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Edition 2.0 2021-02
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INTERNATIONAL STANDARD

colour inside

Field device integration (FDI) – Part 3: ~~FDI~~ Server

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FIELD DEVICE INTEGRATION (FDI) –

Part 3: ~~FDI~~ Server

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International Standard IEC 62769-3 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 2015. This edition constitutes a technical revision.

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

a) modification of the edit context concept to harmonize the IEC 61804 and the IEC 62769 series.

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

FDIS	Report on voting
65E/760/FDIS	65E/770/RVD

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

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

A list of all parts in the IEC 62769 series, published under the general title *Field Device Integration (FDI)*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

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INTRODUCTION

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~~a) method for the Supplying and Installation of Device-Specific Functionalities, see Patent Family DE10357276;~~

~~b) method and device for accessing a functional module of automation system, see Patent Family EP2182418;~~

~~c) methods and apparatus to reduce memory requirements for process control system software applications, see Patent Family US2013232186;~~

~~d) extensible device object model, see Patent Family US12/893,680.~~

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~~Intellectual Property, Licenses & Standards~~
~~Flachsmarktstrasse 8, 32825 Blomberg~~
~~Germany~~

~~c) Fisher Controls International LLC~~
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~~USA~~

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The IEC 62769 series has the general title *Field Device Integration (FDI)* and the following parts:

– Part 1: Overview
– Part 2: FDI Client
– Part 3: FDI Server
– Part 4: FDI Packages
– Part 5: FDI Information Model
– Part 6: FDI Technology Mapping
– Part 7: FDI Communication Devices

- Part 100: Profiles – Generic Protocol Extensions
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- Part 115-2: Profiles – Protocol-specific Definitions for Modbus RTU
- Part 150-1: Profiles – ISA 100.11a

FIELD DEVICE INTEGRATION (FDI) –

Part 3: ~~FDI~~ Server

1 Scope

This part of IEC 62769 specifies the FDI Server. The overall FDI architecture is illustrated in Figure 1. The architectural components that are within the scope of this document have been highlighted in this figure.

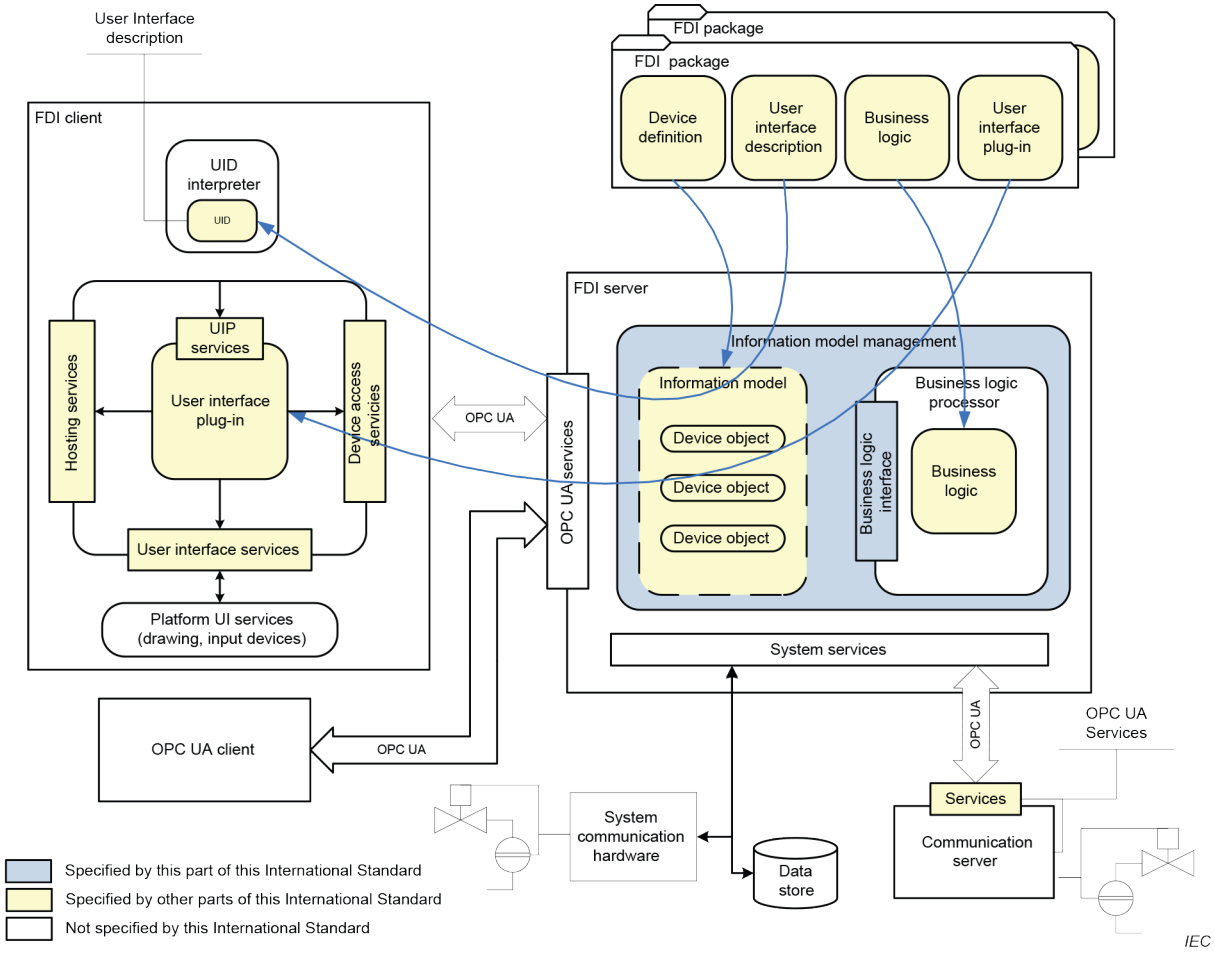

Figure 1 – FDI architecture diagram

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61804 (all parts), *Function blocks (FB) for process control and electronic device description language (EDDL)*

~~IEC 61804-3[1], *Function block (FB) for process control and Electronic Device Description Language (EDDL) – Part 3: EDDL syntax and semantics*~~

~~IEC 61804-4[2], *Function blocks (FB) for process control and Electronic Device Description Language (EDDL) – Part 4: EDD interpretation*~~

IEC 61804-4:2020, *Function blocks (FB) for process control and electronic device description language (EDDL) – Part 4: EDD interpretation*

~~IEC 62541 (all parts), *OPC unified architecture*~~

IEC 62541-4, *OPC unified architecture – Part 4: Services*

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

IEC 62769-1, *Field Device Integration (FDI) – Part 1: Overview*

~~NOTE IEC 62769-1 is technically identical to FDI-2021.~~

IEC 62769-2, *Field Device Integration (FDI) – Part 2: FDI Client*

~~NOTE IEC 62769-2 is technically identical to FDI-2022.~~

IEC 62769-4, *Field Device Integration (FDI) – Part 4: FDI Packages*

~~NOTE IEC 62769-4 is technically identical to FDI-2024.~~

IEC 62769-5, *Field Device Integration (FDI) – Part 5: FDI Information Model*

~~NOTE IEC 62769-5 is technically identical to FDI-2025.~~

IEC 62769-7, *Field Device Integration (FDI) – Part 7: ~~FDI~~ Communication Devices*

~~NOTE IEC 62769-7 is technically identical to FDI-2027.~~

~~[1] To be published.~~

~~[2] To be published.~~

IEC 62769-3

Edition 2.0 2021-02

INTERNATIONAL STANDARD

NORME INTERNATIONALE

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Field device integration (FDI) – Part 3: Server

Intégration des appareils de terrain (FDI) – Partie 3: Serveur

IEC 62769-3:2021-02(en-fr)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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Part 3: Server

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FIELD DEVICE INTEGRATION (FDI) –

Part 3: Server

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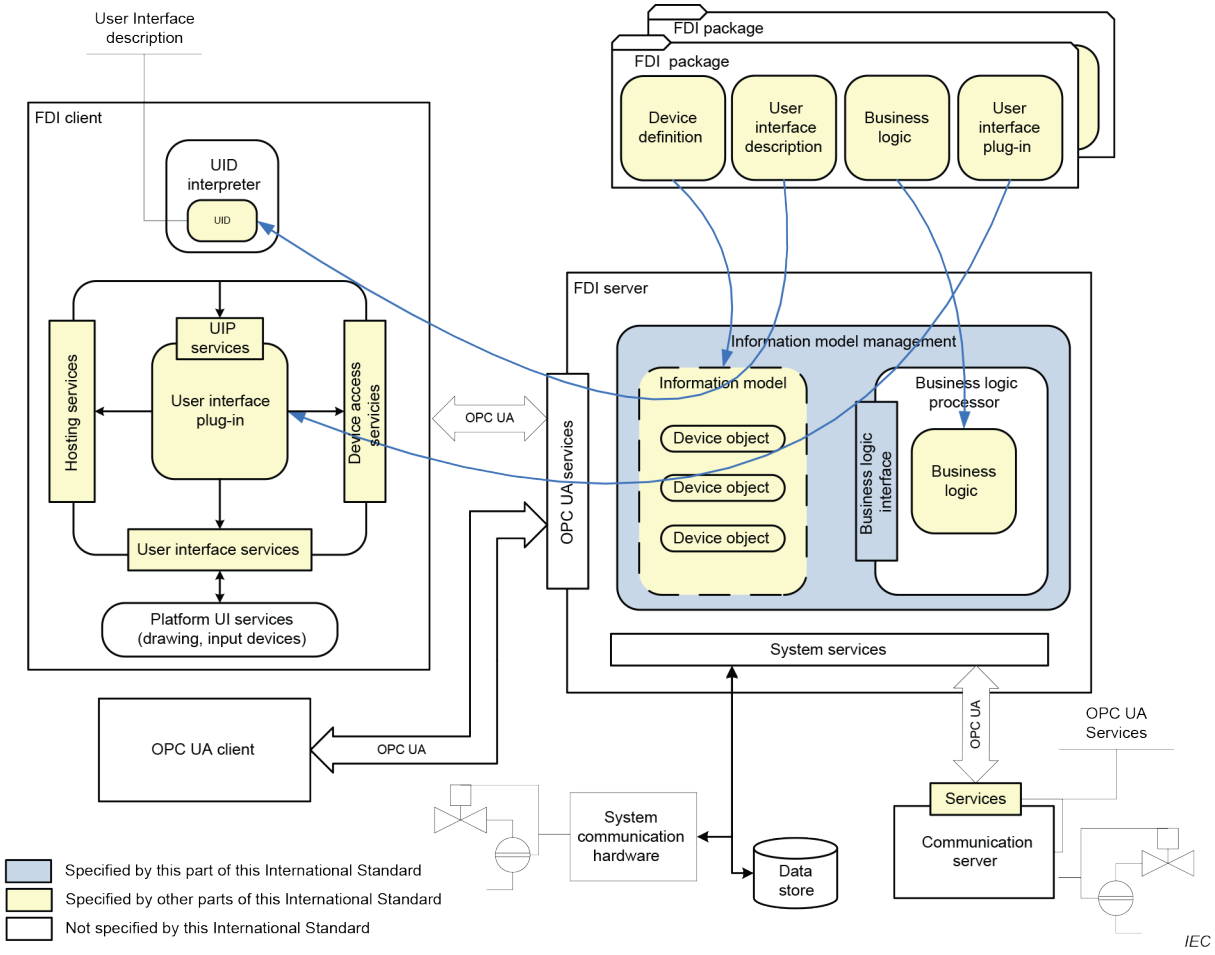

Figure 1 – FDI architecture diagram

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IEC 62541-4, *OPC unified architecture – Part 4: Services*

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IEC 62769-1, *Field Device Integration (FDI) – Part 1: Overview*

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INTÉGRATION DES APPAREILS DE TERRAIN (FDI) –

Partie 3: Serveur

AVANT-PROPOS

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Cette deuxième édition annule et remplace la première édition parue en 2015. Cette édition constitue une révision technique.

Cette édition inclut les modifications techniques majeures suivantes par rapport à l'édition précédente:

a) modification du concept de contexte rédactionnel en vue de l'harmonisation des séries IEC 61804 et IEC 62769.

Le texte de cette Norme internationale est issu des documents suivants:

FDIS	Rapport de vote
65E/760/FDIS	65E/770/RVD

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à l'approbation de cette Norme internationale.

La version française de la norme n’a pas été soumise au vote.

Ce document a été rédigé selon les Directives ISO/IEC, Partie 2.

Une liste de toutes les parties de la série IEC 62769, publiées sous le titre général *Intégration des appareils de terrain (FDI)* peut être consultée sur le site web de l’IEC.

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INTRODUCTION

La série IEC 62769 est publiée sous le titre général "*Intégration des appareils de terrain* (*FDI*)" et comporte les parties suivantes:

– Partie 1: Vue d'ensemble
– Partie 2: Client FDI
– Partie 3: Serveur FDI
– Partie 4: Paquetages FDI
– Partie 5: Modèle d'Information FDI
– Partie 6: Mapping de technologies FDI
– Partie 7: Appareils de Communication FDI
– Partie 100: Profils – Extensions de protocoles génériques
– Partie 101-1: Profils – Foundation Fieldbus H1
– Partie 101-2: Profils – Foundation Fieldbus HSE
– Partie 103-1: Profils – PROFIBUS
– Partie 103-4: Profils – PROFINET
– Partie 109-1: Profils – HART et WirelessHART
– Partie 115-2: Profils – Définitions spécifiques au protocole pour Modbus-RTU
– Partie 150-1: Profils – ISA 100.11a

INTÉGRATION DES APPAREILS DE TERRAIN (FDI) –

Partie 3: Serveur

1 Domaine d'application

La présente partie de l'IEC 62769 spécifie le Serveur FDI. L'architecture FDI complète est représentée à la Figure 1. Les composants architecturaux qui relèvent du domaine d'application du présent document ont été mis en évidence dans cette figure.

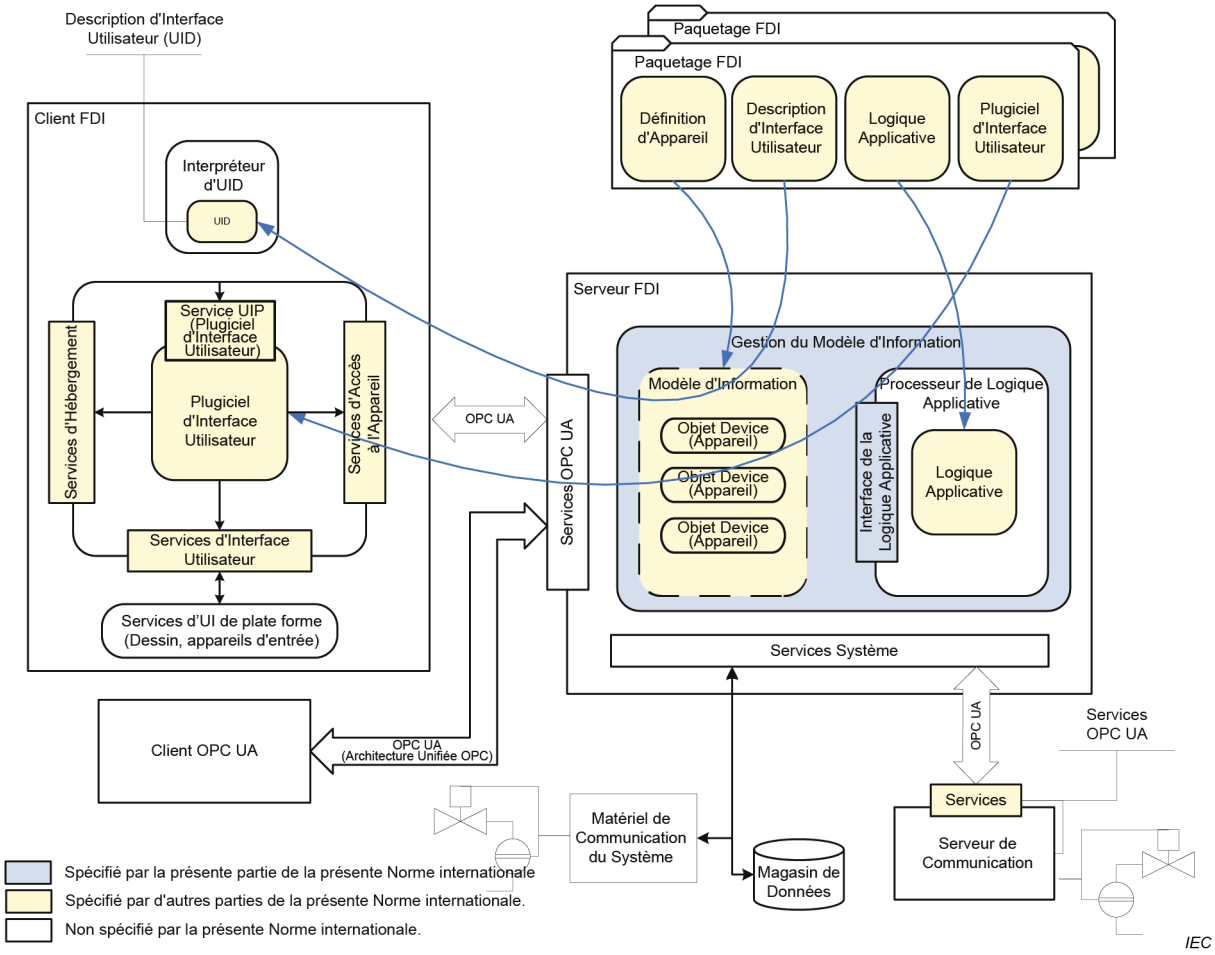

Figure 1 – Diagramme de l'architecture FDI

2 Références normatives

Les documents suivants sont cités dans le texte de sorte qu'ils constituent, pour tout ou partie de leur contenu, des exigences du présent document. Pour les références datées, seule l'édition citée s'applique. Pour les références non datées, la dernière édition du document de référence s'applique (y compris les éventuels amendements).

IEC 61804 (toutes les parties), *Blocs fonctionnels (FB) pour les procédés industriels et le langage de description électronique de produit (EDDL)*

IEC 61804-4 :2020, *Blocs fonctionnels (FB) pour les procédés industriels et le langage de description électronique de produit (EDDL) – Partie 4: Interprétation EDD*

IEC 62541-4, *Architecture unifiée OPC – Partie 4: Services*

IEC 62541-7, *Architecture unifiée OPC – Partie 7: Profils*

IEC 62769-1, *Intégration des appareils de terrain (FDI) – Partie 1: Vue d'ensemble*

IEC 62769-2, *Intégration des appareils de terrain (FDI) – Partie 2: Client FDI*

IEC 62769-4, *Intégration des appareils de terrain (FDI) – Partie 4: Paquetages FDI*

IEC 62769-5, *Intégration des appareils de terrain (FDI) – Partie 5: Modèle d'Information FDI*

IEC 62769-7, *Intégration des appareils de terrain (FDI) – Partie 7: Appareils de communication*