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Foreword

This Group Specification (GS) has been produced by ETSI Industry Specification Group (ISG) Experiential Networked Intelligence (ENI).

Modal verbs terminology

In the present document **"shall"**, **"shall not"**, **"should"**, **"should not"**, **"may"**, **"need not"**, **"will"**, **"will not"**, **"can"** and **"cannot"** are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](#) (Verbal forms for the expression of provisions).

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Executive summary

The present document specifies a high-level functional abstraction of the ENI System Architecture in terms of Functional Blocks and External Reference Points. This includes describing how different classes of systems interact with ENI. Processes, models, and detailed information are beyond the scope of the present document.

Introduction

The present document defines a high-level functional abstraction of the ENI System Architecture. The organization of the present document is as follows:

- clause 1 defines the scope of the present document;
- clauses 2 and 3 provide normative and informative references and definition of terms, respectively;
- clause 4 provides an informative overview of the ENI System Architecture, including its motivation, benefits, important concepts, and an overview of its Functional Blocks;
- clause 5 lists requirements of the ENI System Architecture;
- clause 6 defines important design principles of the ENI System Architecture, and then specifies the different Functional Blocks that make up the ENI System Architecture;
- clause 7 specifies the External Reference Points of the ENI System Architecture;
- clause 8 specifies the initial design of ENI Application Programming Interfaces
- clause 9 describes how ENI interacts with other SDO Systems; and
- clause 10 delineates a list of future study items.

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1 Scope

The present document specifies the functional architecture of an ENI System, which is a high-level decomposition of an ENI System into its major components, along with a characterization of the externally visible behaviour (e.g. as defined by a set of reference points) of the components. This includes:

- defining the functionality and behaviour of a system that satisfy the ENI Requirements (ETSI GS ENI 002 [i.40]);
- defining a functional architecture, in terms of Functional Blocks, that addresses the goals specified by the ENI Use Cases (ETSI GS ENI 001 [3]);
- defining Reference Points used by the above Functional Blocks for all communication with systems and entities that are external to the ENI System;
- proposing a progression plan towards full support of the proposed ENI System and intermediary level of compliance (e.g. support of some architecture components or a subset of the Reference Points).

The purpose of the present document is to continue the development of ETSI GS ENI 005 [i.53] (V2.1.1) to:

- define and specify APIs, Interfaces, and protocols used by ENI based on information and data models;
- specify the ENI cognition model in detail;
- enhance the description and specification of the ingestion, normalization, and output generation of data, information, and policies (imperative, declarative, and intent) in greater detail;
- enhance the description and specification of the control loops used in ENI;
- enhance the description and specification of policy management used in ENI;
- enhance the description and specification of architectural principles for interacting with other groups within and outside ETSI.

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References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

Referenced documents which are not found to be publicly available in the expected location might be found at <https://docbox.etsi.org/Reference>.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

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