



ModLink

DICOM Conformance Statement

ENG-ML-DCS-REVC

Date: November 2023

Documentation Notice

Information in this document is subject to change without notice. The software described in this document is furnished only under a separate license agreement and may only be used or copied according to the terms of such agreement. It is against the law to copy the software except as specifically allowed in the license agreement. This document or accompanying materials may contain certain information which is confidential information of Hyland Software, Inc. and its affiliates, and which may be subject to the confidentiality provisions agreed to by you.

Complying with all applicable copyright laws is the responsibility of the user. Without limiting the rights under copyright law, no part of this document may be reproduced, stored in or introduced into a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording, or otherwise), or for any purpose, without the express written permission of Hyland Software, Inc. or one of its affiliates.

Hyland, HXP, OnBase, Alfresco, Nuxeo, and product names are registered and/or unregistered trademarks of Hyland Software, Inc. and its affiliates in the United States and other countries. All other trademarks, service marks, trade names and products of other companies are the property of their respective owners.

© 2023 Hyland Software, Inc. and its affiliates.

The information in this document may contain technology as defined by the Export Administration Regulations (EAR) and could be subject to the Export Control Laws of the U.S. Government including for the EAR and trade and economic sanctions maintained by the Office of Foreign Assets Control as well as the export controls laws of your entity's local jurisdiction. Transfer of such technology by any means to a foreign person, whether in the United States or abroad, could require export licensing or other approval from the U.S. Government and the export authority of your entity's jurisdiction. You are responsible for ensuring that you have any required approvals prior to export.

Revision History

Date	Rev	Authors	Description
18-APR-2015	A	Chris Leitner	First draft
13-SEP-2022	B	Tammy Matthews	Rebranded for Hyland. Minor formatting changes.
09-SEP-2023	C	Tammy Matthews	Minor typos and formatting changes. Updated Documentation Notice date

Table of Contents

Documentation Notice.....	2
Revision History	3
List of Figures.....	5
Introduction	6
Implementation Model.....	6
Application Data Flow Diagram	6
Functional Definition of Application Entity	6
Sequencing of Real-World Activities	7
AE Specifications	7
ModLink AE Specifications	7
<i>Association Establishment Policies</i>	<i>8</i>
<i>Association Establishment Policies</i>	<i>8</i>
Communication Profiles.....	10
Supported Communication Stacks.....	10
TCP/IP Stack	10
<i>Physical Media Support</i>	<i>10</i>
Extension/Specialization/Privatization	10
Configuration.....	10
Extended Character Sets	11

List of Figures

Figure 1. ModLink Implementation Model 6

Figure 2. ModLink Supported SOP Classes 8

Figure 3. Implementation Identifying Information..... 8

Figure 4. Proposed Presentation Context – Verify Connectivity..... 9

Figure 5. Proposed Presentation Context – Receive Images..... 10

Introduction

This conformance statement is designed to communicate technical information regarding the PACSgear ModLink product and its compliance to the DICOM 3.0 standard. ModLink provides users a simple method of receiving DICOM structured reports and forwarding that data to a voice dictation system.

Implementation Model

Application Data Flow Diagram

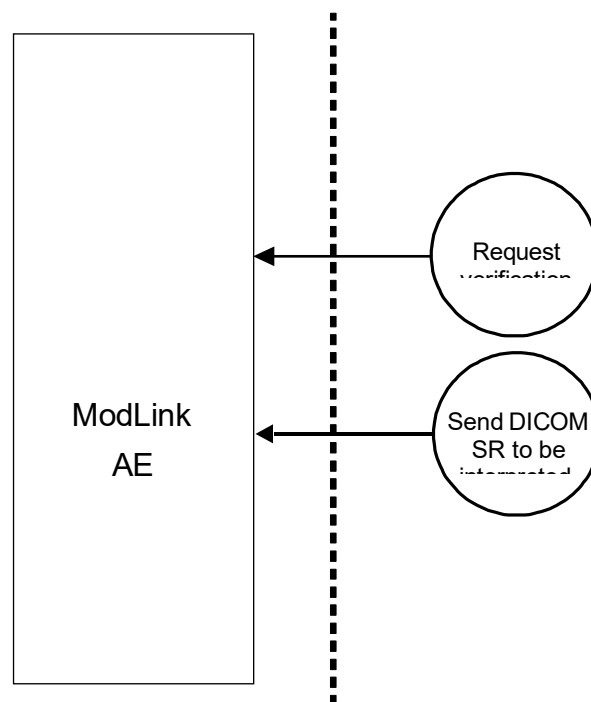


Figure 1. ModLink Implementation Model

ModLink provides users a simple method of receiving DICOM structured reports and forwarding that data to a voice dictation system.

Functional Definition of Application Entity

The ModLink Application Entity (AE) supports the following three SCP functions:

- **Receive Images** – This AE provides the ability to receive and store images as a DICOM Storage SCP.
- **Verify Connectivity** – This AE provides the ability to acknowledge DICOM network connectivity as a DICOM Verification SCP.

Sequencing of Real-World Activities

Not Applicable.

AE Specifications

ModLink AE Specifications

The ModLink AE provides Standard Conformance to the following DICOM 3.0 SOP Classes as an SCP. Note that ModLink does not store any received image files, image SOPs are only supported to allow for modalities that cannot send SR files only.

SOP Class Name	SOP Class UID
Verification	1.2.840.10008.1.1
Breast Tomosynthesis Image Storage	1.2.840.10008.5.1.4.1.1.13.1.3
CR Image Storage	1.2.840.10008.5.1.4.1.1.1
CT Image Storage	1.2.840.10008.5.1.4.1.1.2
DX Image Storage (Presentation)	1.2.840.10008.5.1.4.1.1.1.1
DX Image Storage (Raw)	1.2.840.10008.5.1.4.1.1.1.1.1
Encapsulated PDF Storage	1.2.840.10008.5.1.4.1.1.104.1
MR Image Storage	1.2.840.10008.5.1.4.1.1.4
US Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.6
US Image Storage	1.2.840.10008.5.1.4.1.1.6.1
US Multi-Frame Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.3
US Multi-Frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1
SC Image Storage	1.2.840.10008.5.1.4.1.1.7
MG Storage (Presentation)	1.2.840.10008.5.1.4.1.1.1.2
MG Storage (Raw)	1.2.840.10008.5.1.4.1.1.1.2.1
Multi-frame True Color Secondary Capture Image	1.2.840.10008.5.1.4.1.1.7.4
Multi-frame Grayscale Byte Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.2
NM Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.5
NM Image Storage	1.2.840.10008.5.1.4.1.1.20

XA Image Storage	1.2.840.10008.5.1.4.1.1.12.1
RF Image Storage	1.2.840.10008.5.1.4.1.1.12.2
Standard PET Image	1.2.840.10008.5.1.4.1.1.128
Basic Text SR	1.2.840.10008.5.1.4.1.1.88.11
Enhanced SR Storage	1.2.840.10008.5.1.4.1.1.88.22
Comprehensive SR Storage	1.2.840.10008.5.1.4.1.1.88.33

Figure 2. ModLink Supported SOP Classes

Association Establishment Policies

General

The maximum PDU size for any association establishment that is offered is 512 Kbytes.

Number of Associations

The ModLink AE can establish up to twenty simultaneous associations.

Asynchronous Nature

The ModLink AE does not support asynchronous communication.

Implementation Identifying Information

The implementation identifying information for this DICOM 3.0 implementation is:

Implementation Class UID	1.3.6.1.4.1.23849.1
Version Name	PACSGEAR_v3

Figure 3. Implementation Identifying Information

Association Establishment Policies

Real-World Activity – Verify Connectivity

The ModLink AE accepts associations for C-Echo and provides standard conformance to the DICOM Verification Service class.

Proposed Presentation Context

Abstract Syntax		Transfer Syntax	Role	Extended Negotiation
Name	UID			
Verification	1.2.840.10008.1.2	Implicit VR Little Endian	SCP	None

Figure 4. Proposed Presentation Context – Verify Connectivity

Real-World Activity – Receive Images

Associated Real-World Activity

The ModLink AE acceptst associations for C-Storage requests and provides standard conformance to the DICOM Storage Service class for the purpose of data collection and forwarding.

Proposed Presentation Context

Abstract Syntax		Transfer Syntax	Role	Extended Negotiation
Name	UID			
CR Image Storage	1.2.840.10008.5.1.4.1.1.1	Implicit VR Little Endian	SCP	None
Breast Tomo- Synthesis Image Storage	1.2.840.10008.5.1.4.1.1.13.1.3	Implicit VR Little Endian	SCP	None
CT Image Storage	1.2.840.10008.5.1.4.1.1.2	Implicit VR Little Endian	SCP	None
DX Image Storage (Presentation)	1.2.840.10008.5.1.4.1.1.1.1	Implicit VR Little Endian	SCP	None
DX Image Storage (Raw)	1.2.840.10008.5.1.4.1.1.1.1.1	Implicit VR Little Endian	SCP	None
Encapsulated PDF Storage	1.2.840.10008.5.1.4.1.1.104.1	Implicit VR Little Endian	SCP	None
MR Image Storage	1.2.840.10008.5.1.4.1.1.4	Implicit VR Little Endian	SCP	None
US Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.6	Implicit VR Little Endian	SCP	None
US Image Storage	1.2.840.10008.5.1.4.1.1.6.1	Implicit VR Little Endian	SCP	None
US Multi- Frame Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.3	Implicit VR Little Endian	SCP	None
US Multi- Frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1	Implicit VR Little Endian	SCP	None
SC Image Storage	1.2.840.10008.5.1.4.1.1.7	Implicit VR Little Endian	SCP	None
Multi-frame True Color Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.4	Implicit VR Little Endian	SCP	None
Multi-frame Grayscale Byte Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.2	Implicit VR Little Endian	SCP	None

MG Storage (Presentation)	1.2.840.10008.5.1.4.1.1.1.2	Implicit VR Little Endian	SCP	None
MG Storage (Raw)	1.2.840.10008.5.1.4.1.1.1.2.1	Implicit VR Little Endian	SCP	None
NM Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.5	Implicit VR Little Endian	SCP	None
NM Image Storage	1.2.840.10008.5.1.4.1.1.20	Implicit VR Little Endian	SCP	None
XA Image Storage	1.2.840.10008.5.1.4.1.1.12.1	Implicit VR Little Endian	SCP	None
RF Image Storage	1.2.840.10008.5.1.4.1.1.12.2	Implicit VR Little Endian	SCP	None
Standard PET Image	1.2.840.10008.5.1.4.1.1.128	Implicit VR Little Endian	SCP	None
Basic Text SR	1.2.840.10008.5.1.4.1.1.88.11	Implicit VR Little Endian	SCP	None
Enhanced SR Storage	1.2.840.10008.5.1.4.1.1.88.22	Implicit VR Little Endian	SCP	None
Comp. SR Storage	1.2.840.10008.5.1.4.1.1.88.33	Implicit VR Little Endian	SCP	None

Figure 5. Proposed Presentation Context – Receive Images

Communication Profiles

Supported Communication Stacks

The ModLink AE provides DICOM 3.0 TCP/IP Network Communication Support as defined in PS 3.8.

TCP/IP Stack

The ModLink AE implements DICOM 3.0 on top of the Windows TCP/IP stack.

Physical Media Support

The ModLink AE is indifferent to the physical medium over which TCP/IP executes.

Extension/Specialization/Privatization

Not Applicable.

Configuration

The following fields are configurable for the ModLink AE:

- Local AE Title
- Local Ports

- Server Timeout Sockets

Extended Character Sets

Not Applicable.