: Interface standard for meter reading and control (IEC 61968-9:2009)

Integration von Anwendungen in Anlagen der Elektrizitätsversorgung - Systemschnittstellen für Netzführung - Teil 9: Zählerfernauslesung und -steuerung (IEC 61968-9:2009)

Intégration d'applications pour les services électriques - Système d'interfaces pour la gestion de la distribution - Partie 9: Interface pour les lectures de mesure et la conduite (IEC 61968-9:2009)

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**Application integration at electric utilities -  
System interfaces for distribution management -  
Part 9: Interface for meter reading and control  
(IEC 61968-9:2009)**

Intégration d'applications  
pour les services électriques -  
Système d'interfaces  
pour la gestion de la distribution -  
Partie 9: Interface pour les lectures  
de mesure et la conduite  
(CEI 61968-9:2009)

Integration von Anwendungen  
in Anlagen der Elektrizitätsversorgung -  
Systemschnittstellen für Netzführung -  
Teil 9: Zählerfernauslesung  
und -steuerung  
(IEC 61968-9:2009)

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European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Central Secretariat: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document 57/1009/FDIS, future edition 1 of IEC 61968-9, prepared by IEC TC 57, Power systems management and associated information exchange, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61968-9 on 2009-10-01.

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- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2010-07-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2012-10-01

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 61968-9:2009 was approved by CENELEC as a European Standard without any modification.

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## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-300	- <sup>1)</sup>	International Electrotechnical Vocabulary - Electrical and electronic measurements and measuring instruments - Part 311: General terms relating to measurements - Part 312: General terms relating to electrical measurements - Part 313: Types of electrical measuring instruments - Part 314: Specific terms according to the type of instrument	-	-
IEC 61968-1	- <sup>1)</sup>	Application integration at electric utilities - System interfaces for distribution management - Part 1: Interface architecture and general requirements	EN 61968-1	2004 <sup>2)</sup>
IEC/TS 61968-2	-	Application integration at electric utilities - System interfaces for distribution management - Part 2: Glossary	-	-
IEC 61968-3	- <sup>1)</sup>	Application integration at electric utilities - System interfaces for distribution management - Part 3: Interface for network operations	EN 61968-3	2004 <sup>2)</sup>
IEC 61970-301	- <sup>1)</sup>	Energy management system application program interface (EMS-API) - Part 301: Common information model (CIM) base	-	-
IEC/TR 62051-1	- <sup>1)</sup>	Electricity metering - Data exchange for meter reading, tariff and load control - Glossary of terms - Part 1: Terms related to data exchange with metering equipment using DLMS/COSEM	-	-
IEC 62055-31	- <sup>1)</sup>	Electricity metering - Payment systems - Part 31: Particular requirements - Static payment meters for active energy (classes 1 and 2)	EN 62055-31	2005 <sup>2)</sup>
IEC 62056	Series	Electricity metering - Data exchange for meter reading, tariff and load control	EN 62056	Series

<sup>1)</sup> Undated reference.

<sup>2)</sup> Valid edition at date of issue.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO 4217	- <sup>1)</sup>	Codes for the representation of currencies and funds	-	-
ISO 8601	2004	Data elements and interchange formats - Information interchange - Representation of dates and times	-	-
ANSI C12.19	- <sup>1)</sup>	Utility Industry End Device Data Tables	-	-

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IEC 61968-9

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# INTERNATIONAL STANDARD



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**Application integration at electric utilities – System interfaces for distribution management –  
Part 9: Interfaces for meter reading and control**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**APPLICATION INTEGRATION AT ELECTRIC UTILITIES –  
SYSTEM INTERFACES FOR DISTRIBUTION MANAGEMENT –**
**Part 9: Interfaces for meter reading and control**

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 61968-9 has been prepared by IEC technical committee 57: Power systems management and associated information exchange.

The text of this standard is based on the following documents:

FDIS	Report on voting
57/1009/FDIS	57/1020/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in IEC 61968 series, under the general title: *Application integration at electric utilities – System interfaces for distribution management*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

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## INTRODUCTION

The purpose of this document is to define a standard for the integration of metering systems (MS), which would include traditional (one or two-way) automated meter reading (AMR) systems, with other systems and business functions within the scope of IEC 61968. The scope of this standard is the exchange of information between a metering system and other systems within the utility enterprise. The specific details of communication protocols those systems employ are outside the scope of this standard. Instead, this standard will recognize and model the general capabilities that can be potentially provided by advanced and/or legacy meter infrastructures, including two-way communication capabilities such as load control, dynamic pricing, outage detection, distributed energy resource (DER) control signals and on-request read. In this way, this standard will not be impacted by the specification, development and/or deployment of next generation meter infrastructures, either through the use of standards or proprietary means.

The IEC 61968 series of standards is intended to facilitate inter-application integration as opposed to intra-application integration. Intra-application integration is aimed at programs in the same application system, usually communicating with each other using middleware that is embedded in their underlying runtime environment, and tends to be optimized for close, real-time, synchronous connections and interactive request/reply or conversation communication models. Therefore, these interface standards are relevant to loosely coupled applications with more heterogeneity in languages, operating systems, protocols and management tools. This series of standards is intended to support applications that need to exchange data every few seconds, minutes, or hours rather than waiting for a nightly batch run. This series of standards, which are intended to be implemented with middleware services that exchange messages among applications, will complement, not replace utility data warehouses, database gateways, and operational stores.

As used in IEC 61968, a distribution management system (DMS) consists of various distributed application components for the utility to manage electrical distribution networks. These capabilities include monitoring and control of equipment for power delivery, management processes to ensure system reliability, voltage management, demand-side management, outage management, work management, automated mapping and facilities management. Standard interfaces are defined for each class of applications identified in the interface reference model (IRM), which is described in IEC 61968-1: System interfaces for distribution management – Part 1: Interface architecture and general requirements.