1. DOCUMENT REVISION

Version	Change Description	Change Date
1.0	Initial release	Aug 25 2023

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2. SCOPE

The scope of this DICOM conformance statement is to facilitate integration between Falcon API and other DICOM products. The conformance statement should be read and understood in conjunction with the DICOM standard. DICOM by itself does not guarantee interoperability. The conformance statement does, however, facilitate a first-level comparison for interoperability between different applications supporting compatible DICOM functionality. This conformance statement is not supposed to replace validation with other DICOM equipment to ensure proper exchange of intended information. In fact, the user should be aware of the following important issues:

- The comparison of different conformance statements is just the first step towards assessing interconnectivity and interoperability between the product and other DICOM conformant equipment.
- Test procedures should be defined and executed to validate the required level of interoperability with specific compatible DICOM equipment, as established by the healthcare facility.

3. AUDIENCE

This document is written for the people that need to understand how Falcon API will integrate into their healthcare facility. This includes both those responsible for overall imaging network policy and architecture, as well as integrators who need to have a detailed understanding of the DICOM features of the product. This document contains some basic DICOM definitions so that any reader may understand how this product implements DICOM features. However, integrators are expected to fully understand DICOM terminology, how the tables in this document relate to the product's functionality, and how that functionality integrates with other devices that support compatible DICOM features.

4. TERMS AND DEFINITIONS

Informal definitions are provided for the following terms used in this conformance statement. The DICOM standard is the authoritative source for formal definitions of these terms.

Term	Definition
Attribute	A unit of information in an object definition; a data element identified by a tag. The information may be a complex data structure (Sequence), itself composed of lower level data elements. Examples: Patient ID (0010,0020), Accession Number (0008,0050), Photometric Interpretation (0028,0004), Procedure Code Sequence (0008,1032).
Information Entity (IE)	That portion of information defined by a Composite IOD which is related to one specific class of Real-World Object. There is a one-to-one correspondence between Information Entities and entities in the DICOM Application Model.

Information Object Definition (IOD)	The specified set of Attributes that comprise a type of data object, does not represent a specific instance of the data object, but rather a class of similar data objects that have the same properties. The Attributes may be specified as Mandatory (Type 1), Required but possibly unknown (Type 2), or Optional (Type 3), and there may be conditions associated with the use of an Attribute (Types 1C and 2C). Examples: MR Image IOD, CT Image IOD, Print Job IOD.
Module	A set of Attributes within an Information Object Definition that are logically related to each other. Example: Patient Module includes Patient Name, Patient ID, Patient Birth Date, and Patient Sex
Service/Object Pair (SOP) Class	The specification of the network or media transfer (service) of a particular type of data (object); the fundamental unit of DICOM interoperability specification. Examples: Ultrasound Image Storage Service, Basic Grayscale Print Management.
Service/Object Pair (SOP) Instance	An information object; a specific occurrence of information exchanged in a SOP Class. Example: a specific x-ray image.
Tag	A 32-bit identifier for a data element, represented as a pair of four digit hexadecimal numbers, the "group" and the "element". If the "group" number is odd, the tag is for a private (manufacturer-specific) data element. Examples: (0010,0020) [Patient ID], (07FE,0010) [Pixel Data], (0019,0210) [private data element]
Transfer Syntax	The encoding used for exchange of DICOM information objects and messages. Examples: JPEG compressed (images), little endian explicit value representation
Unique Identifier (UID)	A globally unique "dotted decimal" string that identifies a specific object or a class of objects; an ISO-8824 Object Identifier. Examples: Study Instance UID, SOP Class UID, SOP Instance UID.
Value Representation (VR)	The format type of an individual DICOM data element, such as text, an integer, a person's name, or a code. DICOM information objects can be transmitted with either explicit identification of the type of each data element (Explicit VR), or without explicit identification (Implicit VR); with Implicit VR, the receiving application must use a DICOM data dictionary to look up the format of each data element.

5. ABBREVIATIONS

C	Conditional (Module Usage)
DICOM	Digital Imaging and Communications in Medicine
IE	Information Entity
IOD	Information Object Definition
ISO	International Organization for Standards
M	Mandatory (Module Usage)
NEMA	National Electrical Manufacturers Association

OSI	Open Systems Interconnection
PS 3.2	DICOM Standard Part 2: Conformance
PS 3.3	DICOM Standard Part 3: Information Object Definitions
PS 3.15	DICOM Standard Part 15: Security and System Management Profiles
QA	Quality Assurance
RT	Radiotherapy
SOP	Service-Object Pair
SRO	User Option (Module Usage)
UID	Unique Identifier
VR	Value Representation

6. BASICS OF DICOM COMMUNICATION

This section describes terminology used in this conformance statement for the non-specialist. The key terms used in the conformance statement are highlighted in italics below. This section is not a substitute for training about DICOM, and it makes many simplifications about the meanings of DICOM terms. Falcon API provides a REST API to upload and download files created and used by other applications. DICOM specifies a variety of methods for encoding data and denoting transfer syntaxes. The transfer syntax specifies endianness and whether the value representation for each attribute is explicitly provided or whether it must be determined based on the tag using a DICOM dictionary. Each unit of data is formatted in accordance with the appropriate information object definition, using the transfer syntax.

7. REFERENCES

NEMA PS3: Digital Imaging and Communications in Medicine (DICOM) Standard