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**OPC Unified Architecture –
Part 4: Services**

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**Architecture Unifiée OPC –
Partie 4: Services**

[IEC 62541-4:2015](#)

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International Standard IEC 62541-4 has been prepared by subcommittee 65E: Devices and integration in enterprise systems, of IEC technical committee 65: Industrial-process measurement, control and automation.

This second edition cancels and replaces the first edition published in 2011. This edition constitutes a technical revision.

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

- a) Update for 6.4 Redundancy.
Added non-transparent redundancy option HotAndMirrored and reworked most of the redundancy description.
- b) Clarifications for Publish and Reconnect scenarios.
Reworked different parts of the specification to make sure no data is lost during short communication interruptions and clients can always detect for how long they lost

information during connection interruption. Added new clause 6.5 Re-establishing connections that describes the exact reconnect sequence for clients losing connection to a server. Changed the minimum requirement for the retransmission queue of sent NotificationMessages from one keep-alive interval to minimum two times the minimum number of Publish requests per Session. Added clarification in which data value the overflow bit is set depending on the discard oldest setting. Changed discard handling for discardOldest is FALSE. The new value is replacing the last value put into the queue for FALSE. Added exception that the overflow bit is not set if the queue size one.

- c) Handling of MonitoredItem changes in short network interruption scenarios.
Added new method GetMonitoredItems in Part 5. This method can be used to get the list of monitored items in a subscription if CreateMonitoredItems failed due to a network interruption and the client does not know if the creation succeeded in the server.
- d) Update for 6.1.3 Determining if a Certificate is Trusted
Revised rules for certificate validation.
- e) Revised definition of parameters semaphoreFile and isOnline in Service RegisterServer
- f) Services ModifySubscription and ModifyMonitoredItems
Clarified that changes are applied directly and will take effect as soon as practical but not later than twice the new time interval.
- g) There is a long list of minor changes to eliminate ambiguity.

The text of this standard is based on the following documents:

CDV 65E/375/CDV	Report on voting 65E/403/RVC
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(standards.iteh.ai)

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

[IEC 62541-4:2015](#)

<https://standards.iteh.ai/catalog/standards/sist/725b3cd4-56ca-4bb3-97ae-ad275976623/iec-62541-4-2015>

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

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 web site 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.

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