Australian Standard™

Communication networks and systems in substations
Part 2: Glossary

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Australian Electrical and Electronic Manufacturers Association
Commerce Queensland
Energy Networks Association
Engineers Australia

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PREFACE

This Standard was prepared by the Standards Australia Committee EL-050, Power System Control and Communication.

The objective of this Standard is to provide users and manufacturers of substation automation equipment with a glossary of terms in order to obtain consistency in their usage in Australia.

This Standard is identical with, and has been reproduced from IEC/TR 61850-2, Ed.1 (2003), *Communication networks and systems in substations – Part 2: Glossary*.

This Standard is Part of *Communication networks and systems in substations*. The series consists of the following:

Part 1: Introduction and overview

Part 2: Glossary (this Standard)

Part 3: General requirements

Part 4: System and project management

Part 5: Communication requirements for functions and device models

Part 6: Configuration description language for communication in electrical substations related to IEDs

Part 7.1: Basic communication structure for substation and feeder equipment—Principles and models

Part 7.2: Basic communication structure for substation and feeder equipment—Abstract communication service interface (ACSI)

Part 7.3: Basic communication structure for substation and feeder equipment—Common data classes

Part 7.4: Basic communication structure for substation and feeder equipment—Compatible logical node classes and data classes

Part 8.1: Specific communication service mapping (SCSM)—Mappings to MMS (ISO/IEC 9506-1 and ISO/IEC 9506-2) and to ISO/IEC 8802-3

Part 9.1: Specific communication service mapping (SCSM)—Sampled values over serial unidirectional multidrop point to point link

Part 9.2: Specific communication service mapping (SCSM)—Sampled values over ISO/IEC 8802-3

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(a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.

(b) In the source text ‘IEC/TR 61850-2’ should read ‘AS 61850.2’.

(c) A full point should be substituted for a comma when referring to a decimal marker.

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Communication networks and systems in substations Part 2: Glossary

1 Scope

This part of the IEC 61850 series applies to Substation Automation Systems (SAS). It defines the communication between intelligent electronic devices (IEDs) in the substation and the related system requirements.

This part of the IEC 61850 series contains the glossary of specific terminology and definitions used in the context of Substation Automation Systems within the various parts of the standard.

2 Terms and definitions

The following terms and definitions apply to all parts of the IEC 61850 series[1].

2.1.1
abstract communication service interface
virtual interface to an IED providing abstract information modelling methods for logical devices, logical nodes, data, and data attributes, and communication services for example connection, variable access, unsolicited data transfer, device control and file transfer services, independent of the actual communication stack and profiles used

[IEC 61850-1]

2.1.2
access point
communication access point to an IED. This may be a serial port, an Ethernet connection, or a client or server address dependent on the stack being used. Each access point of an IED to a communication bus is uniquely identified. Each server has only one, logical, access point

[IEC 61850-6]

2.1.3
application layer
layer 7 in the OSI reference model for Open Systems Interconnection comprising the interface between the OSI environment and the IED's or user's application

[ISO/IEC 7498-1]

2.1.4
association
conveyance path established between a client and a server for the exchange of messages

[IEC 61850-7-1]

[1] References to other standards given below certain definitions indicate that the term is either described or used in the cited standard. All references are listed in the bibliography.

