

# INTERNATIONAL STANDARD

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**Industrial communication networks – Fieldbus specifications –  
Part 5-2: Application layer service definition – Type 2 elements**





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Part 5-2: Application layer service definition – Type 2 elements**

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IEC 61158-5-2 has been prepared by subcommittee 65C: Industrial networks, of IEC technical committee 65: Industrial-process measurement, control and automation. It is an International Standard.

This fifth edition cancels and replaces the fourth edition published in 2019. This edition constitutes a technical revision.

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

- a) update of normative and bibliographic references;
- b) new STIME, UTIME and NTIME data types in 5.3.1.5;
- c) updated list of managements objects in 6.1.3;
- d) new attributes and services for the ASE general formal model in 6.2.1.2.1, 6.2.1.3 and 6.5;
- e) clarifications, new attributes and services for the Identity ASE in 6.2.1.2.2;
- f) clarifications, new attributes and other extensions for the Assembly ASE in 6.2.1.2.3;
- g) new attributes and services for the Message Router ASE in 6.2.1.2.4;
- h) addition of missing class attributes for the Acknowledge Handler ASE in 6.2.1.2.5;
- i) clarifications, new attributes and services for the Time Sync ASE in 6.2.1.2.6;
- j) addition of missing class attributes for the Parameter ASE in 6.2.1.2.7;
- k) clarifications of service parameters, status codes and procedures in 6.2.1.3;
- l) addition of a new service for the Message Router ASE in 6.2.1.3;
- m) clarifications and new services for the Connection Manager ASE in 6.2.2;
- n) clarifications and new services for the Connection ASE in 6.2.3;
- o) removal of obsoleted transport options and related services in 6.3.3;
- p) removal of all references to CPF and CPs (material moved to profile documents);
- q) miscellaneous editorial corrections.

The text of this International Standard is based on the following documents:

Draft	Report on voting
65C/1203/FDIS	65C/1244/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/publications](http://www.iec.ch/publications).

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

## INTRODUCTION

This part of IEC 61158 is one of a series produced to facilitate the interconnection of automation system components. It is related to other standards in the set as defined by the "three-layer" fieldbus reference model described in IEC 61158-1.

The application service is provided by the application protocol making use of the services available from the data-link or other immediately lower layer. This document defines the application service characteristics that fieldbus applications and/or system management can exploit.

Throughout the set of fieldbus standards, the term "service" refers to the abstract capability provided by one layer of the OSI Basic Reference Model to the layer immediately above. Thus, the application layer service defined in this document is a conceptual architectural service, independent of administrative and implementation divisions.