# IBM iConnect® Access

8.1

PACS GATEWAY DICOM CONFORMANCE STATEMENT



Licensed Materials - Property of IBM

#### © Copyright IBM Corporation 2021

IBM, the IBM logo, IBM Watson, and Watson Health are trademarks of IBM Corporation in the United States, other countries or both. The use of IBM trademarks herein are by authorization and license from the IBM Corporation.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

All other company or product names are trademarks of their respective companies.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact the IBM Director of Licensing. Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

IBM Director of Licensing IBM Corporation North Castle Drive, MD-NC119 Armonk, NY 10504-1785

IBM grants limited permission to licensees to make hardcopy or other reproductions of any machine- readable documentation, provided that each such reproduction shall carry the IBM copyright notices and that use of the reproduction shall be governed by the terms and conditions specified by IBM in the Licensed Program Specifications. Any reproduction or use beyond the limited permission granted herein shall be a breach of the license agreement and an infringement of the applicable copyrights.

Materials displayed or reproduced by this program may be protected by copyright and/or contract restrictions of IBM and/or others. The user is responsible for having permission to display and reproduce such materials and for including applicable copyright notices and legends.

#### **U.S. GOVERNMENT RESTRICTED RIGHTS:**

Use, duplication, or disclosure restricted by GSA ADP Schedule Contract with IBM Corporation.

#### **INDICATIONS FOR USE**

The IBM iConnect Access application provides internet access to multi-modality softcopy medical images, reports, and other patient-related information to conduct diagnostic review, planning and reporting through the interactive display and manipulation of medical data. IBM iConnect Access provides healthcare professional tools to aid in interpreting medical images including:

- Displaying DICOM compliant medical images and non-DICOM content using XDS.
- Reformatting images, including creation of MPRs, MIPS, MinIPs, color/monochrome 3D volume rendered images.
- Manipulating displayed images via control of slice thickness, slice interval, obliquity, perspective, rotation, window/ level, crop, zoom, color/monochrome transformations, segmentation, sculpting, straightening the display of curved structures, and creating images perpendicular to a curvilinear path.
- Creating individually captured DICOM images that can be displayed and stored in a PACS.
- Measuring coronary calcium, which is intended for non-invasive identification and quantification of calcified atherosclerotic
  plaques in the coronary arteries using tomographic medical image data and clinically accepted calcium scoring algorithms.
- Creating and outputting digital files suitable for the fabrication of physical replicas, such as 3D printing, using DICOM files as inputs. Physical/3D printed models generated from the digital output files are not for diagnostic use.

The IBM iConnect Access application can be configured to provide either lossless or lossy compressed images for display. The medical professional user must determine the appropriate level of image data compression that is suitable for their purpose.

Lossy compressed mammographic images and digitized film screen images must not be reviewed for primary image interpretations. Mammographic images may only be interpreted using an FDA approved monitor that offers at least 5 MP resolution and meets other technical specifications reviewed and accepted by FDA.

Display monitors used for reading medical images for diagnostic purposes must comply with applicable regulatory approvals and with quality control requirements for their use and maintenance. Use of IBM iConnect Access application on mobile devices such as iPhones and iPads is not intended for diagnostic use.

**REF** 100-00001-00



Merge Healthcare Incorporated 900 Walnut Ridge Drive Hartland, WI 53029









#### **Emergo Europe**

Prinsessegracht 20 2514 AP The Hague The Netherlands

#### **Australian Sponsor**

IBM Australia Limited Level 13, IBM Centre 601 Pacific Highway St Leonards, NSW, 2065 Australia ABN 79 000 024 733

#### **Symbols Glossary:**

Symbol	Title
REF	Part or Catalog number
M	Manufacturer
<b>₩</b>	Country of Manufacture
M	Date of Manufacture
EC REP	Authorized Representative in the European Community
<b>( (</b>	European Conformity
<b>( €</b> <sub>1639</sub>	CE Mark with Notified Body
Ronly	Prescription Use Only
index.	Consult Electronic Instructions for Use

The full symbols glossary can be viewed at https://www.ibm.com/support/pages/node/6262453.

#### **INSTRUCTIONS FOR USE:**

Instructions for use are available electronically in PDF format. Paper format can be requested for supported languages by contacting Customer Support and will be provided free of charge within seven calendar days of receiving the request. The paper format can also be provided at the time of delivery if so requested at the time of order.

For application support or to report issues with user documentation, contact Customer Support:

% 1-877-741-5369 (North America)

+31.20.514.5073 (Europe, the Middle East and Africa) 1800 316 746 (Australia)

1000 310 740 (Adstratia)

#### WHISupport@us.ibm.com

Part	Date	Revision	Description
ICA-25082	03/2021	1.0	Initial revision for IBM iConnect Access 8.1

# 1. Conformance Statement Overview

This document describes the DICOM v3.0 implementation supported by IBM iConnect PACS Gateway. It documents conformance aspects required to interoperate with other DICOM v3.0 conformant devices.

IBM iConnect PACS Gateway is an application that allows medical data to be sent between two DICOM data sources. The application exposes a DICOM endpoint (C-STORE SCP) to which external PACS can push DICOM data which will then be uploaded to iCA through a secure Web service and eventually it is transferred to the target destination data source through DICOM communication by IBM iConnect Access.

Supported Networking DICOM Service (SOP) Classes:

SOP Classes	User of Service (SCU)	Provider of Service (SCP)
Tra	ansfer	
1.2.840.10008.5.1.4.1.1.88.65 Chest CAD SR	No	Yes
1.2.840.10008.5.1.4.1.1.2.1 Enhanced CT Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.4.1 Enhanced MR Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.88.59 Key Object Selection Document	No	Yes
1.2.840.10008.5.1.4.1.1.88.50 Mammography CAD SR	No	Yes
1.2.840.10008.5.1.4.1.1.4.2 MR Spectroscopy Storage	No	Yes
1.2.840.10008.5.1.4.1.1.7.2 Multiframe Grayscale Byte Secondary Capture Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.7.3 Multiframe Grayscale Word Secondary Capture Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.7.1 Multiframe Single Bit Secondary Capture Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.7.4 Multiframe True Color Secondary Capture Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.66.2 Spatial Fiducials Storage	No	Yes

SOP Classes	User of Service (SCU)	Provider of Service (SCP)
1.2.840.10008.5.1.4.1.1.66.1 Spatial Registration Storage	No	Yes
1.2.840.10008.5.1.4.1.1.88.11 Basic Text SR	No	Yes
1.2.840.10008.5.1.4.1.1.88.33 Comprehensive SR	No	Yes
1.2.840.10008.5.1.4.1.1.1 CR Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.2 CT Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.9 Standalone Curve Storage	No	Yes
1.2.840.10008.5.1.4.1.1.1 Digital X-Ray Image Storage – for Presentation	No	Yes
1.2.840.10008.5.1.4.1.1.1.1 Digital X-Ray Image Storage – for Processing	No	Yes
1.2.840.10008.5.1.4.1.1.88.22 Enhanced SR	No	Yes
1.2.840.10008.5.1.4.1.1.11.1 Grayscale Softcopy Presentation State Storage	No	Yes
1.2.840.10008.5.1.1.30 Hardcopy Color Image Storage	No	Yes
1.2.840.10008.5.1.1.29 Hardcopy Grayscale Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.1.3 Digital Intra – oral X-Ray Image Storage – for Presentation	No	Yes
1.2.840.10008.5.1.4.1.1.1.3.1 Digital Intra – oral X-Ray Image Storage – for Processing	No	Yes
1.2.840.10008.5.1.4.1.1.1.2 Digital Mammography X-Ray Image Storage – for Presentation	No	Yes
1.2.840.10008.5.1.4.1.1.1.2.1 Digital Mammography X-Ray Image Storage – for Processing	No	Yes
1.2.840.10008.5.1.4.1.1.10 Standalone Modality LUT Storage	No	Yes
1.2.840.10008.5.1.4.1.1.4 MR Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.20 NM Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.5 NM Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.77.1.5.2 Ophthalmic Photography 16-Bit Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.77.1.5.1 Ophthalmic Photography 8-Bit Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.8 Standalone Overlay Storage	No	Yes
1.2.840.10008.5.1.4.1.1.128 Positron Emission Tomography Curve Storage	No	Yes
1.2.840.10008.5.1.4.1.1.129 Standalone Positron Emission Tomography Curve Storage	No	Yes



SOP Classes	User of Service (SCU)	Provider of Service (SCP)
1.2.840.10008.5.1.1.27 Stored Print Storage	No	Yes
1.2.840.10008.5.1.4.1.1.481.4 Radiation Therapy Beams Treatment Record Storage	No	Yes
1.2.840.10008.5.1.4.1.1.481.6 Radiation Therapy Brachy Treatment Record Storage	No	Yes
1.2.840.10008.5.1.4.1.1.481.2 Radiation Therapy Dose Storage	No	Yes
1.2.840.10008.5.1.4.1.1.481.1 Radiation Therapy Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.481.5 Radiation Therapy Plan Storage	No	Yes
1.2.840.10008.5.1.4.1.1.481.3 Radiation Therapy Structure Set Storage	No	Yes
1.2.840.10008.5.1.4.1.1.481.7 Radiation Therapy Treatment Summary Record Storage	No	Yes
1.2.840.10008.5.1.4.1.1.7 Secondary Capture Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.6.1 Ultrasound Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.3.1 Ultrasound Multiframe Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.3 Ultrasound Multiframe Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.6 Ultrasound Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.77.1.1.1 Video Endoscopic Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.77.1.2.1 Video Microscopic Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.77.1.4.1 Video Photographic Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.77.1.1 VL endoscopic Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.77.1.2 VL Microscopic Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.77.1.4 VL Photographic Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.77.1.3 VL Slide-Coordinates Microscopic Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.11 Standalone VOI LUT Storage	No	Yes
1.2.840.10008.5.1.4.1.1.9.1.1 12-lead ECG Waveform Storage	No	Yes



SOP Classes	User of Service (SCU)	Provider of Service (SCP)
1.2.840.10008.5.1.4.1.1.9.1.3 Ambulatory ECG Waveform Storage	No	Yes
1.2.840.10008.5.1.4.1.1.9.4.1 Basic Voice Audio Waveform Storage	No	Yes
1.2.840.10008.5.1.4.1.1.9.3.1 Cardiac Electrophysiology Waveform Storage	No	Yes
1.2.840.10008.5.1.4.1.1.9.1.2 General ECG Waveform Storage	No	Yes
1.2.840.10008.5.1.4.1.1.9.2.1 Hemodynamic Waveform Storage	No	Yes
1.2.840.10008.5.1.4.1.1.12.1 X-Ray Angiographic Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.12.3 X-Ray Angiographic Biplane Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.12.2 X-Ray Radiofluoroscopic Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.77.1.5.3 Stereometric Relationship Storage	No	Yes
1.2.840.10008.5.1.4.1.1.12.1.1 Enhanced XA Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.12.2.1 Enhanced XRF Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.66 Raw Data Storage	No	Yes
1.2.840.10008.5.1.4.1.1.67 Real World Value Mapping Storage	No	Yes
1.2.840.10008.5.1.4.1.1.11.4 Blending Softcopy Presentation State Storage	No	Yes
1.2.840.10008.5.1.4.1.1.11.2 Color Softcopy Presentation State Storage	No	Yes
1.2.840.10008.5.1.4.1.1.104.1 Encapsulated PDF Storage	No	Yes
1.2.840.10008.5.1.4.1.1.11.3 Pseudocolor Softcopy Presentation Stage Storage	No	Yes
1.2.840.10008.5.1.4.1.1.481.9 Radiation Therapy Ion Beams Treatment Record Storage	No	Yes
1.2.840.10008.5.1.4.1.1.481.8 Radiation Therapy Ion Plan Storage	No	Yes
1.2.840.10008.5.1.4.1.1.88.67 X-Ray Radiation Dose SR	No	Yes
1.2.840.10008.5.1.4.1.1.66.3 Deformable Spatial Registration Storage	No	Yes
1.2.840.10008.5.1.4.1.1.66.4 Segmentation Storage	No	Yes



# 2. Contents

1.	Con	formance	<b>Statem</b>	ent Overview	4
2.	Con	tents	•••••		8
3.	Intr	oduction	•••••		10
	3.1	Revision	n History.		10
	3.2	Audienc	e		10
	3.3	Remark	s		11
	3.4	Definition	ns		11
	3.5	Basics o	f DICOM	Communication	14
	3.6	Abbrevi	ations		15
	3.7	Referen	ces		15
4.	Netv	working .	•••••		16
	4.1	Implem	entation	Model	16
		4.1.1	Applicat	tion Data Flow	16
		4.1.2	Function	nal Definition of AE's	17
			4.1.2.1	Functional Definition of Gateway AE	17
		4.1.3	Sequen	cing of Real World Activities	18
	4.2	AE Spec		;	
		4.2.1		y Application Entity Specification	
			4.2.1.1	SOP Classes	20
			4.2.1.2	Association Policies	24
				Association Initiation Policy	
				Association Acceptance Policy	
	4.3			es	
		4.3.1	-	l Network Interface	
		4.3.2		nal Protocols	
				DHCP	
				DNS	
				NTP	
		4.3.3		d IPv6 Support	
	4.4	_			
		4.4.1		/Presentation Address Mapping	
				Local AE Titles	
			4.4.1.2	Remote AE Title/Presentation Address Mapping	101



5.	Med	ia Inter	change	102
6.	Trar	nsformat	tion of DICOM to CDA	103
7.	Sup	port of E	Extended Character Sets	104
8.	Seci	urity		105
	8.1	Securit	ty Profiles	105
		8.1.1	Secure Use Profiles	
		8.1.2	Secure Transport Connection Profiles	
		8.1.3	Digital Signature Profiles	
		8.1.4	Media Storage Security Profiles	105
	8.2	Associa	ation Level Security	105
	8.3	Applica	ation Level Security	105
9.	Ann	exes		107



# 3. Introduction

IBM iConnect PACS Gateway (subsequently referred to as "the application") is an application that allows medical data to be sent between two DICOM data sources over HTTPS and WSS. It always interacts with the IBM iConnect Access (ICA) user domain it is associated with. The application exposes a DICOM endpoint (C-STORE SCP) to which external PACS can push DICOM data. In this scenario the application acts as a DICOM C-STORE SCP when receiving DICOM data for one of its configured local AE titles from a DICOM SCU. It also receives data from iCA server over websocket and sends to local external PACS. In this scenario it acts as a DICOM C-STORE SCU.

Once the data is stored into the application successfully, it is uploaded to iCA through a secure Web service. Upon the data being uploaded successfully, iCA sends the data to a target DICOM data source through DICOM communication by iCA.

# 3.1 Revision History

<b>Document Version</b>	Date of Issue	Author	Description
1.0	February 19, 2021	Jack Pei	Final text

# 3.2 Audience

This document is written for the people that need to understand how the application 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 all the 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.



## 3.3 Remarks

The scope of this DICOM Conformance Statement is to facilitate integration between the application 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.

## 3.4 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.

- Abstract Syntax the information agreed to be exchanged between applications, generally equivalent to a Service/Object Pair (SOP) Class.
   Examples: Verification SOP Class, Modality Worklist Information Model Find SOP Class, Computed Radiography Image Storage SOP Class.
- **Application Entity (AE)** an end point of a DICOM information exchange, including the DICOM network or media interface software; i.e., the software that sends or receives DICOM information objects or messages. A single device may have multiple Application Entities.
- **Application Context** the specification of the type of communication used between *Application Entities*. Example: DICOM network protocol.
- Application Entity Title the externally known name of an Application Entity, used to identify a DICOM application to other DICOM applications on the network.



- **Association** a network communication channel set up between Application Entities.
- 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 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.
- **Joint Photographic Experts Group (JPEG)** a set of standardized image compression techniques, available for use by DICOM applications.
- **Media Application Profile** the specification of DICOM information objects and encoding exchanged on removable media (e.g., CDs)
- **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.
- **Negotiation** first phase of Association establishment that allows Application Entities to agree on the types of data to be exchanged and how that data will be encoded.
- **Presentation Context** the set of DICOM network services used over an Association, as negotiated between Application Entities; includes Abstract Syntaxes and Transfer Syntaxes.
- **Security Profile** a set of mechanisms, such as encryption, user authentication, or digital signatures, used by an *Application Entity* to ensure confidentiality, integrity, and/or availability of exchanged DICOM data
- **Service Class Provider (SCP)** role of an Application Entity that provides a DICOM network service; typically, a server that performs operations requested by another Application Entity(Service Class User). Examples: Picture Archiving and Communication System (image storage SCP, and image query/retrieve SCP), Radiology Information System (modality worklist SCP).



- Service Class User (SCU) role of an Application Entity that uses a DICOM network service; typically, a client. Examples: imaging modality (image storage SCU, and modality worklist SCU), imaging workstation (image query/retrieve SCU)
- **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. Examples: 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 A set of encoding rules that allow Application Entities to unambiguously negotiate the encoding techniques (e.g., Data Element structure, byte ordering, compression) they are able to support, thereby allowing these Application Entities to communicate. Examples: JPEG Baseline, Explicit VR Little Endian.
- 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.



# 3.5 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.

Two Application Entities (devices) that want to communicate with each other over a network using DICOM protocol must first agree on several things during an initial network "handshake". One of the two devices must initiate an Association (a connection to the other device), and ask if specific services, information, and encoding can be supported by the other device (Negotiation).

DICOM specifies a number of network services and types of information objects, each of which is called an *Abstract Syntax* for the Negotiation. DICOM also specifies a variety of methods for encoding data, denoted *Transfer Syntaxes*. The Negotiation allows the initiating Application Entity to propose combinations of Abstract Syntax and Transfer Syntax to be used on the Association; these combinations are called *Presentation Contexts*. The receiving Application Entity accepts the Presentation Contexts it supports.

For each Presentation Context, the Association Negotiation also allows the devices to agree on *Roles* – which one is the *Service Class User* (SCU - client) and which is the *Service Class Provider* (SCP - server). Normally the device initiating the connection is the SCU, i.e., the client system calls the server, but not always.

The Association Negotiation finally enables exchange of maximum network packet (*PDU*) size, security information, and network service options (called *Extended Negotiation* information). The Application Entities, having negotiated the Association parameters, may now commence exchanging data. Common data exchanges include queries for worklists and lists of stored images, transfer of image objects and analyses (structured reports), and sending images to film printers. Each exchangeable unit of data is formatted by the sender in accordance with the appropriate *Information Object Definition*, and sent using the negotiated Transfer Syntax. There is a Default Transfer Syntax that all systems must accept, but it may not be the most efficient for some use cases. Each transfer is explicitly acknowledged by the receiver with a *Response Status* indicating success, failure, or that query or retrieve operations are still in process.

Two Application Entities may also communicate with each other by exchanging media (such as a CD-R). Since there is no Association Negotiation possible, they both use a *Media Application Profile* that specifies "pre-negotiated" exchange media format, Abstract Syntax, and Transfer Syntax.



# 3.6 Abbreviations

AE Application Entity

**AET** Application Entity Title

IPv4 Internet Protocol version 4

PACS Picture Archiving and Communication System

TCP/IP Transmission Control Protocol/Internet Protocol

PCL Proposed Context List

# 3.7 References

**NEMA PS3 2020d** – Digital Imaging and Communications in Medicine (DICOM) Standard, available free at <a href="http://medical.nema.org/">http://medical.nema.org/</a>.

# 4. Networking

This section describes the networking related services of the application.

# 4.1 Implementation Model

# 4.1.1 Application Data Flow

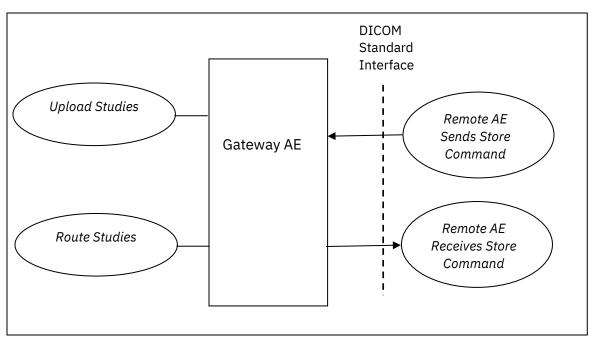


Figure 1 - Gateway AE Data Flow

The Gateway AE uploads DICOM studies received from external PACS to iCA server, and also routes studies received from iCA server to destination PACS.

## 4.1.2 Functional Definition of AE's

The application exposes a single Gateway AE.

### 4.1.2.1 Functional Definition of Gateway AE

#### 4.1.2.1.1 Upload Studies

When an external PACS is invoked to upload studies to iCA server, the Gateway AE receives a message to request that an association is started with a DICOM SCP device that is locally configured on the application. If the association request is successful, the external PACS sends the instances of the studies to the Gateway AE. Upon data recipient, the data will be stored on the application temporary until it has been uploaded to iCA successfully.

#### 4.1.2.1.2 Route Studies

When iCA server routes studies to a PACS Gateway installed in a remote site, the Gateway AE of that PACS Gateway is activated to forward received instances to the destination PACS. For each received instance that needs to be routed, an association request is sent to the destination PACS. Upon successful negotiation of the association, the storage request will be sent for the instance.



# 4.1.3 Sequencing of Real World Activities

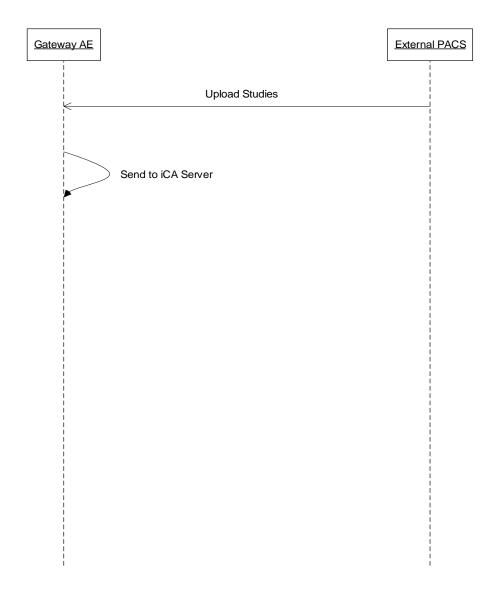


Figure 2 – Real-World Activity Sequencing for Uploading Studies

In the scenario of uploading studies, the application receives DICOM C-STORE commands from an external PACS and then uploads to iCA server.

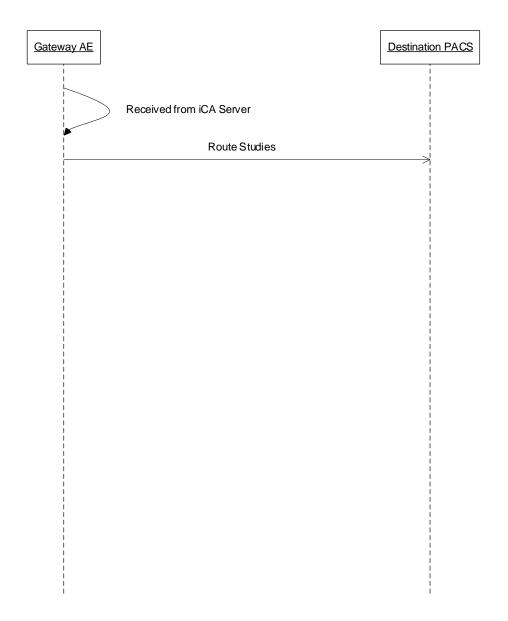


Figure 3 – Real-World Activity Sequencing for Routing Studies

In the scenario of routing studies, the application receives data from iCA server, and then forwards them to the destination PACS by sending DICOM C-STORE commands to it.

# 4.2 **AE Specifications**

# 4.2.1 Gateway Application Entity Specification

### **4.2.1.1 SOP Classes**

The application provides Standard Conformance to the following SOP Classes.

SOP Class UID	SOP Class Name	scu	SCP		
Verification					
1.2.840.10008.1.1	Verification	No	Yes		
	Transfer				
1.2.840.10008.5.1.4.1.1.88.65	Chest CAD SR	No	Yes		
1.2.840.10008.5.1.4.1.1.2.1	Enhanced CT Image Storage	No	Yes		
1.2.840.10008.5.1.4.1.1.4.1	Enhanced MR Image Storage	No	Yes		
1.2.840.10008.5.1.4.1.1.88.59	Key Object Selection Document	No	Yes		
1.2.840.10008.5.1.4.1.1.88.50	Mammography CAD SR	No	Yes		
1.2.840.10008.5.1.4.1.1.4.2	MR Spectroscopy Storage	No	Yes		
1.2.840.10008.5.1.4.1.1.7.2	Multiframe Grayscale Byte Secondary Capture Image Storage	No	Yes		
1.2.840.10008.5.1.4.1.1.7.3	Multiframe Grayscale Word Secondary Capture Image Storage	No	Yes		
1.2.840.10008.5.1.4.1.1.7.1	Multiframe Single Bit Secondary Capture Image Storage	No	Yes		
1.2.840.10008.5.1.4.1.1.7.4	Multiframe True Color Secondary Capture Image Storage	No	Yes		
1.2.840.10008.5.1.4.1.1.66.2	Spatial Fiducials Storage	No	Yes		
1.2.840.10008.5.1.4.1.1.66.1	Spatial Registration Storage	No	Yes		
1.2.840.10008.5.1.4.1.1.88.11	Basic Text SR	No	Yes		
1.2.840.10008.5.1.4.1.1.88.33	Comprehensive SR	No	Yes		



SOP Class UID	SOP Class Name	SCU	SCP
1.2.840.10008.5.1.4.1.1.1	CR Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.2	CT Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.9	Standalone Curve Storage	No	Yes
1.2.840.10008.5.1.4.1.1.1.1	Digital X-Ray Image Storage – for Presentation	No	Yes
1.2.840.10008.5.1.4.1.1.1.1	Digital X-Ray Image Storage – for Processing	No	Yes
1.2.840.10008.5.1.4.1.1.88.22	Enhanced SR	No	Yes
1.2.840.10008.5.1.4.1.1.11.1	Grayscale Softcopy Presentation State Storage	No	Yes
1.2.840.10008.5.1.1.30	Hardcopy Color Image Storage	No	Yes
1.2.840.10008.5.1.1.29	Hardcopy Grayscale Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.3	Digital Intra – oral X-Ray Image Storage – for Presentation	No	Yes
1.2.840.10008.5.1.4.1.1.3.1	Digital Intra – oral X-Ray Image Storage – for Processing	No	Yes
1.2.840.10008.5.1.4.1.1.1.2	Digital Mammography X-Ray Image Storage – for Presentation	No	Yes
1.2.840.10008.5.1.4.1.1.1.2.1	Digital Mammography X-Ray Image Storage – for Processing	No	Yes
1.2.840.10008.5.1.4.1.1.10	Standalone Modality LUT Storage	No	Yes
1.2.840.10008.5.1.4.1.1.4	MR Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.20	NM Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.5	NM Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.77.1.5.2	Ophthalmic Photography 16-Bit Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.77.1.5.1	Ophthalmic Photography 8-Bit Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.8	Standalone Overlay Storage	No	Yes
1.2.840.10008.5.1.4.1.1.128	Positron Emission Tomography Curve Storage	No	Yes



SOP Class UID	SOP Class Name	scu	SCP
1.2.840.10008.5.1.4.1.1.129	Standalone Positron Emission Tomography Curve Storage	No	Yes
1.2.840.10008.5.1.1.27	Stored Print Storage	No	Yes
1.2.840.10008.5.1.4.1.1.481.4	Radiation Therapy Beams Treatment Record Storage	No	Yes
1.2.840.10008.5.1.4.1.1.481.6	Radiation Therapy Brachy Treatment Record Storage	No	Yes
1.2.840.10008.5.1.4.1.1.481.2	Radiation Therapy Dose Storage	No	Yes
1.2.840.10008.5.1.4.1.1.481.1	Radiation Therapy Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.481.5	Radiation Therapy Plan Storage	No	Yes
1.2.840.10008.5.1.4.1.1.481.3	Radiation Therapy Structure Set Storage	No	Yes
1.2.840.10008.5.1.4.1.1.481.7	Radiation Therapy Treatment Summary Record Storage	No	Yes
1.2.840.10008.5.1.4.1.1.7	Secondary Capture Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.6.1	Ultrasound Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.3.1	Ultrasound Multiframe Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.3	Ultrasound Multiframe Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.6	Ultrasound Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.77.1.1.1	Video Endoscopic Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.77.1.2.1	Video Microscopic Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.77.1.4.1	Video Photographic Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.77.1.1	VL endoscopic Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.77.1.2	VL Microscopic Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.77.1.4	VL Photographic Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.77.1.3	VL Slide-Coordinates Microscopic Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.11	Standalone VOI LUT Storage	No	Yes



SOP Class UID	SOP Class Name	scu	SCP
1.2.840.10008.5.1.4.1.1.9.1.1	12-lead ECG Waveform Storage	No	Yes
1.2.840.10008.5.1.4.1.1.9.1.3	Ambulatory ECG Waveform Storage	No	Yes
1.2.840.10008.5.1.4.1.1.9.4.1	Basic Voice Audio Waveform Storage	No	Yes
1.2.840.10008.5.1.4.1.1.9.3.1	Cardiac Electrophysiology Waveform Storage	No	Yes
1.2.840.10008.5.1.4.1.1.9.1.2	General ECG Waveform Storage	No	Yes
1.2.840.10008.5.1.4.1.1.9.2.1	Hemodynamic Waveform Storage	No	Yes
1.2.840.10008.5.1.4.1.1.12.1	X-Ray Angiographic Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.12.3	X-Ray Angiographic Bi-plane Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.12.2	X-Ray Radiofluoroscopic Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.77.1.5.3	Stereometric Relationship Storage	No	Yes
1.2.840.10008.5.1.4.1.1.12.1.1	Enhanced XA Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.12.2.1	Enhanced XRF Image Storage	No	Yes
1.2.840.10008.5.1.4.1.1.66	Raw Data Storage	No	Yes
1.2.840.10008.5.1.4.1.1.67	Real World Value Mapping Storage	No	Yes
1.2.840.10008.5.1.4.1.1.11.4	Blending Softcopy Presentation State Storage	No	Yes
1.2.840.10008.5.1.4.1.1.11.2	Color Softcopy Presentation State Storage	No	Yes
1.2.840.10008.5.1.4.1.1.104.1	Encapsulated PDF Storage	No	Yes
1.2.840.10008.5.1.4.1.1.11.3	Pseudocolor Softcopy Presentation Stage Storage	No	Yes
1.2.840.10008.5.1.4.1.1.481.9	Radiation Therapy Ion Beams Treatment Record Storage	No	Yes
1.2.840.10008.5.1.4.1.1.481.8	Radiation Therapy Ion Plan Storage	No	Yes
1.2.840.10008.5.1.4.1.1.88.67	X-Ray Radiation Dose SR	No	Yes



SOP Class UID	SOP Class Name	SCU	SCP
1.2.840.10008.5.1.4.1.1.66.3	Deformable Spatial Registration Storage	No	Yes
1.2.840.10008.5.1.4.1.1.66.4	Segmentation Storage	No	Yes

### 4.2.1.2 Association Policies

#### 4.2.1.2.1 General

The DICOM standard application context name for DICOM 3.0 is always proposed:

Application Context Name	1.2.840.10008.3.1.1.1

#### 4.2.1.2.2 Number of Associations

The Gateway AE can accept any number of associations simultaneously.

#### 4.2.1.2.3 Asynchronous Nature

The Gateway AE does not support asynchronous operations and will not perform asynchronous window negotiation.

### 4.2.1.2.4 Implementation Identifying Information

The application uses the following implementation identifying information:

Implementation Class UID	2.16.840.1.113669.2013.1.2
Implementation Version Name	IBM ICA 7.1

### 4.2.1.3 Association Initiation Policy

This section describes the conditions under which the Gateway AE SCU will initiate an association.

#### 4.2.1.3.1 Activity – Route Studies

### 4.2.1.3.1.1 Description and Sequencing of Activities

When iCA server routes studies to a PACS Gateway installed in a remote site, the Gateway AE of that PACS Gateway is activated to forward received instances to the destination PACS.



For each received instance, the Gateway AE attempts to initiate a new Association with the remote DICOM C-STORE SCP that has been configured for the destination. If the association is successfully negotiated, the Gateway AE issues a C-STORE request for that instance.

The Gateway AE expects that a C-STORE response for each C-STORE request. When all C-STORE requests are complete, the Gateway AE will indicate completion to iCA server and the status will be reflected on user's outbounds page.

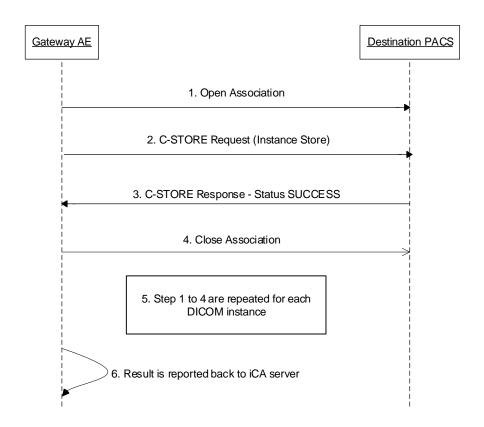


Figure 4 - Send Instances Interaction

The typical sequence of interactions for sending instances between the Gateway AE and a destination PACS as shown above is described as follows:

- 1. The Gateway AE opens an association with the destination PACS.
- 2. The Gateway AE sends a C-STORE request to the destination PACS asking for the DICOM instance to be stored to the PACS.
- 3. The destination PACS stores the DICOM instance and sends a C-STORE response.



- 4. The Gateway AE closes the association with the DICOM data.
- 5. Steps 1 to 4 are repeated for each DICOM instance.
- 6. The Gateway AE reports back to iCA server.

### 4.2.1.3.1.2 Proposed Presentation Contexts

The Gateway AE will propose Presentation Contexts as shown in the following table.

Presentation Context Table						
Abstract Syntax Transfer Syntax			Role	Ext. Negot.		
Name	UID	Name List	Name List UID List			
The storage class name corresponding to the instance to be stored	The storage class UID corresponding to the instance to be stored	The transfer syntax as defined by the instance to be stored	The transfer syntax UID as defined by the instance to be stored	SCU	None	

### 4.2.1.3.1.3 SOP Specific Conformance for C-STORE SOP Class

The behavior of Gateway AE when encountering status codes in a C-STORE response is summarized in the table below. If the remote AE returns a status other than "Success" or "Pending", the store to that DICOM data source is considered to have failed. iCA server and the user will be informed that the store failed.

## **C-STORE Response Status Handling Behavior**

Service Status	Further Meaning	Error Code	Behavior
Success	Matching is complete	0000	The SCP has completed the store. The user will be notified about the success.
Refused	Out of Resources	A700 – A7FF	The Association is aborted by closing TCP/IP connection and the operation is marked as failed. Error information is logged.
Failed	Data Set does not match SOP Class	A900 – A9FF	The Association is aborted by closing TCP/IP connection and the operation is marked as failed. Error information is logged.
Warning	Coercion of Data Elements	B000	The SCP has completed the store. The user will be notified about the success.
Warning	Elements Discarded	B006	The SCP has completed the store. The user will be notified about the success.
Warning	Data Set does not match SOP Class	B007	The SCP has completed the store. The user will be notified about the success.



Service Status	Further Meaning	Error Code	Behavior
Failed	Cannot understand	C000 – CFFF	The Association is aborted by closing TCP/IP connection and the operation is marked as failed. Error information is logged.
*	*	Any other status code.	The Association is aborted by closing TCP/IP connection and the operation is marked as failed. Error information is logged.

The behavior of Gateway AE during communication failure is summarized in the table below:

#### **C-STORE Communication Failure Behavior**

Exception	Behavior
Timeout	The Association is aborted by closing TCP/IP connection and the operation is marked as failed. The reason is logged.
Association aborted by the SCP or network layers	The operation is marked as failed. The reason is logged.

### 4.2.1.4 Association Acceptance Policy

### 4.2.1.4.1 Activity - Upload Studies

### **4.2.1.4.1.1** Description and sequencing of Activities

When an external PACS is invoked to upload studies to iCA server, the external PACS sends DICOM instances to the application, the application follows the routine:

The Gateway AE listens for instances to be stored. Whenever a user action requires data to be moved to the Gateway AE, the instances are stored to the Gateway AE.

The Gateway AE SCP does not support Extended Negotiation and does not perform any validation or coercion of attributes.





The typical sequence between an external PACS and the Gateway AE is as follows:

- 1. The external PACS opens a new association with the Gateway AE.
- 2. The external PACS sends a C-STORE request.
- 3. The Gateway AE stores the instance and sends a C-STORE response.
- 4. The external PACS closes the association with the Gateway AE.

### 4.2.1.4.1.2 Accepted Presentation Contexts

The Gateway AE SCP will accept the following presentation contexts:

Presentation Context Table						
Abstract Syntax Tra		Transfer Syntax	Transfer Syntax		Ext.	
Name	UID	Name List	UID List		Negot.	
Chest CAD SR	1.2.840.10008.5.1.4.1.1.88.65	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None	
		Explicit Little Endian	1.2.840.10008 .1.2.1			
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50			



Presentation Context Table						
Abstract Syntax		Transfer Syntax		Role	Ext.	
Name	UID	Name List	UID List		Negot.	
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70			
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90			
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91			
		RLE Lossless	1.2.840.10008 .1.2.5			
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99			
		Explicit VR Big Endian	1.2.840.10008 .1.2.2			
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51			
Enhanced CT Image Storage	1.2.840.10008.5.1.4.1.1.2.1	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None	
		Explicit Little Endian	1.2.840.10008 .1.2.1			
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50			
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70			
		First-Order Prediction (Process 14				



Presentation Contex	Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext.	
Name	UID	Name List	UID List		Negot.	
		[Selection Value 1])				
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90			
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91			
		RLE Lossless	1.2.840.10008 .1.2.5			
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99			
		Explicit VR Big Endian	1.2.840.10008 .1.2.2			
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51			
Enhanced MR Image Storage	1.2.840.10008.5.1.4.1.1.4.1	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None	
		Explicit Little Endian	1.2.840.10008 .1.2.1			
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50			
	JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.90			



Presentation Contex	Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext.	
Name	UID	Name List	UID List		Negot.	
		(Lossless Only)				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91			
		RLE Lossless	1.2.840.10008 .1.2.5			
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99			
		Explicit VR Big Endian	1.2.840.10008 .1.2.2			
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51			
Key Object Selection Document	1.2.840.10008.5.1.4.1.1.88.59	Implicit Little Endian	1.2.840.10008 .1.2			
		Explicit Little Endian	1.2.840.10008 .1.2.1			
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50			
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70			
		First-Order Prediction (Process 14				
		[Selection Value 1])				
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90			
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91			



Presentation Contex	Presentation Context Table						
Abstract Syntax		Transfer Syntax		Role	Ext.		
Name	UID	Name List	UID List		Negot.		
		RLE Lossless	1.2.840.10008 .1.2.5				
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				
		Explicit VR Big Endian	1.2.840.10008 .1.2.2				
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51				
Mammography CAD SR	1.2.840.10008.5.1.4.1.1.88.50	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None		
		Explicit Little Endian	1.2.840.10008 .1.2.1				
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50				
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70				
		First-Order Prediction (Process 14					
		[Selection Value 1])					
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5				
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				



Presentation Context Table						
Abstract Syntax		Transfer Syntax		Role	Ext.	
Name	UID	Name List	UID List		Negot.	
		Explicit VR Big Endian	1.2.840.10008 .1.2.2			
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51			
MR Spectroscopy Storage	1.2.840.10008.5.1.4.1.1.4.2	Implicit Little Endian	1.2.840.10008 .1.2			
		Explicit Little Endian	1.2.840.10008 .1.2.1	•		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50			
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70			
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90			
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91			
		RLE Lossless	1.2.840.10008 .1.2.5			
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99			
		Explicit VR Big Endian	1.2.840.10008 .1.2.2			
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51			



Presentation Contex	Presentation Context Table						
Abstract Syntax		Transfer Syntax		Role	Ext.		
Name	UID	Name List	UID List	-	Negot.		
Multiframe Grayscale Byte Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.2	Implicit Little Endian	1.2.840.10008 .1.2				
		Explicit Little Endian	1.2.840.10008 .1.2.1				
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50				
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70				
		First-Order Prediction (Process 14					
		[Selection Value 1])					
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91	-			
		RLE Lossless	1.2.840.10008 .1.2.5				
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				
		Explicit VR Big Endian	1.2.840.10008 .1.2.2				
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51				
Multiframe Grayscale Word Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.3	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None		
		Explicit Little Endian	1.2.840.10008 .1.2.1				



Presentation Context Table						
Abstract Syntax		Transfer Syntax		Role	Ext.	
Name	UID	Name List	UID List		Negot.	
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50			
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70			
		First-Order Prediction (Process 14 [Selection Value 1])				
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90			
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91			
		RLE Lossless	1.2.840.10008 .1.2.5			
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99			
		Explicit VR Big Endian	1.2.840.10008 .1.2.2			
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51			
Multiframe Single Bit Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.1	Implicit Little Endian	1.2.840.10008 .1.2			
Storage		Explicit Little Endian	1.2.840.10008 .1.2.1			
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50			
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70			



Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		First-Order Prediction (Process 14 [Selection Value 1])			
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
Multiframe True Color Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.4	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70		
		First-Order Prediction (Process 14			
		[Selection Value 1])			



Presentation Contex	Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext.	
Name	UID	Name List	UID List		Negot.	
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90			
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91			
		RLE Lossless	1.2.840.10008 .1.2.5			
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99			
		Explicit VR Big Endian	1.2.840.10008 .1.2.2			
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51			
Spatial Fiducials Storage	1.2.840.10008.5.1.4.1.1.66.2	Implicit Little Endian	1.2.840.10008 .1.2			
		Explicit Little Endian	1.2.840.10008 .1.2.1			
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50			
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70			
		First-Order Prediction (Process 14				
		[Selection Value 1])				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.90			
		(Lossless Only)				



Presentation Contex	Presentation Context Table						
Abstract Syntax		Transfer Syntax		Role	Ext.		
Name	UID	Name List	UID List		Negot.		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5				
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				
		Explicit VR Big Endian	1.2.840.10008 .1.2.2				
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51				
Spatial Registration Storage	1.2.840.10008.5.1.4.1.1.66.1	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None		
		Explicit Little Endian	1.2.840.10008 .1.2.1				
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50				
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70				
		First-Order Prediction (Process 14					
		[Selection Value 1])					
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5				



Presentation Con	text Table				
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
Basic Text SR	1.2.840.10008.5.1.4.1.1.88.11	Implicit Little Endian	1.2.840.10008 .1.2		
		Explicit Little Endian	1.2.840.10008 .1.2.1	-	
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70		
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		



Presentation Context Table							
Abstract Syntax		Transfer Syntax		Role	Ext.		
Name	UID	Name List	UID List		Negot.		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51				
Comprehensive SR	1.2.840.10008.5.1.4.1.1.88.33	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None		
		Explicit Little Endian	1.2.840.10008 .1.2.1				
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50				
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70				
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5				
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				
		Explicit VR Big Endian	1.2.840.10008 .1.2.2				
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51				
CR Image Storage	1.2.840.10008.5.1.4.1.1.1	Implicit Little Endian	1.2.840.10008 .1.2				



Presentation Contex	Presentation Context Table						
Abstract Syntax		Transfer Syntax		Role	Ext.		
Name	UID	Name List	UID List		Negot.		
		Explicit Little Endian	1.2.840.10008 .1.2.1				
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50				
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70				
		First-Order Prediction (Process 14					
		[Selection Value 1])					
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.90				
		(Lossless Only)					
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5				
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				
		Explicit VR Big Endian	1.2.840.10008 .1.2.2				
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51				
CT Image Storage	1.2.840.10008.5.1.4.1.1.2	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None		
		Explicit Little Endian	1.2.840.10008 .1.2.1				
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50				



Presentation Contex	rt Table				
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70		
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
Standalone Curve Storage	1.2.840.10008.5.1.4.1.1.9	Implicit Little Endian	1.2.840.10008 .1.2		
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70		
		First-Order Prediction (Process 14			



Presentation Contex	Presentation Context Table						
Abstract Syntax		Transfer Syntax		Role	Ext.		
Name	UID	Name List	UID List		Negot.		
		[Selection Value 1])					
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.90				
		(Lossless Only)					
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5				
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				
		Explicit VR Big Endian	1.2.840.10008 .1.2.2				
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51				
Digital X-Ray Image Storage – for Presentation	1.2.840.10008.5.1.4.1.1.1.1	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None		
		Explicit Little Endian	1.2.840.10008 .1.2.1				
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50				
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70				
		First-Order Prediction (Process 14					
		[Selection Value 1])					
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.90				



Presentation Contex	Presentation Context Table						
Abstract Syntax		Transfer Syntax		Role	Ext.		
Name	UID	Name List	UID List		Negot.		
		(Lossless Only)					
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5				
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				
		Explicit VR Big Endian	1.2.840.10008 .1.2.2				
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51				
Digital X-Ray Image Storage – for Processing	1.2.840.10008.5.1.4.1.1.1.1.1	Implicit Little Endian	1.2.840.10008 .1.2				
		Explicit Little Endian	1.2.840.10008 .1.2.1				
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50				
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70				
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				



Presentation Context Table							
Abstract Syntax		Transfer Syntax		Role	Ext.		
Name	UID	Name List	UID List		Negot.		
		RLE Lossless	1.2.840.10008 .1.2.5				
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				
		Explicit VR Big Endian	1.2.840.10008 .1.2.2				
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51				
Enhanced SR	1.2.840.10008.5.1.4.1.1.88.22	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None		
		Explicit Little Endian	1.2.840.10008 .1.2.1	-			
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50				
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70				
		First-Order Prediction (Process 14					
		[Selection Value 1])					
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.90				
		(Lossless Only)					
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5				
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				



Presentation Contex	rt Table				
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
Grayscale Softcopy Presentation State Storage	1.2.840.10008.5.1.4.1.1.11.1	Implicit Little Endian	1.2.840.10008 .1.2		
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70		
		First-Order Prediction (Process 14			
		[Selection Value 1])			
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.90		
		(Lossless Only)			
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		



Presentation Contex	Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext.	
Name	UID	Name List	UID List		Negot.	
Hardcopy Color Image Storage	1.2.840.10008.5.1.1.30	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None	
		Explicit Little Endian	1.2.840.10008 .1.2.1			
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50			
		JPEG Lossless, Non- Hierarchical, First-Order	1.2.840.10008 .1.2.4.70			
		Prediction (Process 14				
		[Selection Value 1])				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.90			
		(Lossless Only)				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91			
		RLE Lossless	1.2.840.10008 .1.2.5			
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99			
		Explicit VR Big Endian	1.2.840.10008 .1.2.2			
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51			
Hardcopy Grayscale Image Storage	1.2.840.10008.5.1.1.29	Implicit Little Endian	1.2.840.10008 .1.2			



Presentation Contex	t Table				
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70		
		First-Order Prediction (Process 14			
		[Selection Value 1])			
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.90		
		(Lossless Only)			
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
Digital Intra – oral X-Ray Image Storage – for Presentation	1.2.840.10008.5.1.4.1.1.3	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None
- resentation		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		



Presentation Contex	t Table				
Abstract Syntax T		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70		
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
Digital Intra – oral X-Ray Image Storage – for Processing	1.2.840.10008.5.1.4.1.1.3.1	Implicit Little Endian	1.2.840.10008 .1.2		
Trocessing		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70		
		First-Order Prediction (Process 14			



Presentation Contex	t Table				
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		[Selection Value 1])			
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
Digital Mammography X- Ray Image Storage – for Presentation	1.2.840.10008.5.1.4.1.1.1.2	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None
101 1 resemanon		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70		
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		



Presentation Context Table						
Abstract Syntax		Transfer Syntax	Transfer Syntax		Ext.	
Name	UID	Name List	UID List		Negot.	
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91			
		RLE Lossless	1.2.840.10008 .1.2.5			
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99			
		Explicit VR Big Endian	1.2.840.10008 .1.2.2			
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51			
Digital Mammography X- Ray Image Storage – for Processing	1.2.840.10008.5.1.4.1.1.1.2.1	Implicit Little Endian	1.2.840.10008 .1.2			
101 1 10000331115		Explicit Little Endian	1.2.840.10008 .1.2.1			
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50			
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70			
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.90			
		(Lossless Only)				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91			
		RLE Lossless	1.2.840.10008 .1.2.5			



Presentation Context Table							
Abstract Syntax	Transfer Syntax		Role	Ext.			
Name	UID	Name List	UID List		Negot.		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				
		Explicit VR Big Endian	1.2.840.10008 .1.2.2				
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51				
Standalone Modality LUT Storage	1.2.840.10008.5.1.4.1.1.10	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None		
		Explicit Little Endian	1.2.840.10008 .1.2.1				
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50				
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70	_			
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90	-			
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5				
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				
		Explicit VR Big Endian	1.2.840.10008 .1.2.2				



Presentation Contex	rt Table				
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
MR Image Storage	1.2.840.10008.5.1.4.1.1.4	Implicit Little Endian	1.2.840.10008 .1.2		
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70		
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
NM Image Storage	1.2.840.10008.5.1.4.1.1.20	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None



Presentation Contex	t Table				
Abstract Syntax		Transfer Syntax			Ext.
Name	UID	Name List	UID List		Negot.
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70		
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
NM Image Storage	1.2.840.10008.5.1.4.1.1.5	Implicit Little Endian	1.2.840.10008 .1.2		
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		



Presentation Contex	t Table				
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70		
		First-Order Prediction (Process 14			
		[Selection Value 1])			
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
Ophthalmic Photography 16-Bit Image Storage	1.2.840.10008.5.1.4.1.1.77.1.5.	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70		
		First-Order Prediction (Process 14			



Presentation Contex	rt Table				
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		[Selection Value 1])			
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
Ophthalmic Photography 8-Bit Image Storage	1.2.840.10008.5.1.4.1.1.77.1.5. 1	Implicit Little Endian	1.2.840.10008 .1.2		
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.90		



Presentation Contex	t Table				
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		(Lossless Only)			
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
Standalone Overlay Storage	1.2.840.10008.5.1.4.1.1.8	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70		
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		



Presentation Context Table						
Abstract Syntax		Transfer Syntax	Transfer Syntax		Ext.	
Name	UID	Name List	UID List		Negot	
		RLE Lossless	1.2.840.10008 .1.2.5			
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99			
		Explicit VR Big Endian	1.2.840.10008 .1.2.2			
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51			
Positron Emission Tomography Curve Storage	1.2.840.10008.5.1.4.1.1.128	Implicit Little Endian	1.2.840.10008 .1.2	008		
		Explicit Little Endian	1.2.840.10008 .1.2.1			
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50			
		JPEG Lossless, Non- Hierarchical, First-Order	1.2.840.10008 .1.2.4.70			
		Prediction (Process 14				
		[Selection Value 1])				
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90			
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91			
		RLE Lossless	1.2.840.10008 .1.2.5			



Presentation Contex	Presentation Context Table							
Abstract Syntax		Transfer Syntax		Role	Ext.			
Name	UID	Name List	UID List		Negot.			
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99					
		Explicit VR Big Endian	1.2.840.10008 .1.2.2					
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51					
Standalone Positron Emission Tomography Curve	1.2.840.10008.5.1.4.1.1.129	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None			
Storage		Explicit Little Endian	1.2.840.10008 .1.2.1					
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50					
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70					
		First-Order Prediction (Process 14						
		[Selection Value 1])						
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90					
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91					
		RLE Lossless	1.2.840.10008 .1.2.5					
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99					
		Explicit VR Big Endian	1.2.840.10008 .1.2.2					



Presentation Co	ntext Table				
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
Stored Print Storage	1.2.840.10008.5.1.1.27	Implicit Little Endian	1.2.840.10008 .1.2		
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70		
		First-Order Prediction (Process 14 [Selection Value			
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
	1.2.840.10008.5.1.4.1.1.481.4	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None



Presentation Contex	Presentation Context Table						
Abstract Syntax		Transfer Syntax		Role	Ext.		
Name	UID	Name List	UID List		Negot.		
Radiation Therapy Beams Treatment							
Record Storage		Explicit Little Endian	1.2.840.10008 .1.2.1				
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50				
		JPEG Lossless, Non- Hierarchical, First-Order Prediction	1.2.840.10008 .1.2.4.70				
		(Process 14 [Selection Value 1])					
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5				
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				
		Explicit VR Big Endian	1.2.840.10008 .1.2.2				
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51				
Radiation Therapy Brachy Treatment Record Storage	1.2.840.10008.5.1.4.1.1.481.6	Implicit Little Endian	1.2.840.10008 .1.2				
		Explicit Little Endian	1.2.840.10008 .1.2.1				



Presentation Contex	Presentation Context Table							
Abstract Syntax		Transfer Syntax		Role	Ext.			
Name	UID	Name List	UID List		Negot.			
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50					
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70					
		First-Order Prediction (Process 14						
		[Selection Value 1])						
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90					
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91					
		RLE Lossless	1.2.840.10008 .1.2.5					
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99					
		Explicit VR Big Endian	1.2.840.10008 .1.2.2					
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51					
Radiation Therapy Dose Storage	1.2.840.10008.5.1.4.1.1.481.2	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None			
		Explicit Little Endian	1.2.840.10008 .1.2.1					
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50					
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70					



Presentation Contex	Presentation Context Table						
Abstract Syntax		Transfer Syntax		Role	Ext.		
Name	UID	Name List	UID List		Negot.		
		First-Order Prediction (Process 14 [Selection Value					
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5				
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				
		Explicit VR Big Endian	1.2.840.10008 .1.2.2				
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51				
Radiation Therapy Image Storage	1.2.840.10008.5.1.4.1.1.481.1	Implicit Little Endian	1.2.840.10008 .1.2				
		Explicit Little Endian	1.2.840.10008 .1.2.1	-			
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50				
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70				
		First-Order Prediction (Process 14					
		[Selection Value 1])					



Presentation Contex	Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext.	
Name	UID	Name List	UID List		Negot.	
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90			
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91			
		RLE Lossless	1.2.840.10008 .1.2.5			
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99			
		Explicit VR Big Endian	1.2.840.10008 .1.2.2			
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51			
Radiation Therapy Plan Storage	1.2.840.10008.5.1.4.1.1.481.5	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None	
		Explicit Little Endian	1.2.840.10008 .1.2.1			
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50			
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70			
		First-Order Prediction (Process 14				
		[Selection Value 1])				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.90			
		(Lossless Only)				



Presentation Context Table							
Abstract Syntax		Transfer Syntax		Role	Ext.		
Name	UID	Name List	UID List		Negot.		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5				
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				
		Explicit VR Big Endian	1.2.840.10008 .1.2.2				
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51				
Radiation Therapy Structure Set Storage	1.2.840.10008.5.1.4.1.1.481.3	Implicit Little Endian	1.2.840.10008 .1.2				
		Explicit Little Endian	1.2.840.10008 .1.2.1				
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50				
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.90				
		(Lossless Only)					
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5				



Presentation Context Table							
Abstract Syntax		Transfer Syntax	Transfer Syntax		Ext.		
Name	UID	Name List	UID List		Negot		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				
		Explicit VR Big Endian	1.2.840.10008 .1.2.2				
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51				
Radiation Therapy Treatment Summary Record Storage	1.2.840.10008.5.1.4.1.1.481.7	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None		
Storage		Explicit Little Endian	1.2.840.10008 .1.2.1				
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50				
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14	1.2.840.10008 .1.2.4.70				
		[Selection Value 1])					
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5				
		Deflated Explicit	1.2.840.10008				
		VR Big	.1.2.1.99				



Presentation Contex	Presentation Context Table						
Abstract Syntax		Transfer Syntax		Role	Ext.		
Name	UID	Name List	UID List		Negot.		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2				
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51				
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	Implicit Little Endian	1.2.840.10008 .1.2				
		Explicit Little Endian	1.2.840.10008 .1.2.1				
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50				
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70				
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5				
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				
		Explicit VR Big Endian	1.2.840.10008 .1.2.2				
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51				



<b>Presentation Conte</b>	Presentation Context Table							
Abstract Syntax		Transfer Syntax	Transfer Syntax		Ext.			
Name	UID	Name List	UID List		Negot.			
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None			
		Explicit Little Endian	1.2.840.10008 .1.2.1					
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50					
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70					
		First-Order Prediction (Process 14						
		[Selection Value 1])						
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90					
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91					
		RLE Lossless	1.2.840.10008 .1.2.5					
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99					
		Explicit VR Big Endian	1.2.840.10008 .1.2.2					
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51					
Ultrasound Multiframe Image Storage	1.2.840.10008.5.1.4.1.1.3.1	Implicit Little Endian	1.2.840.10008					
		Explicit Little Endian	1.2.840.10008 .1.2.1					



Presentation Contex	Presentation Context Table							
Abstract Syntax		Transfer Syntax		Role	Ext.			
Name	UID	Name List	UID List		Negot.			
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50					
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70					
		First-Order Prediction (Process 14						
		[Selection Value 1])						
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90					
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91					
		RLE Lossless	1.2.840.10008 .1.2.5					
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99					
		Explicit VR Big Endian	1.2.840.10008 .1.2.2					
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51					
Ultrasound Multiframe Image Storage	1.2.840.10008.5.1.4.1.1.3	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None			
		Explicit Little Endian	1.2.840.10008 .1.2.1					
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50					
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70					



Presentation Contex	Presentation Context Table						
Abstract Syntax		Transfer Syntax		Role	Ext.		
Name	UID	Name List	UID List		Negot.		
		First-Order Prediction (Process 14 [Selection Value 1])					
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5				
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				
		Explicit VR Big Endian	1.2.840.10008 .1.2.2				
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51				
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6	Implicit Little Endian	1.2.840.10008 .1.2				
		Explicit Little Endian	1.2.840.10008 .1.2.1	-			
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50				
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70				
		First-Order Prediction (Process 14					
		[Selection Value 1])					



Presentation Context Table						
Abstract Syntax		Transfer Syntax		Role	Ext.	
Name	UID	Name List	UID List		Negot.	
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90			
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91			
		RLE Lossless	1.2.840.10008 .1.2.5			
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99			
		Explicit VR Big Endian	1.2.840.10008 .1.2.2			
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51			
Video Endoscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.1. 1	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None	
		Explicit Little Endian	1.2.840.10008 .1.2.1			
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50			
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70			
		First-Order Prediction (Process 14				
		[Selection Value 1])				
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90			



Presentation Contex	t Table				
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
Video Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.2.	Implicit Little Endian	1.2.840.10008 .1.2	008	
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70		
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91	-	
		RLE Lossless	1.2.840.10008 .1.2.5		



Presentation Context Table						
Abstract Syntax		Transfer Syntax		Role	Ext.	
Name	UID	Name List	UID List		Negot.	
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99			
		Explicit VR Big Endian	1.2.840.10008 .1.2.2			
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51			
Video Photographic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.4. 1	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None	
		Explicit Little Endian	1.2.840.10008 .1.2.1			
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50			
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70			
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90			
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91			
		RLE Lossless	1.2.840.10008 .1.2.5			
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99			
		Explicit VR Big Endian	1.2.840.10008 .1.2.2			



Presentation Conte	xt Table				
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
VL endoscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.1	Implicit Little Endian	1.2.840.10008 .1.2		
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70		
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
VL Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.2	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None



Presentation Co	ontext Table				
Abstract Syntax	(	Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70		
		First-Order Prediction (Process 14 [Selection Value 1])			
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
VL Photographic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.4	Implicit Little Endian	1.2.840.10008 .1.2		
		Explicit Little Endian	1.2.840.10008 .1.2.1		



Presentation Contex	t Table				
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70		
		First-Order Prediction (Process 14			
		[Selection Value 1])			
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
VL Slide- Coordinates Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.3	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None
Storage		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70		



Presentation Conte	kt Table				
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		First-Order Prediction (Process 14 [Selection Value			
		1])			
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
Standalone VOI LUT Storage	1.2.840.10008.5.1.4.1.1.11	Implicit Little Endian	1.2.840.10008 .1.2		
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70		
		First-Order Prediction (Process 14			
		[Selection Value 1])			



Presentation Contex	t Table				
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
12-lead ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.1	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70		
		First-Order Prediction (Process 14			
		[Selection Value 1])			
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.90		
		(Lossless Only)			



Presentation Contex	t Table				
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
Ambulatory ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.3	Implicit Little Endian	1.2.840.10008 .1.2		
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70		
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91	-	
		RLE Lossless	1.2.840.10008 .1.2.5		



Presentation Conte	rt Table				
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
Basic Voice Audio Waveform Storage	1.2.840.10008.5.1.4.1.1.9.4.1	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None
		Explicit Little Endian	1.2.840.10008 .1.2.1	-	
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70		
		First-Order Prediction (Process 14			
		[Selection Value 1])			
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91	-	
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		



Presentation Contex	ct Table				
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
Cardiac Electrophysiology Waveform Storage	1.2.840.10008.5.1.4.1.1.9.3.1	Implicit Little Endian	1.2.840.10008 .1.2		
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70		
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
General ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.2	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None



Presentation Contex	t Table				
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70		
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
Hemodynamic Waveform Storage	1.2.840.10008.5.1.4.1.1.9.2.1	Implicit Little Endian	1.2.840.10008 .1.2		
		Explicit Little Endian	1.2.840.10008 .1.2.1		_



Presentation Contex	t Table				
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70		
		First-Order Prediction (Process 14			
		[Selection Value 1])			
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
X-Ray Angiographic Image Storage	1.2.840.10008.5.1.4.1.1.12.1	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70		



Presentation Contex	t Table				
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		First-Order Prediction (Process 14 [Selection Value 1])			
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
X-Ray Angiographic Bi-plane Image Storage	1.2.840.10008.5.1.4.1.1.12.3	Implicit Little Endian	1.2.840.10008 .1.2		
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70		



Presentation Conte	Presentation Context Table						
Abstract Syntax		Transfer Syntax		Role	Ext.		
Name	UID	Name List	UID List		Negot.		
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5				
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				
		Explicit VR Big Endian	1.2.840.10008 .1.2.2	-			
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51				
X-Ray Radiofluoroscopic Image Storage	1.2.840.10008.5.1.4.1.1.12.2	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None		
		Explicit Little Endian	1.2.840.10008 .1.2.1				
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50				
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70				
		First-Order Prediction (Process 14					
		[Selection Value 1])					
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.90				
		(Lossless Only)					



Presentation Contex	Presentation Context Table						
Abstract Syntax		Transfer Syntax		Role	Ext.		
Name	UID	Name List	UID List		Negot.		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5				
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				
		Explicit VR Big Endian	1.2.840.10008 .1.2.2				
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51				
Stereometric Relationship Storage	1.2.840.10008.5.1.4.1.1.77.1.5.	Implicit Little Endian	1.2.840.10008 .1.2				
		Explicit Little Endian	1.2.840.10008 .1.2.1				
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50				
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70				
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5		_		



Presentation Cont	ext Table				
Abstract Syntax		Transfer Syntax	Transfer Syntax		Ext.
Name	UID	Name List	UID List		Negot.
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
Enhanced XA Image Storage	1.2.840.10008.5.1.4.1.1.12.1.1	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70		
		First-Order Prediction (Process 14			
		[Selection Value 1])			
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91	-	
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		



Presentation Conte	Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext.	
Name	UID	Name List	UID List		Negot.	
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51			
Enhanced XRF Image Storage	1.2.840.10008.5.1.4.1.1.12.2.1	Implicit Little Endian	1.2.840.10008 .1.2			
		Explicit Little Endian	1.2.840.10008 .1.2.1			
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50			
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70			
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.90			
		(Lossless Only)  JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91			
		RLE Lossless	1.2.840.10008 .1.2.5			
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99			
		Explicit VR Big Endian	1.2.840.10008 .1.2.2			
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51			
Raw Data Storage	1.2.840.10008.5.1.4.1.1.66	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None	



Presentation Contex	Presentation Context Table						
Abstract Syntax		Transfer Syntax		Role	Ext.		
Name	UID	Name List	UID List		Negot.		
		Explicit Little Endian	1.2.840.10008 .1.2.1				
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50				
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70				
		First-Order Prediction (Process 14					
		[Selection Value 1])					
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.90				
		(Lossless Only)					
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5				
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				
		Explicit VR Big Endian	1.2.840.10008 .1.2.2				
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51				
Real World Value Mapping Storage	1.2.840.10008.5.1.4.1.1.67	Implicit Little Endian	1.2.840.10008 .1.2				
		Explicit Little Endian	1.2.840.10008 .1.2.1				



Presentation Context Table							
Abstract Syntax		Transfer Syntax	Transfer Syntax		Ext.		
Name	UID	Name List	UID List		Negot.		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50				
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70				
		First-Order Prediction (Process 14					
		[Selection Value 1])					
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5				
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				
		Explicit VR Big Endian	1.2.840.10008 .1.2.2				
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51				
Blending Softcopy Presentation State Storage	1.2.840.10008.5.1.4.1.1.11.4	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None		
		Explicit Little Endian	1.2.840.10008 .1.2.1				
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50				
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70				



Presentation Contex	Presentation Context Table						
Abstract Syntax		Transfer Syntax		Role	Ext.		
Name	UID	Name List	UID List		Negot.		
		First-Order Prediction (Process 14 [Selection Value					
		1])					
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5				
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				
		Explicit VR Big Endian	1.2.840.10008 .1.2.2				
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51				
Color Softcopy Presentation State Storage	1.2.840.10008.5.1.4.1.1.11.2	Implicit Little Endian	1.2.840.10008 .1.2				
		Explicit Little Endian	1.2.840.10008 .1.2.1				
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50				
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70				
		First-Order Prediction (Process 14					
		[Selection Value 1])					



Presentation Contex	Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext.	
Name	UID	Name List	UID List		Negot.	
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90			
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91			
		RLE Lossless	1.2.840.10008 .1.2.5			
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99			
		Explicit VR Big Endian	1.2.840.10008 .1.2.2			
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51			
Encapsulated PDF Storage	1.2.840.10008.5.1.4.1.1.104.1	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None	
		Explicit Little Endian	1.2.840.10008 .1.2.1			
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50			
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70			
		First-Order Prediction (Process 14				
		[Selection Value 1])				
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90			



Presentation Contex	Presentation Context Table						
Abstract Syntax		Transfer Syntax		Role	Ext.		
Name	UID	Name List	UID List		Negot.		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5				
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99				
	Explicit VR Big Endian	1.2.840.10008 .1.2.2					
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51				
Pseudocolor Softcopy Presentation Stage Storage	1.2.840.10008.5.1.4.1.1.11.3	Implicit Little Endian	1.2.840.10008 .1.2				
Storage		Explicit Little Endian	1.2.840.10008 .1.2.1				
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50				
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70				
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91				
		RLE Lossless	1.2.840.10008 .1.2.5				



Presentation Conte	Presentation Context Table							
Abstract Syntax		Transfer Syntax		Role	Ext.			
Name	UID	Name List	UID List		Negot.			
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99					
		Explicit VR Big Endian	1.2.840.10008 .1.2.2					
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51					
Radiation Therapy Ion Beams Treatment Record	1.2.840.10008.5.1.4.1.1.481.9	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None			
Storage		Explicit Little Endian	1.2.840.10008 .1.2.1					
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50					
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70					
		First-Order Prediction (Process 14						
		[Selection Value 1])						
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.90					
		(Lossless Only)		-				
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91					
		RLE Lossless	1.2.840.10008 .1.2.5					
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99					
		Explicit VR Big Endian	1.2.840.10008 .1.2.2	1				



Presentation Contex	t Table				
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
Radiation Therapy Ion Plan Storage	1.2.840.10008.5.1.4.1.1.481.8	Implicit Little Endian	1.2.840.10008 .1.2		
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70		
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
X-Ray Radiation Dose SR	1.2.840.10008.5.1.4.1.1.88.67	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None



Presentation Contex	Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext.	
Name	UID	Name List	UID List		Negot.	
		Explicit Little Endian	1.2.840.10008 .1.2.1			
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50			
		JPEG Lossless, Non- Hierarchical, First-Order Prediction (Process 14 [Selection Value 1])	1.2.840.10008 .1.2.4.70			
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90			
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91			
		RLE Lossless	1.2.840.10008 .1.2.5			
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99			
		Explicit VR Big Endian	1.2.840.10008 .1.2.2			
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51			
Deformable Spatial Registration Storage	1.2.840.10008.5.1.4.1.1.66.3	Implicit Little Endian	1.2.840.10008 .1.2			
		Explicit Little Endian	1.2.840.10008 .1.2.1			



Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List		Negot.
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70		
		First-Order Prediction (Process 14			
		[Selection Value 1])			
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		
Segmentation Storage	1.2.840.10008.5.1.4.1.1.66.4	Implicit Little Endian	1.2.840.10008 .1.2	SCP	None
		Explicit Little Endian	1.2.840.10008 .1.2.1		
		JPEG Baseline (Process 1)	1.2.840.10008 .1.2.4.50		
		JPEG Lossless, Non- Hierarchical,	1.2.840.10008 .1.2.4.70		



Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext.
Name	UID	Name List	UID List	Negot.	
		First-Order Prediction (Process 14 [Selection Value 1])			
		JPEG 2000 Image Compression (Lossless Only)	1.2.840.10008 .1.2.4.90		
		JPEG 2000 Image Compression	1.2.840.10008 .1.2.4.91		
		RLE Lossless	1.2.840.10008 .1.2.5		
		Deflated Explicit VR Big	1.2.840.10008 .1.2.1.99		
		Explicit VR Big Endian	1.2.840.10008 .1.2.2		
		JPEG Extended (Process 2 & 4)	1.2.840.10008 .1.2.4.51		

### 4.2.1.4.1.3 SOP Specific Conformance for Storage SOP Class

The Gateway AE can report status codes as summarized in the Table below.

Service Status	Further Meaning	Error Code	Behavior
SUCCESS	Success	0000	The Gateway SCP has completed the store. Continue receiving next images.
ERROR	Error: Cannot understand Error Comment: Error while processing DICOM data in	C000	The Gateway SCP send C-STORE RSP with the given error code and error comment. Corresponding



Service Status	Further Meaning	Error Code	Behavior
	PacsGateway SCP for Device id:		error message will be logged on the system of the application.
	Refused: Out of Resource  Error Comment: Could not write image file for Device id:	A700	The Gateway SCP send C-STORE RSP with the given error code and error comment. Corresponding error message will be logged on the system of the application.

### 4.3 Network Interfaces

## 4.3.1 Physical Network Interface

The application supports any network interface configured in the Windows OS.

### 4.3.2 Additional Protocols

The application conforms to the System Management Profiles listed in the Table below by utilizing corresponding functionality in Windows OS. All requested transactions for the listed profiles and actors are supported. Support for optional transactions are listed in the following table:

Profile Name	Actor	Protocols Used	Optional Transactions	Security Support
Network Address Management	DHCP Client	DHCP	N/A	N/A
	DNS Client	DNS	N/A	N/A
Time Synchronization	NTP Client	NTP	Find NTP Server	N/A
	DHCP Client	DHCP	N/A	N/A

The application also supports WADO as a Web Client System. Please refer to WADO section below for restrictions.



#### 4.3.2.1 DHCP

DHCP can be used to obtain TCP/IP network configuration information. The network parameters obtainable via DHCP are shown in the Table below. The Default Value column of the table shows the default used if the DHCP server does not provide a value. Support for DHCP is configured in the Windows OS. If DHCP is not in use, TCP/IP network configuration information must be manually configured instead.

DHCP Parameter	Default Value
IP Address	None
Host Name	Machine name
List of NTP servers	Empty list
List of DNS servers	Empty list
Routers	Empty list
Static Routes	None
Domain name	None
Subnet Mask	Derived from IP Address (see service manual)
Broadcast address	Derived from IP Address (see service manual)
Default Router	None
Time Offset	From Time Zone configured
MTU	Network Hardware Dependent
Auto-IP permission	No permission

If the DHCP server refuses to renew a lease on the assigned IP address active DICOM associations and communications may be aborted as a result.

#### 4.3.2.2 DNS

DNS can be used for address resolution. If DHCP is not in use or the DHCP server does not return any DNS server addresses, the identity of a DNS server can be configured in the Windows OS. If a DNS server is not in use, local mapping between hostname and IP address can be manually configured in the Windows OS.

#### 4.3.2.3 NTP

The Windows NTP client implements the optional Find NTP Server Transaction. The NTP client will issue an NTP broadcast to identify any local NTP servers. If no local



servers can be found via NTP broadcast, the NTP Servers identified by DHCP will be used as time references. Additionally, one or more NTP Servers can be configured in the Windows OS. If no NTP Servers are identified then the local clock will be used as a time reference.

.

### 4.3.3 IPv4 and IPv6 Support

This product supports both IPv4 and IPv6 connections.

## 4.4 Configuration

### 4.4.1 AE Title/Presentation Address Mapping

#### 4.4.1.1 Local AE Titles

One or more local AE titles are configured to exposed in the DICOM endpoint (C-STORE SCP) during the installation of the application. Each of these local AE titles corresponds to a destination data source belonging to an iCA Domain. The SCP is listening on a configured local port number with a corresponding local AE Title for each of these destinations. An external PACS sends DICOM instances to one of these exposed local AE title in order to have the application first receives the data which will be uploaded to iCA through HTTPS and eventually will be transferred to the corresponding destination data source through DICOM.

### 4.4.1.2 Remote AE Title/Presentation Address Mapping

For uploading studies, the Gateway AE accepts associations from any DICOM AE for pushing data in.

For routing studies, the PACS Gateway admin configures each destination PACS in POP Configuration Tool. Any configured destination PACS is expected to provide C-STORE SCP service. Each destination is identified by an internal ID, and the Gateway AE will forward received instances from iCA server to the destination as identified by iCA, using host/port/AE title mapped from that destination ID.



# 5. Media Interchange

The application does not support Media Storage.



# 6. Transformation of DICOM to CDA

The application does not support transformation of DICOM to CDA.



# 7. Support of Extended Character Sets

All of the character sets are supported by the MEMA PS 3.3 DICOM standard that are also supported by the application.

# 8. Security

## 8.1 Security Profiles

#### 8.1.1 Secure Use Profiles

None of Secure Use Profiles are supported.

### **8.1.2** Secure Transport Connection Profiles

None of Secure Transport Connection Profiles are supported.

### 8.1.3 Digital Signature Profiles

None of Digital Signature Profiles are supported.

### 8.1.4 Media Storage Security Profiles

None of Media Storage Security Profiles are supported.

## 8.2 Association Level Security

The C-STORE SCP accepts associations only when the association request contains one of the configured Called AE in Upload Studies function.

## 8.3 Application Level Security

None supported.

# 9. Annexes

Not applicable.

