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Framework for energy market communications – Part 504: Utilization of web services for electronic data interchanges on the European energy market for electricity

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

IEC 62325-504, which is a technical specification, has been prepared by IEC technical committee 57: Power systems management and associated information exchange.

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

Enquiry draft	Report on voting
57/1520/DTS	57/1567/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 62325 series, published under the general title *Framework for energy market communications*, 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- withdrawn,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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FRAMEWORK FOR ENERGY MARKET COMMUNICATIONS –

Part 504: Utilization of web services for electronic data interchanges on the European energy market for electricity

1 Scope

This part of IEC 62325, which is a technical specification, defines the services needed to support the electronic data interchanges between different actors on the European Energy Market for Electricity (EME) in a fast (near-realtime), and secure way. At the same time, this Technical Specification can also be applied to integration problems outside the scope of IEC 62325-451, such as to the integration of gas market systems or general enterprise integration.

Web Services (in WSDL) will be specified for the defined services, applying the Basic Web Service Pattern implementation profile from IEC 61968-100.

The services needed to support the electronic data interchange on the European energy market for electricity are:

- List Messages. This service is used by a client application identified with the credentials of an EME Actor to request a list of messages available on the server for retrieval.
- Get Message. This service is used by a client application identified with the credentials of an EME Actor to request a specific message available on the server.
- Put Message. This service is used by a client application to send a message, usually providing data related to a Market Participant in the energy market for electricity, to the server for processing.

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

IEC 62325-451-1, *Framework for energy market communications – Part 451-1: Acknowledgement business process and contextual model for CIM European market*

ISO/IEC 40210, *Information technology – W3C SOAP Version 1.2 Part 1: Messaging Framework* (Second Edition)

WSDL, *Web Services Description Language (WSDL) 1.1*

XML Schema 1.0, XML Schema Language Part 1: Structure, W3C Recommendation 28 October 2004; XML Schema Language Part 2: Data Types, W3C Recommendation 28 October 2004

XML Signature Syntax and Processing (Second Edition) http://www.w3.org/TR/xmldsig-core

RFC 6176, *Prohibiting SSL 2.0* http://tools.ietf.org/html/rfc6176

RFC 5280, *Internet X.509 Public Key Infrastructure Certificate and Certificate Revocation List (CRL) Profile* http://tools.ietf.org/rfc/rfc5280

RFC 6818, *Updates to the Internet X.509 Public Key Infrastructure Certificate and Certificate Revocation List (CRL) Profile* http://tools.ietf.org/rfc/rfc6818

RFC 4346, *The Transport Layer Security (TLS) Protocol V1.1* http://www.ietf.org/rfc/rfc4346