American National Standard for Electricity Metering Data Exchange – The DLMS/COSEM Suite

Part 8-8: Communication Profile for ISO/IEC 14908 Series Networks

ANSI C12/IEC 62056-8-8 ED1

Published by:
National Electrical Manufacturers Association
1812 North Moore Street, Suite 2200
Arlington, VA 22209

www.nema.org

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This standard contains all the original text from IEC 62056-8-8 Ed.1 without change.

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CONTENTS

FOREWORD 12
INTRODUCTION 14
1 Scope 15
2 Normative references 15
3 Terms, definitions and abbreviated terms 16
3.1 Terms and definitions 16
3.2 Abbreviated terms 17
4 Targeted communication environments 19
5 Use of the communication layers for this profile 20
5.1 Information related to the use of the standard specifying the lower layers 20
5.2 The structure of the communication profile 20
5.3 Lower layers and their use 21
5.3.1 Overview 21
5.3.2 Physical layer 21
5.3.3 Data link layer 21
5.3.4 Network layer 21
5.3.5 Transport layer 22
5.4 Service mapping and Adaptation layer 22
5.4.1 Overview 22
5.4.2 Adaptation layer 22
5.5 Registration and connection management 34
6 Identification and addressing schemes 34
7 Specific considerations for the application layer services 35
7.1 Overview 35
7.2 Application Association establishment and release: ACSE services 35
7.2.1 Application association establishment 35
7.2.2 Application association release 36
7.2.3 COSEM-OPEN and COSEM-RELEASE service parameters 36
7.3 xDLMS services 36
7.4 Security mechanisms 37
7.4.1 DLMS/COSEM security 37
7.4.2 Adaptation layer security 37
7.4.3 Lower layers security 37
7.5 Transferring long application messages 37
7.6 Media access, bandwidth and timing considerations 37
7.7 Other considerations 37
8 Communication configuration and management 38
9 The COSEM Application Process 38
10 Additional considerations for the use of this profile 38
Annex A (informative) Examples 39

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Annex B (normative) Interface classes 40
B.1 Interface classes 40
B.1.1 ISO/IEC 14908 Identification 40
B.1.2 ISO/IEC 14908 Protocol setup 40
B.1.3 ISO/IEC 14908 Protocol status 41
B.1.4 ISO/IEC 14908 Diagnostic 42
B.2 Relation to OBIS 45
Annex C (informative) Implementation guide and migration path 46
C.1 General 46
C.2 Client-server model 46
C.2.1 General 46
C.2.2 Clients 46
C.2.3 Servers 47
C.2.4 Application associations 47
C.3 The COSEM objects 49
C.3.1 COSEM object model 49
C.3.2 Referencing methods 49
C.3.3 The object_list 50
C.3.4 Mandatory COSEM objects 50
C.3.5 Application specific objects 51
C.3.6 Utility table objects 51
Annex D (informative) OSGP-AES-128-PSK security suite 54
D.1 General 54
D.2 Background 55
D.2.1 Overview 55
D.2.2 System Assumptions 55
D.2.3 Threat Model 55
D.2.4 Design goals 56
D.2.5 Inspiration 56
D.3 Terms and definition, abbreviated terms and notation 57
D.3.1 Terms and definitions 57
D.3.2 Abbreviated terms 58
D.3.3 Notation 59
D.3.4 Other conventions 59
D.4 Cryptographic Primitives 59
D.4.1 General 59
D.4.2 CMAC 60
D.4.3 CCM 60
D.5 Cryptographic Functions 60
D.5.1 Overview 60
D.5.2 OSGP_KDF: Key Derivation Function 61
D.5.3 OSGP_MAC: Message Authentication Code Function 61
D.5.4 OSGP_MAC_VERIFY: Message Authentication Code Verification Function 62
D.5.5 OSGP_AE/OSGP_AD: Authenticated Encryption/Decryption Function 62

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D.5.6 OSGP_CSPRNG: Cryptographically Secure Pseudo Random Number Generator 64
D.6 Keys 65
D.7 Secure channel initialization 67
D.7.1 Overview 67
D.7.2 Secure Channel State (CryptoContext) 67
D.7.3 Flow 68
D.7.4 Security Suite Negotiation 73
D.7.5 LNAP Commissioning 73
D.7.6 Error Handling and Intrusion Detection 74
D.7.7 Messages 74
D.8 Secure Channel Communication 77
D.8.1 General 77
D.8.2 The General Process 78
D.8.3 Unicast communication 80
D.8.4 Broadcast Communication 84
D.9 Firmware Downloading 86
D.10 Key Management 86
D.10.1 Renewing the Short-term, Meter-unique Keys 86
D.10.2 Renewing the Short-term, Domain-unique Keys 87
D.10.3 UpdateDomainKeysRequest 87
D.10.4 UpdateDomainKeysResponse 88
D.11 Updating the Long-term, Meter-unique Keys 88
D.11.1 General 88
D.11.2 Key Validity Periods 88
D.12 Error Messages 89
D.12.1 Overview 89
D.12.2 AuthenticationFailure 89
D.12.3 SequenceError 89
D.13 Security considerations 89
D.13.1 Reasoning 89
D.13.2 Recommendation and Guidance for Implementers 92
Annex E (normative) Repeating mechanism 94
E.1 Overview 94
E.2 Terms and definitions 94
E.3 Protocol specification 95
E.3.1 Overview 95
E.3.2 Addressing 95
E.3.3 Service types 95
E.3.4 Timers 95
E.3.5 Request flow 96
E.3.6 Response flow 96
E.3.7 Authentication 97
E.3.8 Examples 97

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E.3.9 Broadcast 98
E.4 Downlink frame format 98
E.4.1 Overview 98
E.4.2 Proxy parameters of request frame 99
E.5 Uplink Frame format 104
E.5.1 Overview 104
E.5.2 Proxy success 104
E.5.3 Repeating Failure 105
E.5.4 Authentication failure 105
Annex F (informative) ISO/IEC 14908-3 Registration and monitoring of LNAPs 106
F.1 Scope 106
F.2 Terms and definitions 106
F.3 Metering device lifecycle 106
F.4 ATM Protocol 107
F.4.1 General 107
F.4.2 ATM roles 107
F.4.3 Automatic discovery 108
F.4.4 Discovery domain 108
F.4.5 ATM messages 108
F.5 Commissioning 112
F.5.1 Overview 112
F.5.2 Commissioning operations 112
Bibliography 113

Figure 1 – Functional reference architecture 19
Figure 2 – Structure of the communication profile 20
Figure 3 – Adaptation layer structure 23
Figure 4 – Unprotected Adaptation layer PDU structure 25
Figure 5 – Protected Adaptation layer PDU structure 25
Figure 6 – Adaptation layer services 26
Figure 7 – Client and server ADP_DATA services 30
Figure D.1 – Key hierarchy diagram 65
Figure D.2 – Secure channel establishment 68
Figure D.3 – Challenge request 69
Figure D.4 – Challenge response 70
Figure D.5 – Commission Request 70
Figure D.6 – Commission response 72
Figure D.7 – Crypto context establishment 77
Figure D.8 – Authenticate encryption mechanism 78
Figure D.9 – Authenticated decryption 79
Figure E.1 – Unacknowledged message exchange 97
Figure E.2 – Request / Response message 98

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Figure E.3 – Error during request transmission 98
Figure E.4 – Error during response transmission 98
Figure E.5 – Proxy Repeater proxy message 99
Figure E.6 – Proxy Agent proxy message format 99
Figure E.7 – Proxy Target message format 99
Figure E.8 – Normal ProxyTrailer 101
Figure E.9 – Alternate Key Proxy Trailer 101
Figure E.10 – Proxy SICB field structure 102
Figure E.11 – Alternate Key format 103
Figure E.12 – ProxySubnetNode Address (Type1) 103
Figure E.13 – ProxyUniqueNode_ID Address (Type 2) 104
Figure E.14 – ProxyBroadcast Address (Type 3) 104
Figure E.15 – ProxySubnetNode Compact Address (Type 5 and 7) 104
Figure E.16 – ProxyUniqueNodeCompact Address (Type 6) 104

Table 1 – Control field 24
Table 2 – Client and Server SAP 35
Table 3 – Application associations and data exchange in the DLMS/COSEM over ISO/IEC14908 profile 35
Table C.1 – Pre-established association parameters 48
Table C.2 – base_name range for tables categories 51
Table C.3 – base_names for standard tables BT00 to BT79 52
Table D.1 – Security logical layers 54
Table D.2 – Key type and their scope 66
Table D.3 – Challenge request 74
Table D.4 – Challenge response 75
Table D.5 – Commission request 76
Table D.6 – Commission response structure 77
Table D.7 – Request message 80
Table D.8 – response message structure 80
Table D.9 – Nonce construction 80
Table D.10 – Associated Data construction 81
Table D.11 – Broadcast message 84
Table D.12 – Broadcast nonce 84
Table D.13 – Broadcast Associated Data 85
Table D.14 – Update Domain Keys request 87
Table D.15 – Update Domain Keys response 88
Table D.16 – AuthenticationFailure message 89
Table D.17 – SequenceError message 89

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Table D.18 – Example of risks 93
Table E.1 – ProxyHeader format 99
Table E.2 – ProxyDetailedAddress format 100
Table E.3 – ProxyUniformAddress format 101
Table E.4 – ProxyTx control format 101
Table E.5 – Address Type values 102
Table E.6 – Service types 102
Table E.7 – Mode types 102
Table E.8 – Repeating success response 104
Table E.9 – Repeating Failure 105
Table E.10 – Authentication failure code 105
Table F.1 – ATM Message header structure 109
Table F.2 – ATM payloads 109
Table F.3 – ATM-query-ID request structure 110
Table F.4 – ATM-query-ID response structure 110
Table F.5 – ATM-respond-to-query request structure 111
Table F.6 – ATM respond-to-query response structure 111
Table F.7 – Flags 112

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ELECTRICITY METERING DATA EXCHANGE – THE DLMS/COSEM SUITE –

Part 8-8: Communication profile for ISO/IEC 14908 series networks

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International Standard IEC 62056-8-8 has been prepared by IEC technical committee 13, Electrical energy measurement and control.

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

CDV	Report on voting
13/1783/CDV	13/1792/RVC

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

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This document 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 exange – The DLMS/COSEM suite*, can be found on the IEC website.

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

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INTRODUCTION

The IEC 62056 DLMS/COSEM suite provides specific communication profile standards for communication media relevant for smart metering.

Such communication profile standards specify how the COSEM data model and the DLMS/COSEM application layer can be used on the lower communication media-specific protocol layers.

Communication profile standards refer to communication standards that are part of the IEC 62056 DLMS/COSEM suite or to any other open communication standard.

This International Standard specifies DLMS/COSEM communication profile using ISO/IEC 14908-1:2012, *Information technology – Control network protocol – Part 1: Protocol stack* and ISO/IEC 14908-3:2012, *Information technology – Control network protocol – Part 3: Power line channel specification.* It applies for devices installed on the neighbourhood area network.

It follows the rules defined in IEC 62056-5-3:2017, Annex A, and in IEC 62056-1-0, and IEC TS 62056-1-1 for its structure.

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ELECTRICITY METERING DATA EXCHANGE – THE DLMS/COSEM SUITE –

Part 8-8: Communication profile for ISO/IEC 14908 series networks

1 Scope

This part of IEC 62056 describes how the DLMS/COSEM Application layer and the COSEM object model as specified in IEC 62056-5-3:2017, IEC 62056-6-1:2017 and IEC 62056-6-2:2017 can be used over the lower layers specified in the IEC 14908 series, forming a DLMS/COSEM ISO/IEC 14908 communication profile.

This document is part of the IEC 62056 series. Its structure follows IEC 62056-1-0 and IEC TS 62056-1-1.

Annex A (informative) provides examples of representative instances of data exchange.

NOTE This Annex A is included and referenced for consistency with other parts of the IEC 62056 suite, but it is empty.

Annex B (normative) defines COSEM interface classes and related OBIS codes for setting up and managing the DLMS/COSEM communication profile for IEC 14908 networks. These interface classes and OBIS codes will be moved later to IEC 62056-6-2 and IEC 62056-6-1.

Annex C (informative) provides an implementation guide and specifies a migration path from Utility Tables based applications to DLMS/COSEM based applications.

Annex D (informative) specifies the OSGP-AES-128-PSK security suite for optional use on the adaptation layer level.

Annex E (normative) specifies the repeating mechanism over the ISO 14908-3 Power Line Channel network.

Annex F (informative) specifies ISO/IEC 14908-3 Registration and monitoring of LNAPs.

2 Normative references

The following documents are 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 62056-5-3:2017, *Electricity metering data exchange – The DLMS/COSEM suite – Part 5-3: DLMS/COSEM application layer*

IEC 62056-6-1:2017, *Electricity metering data exchange – The DLMS/COSEM suite – Part 6-1: Object Identification System (OBIS)*

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