AGFA HealthCare

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17 February 2025

# **AGFA HEALTHCARE FHIR Conformance Statement**

# **Enterprise Imaging 8.4.x**

Document No. 001686 - Revision: 8

Livelink NodeID: 83173717

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### **Document Information**

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### 1 INTRODUCTION

### 1.1 Revision Record

FHIR Conformance Statement Template, Livelink Node ID: 65788844			
Version Date Reason for Change			
2	August 2018	18 Initial revision	
3	February 2019	uary 2019 all corrections made in review cycle	
4	February 2019	Chapter 2 changes	

FHIR Conformance Statement Enterprise Imaging 8.4.x			
Version	Date	Reason for Change	
1-4	March 2024	Initial Revision for El 8.4.0.000	
5	May 2024	Version for El 8.4.1.000	
6	October 2024	Version for El 8.4.2.000	
7	October 2024	Added EICompositeList and EIBroadcastMessage	
8	January 2025	Version for EI 8.4.3.000. Updated AllergyIntolerance and Observation functions. Added Condition.	

### **1.2** Purpose and Intended Audience of this Document

#### **DISCLAIMER:**

This document is a Technology Preview of the FHIR capabilities of Enterprise Imaging 8.4.x. Some profiles, extensions or parameters may be deprecated without notice in future versions of Enterprise Imaging. Therefore, AGFA HealthCare shall not be liable for loss of functionalities with non AGFA products which implemented a FHIR interface with EI 8.4.x, in case Enterprise Imaging is upgraded.

This document is a FHIR Conformance Statement for the FHIR Services of Enterprise Imaging 8.4.x.

The user of this document is involved with system integration and/or software design. We assume that the reader is familiar with the terminology and concepts that are used in FHIR standard and the IHE Technical Framework.

Readers not familiar with FHIR terminology should first read the appropriate parts of the FHIR standard itself, prior to reading this conformance statement.

Although the use of this conformance statement in conjunction with the FHIR standard is intended to facilitate communication with Enterprise Imaging 8.4.x, it is not sufficient to guarantee, by itself, the inter-operation of the connection between Enterprise Imaging 8.4.x and the 3rd party FHIR-based system.

The integration of any device into a system of interconnected devices goes beyond the scope of the FHIR standard and this conformance statement when *interoperability* is desired. The responsibility for analyzing the applications requirements and developing a solution that integrates the AGFA equipment with other vendors' systems is the user's responsibility and should not be underestimated.



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#### 1.3 About FHIR

Fast Healthcare Interoperability Resources (FHIR, pronounced "Fire") defines a set of "Resources" that represent granular clinical concepts. The resources can be managed in isolation, or aggregated into complex documents. This flexibility offers coherent solutions for a range of interoperability problems. The simple direct definitions of the resources are based on thorough requirements gathering, formal analysis and extensive cross-mapping to other relevant standards.

Each resource carries a master id. The id is never changed or reused, and it identifies the resource permanently. Resources may refer to other resources by id knowing that this is stable reference. Each resource has a URL which is derived from the id, the type, and the local base URL. Given one resource address, the address of any other resource can be automatically determined.

Resources contain references to other resources. While each resource can be read and/or changed without explicit reference to these other resources, the presence of these references influences the behaviour of the system: implementations are required to maintain system and data integrity at all times.

Each resource supports the same list of transactions - read, update, delete, etc. One particularly important transaction supported by every resource type is the provision of a conformance statement which specifies what parts of the defined content model are supported by the system, and what other transactions or interactions are supported. If any of the other interactions are supported, the conformance interaction must be supported. (i.e. if the conformance interaction returns an error, no operations are supported).

The exchange specifications are simple and straight forward and based around direct description of the XML representation of the resource. Each resource is described separately, though there are some common patterns used across all the resources (called "data types"). In addition to the simple XML definitions, a schema and UML class diagram are available for each resource. The UML class diagram represents the same logical model as the XML format (though because of UML issues, implementors should not expect the UML model to lead to interoperable implementations).

Further, each xml element (or matching UML class, attribute and composition association) is associated with a reference into a single integrated ontology that serves as a data dictionary. As well as more precisely defining the element, the data dictionary specifies the mappings from the element into other standards.

Technically, FHIR is designed for the web; the resources are based on simple XML or JSON structures, with an http-based RESTful protocol where each resource has predictable URL. Where possible, open internet standards are used for data representation.

#### 1.4 General Remarks

#### 1.4.1 Integration and Validation Activities

The integration of any device into a system of interconnected devices goes beyond the scope of the FHIR standard and this conformance statement when interoperability is desired. The responsibility for analyzing the applications requirements and developing a solution that integrates the AGFA equipment with other vendors' systems is the user's responsibility and should not be underestimated.

In some circumstances it might be necessary to perform a validation to make sure that functional interoperability between the AGFA equipment and non-AGFA devices works as expected. The user should ensure that any non-AGFA provider accepts responsibility for any validation required for their connection with the AGFA equipment.



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To help this integration validation we provide a **FHIR Implementation Guide** in a zip file "<u>001687</u> <u>Enterprise Imaging 8.4.x FHIR Implementation Guide</u>" available on https://www.agfahealthcare.com/fhir-conformance-statement/.

### **1.4.2 Future Evolution**

As the FHIR standard evolves to meet the user's growing requirements and to incorporate new features and technologies, AGFA HealthCare will follow the evolution of the standard. This evolution of the standard may require changes to devices that have implemented FHIR. The user should ensure that any non-AGFA provider, who connects with AGFA devices, also plans for future evolution of the FHIR standard. A refusal to do so may result in the loss of functionality and/or connectivity between the different products.

#### 1.5 Acronyms and Abbreviations

Definitions, terms and abbreviations used in this document, many of which are defined within the FHIR standard. Abbreviations and terms are as follows:

FHIR	Fast Healthcare Interoperability Resources
HL7	Health Level 7
IHE	Integrating the Healthcare Enterprise
RESTful	Representational State Transfer (REST)
UML	Unified Modeling Language
URI	Uniform Resource Identifier
URL	Uniform Resource Locator
XML	Extensible Markup Language

### 1.6 Related Documents

- > HL7 FHIR Standard current version see <a href="https://www.hl7.org/fhir">www.hl7.org/fhir</a>
- > IHE Radiology Technical Framework
- IHE IT Infrastructure Technical Framework



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### **2** CAPABILITY STATEMENT

### 2.1 **RESTful Interactions**

Resource Type	Profile	Enterprise Imaging Profile	Read	Search	Update	Patch	Create	Delete
AllergyIntolerance	AllergyIntolerance	EIPatientAllergy			$\checkmark$		$\checkmark$	$\checkmark$
Binary	<u>Binary</u>	EIReportSoundFile, EIReportBlob, EIBlob	$\checkmark$		$\checkmark$			
CodeSystem	CodeSystem		$\checkmark$	$\checkmark$				
Communication	Communication	EIBroadcastMessage	$\checkmark$		$\checkmark$		$\checkmark$	$\checkmark$
Condition	Condition	EIPatientSafetyHazard	$\checkmark$		$\checkmark$		$\checkmark$	$\checkmark$
DiagnosticReport	<b>DiagnosticReport</b>	EIReportResultAsDiagnosticReport	$\checkmark$					
DocumentReference	DocumentReference	ElAttachment, ElMultiMediaReference	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
Encounter	<u>Encounter</u>	EITransfer, EIPatientAdmission	$\checkmark$					
ImagingStudy	ImagingStudy	EIStudy	$\checkmark$					
List	<u>List</u>	EIActivitiesOverview, EICompositeList, EIFolder, EIQueryList	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$
Location	Location	EIRoom	$\checkmark$					
Observation	Observation	EIPatientPregnancy, EIReportSection, EIReportMeasurements, EIStructuredReport, EIReportResultAsObservation	V		$\checkmark$	$\sqrt{1}$	$\checkmark$	
OperationDefinition	<b>OperationDefinition</b>		$\checkmark$					
Organization	<u>Organization</u>	ElAssignmentGroup, ElDepartment, ElFacility	V					
Patient	Patient	EIPatient		$\checkmark$				
Practitioner	Practitioner	EIProfessional		$\checkmark$				
Procedure	Procedure	EIRequestedProcedureAsProcedure, EIPerformedProcedureStep	$\checkmark$	$\checkmark$				
ServiceRequest	<u>ServiceRequest</u>	ElRequestedProcedureAsServiceRequest, ElScheduledProcedureStep, ElServiceRequest	$\checkmark$	$\checkmark$				
StructureDefinition	<b>StructureDefinition</b>		$\checkmark$	$\checkmark$				
Subscription	Subscription	EISubscription	$\checkmark$		$\checkmark$		$\checkmark$	$\checkmark$
Task	<u>Task</u>	EITaskInstance	$\checkmark$	$\checkmark$				
ValueSet	ValueSet		$\checkmark$	$\checkmark$				

### 2.2 Search Parameters & Operations per resource type

This is documented in the **FHIR Implementation Guide:** <u>001687 Enterprise Imaging 8.4.x FHIR</u> <u>Implementation Guide</u> available on <u>https://www.agfahealthcare.com/fhir-conformance-statement/</u>.

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<sup>&</sup>lt;sup>1</sup> Only for the EIReportSection Profile

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### **3 PROFILES**

This is documented in the **FHIR Implementation Guide:** <u>001687 Enterprise Imaging 8.4.x FHIR</u> <u>Implementation Guide</u> available on <u>https://www.agfahealthcare.com/fhir-conformance-statement/</u>



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### **4** EXTENSIONS

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## **5** CODE SYSTEMS & VALUE SETS

This is documented in the **FHIR Implementation Guide:** <u>001687 Enterprise Imaging 8.4.x FHIR</u> <u>Implementation Guide</u> available on <u>https://www.agfahealthcare.com/fhir-conformance-statement/</u>





Document Metadata		
Title:	001686 Enterprise Imaging 8.4.x FHIR Conformance Statement	
Livelink ID:	83173717	
Version#:	8	
Version Date:	2025-01-22 01:48 PM CET	
Status:	Approved on 2025-02-17 01:19 PM CET	
Owner:	Nick Baehl (aqbel)	
Created By:	Nick Baehl (aqbel)	
Created Date:	2024-03-21 03:11 PM CET	
PDF Creation Date:	2025-02-17 01:20 PM CET	

### **Details as of PDF Creation Date**

### This document was approved by:

### Signatures:

- 1. Bruno Laffin (nawyv) on 2025-01-27 11:16 AM CET
- 2. Bart De Smedt (awxma) on 2025-02-07 11:59 AM CET

### **Detailed Approver History:**

### Approval Workflow started on 2025-01-24 04:07 PM CET

- Approval task originally assigned to and completed by Bruno Laffin (nawyv) on 2025-01-27 11:16 AM CET
- Approval task originally assigned to and completed by Bart De Smedt (awxma) on 2025-02-07 11:59 AM CET

Version#	Date Created	Status
8	2025-01-22 01:48 PM CET	Approved - 2025-02-17 Reviewed - 2025-01-24
7	2024-10-10 03:27 PM CET	Published - 2024-10-11 Approved - 2024-10-11 Reviewed - 2024-10-11
6	2024-10-04 09:46 AM CET	Approval Cancelled - 2024-10-10 Reviewed - 2024-10-10
5	2024-05-22 04:16 PM CET	Unpublished - 2024-10-11 Published - 2024-05-24 Approved - 2024-05-24 Reviewed - 2024-05-24

### Version & Status History

Docur	<b>4</b> nent Status: Appro	2024-03-25 04:53 PM CE I	Unpublished - 2024-05-24 Published - 2024+03:263173717 Version Approved - 2024-03-26	: 8
	3	2024-03-25 12:05 PM CET	Approval Cancelled - 2024-03-25	
	2	2024-03-21 03:46 PM CET	Reviewed - 2024-03-25	
	1	2024-03-21 03:11 PM CET		

### Applied Categories and Attributes:

ITCo Library	
Document Type:	Conformance Statement
Category > SubCategory > Item:	Connectivity > Connectivity & Application > To Agfa
Content Manager:	Nick Baehl (aqbel)
Summary:	The document 001686 is the FHIR Conformance Statement for Enterprise Imaging 8.4.x.
Language:	English
Availability:	Internet
Language Master Document:	
Software Download URL:	