

English Version

**OPC unified architecture - Part 1: Overview and concepts
(IEC/TR 62541-1:2020)**

Architecture unifiée OPC - Partie 1: Vue d'ensemble et
concepts
(IEC/TR 62541-1:2020)

OPC Unified Architecture - Teil 1: Übersicht und Konzepte
(IEC/TR 62541-1:2020)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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European foreword

This document (CLC IEC/TR 62541-1:2021) consists of the text of IEC/TR 62541-1:2020, prepared by SC 65E "Devices and integration in enterprise systems" of IEC/TC 65 "Industrial-process measurement, control and automation".

This document supersedes CLC/TR 62541-1:2010.

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Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC/TR 62541-2	-	OPC unified architecture – Part 2: Security Mode	CLC/TR 62541-2	-
IEC 62541-3	-	OPC Unified Architecture - Part 3: Address Space Model	EN IEC 62541-3	-
IEC 62541-4	-	OPC Unified Architecture - Part 4: Services	EN IEC 62541-4	-
IEC 62541-5	-	OPC Unified Architecture - Part 5: Information Model	EN IEC 62541-5	-
IEC 62541-6	-	OPC Unified Architecture - Part 6: Mappings	EN IEC 62541-6	-
IEC 62541-7	-	OPC unified architecture - Part 7: Profiles	EN IEC 62541-7	-
IEC 62541-8	-	OPC Unified Architecture - Part 8: Data Access	EN IEC 62541-8	-
IEC 62541-9	-	OPC Unified Architecture - Part 9: Alarms and Conditions	EN IEC 62541-9	-
IEC 62541-10	-	OPC Unified Architecture - Part 10: Programs	EN IEC 62541-10	-
IEC 62541-11	-	OPC Unified Architecture - Part 11: Historical Access	EN IEC 62541-11	-
IEC 62541-12	-	OPC unified architecture - Part 12: Discovery and global services	EN IEC 62541-12	-
IEC 62541-13	-	OPC Unified Architecture - Part 13: Aggregates	EN IEC 62541-13	-
IEC 62541-14	-	OPC unified architecture - Part 14: PubSub	EN IEC 62541-14	-
ITU X.509	-	Information technology – Open Systems Interconnection – The Directory: Public-key and attribute certificate frameworks https://www.itu.int/rec/T-REC-X.509		

TECHNICAL REPORT



OPC unified architecture – Part 1: Overview and concepts



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Electropedia - www.electropedia.org

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IEC Glossary - std.iec.ch/glossary

67 000 electrotechnical terminology entries in English and French extracted from the Terms and Definitions clause of IEC publications issued since 2002. Some entries have been collected from earlier publications of IEC TC 37, 77, 86 and CISPR.

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**OPC unified architecture –
Part 1: Overview and concepts**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

OPC UNIFIED ARCHITECTURE –

Part 1: Overview and concepts

FOREWORD

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IEC TR 62541-1, which is a Technical Report, has been prepared by subcommittee 65E: Devices and integration in enterprise systems, of IEC technical committee 65: Industrial-process measurement, control and automation.

This third edition cancels and replaces the second edition of IEC TR 62541-1, published in 2016. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) added Subclauses 6.5 and 6.6 and other text throughout to include PubSub introduction;
- b) added new transports and encodings to existing overview sections;
- c) removed WS-SecureConversation example since this mapping has been deprecated;

d) improved the definition of Certificate.

The text of this Technical Report is based on the following documents:

Enquiry draft	Report on voting
65E/678/DTR	65E/702/RVDTR

Full information on the voting for the approval of this technical report 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.

Throughout this document and the referenced other Parts of the series, certain document conventions are used:

Italics are used to denote a defined term or definition that appears in the “Terms and definition” clause in one of the parts of the series.

Italics are also used to denote the name of a service input or output parameter or the name of a structure or element of a structure that are usually defined in tables.

The *italicized terms* and names are also often written in camel-case (the practice of writing compound words or phrases in which the elements are joined without spaces, with each element's initial letter capitalized within the compound). For example, the defined term is *AddressSpace* instead of Address Space. This makes it easier to understand that there is a single definition for AddressSpace, not separate definitions for Address and Space.

A list of all parts of the IEC 62541 series, published under the general title OPC Unified Architecture, can be found on the IEC website.

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