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# NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA



# GB/T 33863.2-2017

## OPC unified architecture -- Part 2: Security model

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# Table of Contents





## Foreword

GB/T 33863 "OPC unified architecture" consists of the following components.

- Part 1. Overview and concepts;

- Part 2. Safety model;

Part 3. Address space model;

- Part 4. Services;

- Part 5. Information model;

- Part 6. Mapping;

- Part 7. Statute;

- Part 8. Data access;

- Part 9. Alarms and conditions;

- Part 10. Procedures;

- Part 11. Historical visit;

- Part 12. Discovery;

Part 13. Aggregation.

This part is part 2 of GB/T 33863.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This part uses the translation method equivalent to IEC /T R62541-2..2010 "OPC Unified Architecture Part 2. Security Model".

This section makes the following editorial changes.

--- Delete references that are repeated with normative references.

This part is made by the China Machinery Industry Federation.

This part is headed by the National Industrial Process Measurement Control and Automation Standardization Technical Committee (SAC/TC124).

This part of the drafting unit. mechanical industry instrumentation integrated technology and economic research institute, Beijing three-dimensional force control Technology Co., Ltd., Shanghai automatic

Instrument Co., Ltd., Chongqing Sichuan Instrument Automation Co., Ltd., Southwest University, China Academy of Engineering Physics Power Department.



## Introduction

This section provides a security model for the OPC unified architecture specified in GB/T 33863. This standard is given for the development of standard interfaces

The process of analysis and design, the standard interface can be accelerated by a number of suppliers to complete the application development, and to achieve the internal operation of the seamless

connection.

OPC unified architecture - Part 2. Security model

## 1 Scope

This part of GB/T 33863 gives an OPC Unified Architecture (UA) safety model that describes what OPCUA expects to run

Security threats in hardware, software and software environments, and how OPCUA uses other standards for security. This section is given in the OPC

Overview of the safety features specified in the UA specification. This section refers to services that are normative in other parts of this standard

Shooting and regulation.

Note. Many other aspects of security are addressed when developing applications. Since OPCUA specifies a communication protocol, this section focuses on protection

The security of data exchange between.

This does not mean that application developers can ignore other aspects of security, such as the protection of permanent data from tampering. The developer should observe

All secure content and determine how to handle in the application.

This section is used to guide the development of OPCUA client or server applications or to implement the OPCUA service layer.

This section assumes that the reader is familiar with Web services and XML/SOAP. For information on these technologies, refer to SOAP Part 1 and

Part 2.

## 2 normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article

Pieces. For undated references, the latest edition (including all modifications) applies to this document.

IEC 62541 (all parts) OPC unified architecture (OPCunifiedarchitecture)

IEC /T R62541-1 OPC Unified Architecture Part 1. Overview and Concepts (OPCunifiedarchitecture-Part 1.

Overviewandconcepts)



### 3.1 Terms and definitions

IEC /T R62541-1 and the following terms and definitions apply to this document.

3.1.1

Application instance ApplicationInstance

A separate installation of a program running on a computer.

Note. Several application instances of the same application can run on one or more computers at the same time.

3.1.2

Apply instance certificate ApplicationInstanceCertificate

A digital certificate that has been installed on a single host in a single application instance.

Note. A different installation of a software product should have a different application instance certificate.

3.1.3

Asymmetric Cryptography

Use a pair of key encryption methods. A key is designated as a private key, not public; another key is called a public key, usually

obtain.