

# OMG: OPC-UA/DDS Gateway (DDS-OPCUA)

[return to the DDS Family of Standards](#)

Table 1: Data sheet for OPC-UA/DDS Gateway (DDS-OPCUA)

Title	OPC-UA/DDS Gateway
Acronym	DDS-OPCUA
Version	1.0
OMG Document Number	formal/20-01-01
Release Date	February 2020
About Specification	<a href="https://www.omg.org/spec/DDS-OPCUA/">https://www.omg.org/spec/DDS-OPCUA/</a>
Document	<a href="https://www.omg.org/spec/DDS-OPCUA/1.0/PDF">https://www.omg.org/spec/DDS-OPCUA/1.0/PDF</a>

**Note:** The following is an excerpt from the actual document. It is provided here as a convenience and is not authoritative. Refer to the original document as the authoritative reference.

## Scope

*data\_distribution\_service\_dds* is a family of standards from the *omg* that provide connectivity, interoperability, and portability for Industrial Internet, cyber-physical, and mission-critical applications.

The DDS connectivity standards cover Publish-Subscribe (DDS), Service Invocation ([DDS-RPC](#)), Interoperability ([DDS-RTSPS](#)), Information Modeling ([DDS-XTYPES](#)), Security ([DDS-SECURITY](#)), as well as programing APIs for C, C++, Java and other languages.

The *opc* Unified Architecture (OPC-UA) is an information exchange standard for Industrial Automation and related systems created by the OPC Foundation. The *opc\_ua* standard provides an Addressing and Information Model for Data Access, Alarms, and Service invocation layered over multiple transport-level protocols such as Binary *tcp* and Web-Services.

DDS and OPC-UA exhibit significant deployment similarities:

- Both enable independently developed applications to interoperate even when those applications come from different vendors, use different programming languages, or run on different platforms and operating systems.
- Both have significant traction within Industrial Automation systems.
- Both define standard protocols built on top of the [TCP/UDP/IP](#) Internet stacks. The two technologies may coexist within the same application domains; however, while there are solutions that [bridge](#) between DDS and OPC-UA, these are based on custom mappings and cannot be relied to work across vendors and products.

This specification overcomes this situation by defining a standard, vendor-independent, configurable [gateway](#) that enables interoperability and information exchange between systems

*that use DDS and systems that use OPC-UA.*

From:  
<https://www.omgwiki.org/dds/> - **DDS Foundation Wiki**

Permanent link:  
[https://www.omgwiki.org/dds/doku.php?id=dds:public:guidebook:06\\_append:01\\_family\\_of\\_standards:04\\_gate:ddsopcu&rev=1601327921](https://www.omgwiki.org/dds/doku.php?id=dds:public:guidebook:06_append:01_family_of_standards:04_gate:ddsopcu&rev=1601327921)

Last update: **2020/09/28 17:18**

