

DataModelTranslatorFactory Application System

System Description

Abstract

This document provides system description for the **DataModelTranslatorFactory Application System**.

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1 Overview

This document provides a **general description** of the DataModelTranslatorFactory Application System, which enables the on-demand creation of dataModelTranslation service implementations.

The rest of this document is organized as follows. In Section 1.1, we describe the intended usage of the system. In Section 1.2, we describe fundamental properties provided by the system. In Section 1.3, we describe delimitations of capabilities of the system. In Section 2, we describe the abstract services produced by the system. In Section 3, we describe the security capabilities of the system.

1.1 How This System Is Meant to Be Used

DataModelTranslatorFactory is a provider system that has the capability to create, initiate or emulate new DataModelTranslation Application Systems on demand. Primarily, the TranslationManager Support System consumes its service when no proper and independent DataModelTranslation Application Systems are available in the Local Cloud for establishing a specific translation bridge.

Alternatively, its functions might be used independently from a translation bridge organized by the Translation Manager Support System.

1.2 System functionalities and properties

1.2.1 Functional properties of the system

DataModelTranslatorFactory solves the following needs to support the translation functionality.

- Enables other systems to check whether an actual source and target data model pair is supported or not.
- Enables other systems to ask for a new dataModelTranslation service implementation, that capable to translate between the required data models.

Data models are expected to be referenced by a unique ID that defines both a specific format (e.g., JSON, XML) and its associated semantics.

Note: This specification does not define the exact data models to be handled. DataModelTranslatorFactory provider instances can differ in the data models they support, but they are always required to expose their capabilities through the common **dataModelTranslationFactoryControl** service.

1.2.2 Non functional properties of the system

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1.2.3 Data stored by the system

The DataModelTranslator shall not persist any data about individual translation processes, but it may store data necessary for the translation provider creation process itself.



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1.3 Important Delimitations

If data model identifiers are not available within a Local Cloud, then data model translator creations are not possible.

2 Services produced

2.1 service **dataModelTranslationFactoryControl**

The purpose of this service is to provide functionality for creating, initializing or emulating DataModelTranslation Application Systems on demand.

3 Security

Instances may limit their access to the TranslationManager Support System and require encrypted communication.



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Document title
DataModelTranslatorFactory Application System
Date
2026-06-22

Version
5.2.1
Status
DRAFT
Page
5 (6)

4 References



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5 Revision History

5.1 Amendments

No.	Date	Version	Subject of Amendments	Author
1	YYYY-MM-DD	5.2.1		Xxx Yyy

5.2 Quality Assurance

No.	Date	Version	Approved by
1	YYYY-MM-DD	5.2.1	