

AI-Pathway Companion

DICOM Conformance Statement Prostate Cancer VC10A



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Introduction

1.1 **Audience**

This document is intended for hospital staff, health system integrators, software designers or implementers. It is assumed that the reader has a working understanding of DICOM.

1.2 Remarks

The scope of this DICOM Conformance Statement is to facilitate integration between Al-Pathway Companion applications and other DICOM products. The Conformance Statement should be read and understood in conjunction with the DICOM Standard [1]. 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 conformance statements is the first step towards assessing interconnectivity and interoperability between Al-Pathway Companion applications 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.

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1.3 **Definitions, Terms, and Abbreviations**

Definitions, terms and abbreviations used in this document are defined within the different parts of the DICOM standard.

Additional Abbreviations and terms are as follows:

AE	DICOM Application Entity		
AET Application Entity Title			
ASCII	American Standard Code for Information Interchange		
DCS	DICOM Conformance Statement		
DICOM	Digital Imaging and Communications in Medicine		
GSDF	Grayscale Standard Display Function		
IOD	DICOM Information Object Definition		

ISO	International Standard Organization					
n. a.	not applicable					
NEMA	National Electrical Manufacturers Association					
0	Optional Key Attribute					
PDU	DICOM Protocol Data Unit					
R	Required Key Attribute					
SCU	DICOM Service Class User (DICOM client)					
SCP	DICOM Service Class Provider (DICOM Server)					
SOP	DICOM Service-Object Pair					
SR	Structured Report					
TFT	Thin Film Transistor (Display)					
TID	Template ID					
U	Unique Key Attribute					
UID	Unique Identifier					
UTF-8	Unicode Transformation Format-8					
VR	Value Representation					

1.4 Further Informative References

[1] NEMA PS3.1 / ISO 12052, Digital Imaging and Communications in Medicine (DICOM) Standard, National Electrical Manufacturers Association, Rosslyn, VA, USA (available free at https://www.dicomstandard.org/)

[2] Integrating the Healthcare Enterprise – IHE Radiology Technical Framework – http://www.ihe.net

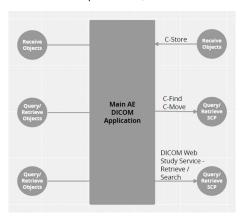
2 Networking

2.1 Implementation Model

The AI-Pathway Companion applications support access to the relevant DICOM images within the institution network in order to obtain imaging study information. AI-Pathway Companion Connector uses standard DICOM interfaces to enable access to study related metadata info and standard DICOM images from hospital IT systems. AI-Pathway Companion Prostate Cancer provides a user interface to display DICOM images accessed using AI-Pathway Companion Connector.

2.1.1 Application Data Flow

The following figure provide a functional overview of the Al-Pathway Companion Application Entities (AE). Relationships are shown between user-invoked activities (in the circles at the left of the AEs) and the associated real-world activities provided by DICOM service providers (in the circles at the right of the AEs).



Application Data Flow Diagram - Main AE

2.1.2 Functional Definitions of Application Entities

The Store SCP components of the Application Entities are operating as background server processes. They exist as soon as the system is powered up and wait for association requests. Upon accepting an association with a negotiated Presentation Context, they start to receive and process the request described in the following sections.

2.1.2.1 Functional Definition of Main AE

2.1.2.1.2 Query/Retrieve

The DICOM query SCU fetches the metadata at study and instance level during patient metadata import into the Al-Pathway Companion Connector via the data import pipeline. DICOM Study Web service Retrieve / Search APIs will be preferred if the Query / Retrieve SCP supports corresponding APIs.

2.1.2.1.3 Storage

The Storage SCP of the Main AE receives the Composite Image Objects for the display of images in the image viewer of the AI-Pathway Companion Prostate Cancer application. The Main AE does not persist the Composite Image Objects into the media.

2.2 Application Entity Specification

This section outlines the specifications for each of the Application Entities that are part of the Al-Pathway Companion applications.

2.2.1 Main AE Specification

2.2.1.1 SOP Classes

The Main AE provides Standard Conformance to the SOP Classes listed in table (→ Page 22 Network Services).

2.2.1.2 Association Policy

Application Context Name	1.3.6.1.4.1.30071.8				
Max PDU size	64512				
Maximum num- ber of simultane- ous associations as an association acceptor	Storage	No limit on the number of associations			
Maximum num- ber of simultane-	Query	No limit on the number of associations			
ous associations as an association initiator	Retrieve	No limit on the number of associations			

Association policies for Main AE

2.2.1.2.1 Asynchronous Nature

This version does not support asynchronous communication (multiple outstanding transactions over a single association).

2.2.1.2.2 Implementation Identifying Information

The Main AE of Al-Pathway Companion provides a single Implementation Class UID and Version Name as listed in table (→ Page 23 *Implementation Identifying Information*).

2.2.1.3 Association Initiation Policy

The Main AE of Al-Pathway Companion Connector initiates associations as shown below.

Operation or Real- World Activity	Association for
Query/Retrieve Objects	C-FIND, C-MOVE

Association Initiation Policy - Main AE

2.2.1.3.1 Activity - "Query Objects"

2.2.1.3.1.1 Description and Sequencing of Activities

The Main AE opens an association to a remote node in order to issue C-FIND requests. This is initiated by a service to fetch the meta data.

2.2.1.3.1.2 Proposed Presentation Contexts

The Main AE will propose Presentation Contexts as shown below.

Presentation Context Table

А	bstract Syntax	Tra	Role	Extended Negotia- tion	
Name	UID	Name List	UID List		
Study Root Query/Retrieve Information Model – FIND	1.2.840.10008.5.1.4.1.2.2.1	Implicit VR Lit- tle Endian Explicit VR Lit- tle Endian	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2	SCU	No
		Explicit VR Big Endian			

Proposed Presentation Contexts – "Query Objects"

2.2.1.3.1.3 SOP specific Conformance for SOP classes

The Main AE proposes Standard Conformance to the Query SOP classes and uses hierarchical queries with Query/Retrieve Level as "Study", "Series", or "Image".

The Main AE checks for the status codes listed in the below table that are contained in the response to the C-FIND request.

Service Sta- tus	Meaning	Protocol Codes
Success	Matching is complete	0000
Canceled	Sub-operations terminated due to Cancel Indication	FE00
Pending	Matches are continuing	FF00
Pending	Matches are continuing, no optional key support	FF01
Refused	Out of Resources	A700

Status codes for Query C-FIND

The Main AE uses the attributes listed below to issue C-FIND requests.

Attribute Name	Attribute Tag	Query Matching Key (SCP) (Is SCP support- ing the attribute in the C-Find request ?)	Query Matching Key (SCU) (Is SCU support- ing the attribute in the C-Find request ?)	Query Return Key (SCP) (Is SCP support- ing the attribute in C-Find response ?)	Query Return Key (SCU) (Is SCU support- ing the attribute in C-Find response ?)
Specific Character Set	(0008,0005)	N	N	N	Υ
Patient's Name	(0010,0010)	N	N	N	Υ
Patient-ID	(0010,0020)	N	N	N	Υ
Patient's Birth Date	(0010,0030)	N	N	N	Υ

Attribute Name	Attribute Tag	Query Matching Key (SCP)	Query Matching Key (SCU)	Query Return Key (SCP)	Query Return Key (SCU)
		(Is SCP support- ing the attribute in the C-Find request ?)	(Is SCU supporting the attribute in the C-Find request?)	(Is SCP supporting the attribute in C-Find response ?)	(Is SCU supporting the attribute in C-Find response ?)
Patient's Sex	(0010,0040)	N	N	N	Υ

Supported Patient Level attributes

Attribute Name	Attribute Tag	Query Matching Key (SCP) (Is SCP support- ing the attribute in the C-Find request?)	Query Matching Key (SCU) (Is SCU support- ing the attribute in the C-Find request?)	Query Return Key (SCP) (Is SCP support- ing the attribute in C-Find response ?)	Query Return Key (SCU) (Is SCU support- ing the attribute in C-Find response ?)
Specific Character Set	(0008,0005)	N	N	N	Y
Study Date	(0008,0020)	N	N	N	Υ
Study Time	(0008,0030)	N	N	N	Υ
Accession Num- ber	(0008,0050)	N	Y	N	Y
Modalities in Study	(0008,0061)	N	N	N	Y
Referring Physi- cian's Name	(0008,0090)	N	N	N	Y
Study Description	(0008,1030)	N	N	N	Υ
Name of Physician Reading Study	(0008,1060)	N	N	N	Y
Study ID	(0020,0010)	N	N	N	Υ
Study Instance UID	(0020,000D)	N	Y	N	Y
Number of Study related Series	(0020,1206)	N	N	N	Y

Supported Study Level attributes

Attribute Name	Attribute Tag	Query Matching Key (SCP)	Query Matching Key (SCU)	Query Return Key (SCP)	Query Return Key (SCU)
		(Is SCP supporting the attribute in the C-Find request ?)	(Is SCU support- ing the attribute in the C-Find request ?)	(Is SCP supporting the attribute in C-Find response ?)	(Is SCU supporting the attribute in C-Find response ?)
Series Date	(0008,0021)	N	N	N	Υ

Attribute Name	Attribute Tag	Query Matching Key (SCP)	Query Matching Key (SCU)	Query Return Key (SCP)	Query Return Key (SCU)
		(Is SCP support- ing the attribute in the C-Find request ?)	(Is SCU support- ing the attribute in the C-Find request ?)	(Is SCP supporting the attribute in C-Find response ?)	(Is SCU supporting the attribute in C-Find response ?)
Series Time	(0008,0031)	N	N	N	Υ
Modality	(0008,0060)	N	N	N	Υ
Series Description	(0008,103E)	N	N	N	Υ
Body Part Exam- ined	(0018,0015)	N	N	N	Y
Series Instance UID	(0020,000E)	N	Y	N	Y
Series Number	(0020,0011)	N	N	N	Υ
Number of Series Related Images	(0020,1209)	N	N	N	Y
Series Number	(0020,0011)	N	N	N	Υ
Window Center	(0028,1050)	N	N	N	Υ
Study Date	(0008,0020)	N	N	N	Υ

Supported Series Level attributes

Attribute Name	Attribute Tag	Query Matching Key (SCP) (Is SCP support- ing the attribute in the C-Find request?)	Query Matching Key (SCU) (Is SCU support- ing the attribute in the C-Find request?)	Query Return Key (SCP) (Is SCP support- ing the attribute in C-Find response ?)	Query Return Key (SCU) (Is SCU support- ing the attribute in C-Find response ?)
SOP Instance UID	(0008,0018)	N	Υ	N	Υ
Instance Number	(0020,0013)	N	N	N	Υ
SOP Class UID	(0008,0016)	N	N	N	Υ
Number of Frames	(0028,0008)	N	N	N	Y
Rows	(0028,0010)	N	N	N	Y
Columns	(0028,0011)	N	N	N	Y
Bits Allocated	(0028,0100)	N	N	N	Y
Photometric Interpretation	(0028,0004)	N	N	N	Υ
Retrieve URL	(0008,1190)	N	N	N	Y
Pixel Representa- tion	(0028,0103)	N	N	N	Υ

Attribute Name	Attribute Tag	Query Matching Key (SCP) (Is SCP support- ing the attribute in the C-Find request ?)	Query Matching Key (SCU) (Is SCU support- ing the attribute in the C-Find request ?)	Query Return Key (SCP) (Is SCP support- ing the attribute in C-Find response ?)	Query Return Key (SCU) (Is SCU support- ing the attribute in C-Find response ?)
Rescale Slope	(0028,1053)	N	N	N	Υ
Rescale Intercept	(0028,1052)	N	N	N	Y
Window Width	(0028,1051)	N	N	N	Y
Window Center	(0028,1050)	N	N	N	Y

Supported Image Level attributes



Accession number is assumed to be unique across patients in an institution.

2.2.1.3.1.4 QIDO-URI Specifications

The Main AE shall support the below QIDO-RS search transaction for DICOM resources.

The Retrieve URL(0008,1190) tag at image level shall be used to retrieve the DICOM instances.

DICOM Resource	URI Template	Description
All Studies	/studies{? search*}	Searches for all studies that match the search parameters, and returns a list of matching Studies, including the default and requested Attributes that are supported for each Study.
All Instances	/instances{? search*}	Searches for all Instances that match the search parameters, and returns a list of matching Instances, including the default and requested Attributes that are supported for each study and series

Search transaction for DICOM resources

Status Code

The below table shows status codes corresponding to this transaction.

Status	Code	Description
Success	200 (OK)	The search completed successfully with results
Success	204 (No Con- tent)	The search completed successfully, but there were zero results.
Failure	400 (Bad Request)	The was a problem with the request. For example, the Query Parameter syntax is incorrect.
Failure	413 (Payload Too Large)	The search was too broad, and the body of the response should contain a Status Report with additional information about the failure.

Search transaction Status Codes for DICOM resources

2.2.1.3.2 Activity - "Retrieve Objects"

2.2.1.3.2.1 Description and Sequencing of Activities

The Main AE opens an association to a remote node in order to issue C-MOVE requests. This is initiated by a user from the application to view the DICOM instances. If Main AE successfully establishes an association to the remote node, it will trigger the Retrieve SCP via a C-MOVE request to transfer the images to the Main AE in a new association. The transfer of the corresponding images will be done by subsequent C-STORE requests.

2.2.1.3.2.2 Proposed Presentation Contexts

The Main AE will propose Presentation Contexts as shown in the below table.

Presentation Context Table

Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
Study Root Query/ Retrieve Information Model – MOVE	1.2.840.10008.5.1.4.1.2.2.2	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2	SCU	No

Proposed Presentation Contexts - "Retrieve Objects"

2.2.1.3.2.3 SOP specific Conformance for SOP classes

The status codes listed in below table are checked in the response to a C-MOVE request.

Service Sta- tus	Meaning	Protocol Codes
Success	Matching is complete	0000
Canceled	Sub-operations terminated due to Cancel Indication	FE00
Warning	Sub-operations Complete - One or more failures	B000
Pending	Sub-operations are continuing	FF00

Status codes for Retrieve C-MOVE

2.2.1.3.2.4 WADO-URI Specifications

The Main AET shall support the below retrieve transaction for DICOM resources

DICOM Resource	URI Template	Description
Instances	/studies/{study}/series/{ser- ies}/instances/{instance}	Fetches the DICOM Instance referenced by the Study Instance UID,
		Series Instance UID and SOP Instance UID.

Retrieve transaction for DICOM resources

Status Code

The below table shows some common status codes corresponding to this transaction.

Status	Code	Description
Success	200 (OK)	The search completed successfully with results
Failure	400 (Bad Request)	The was a problem with the request. For example, the Query Parameter syntax is incorrect.
Failure	406 (Not Acceptable)	The origin server does not support any of the Acceptable Media Types
Failure	404 (Not Found)	The Target Resource does not exist

Retrieve transaction Status Codes for DICOM resources

2.2.1.4 Association Acceptance Policy

The Main AE of Al-Pathway Companion Connector accepts associations as shown below.

Operation or Real- World Activity	Association for
Store Objects	C-STORE

Association Acceptance Policy - Main AE

2.2.1.4.1 Activity - "Store Activity"

2.2.1.4.1.1 Description and Sequencing of Activities

The Main AE will accept an association, receive any images transmitted on that association and store the images in the process in memory and sends a successful C-STORE response back to the sender.

This process repeats until

- the association is closed by the sender or
- the storage into the in memory fails due to some reason (in this case Main AE sends a failure response and aborts the association) or
- the association is lost (because of timeouts, network unexpectedly shutdown, ...).

2.2.1.4.1.2 Accepted Presentation Contexts

The Main AE will accept Presentation Contexts for DICOM Storage SOP classes as shown below.

Abstract Syn	Abstract Syntax Transfer Syntax		FSC	FSR	Role	Ext.	
Name	UID	Name List	UID List				Neg.
CT Image Storage	1.2.840.10008.5.1.4.1	Implicit VR Lit- tle Endian	1.2.840.10008.1.2	-	-	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
		Explicit VR Lit- tle Endian	1.2.840.10008.1.2.1	0	М		

Abstract Syntax		Transfer Syntax		FSC	C FSR	Role	Ext.
Name	UID	Name List	UID List				Neg.
		JPEG Lossless	1.2.840.10008.1.2.4.70	0	М		
US Multi- frame Image	1.2.840.10008.5.1.4.1 .1.3.1	Implicit VR Lit- tle Endian	1.2.840.10008.1.2	-	-	SCP	None
Storage		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
	Explicit VR Lit- tle Endian	1.2.840.10008.1.2.1	0	М			
	JPEG Lossless	1.2.840.10008.1.2.4.70	0	М			
MR Image Storage	1.2.840.10008.5.1.4.1 .1.4	Implicit VR Lit- tle Endian	1.2.840.10008.1.2	-	-	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
		Explicit VR Lit- tle Endian	1.2.840.10008.1.2.1	0	М		
		JPEG Lossless	1.2.840.10008.1.2.4.70	0	М		
Enhanced MR Image	1.2.840.10008.5.1.4.1 .1.4.1	Implicit VR Lit- tle Endian	1.2.840.10008.1.2	-	-	SCP	None
Storage		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
		Explicit VR Lit- tle Endian	1.2.840.10008.1.2.1	0	М		
		JPEG Lossless	1.2.840.10008.1.2.4.70	0	М		
US Image Storage	1.2.840.10008.5.1.4.1 .1.6.1	Implicit VR Lit- tle Endian	1.2.840.10008.1.2	-	-	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
		Explicit VR Lit- tle Endian	1.2.840.10008.1.2.1	О	М		
		JPEG Lossless	1.2.840.10008.1.2.4.70	0	М		
Multi-frame Single Bit	1.2.840.10008.5.1.4.1 .1.7.1	Implicit VR Lit- tle Endian	1.2.840.10008.1.2	-	-	SCP	None
Secondary Capture Image Stor-		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
age		Explicit VR Lit- tle Endian	1.2.840.10008.1.2.1	-	-		
		JPEG Lossless	1.2.840.10008.1.2.4.70	-	-		

Abstract Syntax		Transfer Syntax		FSC	FSR	Role	Ext.
Name	UID	Name List	UID List				Neg.
Multi-frame Grayscale Byte Secon- dary Capture Image Stor- age	1.2.840.10008.5.1.4.1 .1.7.2	Implicit VR Lit- tle Endian	1.2.840.10008.1.2	-	-	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
		Explicit VR Lit- tle Endian	1.2.840.10008.1.2.1	0	М		
		JPEG Lossless	1.2.840.10008.1.2.4.70	0	М		
Multi-frame Grayscale Word Secon- dary Capture Image Stor- age	1.2.840.10008.5.1.4.1 .1.7.3	Implicit VR Lit- tle Endian	1.2.840.10008.1.2	-	-	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
		Explicit VR Lit- tle Endian	1.2.840.10008.1.2.1	0	М		
		JPEG Lossless	1.2.840.10008.1.2.4.70	0	М		
Multi-frame True Color	1.2.840.10008.5.1.4.1 .1.7.4	Implicit VR Lit- tle Endian	1.2.840.10008.1.2	-	-	SCP	None
Secondary Capture Image Stor- age		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
		Explicit VR Lit- tle Endian	1.2.840.10008.1.2.1	0	М		
		JPEG Lossless	1.2.840.10008.1.2.4.70	0	М		
Secondary Capture Image Stor- age	1.2.840.10008.5.1.4.1 .1.7	Implicit VR Lit- tle Endian	1.2.840.10008.1.2	-	-	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
		Explicit VR Lit- tle Endian	1.2.840.10008.1.2.1	0	М		
		JPEG Lossless	1.2.840.10008.1.2.4.70	0	М		
Nuclear Medicine Image Stor- age	1.2.840.10008.5.1.4.1 .1.20	Implicit VR Lit- tle Endian	1.2.840.10008.1.2	-	-	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
		Explicit VR Lit- tle Endian	1.2.840.10008.1.2.1	О	М		
		JPEG Lossless	1.2.840.10008.1.2.4.70	0	М		
RT Image Storage	1.2.840.10008.5.1.4.1 .1.481.1	Implicit VR Lit- tle Endian	1.2.840.10008.1.2	-	-	SCP	None

Abstract Syntax		Transfer Syntax		FSC	FSR	Role	Ext.
Name	UID	Name List	UID List				Neg.
		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
		Explicit VR Lit- tle Endian	1.2.840.10008.1.2.1	О	М		
		JPEG Lossless	1.2.840.10008.1.2.4.70	0	М		
Positron Emission Tomography Image Stor- age	1.2.840.10008.5.1.4.1 .1.128	Implicit VR Lit- tle Endian	1.2.840.10008.1.2	-	-	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
		Explicit VR Lit- tle Endian	1.2.840.10008.1.2.1	О	М		
		JPEG Lossless	1.2.840.10008.1.2.4.70	0	М		
Enhanced MR Color Image Stor- age	1.2.840.10008.5.1.4.1 .1.4.3	Implicit VR Lit- tle Endian	1.2.840.10008.1.2	-	-	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
		Explicit VR Lit- tle Endian	1.2.840.10008.1.2.1	О	М		
		JPEG Lossless	1.2.840.10008.1.2.4.70	0	М		
Enhanced CT Image Stor- age	1.2.840.10008.5.1.4.1 .1.2.1	Implicit VR Lit- tle Endian	1.2.840.10008.1.2	-	-	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
		Explicit VR Lit- tle Endian	1.2.840.10008.1.2.1	О	М		
		JPEG Lossless	1.2.840.10008.1.2.4.70	0	М		

Supported Presentation Contexts for Storage service



The related presentation states of the images are not fetched and applied to the image while viewing.

2.2.1.4.1.3 SOP specific Conformance for SOP classes

The Main AE conforms to the Full Storage Class at Level 2.

2.3 Network Interfaces

2.3.1 Physical Network Interface

The Main AE is independent to the physical medium over which TCP/IP executes; it inherits this from the OS system upon which it executes.

2.3.2 Additional Protocols

None

2.3.3 IPv4 and IPv6 Support

Currently only IPv4 networks are supported (no support for IPv6).

2.4 Configuration

2.4.1 AE Title / Presentation Address Mapping

The Main Application Entity Titles maps to host name and port number via an internal configuration method. The IP address for the host name is determined using standard system calls.

The AE Titles, hostnames and port numbers can be changed with the configuration.

Associations for unknown/untrusted partners will be rejected for the SCP services.

2.4.2 Configurable Parameters

N.A.

3 Media Interchange

 $Al-Pathway\,Companion\,applications\,are\,not\,providing\,any\,means\,for\,media\,interchange.$

4 Support of Extended Character Sets

The Al-Pathway Companion applications support the following character sets as defined in the tables below.

Character Set Description	Defined Term	Standard for Code Extension	ESC sequence	ISO regis- tration number	Character Set
Default repertoire	ISO 2022 IR 6	ISO 2022	ESC 02/08 04/02	ISO-IR 6	ISO 646
Latin alphabet No.1	ISO 2022 IR 100	ISO 2022	ESC 02/13 04/01	ISO-IR 100	Supple- mentary set
		ISO 2022	ESC 02/08 04/02	ISO-IR 6	ISO 646

All SCS (Special Character Sets) listed above are supported for incoming Data.

5 Attribute Confidentiality Profiles

N/A

6 Security

6.1 Security Profiles

The Al-Pathway Companion applications are not supporting any specific security mechanisms.

6.2 Association Level Security

The Al-Pathway Companion Connector accepts only association from the known AETs.

6.3 Application Level Security

N/A

7 Annexes

N/A

8 DICOM Conformance Statement Overview

The Al-Pathway Companion applications conform to the DICOM Standard and supports the network services as described below.

SOP Classes	SOP Class UID User of Service (SCU)		Provider of Service (SCP)			
	,	Query/Retrieve				
Study Root Q/R - Information Model - FIND	1.2.840.10008.5.1.4.1.2. 2.1	Yes		No		
Study Root Q/R - Information Model - MOVE	1.2.840.10008.5.1.4.1.2. 4.2	Yes	Yes		No	
	SOP	Classes managed by the Main A	NET			
		Al-Pathway Companion	Connecto	or	Al-Pathway Com- panion Prostate Can- cer	
		Create	Send	Store	Display	
Computed Radiography Image Storage	1.2.840.10008.5.1.4.1.1. 1	No	No	Yes	Yes	
Positron emission tomography	1.2.840.10008.5.1.4.1.1. 128	No	No	Yes	Yes	
Computed Tomography	1.2.840.10008.5.1.4.1.1.	No	No	Yes	Yes	
Enhanced CT Image Storage	1.2.840.10008.5.1.4.1.1. 2.1	No	No	Yes	Yes	
Nuclear Medi- cine	1.2.840.10008.5.1.4.1.1. 20	No	No	Yes	Yes	
Ultrasound	1.2.840.10008.5.1.4.1.1. 3.1	No	No	Yes	Yes	
Magnetic Reso- nance	1.2.840.10008.5.1.4.1.1. 4	No	No	Yes	Yes	
Enhanced MR Image Storage	1.2.840.10008.5.1.4.1.1. 4.1	No	No	Yes	Yes	
Enhanced MR Color Image Storage	1.2.840.10008.5.1.4.1.1. 4.3	No	No	Yes	Yes	
RT Image Stor- age	1.2.840.10008.5.1.4.1.1. 481.1	No	No	Yes	Yes	

SOP Classes	SOP Class UID	User of Service (SCU)		Provider of Service (SCP)	
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1. 6.1	No	No	Yes	Yes
Secondary Cap- ture Image Storage	1.2.840.10008.5.1.4.1.1. 7	No	No	Yes	Yes
Multi-frame Single Bit Sec- ondary Capture Image Storage	1.2.840.10008.5.1.4.1.1. 7.1	No	No	Yes	Yes
Multi-frame Grayscale Byte Secondary Cap- ture Image Storage	1.2.840.10008.5.1.4.1.1. 7.2	No	No	Yes	Yes
Multi-frame Grayscale Word Secondary Cap- ture Image Storage	1.2.840.10008.5.1.4.1.1. 7.3	No	No	Yes	Yes
Multi-frame True Color Sec- ondary Capture Image Storage	1.2.840.10008.5.1.4.1.1. 7.4	No	No	Yes	Yes

Network Services



The related presentation states of the images are not fetched and applied to the image while viewing.

Name	Value
Application Context Name	1.2.840.10008.3.1.1.1
Implementation Class UID	1.3.6.1.4.1.30071.8
Implementation Version Name	fo-dicom 4.0.2

Implementation Identifying Information



Al-Pathway Companion Prostate Cancer is CE compliant in accordance with Directive 93/42/EEC.

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