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OPC Unified Architecture – Del 1: Översikt och koncept

*OPC unified architecture –
Part 1: Overview and concepts
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Standarder underlättar utvecklingen och höjer elsäkerheten

Det finns många fördelar med att ha gemensamma tekniska regler för bl a mätning, säkerhet och provning och för utförande, skötsel och dokumentation av elprodukter och elanläggningar.

Genom att utforma sådana standarder blir säkerhetsfordringar tydliga och utvecklingskostnaderna rimliga samtidigt som marknadens acceptans för produkten eller tjänsten ökar.

Många standarder inom elområdet beskriver tekniska lösningar och metoder som åstadkommer den elsäkerhet som föreskrivs av svenska myndigheter och av EU.

SEK är Sveriges röst i standardiseringsarbetet inom elområdet

SEK Svensk Elstandard svarar för standardiseringen inom elområdet i Sverige och samordnar svensk medverkan i internationell och europeisk standardisering. SEK är en ideell organisation med frivilligt deltagande från svenska myndigheter, företag och organisationer som vill medverka till och påverka utformningen av tekniska regler inom elektrotekniken.

SEK samordnar svenska intressenters medverkan i SEKs tekniska kommittéer och stödjer svenska experters medverkan i internationella och europeiska projekt.

Stora delar av arbetet sker internationellt

Utformningen av standarder sker i allt väsentligt i internationellt och europeiskt samarbete. SEK är svensk nationalkommitté av International Electrotechnical Commission (IEC) och Comité Européen de Normalisation Electrotechnique (CENELEC).

Standardiseringsarbetet inom SEK är organiserat i referensgrupper bestående av ett antal tekniska kommittéer som speglar hur arbetet inom IEC och CENELEC är organiserat.

Arbetet i de tekniska kommittéerna är öppet för alla svenska organisationer, företag, institutioner, myndigheter och statliga verk. Den årliga avgiften för deltagandet och intäkter från försäljning finansierar SEKs standardiseringsverksamhet och medlemsavgift till IEC och CENELEC.

Var med och påverka!

Den som deltar i SEKs tekniska kommittéarbete har möjlighet att påverka framtida standarder och får tidig tillgång till information och dokumentation om utvecklingen inom sitt teknikområde. Arbetet och kontakterna med kollegor, kunder och konkurrenter kan gynnsamt påverka enskilda företags affärsutveckling och bidrar till deltagarnas egen kompetensutveckling.

Du som vill dra nytta av dessa möjligheter är välkommen att kontakta SEKs kansli för mer information.

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CONTENTS

FOREWORD.....	4
1 Scope.....	6
2 Normative references.....	6
3 Terms, definitions and abbreviations	6
3.1 Terms and definitions	6
3.2 Abbreviations	10
4 Structure of the OPC UA series.....	10
4.1 Specification organization.....	10
4.2 Core specification parts.....	11
4.3 Access Type specification parts.....	12
4.4 Utility specification parts.....	12
5 IEC 62541 standards – Overview	13
5.1 UA scope	13
5.2 General.....	13
5.3 Design goals	13
5.4 Integrated models and services	15
5.4.1 Security model	15
5.4.2 Integrated <i>AddressSpace</i> model	16
5.4.3 Integrated object model	16
5.4.4 Integrated services.....	17
5.5 Sessions	17
5.6 Redundancy.....	17
6 Systems concepts.....	17
6.1 Overview.....	17
6.2 OPC UA <i>Clients</i>	18
6.3 OPC UA <i>Servers</i>	19
6.3.1 General.....	19
6.3.2 Real objects	19
6.3.3 OPC UA <i>Server</i> application	19
6.3.4 OPC UA <i>AddressSpace</i>	20
6.3.5 Publisher/subscriber entities.....	20
6.3.6 OPC UA <i>Service</i> Interface	20
6.3.7 <i>Server to Server</i> interactions	21
7 Service Sets	22
7.1 General.....	22
7.2 Discovery Service Set	22
7.3 SecureChannel Service Set.....	22
7.4 Session Service Set	23
7.5 NodeManagement Service Set.....	23
7.6 View Service Set.....	24
7.7 Query Service Set	24
7.8 Attribute Service Set	24
7.9 Method Service Set	24
7.10 MonitoredItem Service Set	24
7.11 Subscription Service Set	25
Bibliography	26

Figure 1 – OPC UA Specification organization 11

Figure 2 – OPC UA Target applications 14

Figure 3 – OPC UA System architecture 18

Figure 4 – OPC UA Client architecture 18

Figure 5 – OPC UA Server architecture 19

Figure 6 – Peer-to-peer interactions between Servers..... 21

Figure 7 – Chained Server example 22

Figure 8 – SecureChannel and Session Services..... 23

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.

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

Enquiry draft	Report on voting
65E/414/DTR	65E/463/RVC

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 second edition cancels and replaces the first edition of IEC TR 62541-1, published in 2010.

This edition includes no technical changes with respect to the previous edition but includes updates to reflect changes or additions in normative parts of IEC 62541.

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.

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

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

A bilingual version of this publication may be issued at a later date.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

OPC UNIFIED ARCHITECTURE –

Part 1: Overview and concepts

1 Scope

This part of IEC 62541, which is a Technical Report, presents the concepts and overview of the OPC Unified Architecture (OPC UA). Reading this document is helpful to understand the remaining parts of this multi-part document set. Each of the other parts is briefly explained along with a suggested reading order.

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 TR 62541-2, *OPC Unified Architecture – Part 2: Security Model*

IEC 62541-3, *OPC unified architecture – Part 3: Address Space Model*

IEC 62541-4, *OPC Unified Architecture – Part 4: Services*

IEC 62541-5, *OPC Unified Architecture – Part 5: Information Model*

IEC 62541-6, *OPC unified architecture – Part 6: Mappings*

IEC 62541-7, *OPC unified architecture – Part 7: Profiles*

IEC 62541-8, *OPC Unified Architecture – Part 8: Data Access*

IEC 62541-9, *OPC Unified Architecture – Part 9: Alarms and Conditions*

IEC 62541-10, *OPC Unified Architecture – Part 10: Programs*

IEC 62541-11, *OPC Unified Architecture – Part 11: Historical Access*

IEC 62541-13, *OPC Unified Architecture – Part 13: Aggregates*