



# EHE Terminology Services

Commercial Description

Version 5.1

## 1 Introduction

Electronic Healthcare Exchange (EHE) is a line of products fulfilling a variety of eHealth system needs, ranging from fundamental ones like infrastructure, security, and integration, over exchange and management of clinical documents and discrete medical information, to advanced functionalities like clinical decision support. Solutions made of different EHE products, alone or through integration with the existing infrastructure, support a wide range of processes in a healthcare system.

One of the prerequisites for achieving semantic interoperability of information systems in healthcare is ensuring the use of the same terms when describing various health and clinical concepts.

The EHE Terminology Services product enables the centralized management and use of terminologies (code systems, value sets and concept maps) based on the HL7 FHIR standard [1] and the IHE SVCM integration profile [2][3].

## 2 Functionality Description

The EHE Terminology Services product supports:

- use of terminologies (search and retrieval of terminologies and validation and retrieval of terminologies)
- synchronization of terminologies from external sources.

### 2.1 Use of Terminologies

The product enables other EHE products and external systems to use terminologies in accordance with the IHE SVCM integration profile [3].

The product implements the Terminology Repository Actor component in accordance with the IHE SVCM integration profile and the following operations (transactions) of that profile:

- Query Value Set [ITI-95] – searching and retrieving a value set
- Query Code System [ITI-96] – searching and retrieving a code system
- Lookup Code [ITI-98] – searching and retrieving concepts from the code system
- Validate Code [ITI-99] – code validation.

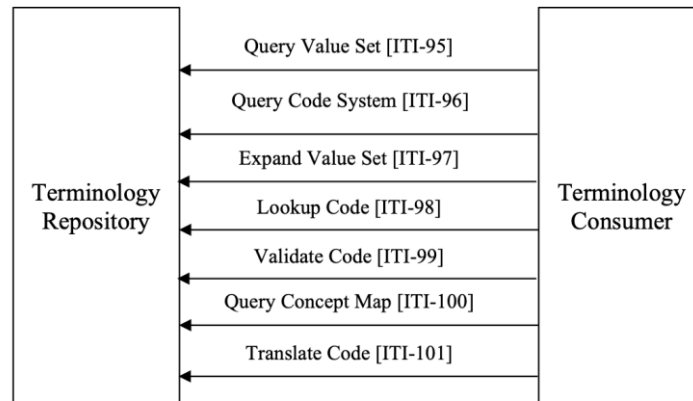


Figure 1 - IHE SVCM Integration Profile Components and Operations

## 2.2 Synchronization of terminologies

For the purpose of synchronizing terminologies from external terminological systems or databases, the module implements a synchronization interface based on the FHIR REST API specification and the CodeSystem FHIR resource.

## 3 Interdependencies

The EHE Terminology Services product depends on the following components:

- EHE FHIR Repository [4] – it is also possible to use the data repository of other providers compliant with the FHIR R4 standard
- EHE Infrastructure [5][5].

To implement the EHE Terminology Services product, it is necessary to provide the relational databases PostgreSQL or Oracle and the operating system Ubuntu Linux.

EHE Terminology Services product components can be installed on physical servers, virtual machines, or containers.

## 4 Free and Open Source Software

This product uses free and open source software (FOSS) components with the following licenses:

- Apache Software License 2.0 [6]
- MIT License [7]

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## 5 Version

The current product version is 5.1.

## 6 References

- [1] HL7 FHIR (Fast Healthcare Interoperability Resources) - This is a standard that describes data formats and elements and the application programming interface for the exchange of electronic health records. It was created by Health Level Seven, an international health standards organization. Specification available at <https://www.hl7.org/fhir/>.
- [2] IHE (Integrating Healthcare Enterprise) – This is a joint initiative of healthcare professionals and industry with the aim of improving the way in which information systems and applications in healthcare exchange information by defining integration profiles that determine standards to solve common integration tasks in healthcare (<https://ihe.net>).
- [3] IHE SVCM (Sharing Valuesets, Codes and Maps) – IHE (Integrating the Healthcare Enterprise) profile enabling basic transactions related to terminology services - specification available at <https://profiles.ihe.net/ITI/SVCM/>.
- [4] EHE FHIR Repository – standard Ericsson Nikola Tesla’s product which enables data management and storage based on the HL7 FHIR standard.
- [5] EHE Infrastructure – standard Ericsson Nikola Tesla’s product which implements the functions necessary for the operation,

internal communication and monitoring of the components of the solution.

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