

Cadasto CDR

openEHR conformance statement



Introduction

This Conformance Statement is a formal document that describes the extent to which the Cadasto Clinical Data Repository (CDR) conforms to the openEHR specifications. It provides a transparent overview of the specific components of the openEHR standard that have been implemented, including supported features, services, optional elements and any deliberate limitations.

This Conformance Statement shows exactly which parts of the openEHR specifications Cadasto has implemented. We focus on the components that matter most for a production Clinical Data Repository while taking a pragmatic approach to areas with limited adoption or better alternatives in the current market.

The figure below illustrates the structure of the openEHR specifications. It shows how the standard is organised into layers, including Information Models (such as the Reference Model for EHR and Demographics), Implementation Technology Specifications (for APIs and data formats) and Conformance requirements. This Conformance Statement maps Cadasto's implementation against these categories, demonstrating comprehensive coverage of the core openEHR stack.

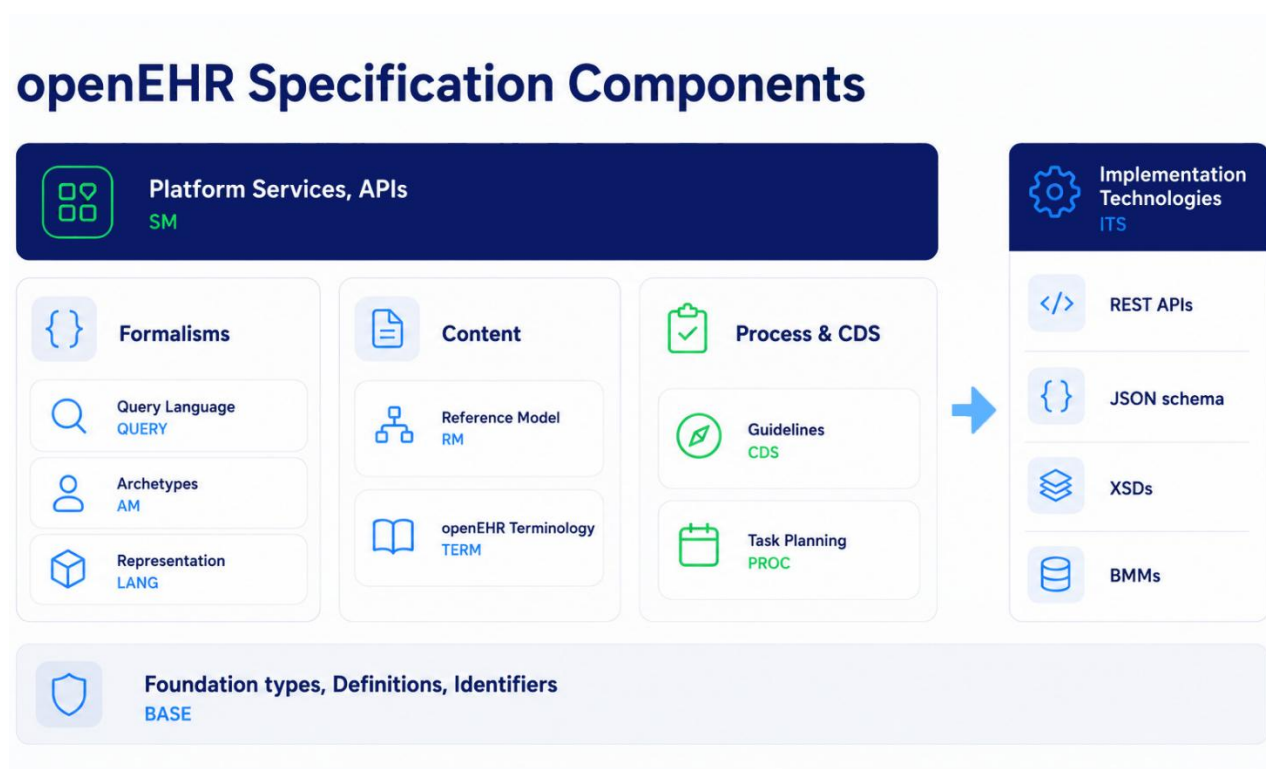


Figure 1: Structure of the openEHR specifications and how this Conformance Statement maps against them.

Executive Summary

This Conformance Statement sets out Cadasto's implementation of the openEHR specifications in its Clinical Data Repository.

Cadasto demonstrates strong conformance to the core openEHR components required for a production Clinical Data Repository. We fully support the Reference Model (version 1.1.0) for Clinical and Demographic data, Archetype Query Language (AQL 1.1.0), Archetype Technology based on ADL 1.4 (AM 2.3.0), Terminology services (2.3.0) and the main REST APIs (ITS-REST 1.0.3), including the EHR, Query, Definition and Demographic APIs. We also support SMART-on-openEHR and provide a bidirectional FHIR Façade.

We have chosen not to implement several specifications:

- The Simplified Data Template (SDT / flat format) is not supported. Instead, we provide Datamap, a simpler JSON format that we consider more practical for most development and integration work.
- Guideline Definition Language (GDL 2.0.1) is not implemented in the CDR itself. Clinical decision support is handled via external integration (Cambio CDS).
- The Integration and EHR Extract parts of the Reference Model are not implemented. These are not required for core CDR operation, and we offer equivalent functionality through Datamap, AQL-based queries, and the FHIR Façade.
- Advanced Archetype Model (ADL 2.0 / AOM 2) is not implemented due to limited market adoption. We have no current plans to add support for this.

The XML Schema specifications (ITS-XML) are marked as not applicable, as they are not runtime requirements for a Clinical Data Repository.

Beyond core conformance, the document highlights several additional capabilities that support practical use of the platform:

- Datamap for simplified data access (JSON)
- a FHIR R3 Façade (with R4/R5 support planned for Q2 2026)
- SMART-on-openEHR for App portability across different CDR's

Cadasto is also active in the openEHR community, one of our co-owners serves as Co-Chair of the Specifications Editorial Committee and we are working with a third party to establish a formal process for independent conformance audits.

In summary, this statement shows that Cadasto has implemented the openEHR specifications needed for a robust production Clinical Data Repository, while taking a pragmatic approach in areas where full conformance delivers limited practical benefit. This document provides a transparent view of what has been implemented and the rationale behind the choices made.

1. openEHR Implementation Technologies

1.1. APIs (ITS-REST)

Component	Description	openEHR specification version	Implementation status	Notes
Overview	REST API Overview	Stable	● Fully supported	-
EHR API	EHR API	Stable	● Fully supported	-
Query API	Query API	Stable	● Fully supported	-
Definition API	Definition API	Stable	● Fully supported	-
SDT*	Simplified Data Template / Flat format	Development 1.0.3	● Not implemented	-
OAS 3.0	REST API OpenAPI files	Trial	● Not applicable	Is not a CDR runtime requirement
SMART-on-openEHR	Support for App portability	Development 1.1.0	● Fully supported	-
Demographic API	API for all Demographic data	Development 1.1.0	● Fully supported	-
ITS-REST overall	REST API specifications	1.0.3	● Fully supported	Latest version is 1.0.3

***Note:** Cadasto does not currently support the Simplified Data Template (SDT / Flat Format). Datamap is provided instead as a simpler and more developer-friendly JSON format for search, read and write operations.

1.2. Schemas (ITS-XML)

Component	Description	openEHR specification version	Implementation status	Notes
AM 1.4 XSDs	Schema for Archetype Model 1.4	Trial	● Not applicable	Is not a CDR runtime requirement
AM 2 XSDs	Schema for Archetype Model 2	Trial	● Not applicable	Is not a CDR runtime requirement
BASE XSDs	Schema for openEHR BASE	Trial	● Not applicable	Is not a CDR runtime requirement
RM XSDs	Schema for Reference Model	Trial	● Not applicable	Is not a CDR runtime requirement
OET XSDs	Schema for Source Template OET	Trial	● Not applicable	Is not a CDR runtime requirement
QUERY XSDs	Schema for AQL QUERY	Trial	● Not applicable	Is not a CDR runtime requirement
openEHR XSDs v1	All v1 XML Schemas (XSDs)	Stable	● Not applicable	Is not a CDR runtime requirement
ITS-XML overall*	XML Schemas	2.0.0	● Not applicable	Latest version is 2.0.0

***Note:** These XSDs are published by openEHR for validation and data exchange. They are not a CDR runtime requirement and therefore marked 'Not applicable' for implementation status.

2. openEHR Abstract Specifications

2.1. Process and CDS

GDL2*	Guideline Definition Language	2.0.1	● Not implemented	Latest version is 2.0.1
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***Note:** Usage of Guideline Definition Language (Clinical Decision Support) is handled via external system integration (Cambio CDS).

2.2. Content (Reference Model – RM)

Component	Description	openEHR specification version	Implementation status	Notes
EHR	Top-level health record info model	Stable	● Fully supported	-
Demographic	Top-level demographics info model	Stable	● Fully supported	-
Common	Common semantic patterns and structures	Stable	● Fully supported	-
Data Structures	Information model of data structures	Stable	● Fully supported	-
Data Types	Information model of data types.	Stable	● Fully supported	-
Support	Terminology and Measurement service interfaces	Stable	● Fully supported	-
Integration*	Model of free-form external system data	Stable	● Not implemented	-
EHR Extract*	Top-level EHR Extract request/response model	Stable	● Not implemented	-
RM overall	Reference Model	1.1.0	● Fully supported	Latest version is 1.1.0

***Note:** Integration and EHR Extract are part of the Reference Model but are not required for core CDR runtime operations. Cadasto supports equivalent functionality for legacy/external data integration and extracts via Datamap, AQL-based queries and the FHIR Façade. These provide more flexible, modern interoperability options aligned with current market needs.

2.3. Terminology (TERM)

Component	Description	openEHR specification version	Implementation status	Notes
Support Terminology	Support Terminology and code-sets	Stable	● Fully supported	-
openEHR Terminology	openEHR Terminology XML file (English)	Stable	● Fully supported	-
External terminologies	External Terminologies	Stable	● Fully supported	-
PropertyUnitData.xml	Properties and Units used by ADL-tools	Stable	● Not applicable	Is not a CDR runtime requirement Needed for Archetype Designer
TERM overall*	openEHR Terminology	2.3.0	● Fully supported	Latest version is 3.0.0

***Note:** Cadasto is compliant with version 2.3.0 of the Term specifications. The latest openEHR Term specifications is version 3.0.0 and introduces primarily translation and maintenance improvements with no material impact on core CDR runtime behaviour.

2.4. Formalisms

QUERY

Component	Description	openEHR specification version	Cadasto compliance	Notes
AQL	Archetype Query Language	Stable	● Fully supported	-
AQL Examples	Examples of AQL use	Development 1.1.0	● Not applicable	Is not a CDR runtime requirement
QUERY overall	Query Languages	1.1.0	● Fully supported	Latest version is 1.1.0

AM (Archetype Model)

Component	Description	openEHR specification version	Implementation status	Notes
Archetype Technology	Overview of archetype technology	Stable	● Fully supported	-
ADL 2 / AOM 2*	ADL version 2 specifications	Stable	● Not implemented	Limited market adoption
Identification	Formal model of identifiers, versioning and lifecycle	Stable	● Fully supported	-
ADL 1.4	Archetype Definition Language	Stable	● Fully supported	-
AOM 1.4	Archetype Object Model	Stable	● Fully supported	-
OPT 1.4	Operational Template	Stable	● Fully supported	-
Archetype Profile	Specification of plug-in semantics	Stable	● Fully supported	-
AM overall	Archetype Model	2.3.0	● Fully supported	Latest version is 2.3.0

***Note:** Support for ADL 2 / AOM 2 is not planned to implement due to limited market adoption.

LANG (Generic Languages)

Component	Description	openEHR specification version	Implementation status	Notes
ODIN	ADL syntax formalism	Stable	● Fully supported	-
BMM*	Basic Meta-Model	Trial	● Not applicable	Is not a CDR runtime requirement
P_BMM	UML equivalent	Stable	● Fully supported	-
Expression Language	The openEHR Expression Language (BMM)	Development 1.0.0	● Not applicable	Is not a CDR runtime requirement
LANG overall	Generic Languages	1.0.0	● Fully supported	Latest version is 1.0.0

***Note:** openEHR BMM (Basic Meta-Model) is a tooling technology and not a runtime requirement for a CDR

2.5. Foundations (BASE)

Component	Description	openEHR specification version	Implementation status	Notes
Architecture Overview	"Read me first" document	Stable	● Not applicable	Is not a CDR runtime requirement
Foundation Types	Required by all other openEHR specifications	Stable	● Fully supported	-
Base Types	Used in other openEHR specifications	Stable	● Fully supported	-
Resource Model	Formal model of authoring and IP meta-data, language translation and annotations	Stable	● Fully supported	-
ISO 18308	Requirements for EHR Architectures	Stable	● Not applicable	Is not a CDR runtime requirement
BASE overall	Base Model	1.2.0	● Fully supported	Latest version is 1.2.0

Additional Cadasto CDR Features

Component	Description	Status	Notes
Datamap*	Simplified (JSON) data format	● Fully supported	Cadasto specific
FHIR Façade*	REST API FHIR R3 with Datamap	● Fully supported	FHIR R4/R5 is currently in development
FHIR Connect*	bidirectional mapping between openEHR and FHIR	● Supported via integration	-
Federation*	openEHR SEC proposal (EY)	● Fully supported	Separate product from Cadasto CDR

***Note:**

- *Datamap is a simplified format for search, read and write openEHR data through a simple JSON format (alias/openEHR path). This format accelerates the adoption of working with openEHR and App development.*
- *Cadasto delivers a FHIR Façade where FHIR messages can be mapped to openEHR objects and vice-versa for search, read and write actions. Because it is a FHIR façade the FHIR messages are not stored. Current supported version is FHIR R3, support for FHIR R4/R5 is planned to release in 2026 Q2.*
- *Usage of FHIR Connect is handled via external system integration (Syntaric openFHIR).*
- *Cadasto Federation is a separate product from Cadasto CDR. It is not an official openEHR specification and implements the SEC proposal developed by EY.*

Conformance verification

Implementation conformance has been validated through systematic internal alignment with official openEHR specifications, reference models and test data.

We are currently working with a third-party partner to establish a formal independent audit process against the openEHR specifications. Sebastian Iancu, co-owner of Cadasto, also serves as Co-Chair of the openEHR Specifications Editorial Committee.

Summary

The Cadasto Clinical Data Repository demonstrates strong and transparent conformance to the current openEHR Release baseline specifications.

This Conformance Statement enables healthcare organisations, system integrators and clinical partners to verify compatibility, assess integration effort and confidently adopt a vendor-neutral, semantically rich clinical data platform.

For questions about this document, requests for detailed technical evidence, or discussions on integration and partnership opportunities, please contact info@cadasto.com or visit <https://www.cadasto.com/contact/>

We encourage other openEHR CDR vendors to publish similar statements. Greater transparency across the community will accelerate openEHR adoption to achieve lifelong, patient-centric shared health record, future-proof data and clinical process support.



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