amplify your imaging value™

iConnect® Gateway
V. 1.0

DICOM CONFORMANCE STATEMENT

Merge Healthcare
900 Walnut Ridge Drive
Hartland, WI 53029
USA

MERGE
An IBM® Company

877.44.MERGE • merge.com

@MergeHealthcare
linkedin.com/company/merge-healthcare
facebook.com/MergeHealthcare

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

- In North America: call toll-free 1-877-741-5369

- Outside of North America: +31.40.299.0773

- Email: support@merge.com

Part	Date	Revision	Description
CLD-2928	November 2014	1.0	Released under iConnect Cloud Project.
IG-5	October 2015	2.0	Released under iConnect Gateway Project. No changes.
	January 2016	3.0	Update to release date. No changes.

Contents

Introduction

Purpose

This document specifies the conformance of Merge Healthcare's iConnect Gateway Release V.1.0 to the DICOM 3.0 standard. This document covers conformance for the following:

- Merge iConnect Gateway – a DICOM to HTTPS transition server used for querying and transferring DICOM images between Other DICOM devices and the Merge iConnect Cloud Archive.

Related Documents

NEMA, the DICOM Standard: Parts 1 - 20.

MERGE
An IBM® Company

amplify your imaging value™

Implementation Model

iConnect Gateway

The iConnect Gateway allows for the storage and retrieval of DICOM objects from the iConnect Cloud Archive. Additionally, it allows for the querying of information about the DICOM objects that have been stored to it the iConnect Cloud Archive.

Application Data Flow Diagram
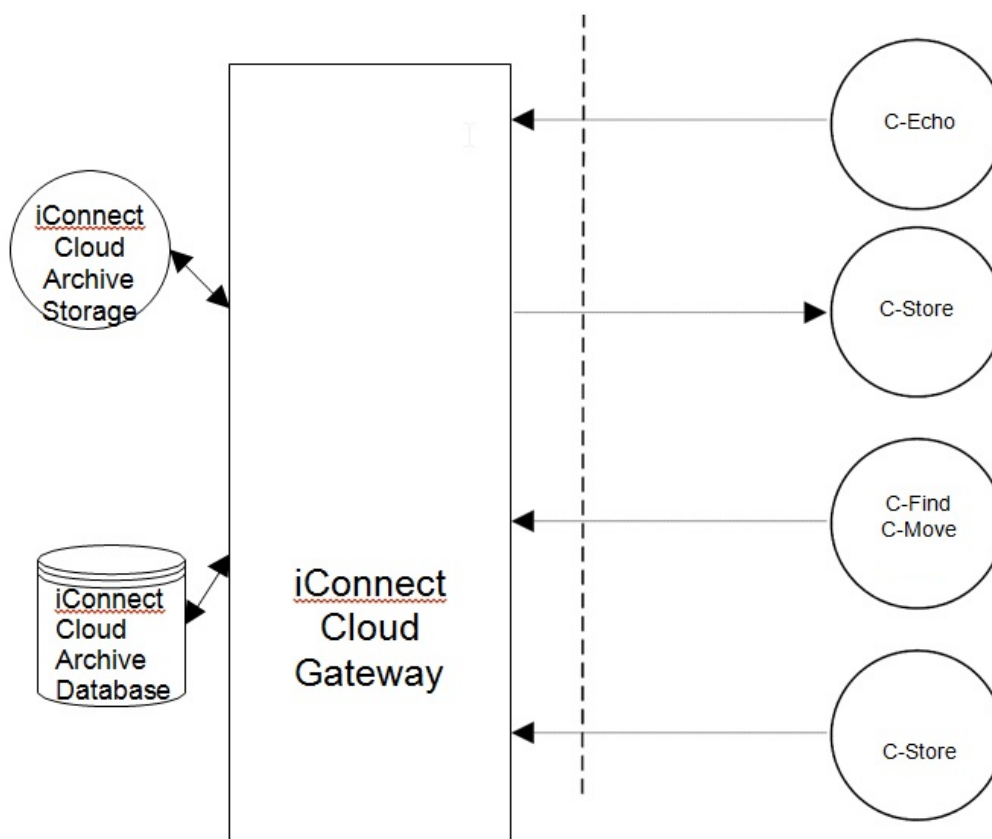
iConnect Gateway DICOM AE Implementation Model

MERGE
An IBM® Company

amplify your imaging value™

Functional Definition of AEs

DICOM AE

The iConnect Gateway waits for another application to connect at the presentation address configured for its Application Entity Title. When another application connects, the archive expects it to be a DICOM application. The archive will accept associations with Presentation Contexts for the following SOP Classes:

● Storage Service Class

● Query/Retrieve Service Class

The archive will receive objects/requests. When it receives an object, it stores that object in dicom Part 10 format as a file on a file system and registers that object in the database.

When a request is received it is processed accordingly. If the request is a retrieve request, the archive will retrieve the object from Cloud Archve in which it is stored. Once retrieved, it will be sent to the desired destination via an association. . If the request is a query, the archive will simply perform the query to the iConnect Cloud Archive and return the results.

AE Specifications

iConnect Gateway DICOM Specifications

This Application Entity provides Standard Conformance to the following DICOM V3.0 SOP Classes as an SCU and/or SCP (as indicated in the table):

NOTE: New SOP classes may be supported through simple configuration changes of the product.

Table 1.   SOP Classes

SOP Class Name	SOP Class UID	SCU/SCP
Storage		
12-lead ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.1	Y / Y
Ambulatory ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.3	Y / Y
Basic Text SR Storage	1.2.840.10008.5.1.4.1.1.88.11	Y / Y
Basic Voice Audio Waveform Storage	1.2.840.10008.5.1.4.1.1.9.4.1	Y / Y
Cardiac Electrophysiology Waveform Storage	1.2.840.10008.5.1.4.1.1.9.3.1	Y / Y
Comprehensive SR Storage	1.2.840.10008.5.1.4.1.1.88.33	Y / Y
Computed Radiography Image Storage	1.2.840.10008.5.1.4.1.1.1	Y / Y
CT Image Storage	1.2.840.10008.5.1.4.1.1.2	Y / Y
Enhanced CT Image Storage	1.2.840.10008.5.1.4.1.1.2.1	Y / Y
Digital X-Ray Image Storage (Presentation)	1.2.840.10008.5.1.4.1.1.1.1	Y / Y
Digital X-Ray Image Storage (Processing)	1.2.840.10008.5.1.4.1.1.1.1.1	Y / Y
Digital Mammography Image Storage (Presentation)	1.2.840.10008.5.1.4.1.1.1.2	Y / Y
Digital Mammography Image Storage (Processing)	1.2.840.10008.5.1.4.1.1.1.2.1	Y / Y
Digital Intra-oral X-Ray Image Storage (Presentation)	1.2.840.10008.5.1.4.1.1.1.3	Y / Y
Digital Intra-oral X-Ray Image Storage (Processing)	1.2.840.10008.5.1.4.1.1.1.3.1	Y / Y
Encapsulated PDF Storage SOP Class	1.2.840.10008.5.1.4.1.1.104.1	Y / Y
Enhanced SR Storage	1.2.840.10008.5.1.4.1.1.88.22	Y / Y

General ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.2	Y / Y
Grayscale Softcopy Presentation State Storage	1.2.840.10008.5.1.4.1.1.11.1	Y / Y
Hardcopy Color Image Storage	1.2.840.10008.5.1.1.30	Y / Y
Hardcopy Grayscale Image Storage	1.2.840.10008.5.1.1.29	Y / Y
Hemodynamic Waveform Storage	1.2.840.10008.5.1.4.1.1.9.2.1	Y / Y
Key Object Selection Document	1.2.840.10008.5.1.4.1.1.88.59	Y / Y
Mammography CAD SR	1.2.840.10008.5.1.4.1.1.88.50	Y / Y
Multi-frame Single Bit Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7.1	Y / Y
Multi-frame Grayscale Byte Secondary Capture	1.2.840.10008.5.1.4.1.1.7.2	Y / Y
Multi-frame Grayscale Word Secondary Capture	1.2.840.10008.5.1.4.1.1.7.3	Y / Y
Multi-frame True Color Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7.4	Y / Y
MR Image Storage	1.2.840.10008.5.1.4.1.1.4	Y / Y
Enhanced MR Image Storage	1.2.840.10008.5.1.4.1.1.4.1	Y / Y
Nuclear Medicine Image Storage	1.2.840.10008.5.1.4.1.1.20	Y / Y
Nuclear Medicine Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.5	Y / Y
Ophthalmic Photography 8 Bit Image Storage	1.2.840.10008.5.1.4.1.1.77.1.5.1	Y / Y
Ophthalmic Photography 16 Bit Image Storage	1.2.840.10008.5.1.4.1.1.77.1.5.2	Y / Y
Ophthalmic Tomography Image Storage	1.2.840.10008.5.1.4.1.1.77.1.5.4	Y / Y
Positron Emission Tomography Image Storage	1.2.840.10008.5.1.4.1.1.128	Y / Y
RT Beams Treatment Record Storage	1.2.840.10008.5.1.4.1.1.481.4	Y / Y
RT Brachy Treatment Record Storage	1.2.840.10008.5.1.4.1.1.481.6	Y / Y
RT Dose Storage	1.2.840.10008.5.1.4.1.1.481.2	Y / Y
RT Image Storage	1.2.840.10008.5.1.4.1.1.481.1	Y / Y
RT Plan Storage	1.2.840.10008.5.1.4.1.1.481.5	Y / Y
RT Structure Set Storage	1.2.840.10008.5.1.4.1.1.481.3	Y / Y
RT Treatment Summary Record Storage	1.2.840.10008.5.1.4.1.1.481.7	Y / Y
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	Y / Y
Stand-alone Curve Storage	1.2.840.10008.5.1.4.1.1.9	Y / Y

Stand-alone Modality LUT Storage	1.2.840.10008.5.1.4.1.1.10	Y / Y
Stand-alone Overlay Storage	1.2.840.10008.5.1.4.1.1.8	Y / Y
Stand-alone VOI LUT Storage	1.2.840.10008.5.1.4.1.1.11	Y / Y
Standalone PET Curve Storage	1.2.840.10008.5.1.4.1.1.129	Y / Y
Stored Print Storage	1.2.840.10008.5.1.1.27	Y / Y
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1	Y / Y
Ultrasound Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.6	Y / Y
Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1	Y / Y
Ultrasound Multi-frame Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.3	Y / Y
VL Endoscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.1	Y / Y
VL Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.2	Y / Y
VL Slide-Coordinates Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.3	Y / Y
VL Photographic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.4	Y / Y
X-Ray Angiographic Bi-Plane Image Storage (retired)	1.2.840.10008.5.1.4.1.1.12.3	Y / Y
X-Ray Angiographic Image Storage	1.2.840.10008.5.1.4.1.1.12.1	Y / Y
X-Ray Radiofluoroscopic Image Storage	1.2.840.10008.5.1.4.1.1.12.2	Y / Y
Query/Retrieve		
Patient Root Query/Retrieve Information Model - FIND	1.2.840.10008.5.1.4.1.2.1.1	N / Y
Patient Root Query/Retrieve Information Model - MOVE	1.2.840.10008.5.1.4.1.2.1.2	N / Y
Patient Root Query/Retrieve Information Model - GET	1.2.840.10008.5.1.4.1.2.1.3	N / Y
Study Root Query/Retrieve Information Model - FIND	1.2.840.10008.5.1.4.1.2.2.1	N / Y
Study Root Query/Retrieve Information Model - MOVE	1.2.840.10008.5.1.4.1.2.2.2	N / Y
Study Root Query/Retrieve Information Model - GET	1.2.840.10008.5.1.4.1.2.2.3	N / Y
Patient/Study Only Query/Retrieve Information Model - FIND	1.2.840.10008.5.1.4.1.2.3.1	N / Y
Patient/Study Only Query/Retrieve Information Model - MOVE	1.2.840.10008.5.1.4.1.2.3.2	N / Y

MERGE
An IBM® Company

amplify your imaging value™

Patient/Study Only Query/Retrieve Information Model - GET	1.2.840.10008.5.1.4.1.2.3.3	N / Y

Association Establishment Policies

General

The DICOM interface of the iConnect Gateway will attempt to establish an association anytime a C-MOVE request is received from a remote application entity in order to store the requested data in the move. The archive will only attempt to establish associations in response to valid C-MOVE requests for images that are known to the iConnect Cloud Archive database.

The gateway will only attempt to C-Move to know destinations that must be configured before attempting a move.

The DICOM Component supports SCU/SCP Role Negotiation.

The DICOM Component supports configurable Maximum PDU sizes, both sent and received.

Number of Associations

The iConnect Gateway will accept any number of simultaneous associations, the number of which can be configured. The maximum limit on the number of simultaneous associations is dependent on the number of open file descriptors allowed by the underlying operating system though the practical count will be limited by system resources and network bandwidth.

Association Initiation by Real-World Activity

The iConnect Gateway will attempt to initiate one storage association for each C-MOVE request request that is received.

Storage Association

- Completing a Move Request to a Remote System and

- Unsolicited Storage of DICOM Objects to the iConnect Cloud Archive

Associated Real-World Activity

The associated real-world activity is the receipt of a C-MOVE request from a remote application entity.

Proposed Presentation Contexts

The iConnect Gateway will propose a collection of presentation contexts, which will be obtained by applying the algorithm presented in the next section to the following Presentation Context Table:

Table 2.   Presentation Context Table

Abstract Syntax		Transfer Syntax	Role	Extended Negotiation
Name	**UID**			
12-lead ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.1	See **Table 3**	SCU	None
Ambulatory ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.3	See **Table 3**	SCU	None
Basic Study Content Notification	1.2.840.10008.1.9	See **Table 3**	SCU	None
Basic Text SR Storage	1.2.840.10008.5.1.4.1.1.88.11	See **Table 3**	SCU	None
Basic Voice Audio Waveform Storage	1.2.840.10008.5.1.4.1.1.9.4.1	See **Table 3**	SCU	None
Breast Tomosynthesis Image Storage	1.2.840.10008.5.1.4.1.1.13.1.3	See **Table 3**	SCU	None
Cardiac Electrophysiology Waveform Storage	1.2.840.10008.5.1.4.1.1.9.3.1	See **Table 3**	SCU	None
Comprehensive SR Storage	1.2.840.10008.5.1.4.1.1.88.33	See **Table 3**	SCU	None
Computed Radiography Image Storage	1.2.840.10008.5.1.4.1.1.1	See **Table 3**	SCU	None
CT Image Storage	1.2.840.10008.5.1.4.1.1.2	See **Table 3**	SCU	None
Enhanced CT Image Storage	1.2.840.10008.5.1.4.1.1.2.1	See **Table 3**	SCU	None
Digital X-Ray Image Storage (Presentation)	1.2.840.10008.5.1.4.1.1.1.1	See **Table 3**	SCU	None
Digital X-Ray Image Storage (Processing)	1.2.840.10008.5.1.4.1.1.1.1.1	See **Table 3**	SCU	None
Digital Mammography Image Storage (Presentation)	1.2.840.10008.5.1.4.1.1.1.2	See **Table 3**	SCU	None

Digital Mammography Image Storage (Processing)	1.2.840.10008.5.1.4.1.1.1.2.1	See Table 3	SCU	None
Digital Intra-oral X-Ray Image Storage (Presentation)	1.2.840.10008.5.1.4.1.1.1.3	See Table 3	SCU	None
Digital Intra-oral X-Ray Image Storage (Processing)	1.2.840.10008.5.1.4.1.1.1.3.1	See Table 3	SCU	None
Encapsulated PDF Storage SOP Class	1.2.840.10008.5.1.4.1.1.104.1	See Table 3	SCU	None
Enhanced SR Storage	1.2.840.10008.5.1.4.1.1.88.22	See Table 3	SCU	None
General ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.2	See Table 3	SCU	None
Grayscale Softcopy Presentation State Storage	1.2.840.10008.5.1.4.1.1.11.1	See Table 3	SCU	None
Hardcopy Color Image Storage	1.2.840.10008.5.1.1.30	See Table 3	SCU	None
Hardcopy Grayscale Image Storage	1.2.840.10008.5.1.1.29	See Table 3	SCU	None
Hemodynamic Waveform Storage	1.2.840.10008.5.1.4.1.1.9.2.1	See Table 3	SCU	None
Key Object Selection Document	1.2.840.10008.5.1.4.1.1.88.59	See Table 3	SCU	None
Mammography CAD SR	1.2.840.10008.5.1.4.1.1.88.50	See Table 3	SCU	None
Multi-frame Single Bit Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.1	See Table 3	SCU	None
Multi-frame Grayscale Byte Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.2	See Table 3	SCU	None
Multi-frame Grayscale Word Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.3	See Table 3	SCU	None
Multi-frame True Color Secondary	1.2.840.10008.5.1.4.1.1.7.4	See Table 3	SCU	None
MR Image Storage	1.2.840.100008.5.1.4.1.1.4	See Table 3	SCU	None
Enhanced MR Image Storage	1.2.840.100008.5.1.4.1.1.4.1	See Table 3	SCU	None
Nuclear Medicine Image Storage	1.2.840.10008.5.1.4.1.1.20	See Table 3	SCU	None

MERGE
An IBM® Company

amplify your imaging value™

Nuclear Medicine Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.5	See Table 3	SCU	None
Ophthalmic Photography 8 Bit Image Storage	1.2.840.10008.5.1.4.1.1.77.1.5.1	See Table 3	SCU	None
Ophthalmic Photography 16 Bit Image Storage	1.2.840.10008.5.1.4.1.1.77.1.5.2	See Table 3	SCU	None
Ophthalmic Tomography Image Storage	1.2.840.10008.5.1.4.1.1.77.1.5.4	See Table 3	SCU	None
Positron Emission Tomography Image Storage	1.2.840.10008.5.1.4.1.1.128	See Table 3	SCU	None
RT Beams Treatment Record Storage	1.2.840.10008.5.1.4.1.1.481.4	See Table 3	SCU	None
RT Brachy Treatment Record Storage	1.2.840.10008.5.1.4.1.1.481.6	See Table 3	SCU	None
RT Dose Storage	1.2.840.10008.5.1.4.1.1.481.2	See Table 3	SCU	None
RT Image Storage	1.2.840.10008.5.1.4.1.1.481.1	See Table 3	SCU	None
RT Plan Storage	1.2.840.10008.5.1.4.1.1.481.5	See Table 3	SCU	None
RT Structure Set Storage	1.2.840.10008.5.1.4.1.1.481.3	See Table 3	SCU	None
RT Treatment Summary Record	1.2.840.10008.5.1.4.1.1.481.7	See Table 3	SCU	None
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	See Table 3	SCU	None
Stand-alone Curve Storage	1.2.840.10008.5.1.4.1.1.9	See Table 3	SCU	None
Stand-alone Modality LUT Storage	1.2.840.10008.5.1.4.1.1.10	See Table 3	SCU	None
Stand-alone Overlay Storage	1.2.840.10008.5.1.4.1.1.8	See Table 3	SCU	None
Stand-alone VOI LUT Storage	1.2.840.10008.5.1.4.1.1.11	See Table 3	SCU	None
Standalone PET Curve Storage	1.2.840.10008.5.1.4.1.1.129	See Table 3	SCU	None
Stored Print Storage	1.2.840.10008.5.1.1.27	See Table 3	SCU	None
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1	See Table 3	SCU	None
Ultrasound Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.6	See Table 3	SCU	None

Ultrasound Multi-frame Image	1.2.840.10008.5.1.4.1.1.3.1	See **Table 3**	SCU	None
Ultrasound Multi-frame Image	1.2.840.10008.5.1.4.1.1.3	See **Table 3**	SCU	None
VL Endoscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.1	See **Table 3**	SCU	None
VL Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.2	See **Table 3**	SCU	None
VL Slide-Coordinates Microscopic	1.2.840.10008.5.1.4.1.1.77.1.3	See **Table 3**	SCU	None
VL Photographic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.4	See **Table 3**	SCU	None
X-Ray Angiographic Bi-Plane Image	1.2.840.10008.5.1.4.1.1.12.3	See **Table 3**	SCU	None
X-Ray Angiographic Image Storage	1.2.840.10008.5.1.4.1.1.12.1	See **Table 3**	SCU	None
X-Ray Radiofluoroscopic Image	1.2.840.10008.5.1.4.1.1.12.2	See **Table 3**	SCU	None

Table 3.   Transfer Syntax for Send to a Remote System

Name	UID
Little Endian Explicit VR	1.2.840.10008.1.2.1
Little Endian Implicit VR	1.2.840.10008.1.2
Big Endian Explicit VR	1.2.840.10008.1.2.2
Deflated Little Endian Explicit VR	1.2.840.10008.1.2.1.99
Lossless JPEG Image Compression (baseline)	1.2.840.10008.1.2.4.70
Lossy JPEG Image Compression (8-bit, coding Process 1)	1.2.840.10008.1.2.4.50
Lossy JPEG Image Compression (12-bit, coding Process 4)	1.2.840.10008.1.2.4.51
JPEG Lossless, Nonhierarchical (Processes 14)	1.2.840.10008.1.2.4.57
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
Lossless RLE Image Compression	1.2.840.10008.1.2.5

MERGE
An IBM® Company

amplify your imaging value™

Algorithm for Computing the Proposed Presentation Contexts for Outgoing Storage Associations

At the time of the association establishment, the set of DICOM objects to be sent out has been determined. Since both the transfer syntax in which each DICOM object has been stored and the SOP Class UID of each DICOM object are stored in the archives database, both of these tags are already known. The intention of the algorithm is to send out each object in the transfer syntax it has been initially stored in or a similar one. So, we understand that if the object has been initially received in a supported encapsulated transfer syntax, the algorithm would make sure that for the specific abstract syntax, a presentation context with that particular transfer syntax has been proposed. The encapsulated transfer syntax is preserved for efficiency, in order to save the processing time of the compression conversion. In the case of objects stored in a native transfer syntax, preserving the transfer syntax is not important, and any native transfer syntax should be acceptable.

Association Acceptance Policy

When the iConnect Gateway accepts an association, it will allow the storage of objects, the retrieval of objects previously stored, the query for information about stored objects.

The iConnect Gateway is configurable to allow security restrictions on specified SOP classes, SCU/SCP roles and proposed presentation contexts. However, it accepts assocations from any remote application entities.

Receive Objects from a Remote System

Associated Real-World Activity

When the iConnect Gateway receives a storage request (C-STORE) for an object in the iConnect Cloud Archive, that object is temporaly stored on disk on the underlying platform in DICOM Part 10 format and then upload into the iConnect Cloud Archive. If it is unable to store the object a failure response will be returned and the object will be marked as an error and DICOM object remained on disk..

The data set of the C-STORE command is stored with no loss of information.

Presentation Context Table

The iConnect Gateway will accept the following Transfer Syntaxes for each presentation context in an association it receives:

Table 4.   Presentation Context Table

Abstract Syntax		Transfer Syntax	Role	Extended Negotiation
Name	**UID**			
12-lead ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.1	See **Table 5**	SCP	None
Ambulatory ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.3	See **Table 5**	SCP	None
Basic Study Content Notification	1.2.840.10008.1.9	See **Table 5**	SCP	None
Basic Text SR Storage	1.2.840.10008.5.1.4.1.1.88.11	See **Table 5**	SCP	None
Basic Voice Audio Waveform Storage	1.2.840.10008.5.1.4.1.1.9.4.1	See **Table 5**	SCP	None
Breast Tomosynthesis Image Storage	1.2.840.10008.5.1.4.1.1.13.1.3	See **Table 5**	SCP	None
Cardiac Electrophysiology Waveform Storage	1.2.840.10008.5.1.4.1.1.9.3.1	See **Table 5**	SCP	None
Comprehensive SR Storage	1.2.840.10008.5.1.4.1.1.88.33	See **Table 5**	SCP	None
Computed Radiography Image Storage	1.2.840.10008.5.1.4.1.1.1	See **Table 5**	SCP	None
CT Image Storage	1.2.840.10008.5.1.4.1.1.2	See **Table 5**	SCP	None
Enhanced CT Image Storage	1.2.840.10008.5.1.4.1.1.2.1	See **Table 5**	SCP	None
Digital X-Ray Image Storage (Presentation)	1.2.840.10008.5.1.4.1.1.1.1	See **Table 5**	SCP	None
Digital X-Ray Image Storage (Processing)	1.2.840.10008.5.1.4.1.1.1.1.1	See **Table 5**	SCP	None
Digital Mammography Image Storage (Presentation)	1.2.840.10008.5.1.4.1.1.1.2	See **Table 5**	SCP	None
Digital Mammography Image Storage (Processing)	1.2.840.10008.5.1.4.1.1.1.2.1	See **Table 5**	SCP	None
Digital Intra-oral X-Ray Image Storage (Presentation)	1.2.840.10008.5.1.4.1.1.1.3	See **Table 5**	SCP	None
Digital Intra-oral X-Ray Image Storage (Processing)	1.2.840.10008.5.1.4.1.1.1.3.1	See **Table 5**	SCP	None
Encapsulated PDF Storage SOP Class	1.2.840.10008.5.1.4.1.1.104.1	See **Table 5**	SCP	None
Enhanced SR Storage	1.2.840.10008.5.1.4.1.1.88.22	See **Table 5**	SCP	None
General ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.2	See **Table 5**	SCP	None
Grayscale Softcopy Presentation State Storage	1.2.840.10008.5.1.4.1.1.11.1	See **Table 5**	SCP	None

MERGE An IBM® Company

amplify your imaging value™

Hardcopy Color Image Storage	1.2.840.10008.5.1.1.30	See Table 5	SCP	None
Hardcopy Grayscale Image Storage	1.2.840.10008.5.1.1.29	See Table 5	SCP	None
Hemodynamic Waveform Storage	1.2.840.10008.5.1.4.1.1.9.2.1	See Table 5	SCP	None
Key Object Selection Document	1.2.840.10008.5.1.4.1.1.88.59	See Table 5	SCP	None
Mammography CAD SR	1.2.840.10008.5.1.4.1.1.88.50	See Table 5	SCP	None
Multi-frame Single Bit Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.1	See Table 5	SCP	None
Multi-frame Grayscale Byte Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.2	See Table 5	SCP	None
Multi-frame Grayscale Word Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.3	See Table 5	SCP	None
Multi-frame True Color Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.4	See Table 5	SCP	None
MR Image Storage	1.2.840.100008.5.1.4.1.1.4	See Table 5	SCP	None
Enhanced MR Image Storage	1.2.840.100008.5.1.4.1.1.4.1	See Table 5	SCP	None
Nuclear Medicine Image Storage	1.2.840.10008.5.1.4.1.1.20	See Table 5	SCP	None
Nuclear Medicine Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.5	See Table 5	SCP	None
Ophthalmic Photography 8 Bit Image Storage	1.2.840.10008.5.1.4.1.1.77.1.5.1	See Table 5	SCP	None
Ophthalmic Photography 16 Bit Image Storage	1.2.840.10008.5.1.4.1.1.77.1.5.2	See Table 5	SCP	None
Ophthalmic Tomography Image Storage	1.2.840.10008.5.1.4.1.1.77.1.5.4	See Table 5	SCP	None
Positron Emission Tomography Image Storage	1.2.840.10008.5.1.4.1.1.128	See Table 5	SCP	None
RT Beams Treatment Record Storage	1.2.840.10008.5.1.4.1.1.481.4	See Table 5	SCP	None
RT Brachy Treatment Record Storage	1.2.840.10008.5.1.4.1.1.481.6	See Table 5	SCP	None
RT Dose Storage	1.2.840.10008.5.1.4.1.1.481.2	See Table 5	SCP	None
RT Image Storage	1.2.840.10008.5.1.4.1.1.481.1	See Table 5	SCP	None
RT Plan Storage	1.2.840.10008.5.1.4.1.1.481.5	See Table 5	SCP	None

RT Structure Set Storage	1.2.840.10008.5.1.4.1.1.481.3	See Table 5	SCP	None
RT Treatment Summary Record Storage	1.2.840.10008.5.1.4.1.1.481.7	See Table 5	SCP	None
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	See Table 5	SCP	None
Stand-alone Curve Storage	1.2.840.10008.5.1.4.1.1.9	See Table 5	SCP	None
Stand-alone Modality LUT Storage	1.2.840.10008.5.1.4.1.1.10	See Table 5	SCP	None
Stand-alone Overlay Storage	1.2.840.10008.5.1.4.1.1.8	See Table 5	SCP	None
Stand-alone VOI LUT Storage	1.2.840.10008.5.1.4.1.1.11	See Table 5	SCP	None
Standalone PET Curve Storage	1.2.840.10008.5.1.4.1.1.129	See Table 5	SCP	None
Stored Print Storage	1.2.840.10008.5.1.1.27	See Table 5	SCP	None
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1	See Table 5	SCP	None
Ultrasound Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.6	See Table 5	SCP	None
Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1	See Table 5	SCP	None
Ultrasound Multi-frame Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.3	See Table 5	SCP	None
VL Endoscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.1	See Table 5	SCP	None
VL Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.2	See Table 5	SCP	None
VL Slide-Coordinates Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.3	See Table 5	SCP	None
VL Photographic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.4	See Table 5	SCP	None
X-Ray Angiographic Bi-Plane Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.12.3	See Table 5	SCP	None
X-Ray Angiographic Image Storage	1.2.840.10008.5.1.4.1.1.12.1	See Table 5	SCP	None
X-Ray Radiofluoroscopic Image Storage	1.2.840.10008.5.1.4.1.1.12.2	See Table 5	SCP	None

Table 5.   Transfer Syntax for Receive from a Remote System

Name	UID
Little Endian Explicit VR	1.2.840.10008.1.2.1
Little Endian Implicit VR	1.2.840.10008.1.2
Big Endian Explicit VR	1.2.840.10008.1.2.2
Deflated Little Endian Explicit VR	1.2.840.10008.1.2.1.99
Lossless JPEG Image Compression (baseline)	1.2.840.10008.1.2.4.70
Lossy JPEG Image Compression (8-bit, coding Process 1)	1.2.840.10008.1.2.4.50
Lossy JPEG Image Compression (12-bit, coding Process 4)	1.2.840.10008.1.2.4.51
JPEG Lossless, Nonhierarchical (Processes 14)	1.2.840.10008.1.2.4.57
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
Lossless RLE Image Compression	1.2.840.10008.1.2.5

SOP Specific Conformance for all Storage SOP Classes

The iConnect Gateway DICOM Interface conforms to the SOPs of the Storage Service Class at Level 2 (full). No elements are discarded or coerced, unless explicitly configured to do so. Discarding offending DICOM elements (invalid tags) or coercing some data elements to address customer needs is possible; however, it can be done only with Merge Healthcare's direct involvement, and it implies custom implementations of coercion strategies.

In the event of a successful C-STORE operation, the object is fully stored to the iConnect Cloud Archive and is accessible through the iConnect Cloud Archive.

The iConnect Gateway performs minimal object validation to ensure database integrity. Additional validation may be configured to prevent the object from being stored in the archive.

Extended negotiation is not supported for Storage Service Classes.

ICloud Gateway returns Success status code (0x0000) when it successfully receives and saves object to disk for uploading to the iConnect Cloud Archive. Otherwise, failed response is returned with status code (0xC0110)

Presentation Context Acceptance Criterion

There is no prioritization used for the acceptance of presentation contexts. Any combination

of supported transfer syntax and abstract syntax is accepted, in case the product is configured for them.

Transfer Syntax Selection Policies

The iConnect Gateway DICOM Interface selects transfer syntaxes in Acceptor first mode: the first transfer syntax in the archive's list of allowable transfer syntaxes that also exists in the proposed transfer syntax list will be selected.

Response to a Query Request from a Remote System

Associated Real-World Activity

When the iConnect Gateway receives a query request (C-FIND) it will resolve the request against the iConnect Cloud Archive and return all found information to the query initiator. The gateway supports query transactions for all stored DICOM composite objects.

Presentation Context Table

The Enterprise DICOM Archive Manager will accept the following Transfer Syntaxes for each presentation context in an association it receives:

Table 6.   Presentation Context Table

Abstract Syntax		Transfer Syntax		Role	Extended Negotiatio
Name	**UID**	**Name**	**UID**		
Patient Root Query/ Retrieve Information Model – FIND	1.2.840.10008.5.1.4.1.2.1.1	Little Endian Explicit VR	1.2.840.10008.1.2.1	SCP	Relational
		Little Endian Implicit VR	1.2.840.10008.1.2		
		Big Endian Explicit VR	1.2.840.10008.1.2.2		
		Deflated Little Endian Explicit VR	1.2.840.10008.1.2.1.99		
Study Root Query/ Retrieve Information Model - FIND	1.2.840.10008.5.1.4.1.2.2.1	Little Endian Explicit VR	1.2.840.10008.1.2.1	SCP	Relational
		Little Endian Implicit VR	1.2.840.10008.1.2		
		Big Endian Explicit VR	1.2.840.10008.1.2.2		
		Deflated Little Endian Explicit VR	1.2.840.10008.1.2.1.99		

MERGE
An IBM® Company

amplify your imaging value™

Patient/ Study Only Query/ Retrieve Information Model – FIND	1.2.840.10008.5.1.4.1.2.3.1	Little Endian Explicit VR	1.2.840.10008.1.2.1	SCP	Relational
		Little Endian Implicit VR	1.2.840.10008.1.2		
		Big Endian Explicit VR	1.2.840.10008.1.2.2		
		Deflated Little Endian	1.2.840.10008.1.2.1.99		

SOP Specific Conformance for all Find SOP Classes

The iConnect Gateway conforms to the SOPs of the Query/Retrieve Service Class at both the hierarchical and relational level.

Table 7.   SOP Extended Negotiation

Item bytes	Field Name	Description of Field
1	Relational-queries/retrieval	This byte field defines relational-query/retrieval support for the Association-acceptor. It shall be encoded as an unsigned binary integer and shall use one of the following values 0 - relational-queries/retrieval not supported 1 - relational-queries/retrieval supported

Query Modes

The iConnect Gateway supports both the Hierarchical and Relational search modes.

Information Models

The iConnect Gateway supports the Patient Root, Study Root, and Patient-Study Only information models.

Table 8.   Patient Root Image C-FIND Supported Attributes

Attribute Name	Tag	Query Keys Matching SCP	Query Keys Return SCP
Patient Level			
Patient Name	(0010, 0010)	Supported	Supported
Patient ID	(0010, 0020)	Supported (U)	Supported

Referenced Patient Sequence	(0008, 1120)	Supported	Supported
Referenced SOP Class UID	(0008, 1150)	Supported	Supported
Referenced SOP Instance UID	(0008, 1155)	Supported	Supported
Patient's Birth Date	(0010, 0030)	Supported	Supported
Patient's Birth Time	(0010, 0032)	Supported	Supported
Patient's Sex	(0010, 0040)	Supported	Supported
Other Patient IDs	(0010, 1000)	Supported	Supported
Other Patient Names	(0010, 1001)	Supported	Supported
Ethnic Group	(0010, 2160)	Supported	Supported
Patient Comments	(0010, 4000)	Supported	Supported
Number of Patient Related Studies	(0020, 1200)	Supported	Supported
Number of Patient Related Series	(0020, 1202)	Supported	Supported
Number of Patient Related Instances	(0020, 1204)	Supported	Supported
Study Level			
Study Date	(0008, 0020)	Supported	Supported
Study Time	(0008, 0030)	Supported	Supported
Accession Number	(0008, 0050)	Supported	Supported
Study ID	(0020, 0010)	Supported	Supported
Study Instance UID	(0020, 000D)	Supported (U)	Supported
Modalities in Study	(0008, 0061)	Supported	Supported
Referring Physician's Name	(0008, 0090)	Supported	Supported
Study Description	(0008, 1030)	Supported	Supported
Procedure Code Sequence	(0008, 1032)	Supported	Supported
Code Value	(0008, 0100)	Supported	Supported
Coding Scheme Designator	(0008, 0102)	Supported	Supported
Coding Scheme Version	(0008, 0103)	Supported	Supported
Code Meaning	(0008, 0104)	Supported	Supported
Name of Physician(s) Reading Study	(0008, 1060)	Supported	Supported
Admitting Diagnoses Description	(0008, 1080)	Supported	Supported

MERGE
An IBM® Company

amplify your imaging value™

Referred Study Sequence	(0008, 1110)	Supported	Supported
Referenced SOP Class UID	(0008, 1150)	Supported	Supported
Referenced SOP Instance UID	(0008, 1155)	Supported	Supported
Patient's Age	(0010, 1010)	Supported	Supported
Patient's Size	(0010, 1020)	Supported	Supported
Patient's Weight	(0010, 1030)	Supported	Supported
Occupation	(0010, 2180)	Supported	Supported
Additional Patient History	(0010, 21B0)	Supported	Supported
Other Study Numbers	(0020, 1070)	Supported	Supported
Number of Study Related Series	(0020, 1206)	Supported	Supported
Number of Study Related Instances	(0020, 1208)	Supported	Supported
Interpretation Author	(4008, 010C)	Supported	Supported
Series Level			
Modality	(0008, 0060)	Supported	Supported
Series Number	(0020, 0011)	Supported	Supported
Series Instance UID	(0020, 000E)	Supported (U)	Supported
Number of Series Related Instances	(0020, 1209)	Supported	Supported
Performed Procedure Step ID	(0040, 0253)	Supported	Supported
Reference Study Component Sequence	(0008, 1111)	Supported	Supported
Referenced SOP Class UID	(0008, 1150)	Supported	Supported
Referenced SOP Instance UID	(0008, 1155)	Supported	Supported
Request Attribute Sequence	(0040, 0275)	Supported	Supported
Requested Procedure ID	(0040, 1001)	Supported	Supported
Scheduled Procedure Step ID	(0040, 0009)	Supported	Supported
Performed Procedure Step Start Date	(0040, 0244)	Supported	Supported
Performed Procedure Step Start Time	(0040, 0245)	Supported	Supported
Body Part Examined	(0018, 0015)	Supported	Supported
Station Name	(0008, 1010)	Supported	Supported

MERGE
An IBM® Company

amplify your imaging value™

Institution Name	(0008, 0080)	Supported	Supported
Performing Physician's Name	(0008, 1050)	Supported	Supported
Manufacturer	(0008, 0070)	Supported	Supported
Manufacturer's Model Name	(0008, 1090)	Supported	Supported
Series Description	(0008, 103E)	Supported	Supported
Series Date	(0008, 0021)	Supported	Supported
Series Time	(0008, 0031)	Supported	Supported
Protocol Name	(0018, 1030)	Supported	Supported
Composite Object Instance Level			
Instance Number	(0020, 0013)	Supported	Supported
Overlay Number	(0020, 0022)	Supported	Supported
Curve Number	(0020, 0024)	Supported	Supported
LUT Number	(0020, 0026)	Supported	Supported
SOP Instance UID	(0008, 0018)	Supported (U)	Supported
SOP Class UID	(0008, 0016)	Supported	Supported
Image Specific Level			
Rows	(0020, 0010)	Supported	Supported
Columns	(0020, 0011)	Supported	Supported
Bits Allocated	(0028, 0100)	Supported	Supported
Number of Frames	(0028, 0008)	Supported	Supported

Table 9.   Study Root Image C-FIND Supported Attributes

Attribute Name	Tag	Query Keys Matching SCP	Query Keys Return SCP
Study Level			
Study Date	(0008, 0020)	Supported	Supported
Study Time	(0008, 0030)	Supported	Supported
Accession Number	(0008, 0050)	Supported	Supported
Patient Name	(0010, 0010)	Supported	Supported
Patient ID	(0010, 0020)	Supported (U)	Supported

Study ID	(0020, 0010)	Supported	Supported
Study Instance UID	(0020, 000D)	Supported (U)	Supported
Modalities in Study	(0008, 0061)	Supported	Supported
Referring Physician's Name	(0008, 0090)	Supported	Supported
Study Description	(0008, 1030)	Supported	Supported
Procedure Code Sequence	(0008, 1032)	Supported	Supported
Code Value	(0008, 0100)	Supported	Supported
Coding Scheme Designator	(0008, 0102)	Supported	Supported
Coding Scheme Version	(0008, 0103)	Supported	Supported
Code Meaning	(0008, 0104)	Supported	Supported
Name of Physician(s) Reading Study	(0008, 1060)	Supported	Supported
Admitting Diagnoses Description	(0008, 1080)	Supported	Supported
Referred Study Sequence	(0008, 1110)	Supported	Supported
Referenced SOP Class UID	(0008, 1150)	Supported	Supported
Referenced SOP Instance UID	(0008, 1155)	Supported	Supported
Referenced Patient Sequence	(0008, 1120)	Supported	Supported
Referenced SOP Class UID	(0008, 1150)	Supported	Supported
Referenced SOP Instance UID	(0008, 1155)	Supported	Supported
Referenced SOP Instance UID	(0008, 1155)	Supported	Supported
Patient's Birth Date	(0010, 0030)	Supported	Supported
Patient's Birth Time	(0010, 0032)	Supported	Supported
Patient's Sex	(0010, 0040)	Supported	Supported
Other Patient IDs	(0010, 1000)	Supported	Supported
Other Patient Names	(0010, 1001)	Supported	Supported
Patient's Age	(0010, 1010)	Supported	Supported
Patient's Size	(0010, 1020)	Supported	Supported
Patient's Weight	(0010, 1030)	Supported	Supported
Ethnic Group	(0010, 2160)	Supported	Supported
Occupation	(0010, 2180)	Supported	Supported

Additional Patient History	(0010, 21B0)	Supported	Supported
Patient Comments	(0010, 4000)	Supported	Supported
Other Study Numbers	(0020, 1070)	Supported	Supported
Number of Patient Related Studies	(0020, 1200)	Supported	Supported
Number of Patient Related Series	(0020, 1202)	Supported	Supported
Number of Patient Related Instances	(0020, 1204)	Supported	Supported
Number of Study Related Series	(0020, 1206)	Supported	Supported
Number of Study Related Instances	(0020, 1208)	Supported	Supported
Interpretation Author	(4008, 010C)	Supported	Supported
Series Level			
Modality	(0008, 0060)	Supported	Supported
Series Number	(0020, 0011)	Supported	Supported
Series Instance UID	(0020, 000E)	Supported (U)	Supported
Number of Series Related Instances	(0020, 1209)	Supported	Supported
Performed Procedure Step ID	(0040, 0253)	Supported	Supported
Reference Study Component Sequence	(0008, 1111)	Supported	Supported
Referenced SOP Class UID	(0008, 1150)	Supported	Supported
Referenced SOP Instance UID	(0008, 1155)	Supported	Supported
Request Attribute Sequence	(0040, 0275)	Supported	Supported
Requested Procedure ID	(0040, 1001)	Supported	Supported
Scheduled Procedure Step ID	(0040, 0009)	Supported	Supported
Performed Procedure Step Start Date	(0040, 0244)	Supported	Supported
Performed Procedure Step Start Time	(0040, 0245)	Supported	Supported
Body Part Examined	(0018, 0015)	Supported	Supported
Station Name	(0008, 1010)	Supported	Supported
Institution Name	(0008, 0080)	Supported	Supported
Performing Physician's Name	(0008, 1050)	Supported	Supported
Manufacturer	(0008, 0070)	Supported	Supported

MERGE
An IBM® Company

amplify your imaging value™

Manufacturer's Model Name	(0008, 1090)	Supported	Supported
Series Description	(0008, 103E)	Supported	Supported
Series Date	(0008, 0021)	Supported	Supported
Series Time	(0008, 0031)	Supported	Supported
Protocol Name	(0018, 1030)	Supported	Supported
Composite Object Instance Level			
Instance Number	(0020, 0013)	Supported	Supported
Overlay Number	(0020, 0022)	Supported	Supported
Curve Number	(0020, 0024)	Supported	Supported
LUT Number	(0020, 0026)	Supported	Supported
SOP Instance UID	(0008, 0018)	Supported (U)	Supported
SOP Class UID	(0008, 0016)	Supported	Supported
Image Specific Level			
Rows	(0020, 0010)	Supported	Supported
Columns	(0020, 0011)	Supported	Supported
Bits Allocated	(0028, 0100)	Supported	Supported
Number of Frames	(0028, 0008)	Supported	Supported

Patient/Study Only Image C-FIND Supported Attributes

Attributes for the Patient and Study Levels of the Patient/Study Only Query/Retrieve Information Model are the same as the corresponding attributes for the Patient and Study Levels of the Patient Root Query/ Retrieve Information Model. For information about these attributes, see **Table 8**.

Table 10.   Grayscale Soft Copy Presentation State C-FIND Supported Attributes

Attribute Name	Tag	Query Keys Matching SCP	Query Keys Return SCP
GSPS Instance Specific Level			
Presentation Label	(0070, 0080)	Supported	Supported
Presentation Description	(0070, 0081)	Supported	Supported

Presentation Creation Date	(0070, 0082)	Supported	Supported
Presentation Creation Time	(0070, 0083)	Supported	Supported
Presentation Creator's Name	(0070, 0084)	Supported	Supported
Referenced Series Sequence	(0008, 1115)	Supported	Supported
>Series Instance UID	(0020, 000E)	Supported	Supported
>Referenced Image Sequence	(0008, 1140)	Supported	Supported
>>Referenced SOP Class UID	(0008, 1150)	Supported	Supported
>>Referenced SOP Instance UID	(0008, 1155)	Supported	Supported

Table 11.   Table 15: Basic Text SR and Enhanced SR C-FIND Supported Attributes

Attribute Name	Tag	Query Keys Matching SCP	Query Keys Return SCP
SR Instance Specific Level			
Completion Flag	(0040, A491)	Supported	Supported
Verification Flag	(0040, A493)	Supported	Supported
Content Date	(0008, 0023)	Supported	Supported
Content Time	(0008, 0033)	Supported	Supported
Observation Date Time	(0040, A032)	Supported	Supported
Verifying Observer Sequence	(0040, A073)	Supported	Supported
>Verifying Organization	(0040, A027)	Supported	Supported
>Verification DateTime	(0040, A030)	Supported	Supported
>Verifying Observer Name	(0040, A075)	Supported	Supported
>Verifying Observer Identification Code Sequence	(0040, A088)	Supported	Supported
Referenced Request Sequence	(0040, A370)	Supported	Supported
>Study Instance UID	(0020, 000D)	Supported	Supported
>Accession Number	(0008, 0050)	Supported	Supported
>Requested Procedure ID	(0040, 1000)	Supported	Supported
>Requested Procedure Code Sequence	(0032, 1064)	Supported	Supported
>>Code Value	(0008, 0100)	Supported	Supported

MERGE
An IBM® Company

amplify your imaging value™

>>Code Scheme Designator	(0008, 0102)	Supported	Supported
>>Code Scheme Version	(0008, 0103)	Supported	Supported
>>Code Meaning	(0008, 0104)	Supported	Supported
Concept Name Code Sequence	(0040, A043)	Supported	Supported
>Code Value	(0008, 0100)	Supported	Supported
>Coding Scheme Designator	(0008, 0102)	Supported	Supported
>Coding Scheme Version	(0008, 0103)	Supported	Supported
>Code Meaning	(0008, 0104)	Supported	Supported

C-FIND Status Codes

If the Enterprise DICOM Archive Manager returns one of the following status codes for C-FIND then the operation was unsuccessful. All status codes are in hexadecimal.

C001 (Unable To Process) - Indicates that the archive was unable to fully process the query. The Error Comment field of the status will be populated with a description of the error encountered.

Query Implementation Specifics

The SCUs are recommended to append wildcard "*" at the end of each component of any structured name to facilitate matching.

Presentation Context Acceptance Criterion

There is no prioritization used for the acceptance of presentation contexts. Any combination of supported transfer syntax and abstract syntax is accepted, in case the product is configured for them.

Transfer Syntax Selection Policies

The iConnect Gateway selects transfer syntaxes in Acceptor first modes: the first transfer syntax in the archive's list of allowable transfer syntaxes that also exists in the proposed transfer syntax list will be selected.

Respond to a Retrieve Request from a Remote System

Associated Real-World Activity

When the iConnect Gateway receives a request for retrieval (C-MOVE), the request will be resolved against the iConnect Cloud Archive's underlying database. If any objects are found, it will attempt to establish an association over which to store the found objects (C-MOVE only). If the association is established, it will retrieve the found objects from the underlying platform and store them over the association, returning pending responses to the retrieval request initiator.

Presentation Context Table

The iConnect Gateway will accept the following Transfer Syntaxes for each presentation context in an association it receives:

Table 12.   Presentation Context Table

Abstract Syntax				Role	Extended Negotiation
Name	UID	Name	UID		
Patient Root Query/Retrieve Information Model – MOVE	1.2.840.10008.5.1.4.1.2.1.2	Little Endian Explicit VR	1.2.840.10008.1.2.1	SCP	Relational
		Little Endian Implicit VR	1.2.840.10008.1.2		
		Big Endian Explicit VR	1.2.840.10008.1.2.2		
		Deflated Little Endian Explicit VR	1.2.840.10008.1.2.1.99		
Patient Root Query/Retrieve Information Model – GET	1.2.840.10008.5.1.4.1.2.1.3	Little Endian Explicit VR	1.2.840.10008.1.2.1	SCP	Relational
		Little Endian Implicit VR	1.2.840.10008.1.2		
		Big Endian Explicit VR	1.2.840.10008.1.2.2		
		Deflated Little Endian Explicit VR	1.2.840.10008.1.2.1.99		
Study Root Query/Retrieve Information Model – MOVE	1.2.840.10008.5.1.4.1.2.2.2	Little Endian Explicit VR	1.2.840.10008.1.2.1	SCP	Relational
		Little Endian Implicit VR	1.2.840.10008.1.2		
		Big Endian Explicit VR	1.2.840.10008.1.2.2		
		Deflated Little Endian Explicit VR	1.2.840.10008.1.2.1.99		
Study Root Query/Retrieve Information Model – GET	1.2.840.10008.5.1.4.1.2.2.3	Little Endian Explicit VR	1.2.840.10008.1.2.1	SCP	Relational
		Little Endian Implicit VR	1.2.840.10008.1.2		
		Big Endian Explicit VR	1.2.840.10008.1.2.2		
		Deflated Little Endian Explicit VR	1.2.840.10008.1.2.1.99		
Patient/Study Only Query/ Retrieve Information Model – MOVE	1.2.840.10008.5.1.4.1.2.3.2	Little Endian Explicit VR	1.2.840.10008.1.2.1	SCP	Relational
		Little Endian Implicit VR	1.2.840.10008.1.2		
		Big Endian Explicit VR	1.2.840.10008.1.2.2		
		Deflated Little Endian Explicit VR	1.2.840.10008.1.2.1.99		

Patient/Study Only Query/ Retrieve Information Model - GET	1.2.840.10008.5.1.4.1.2.3.3	Little Endian Explicit VR	1.2.840.10008.1.2.1	SCP	Relational
		Little Endian Implicit VR	1.2.840.10008.1.2		
		Big Endian Explicit VR	1.2.840.10008.1.2.2		
		Deflated Little Endian Explicit VR	1.2.840.10008.1.2.1.99		

SOP Specific Conformance for All Query/Retrieve SOP Classes

C-MOVE Status Codes

If the iConnect Gateway returns one of the following status codes for C-MOVE then the operation was unsuccessful. All status codes are in hexadecimal.

C001 (Unable To Process) - Indicates that the archive was unable to fully process the move/get. The Error

Comment field of the status will be populated with a description of the error encountered.

A801 (Move Destination Unknown) - Indicates that the archive was unable to connect to the move destination (C-MOVE only).

Presentation Context Acceptance Criterion

There is no prioritization used for the acceptance of presentation contexts. Any combination of supported transfer syntax and abstract syntax is accepted, in case the product is configured for them.

Transfer Syntax Selection Policies

The iConnect Gateway selects transfer syntaxes in Acceptor first mode: the first transfer syntax in the archive's list of allowable transfer syntaxes that also exists in the proposed transfer syntax list will be selected.

MERGE
An IBM® Company

amplify your imaging value™

Configuration

The iConnect Gateway tool (a graphical user interface (GUI)) is used for configuration and administration. This tool is remotely enabled through the use of Java Remote Method Invocation (RMI), allowing the system to be configured and administrated from any location on the network. Configurable parameters include, but are not limited to, system level debugging, known remote application entities, various security concerns, and service classes supported.

AE Title/Presentation Address Mapping

All AE Title/Presentation Address mapping may need to be present in multiple locations, depending on the Application Entity. In all cases, iConnect Gateway allows for the configuration of the AE Title.

Configurable Parameters

The amount of configuration the system allows is extensive.

In general, the following parameters are configurable for each component:

- Listening IP port number
- Application entity title
- Number of simultaneous associations
- DICOM Part 10 file storage location
- Accepted SOP Classes
- Remote AE list (AE Title, Hostname, Port)
- Network Timeout

A member of Merge Healthcare's support staff must perform configuration.