

# TECHNICAL SPECIFICATION

**IEC**  
**TS 61850-2**

First edition  
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**Communication networks and systems  
in substations –**

**Part 2:  
Glossary**



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### Part 2: Glossary

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## CONTENTS

FOREWORD .....	3
1 Scope .....	5
2 Terms and definitions .....	5
3 Abbreviations .....	28
Bibliography .....	40

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**COMMUNICATION NETWORKS AND SYSTEMS  
IN SUBSTATIONS –****Part 2: Glossary****FOREWORD**

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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 61850-2, which is a technical specification, has been prepared by IEC technical committee 57: Power system control and associated communications.

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

Enquiry draft	Report on voting
57/615/DTS	57/645/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.

IEC 61850 consists of the following parts, under the general title *Communication networks and systems in substations*.

- Part 1: Introduction and overview
- Part 2: Glossary
- 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 <sup>1</sup>
- 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) over ISO/IEC 8802-3 <sup>1</sup>
- 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 <sup>1</sup>
- Part 10: Conformance testing <sup>1</sup>

The committee has decided that the contents of this publication will remain unchanged until 2005. At this date, the publication will be either

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- withdrawn;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

<sup>1</sup> Under consideration.

## 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<sup>2</sup>.

##### 2.1

##### **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]

##### 2.2

##### **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]

##### 2.3

##### **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]

##### 2.4

##### **association**

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

[IEC 61850-7-1]

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<sup>2</sup> 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.