



# TECHNICAL SPECIFICATION



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**Electricity metering data exchange – The DLMS/COSEM suite –  
Part 9-1: Communication profile using web-services to access a DLMS/COSEM  
server via a COSEM Access Service (CAS)**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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## CONTENTS

FOREWORD.....	4
1 Scope.....	6
2 Normative references.....	6
3 Terms, definitions and abbreviations .....	7
4 Relation to the IEC 62056 smart metering architecture .....	8
4.1 Overview.....	8
4.2 Example: Using the S-FSK profile according to IEC 62056-8-3 .....	8
5 Use cases .....	8
5.1 General.....	8
5.2 Use case: Device Access .....	9
5.2.1 Overview .....	9
5.2.2 On-demand Device Access .....	9
5.2.3 Scheduled Device Access .....	11
5.2.4 Device Access with Data-Notification.....	14
5.3 Use case: Device groups.....	15
6 Web services interface model .....	15
7 Message organisation for the WS interface.....	15
7.1 Overview.....	15
7.2 IEC 62056 messages .....	15
7.2.1 Overview .....	15
7.2.2 General .....	15
7.2.3 Verbs.....	16
7.2.4 Nouns.....	17
7.2.5 Payloads.....	17
7.2.6 Payload for noun Device Access .....	17
7.3 Common Message Envelope .....	23
7.3.1 Overview .....	23
7.3.2 General .....	23
7.3.3 Message header structure .....	23
7.3.4 Request message structure .....	25
7.3.5 Response message structure .....	27
7.3.6 Event message structure.....	30
7.3.7 Fault message structure .....	31
8 Interface specification.....	32
8.1 Overview.....	32
8.2 Interface using SOAP .....	32
8.2.1 General .....	32
8.2.2 WSDL structure.....	33
8.2.3 SOAP envelope .....	33
Annex A (informative) XML schema for the COSEM XML representation .....	35
A.1 COSEMpdu.....	35
A.2 XML schema for the payload definitions.....	56
A.2.1 DeviceAccess .....	56
A.2.2 DeviceGroup.....	57
A.3 XML Schema for common message envelope .....	57

A.4 WSDL for interface using SOAP .....	58
Bibliography .....	59
Figure 1 – Reference model for the COSEM Access Client to DLMS/COSEM server connection via a COSEM Access Service .....	6
Figure 2 – The smart metering architecture of IEC 62056.....	8
Figure 3 – Use case: On-demand Device Access.....	10
Figure 4 – Use case: Scheduled Device Access .....	12
Figure 5 – Use case: Scheduled Device Access with Events .....	13
Figure 6 – Use case: Device Access with Data-Notification .....	14
Figure 7 – IEC 62056 messages between CAS Client and COSEM Access Service (CAS).....	16
Figure 8 – DeviceAccess overview structure.....	17
Figure 9 – DeviceGroups structure .....	18
Figure 10 – CosemAccessDescriptor sub-structure .....	19
Figure 11 – ACSEDescriptor sub-structure .....	19
Figure 12 – XDLMSDescriptor substructure .....	20
Figure 13 – cosemAccessResult substructure.....	21
Figure 14 – errorResult substructure .....	21
Figure 15 – ACSEResult substructure .....	21
Figure 16 – XDLMSResult substructure .....	22
Figure 17 – Common Message Envelope.....	23
Figure 18 – Common Message header structure .....	24
Figure 19 – RequestMessage structure .....	26
Figure 20 – XML for RequestMessage to create DeviceAccess .....	27
Figure 21 – ResponseMessage structure.....	28
Figure 22 – XML for ResponseMessage on create DeviceAccess.....	29
Figure 23 – EventMessage structure .....	30
Figure 24 – XML for EventMessage on change of DeviceAccess.....	31
Figure 25 – FaultMessage structure .....	32
Figure 26 – XML for FaultMessage on create of DeviceAccess .....	32
Figure 27 – SOAP message with RequestMessage.....	34

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### **ELECTRICITY METERING DATA EXCHANGE – THE DLMS/COSEM SUITE –**

#### **Part 9-1: Communication profile using web-services to access a DLMS/COSEM server via a COSEM Access Service (CAS)**

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- the subject is still under technical development or where, for any other reason, there is the future but no immediate possibility of an agreement on an International Standard.

Technical specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC TS 62056-9-1, which is a technical specification, has been prepared by IEC technical committee 13: Electrical energy measurement and control.

The text of this technical specification is based on the following documents:

Enquiry draft	Report on voting
13/1641/DTS	13/1662/RVC

Full information on the voting for the approval of this technical specification 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 the IEC 62056 series, published under the general title *Electricity metering data exchange – The DLMS/COSEM suite*, can be found on the IEC website.

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

- transformed into an International standard,
- 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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## ELECTRICITY METERING DATA EXCHANGE – THE DLMS/COSEM SUITE –

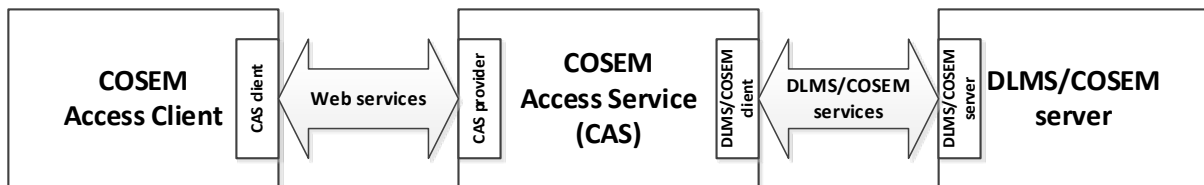
### Part 9-1: Communication profile using web-services to access a DLMS/COSEM server via a COSEM Access Service (CAS)

#### 1 Scope

This part of IEC 62056, which is a Technical Specification, defines how DLMS/COSEM servers can be accessed from a COSEM Access Client via an intermediate COSEM Access Service (CAS) providing Web services. The DLMS/COSEM server contains an application server supporting the data model of IEC 62056-6-1 / IEC 62056-6-2 and the application layer of IEC 62056-5-3. The underlying communication layers between the CAS and the DLMS/COSEM server are not covered by this specification. However, it is assumed that a profile standard exists describing how the underlying communication technology is used in conjunction with IEC 62056-6-1/ IEC 62056-6-2 and IEC 62056-5-3.

The Web services defined in this Technical Specification concern the G2 interface according to the architecture defined in IEC 62056-1-0.

The contents of this document define the Web services between the COSEM Access Client and the COSEM Access Service (CAS) as shown in Figure 1.



IEC

**Figure 1 – Reference model for the COSEM Access Client to DLMS/COSEM server connection via a COSEM Access Service**

The COSEM Access Client identifies the DLMS/COSEM server by its system title (see IEC 62056-5-3).

#### 2 Normative references

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

IEC 61968-1:2012, *Application integration at electric utilities – System interfaces for distribution management – Part 1: Interface architecture and general recommendations*

IEC 61968-100:2013, *Application integration at electric utilities – System interfaces for distribution management – Part 100: Implementation profiles*

IEC 62056-1-0, *Electricity metering data exchange – Part 1-0: Smart metering standardization framework*

IEC 62056-5-3, *Electricity metering data exchange – The DLMS/COSEM suite – Part 5-3: DLMS/COSEM application layer*

IEC 62056-6-1, *Electricity metering data exchange – The DLMS/COSEM suite – Part 6-1: Object Identification System (OBIS)*

IEC 62056-6-2, *Electricity metering data exchange – The DLMS/COSEM suite – Part 6-2: COSEM interface classes*

IEC 62056-8-3, *Electricity metering data exchange – The DLMS/COSEM suite – Part 8-3: Communication profile for PLC S-FSK neighbourhood networks*