

AI-Pathway Companion

DICOM Conformance Statement VA10A



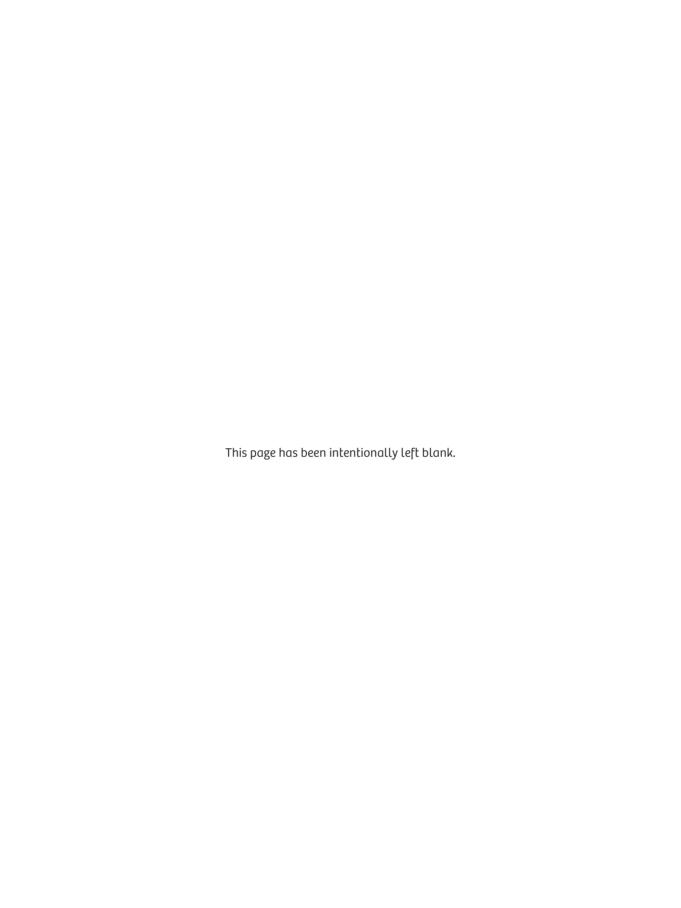
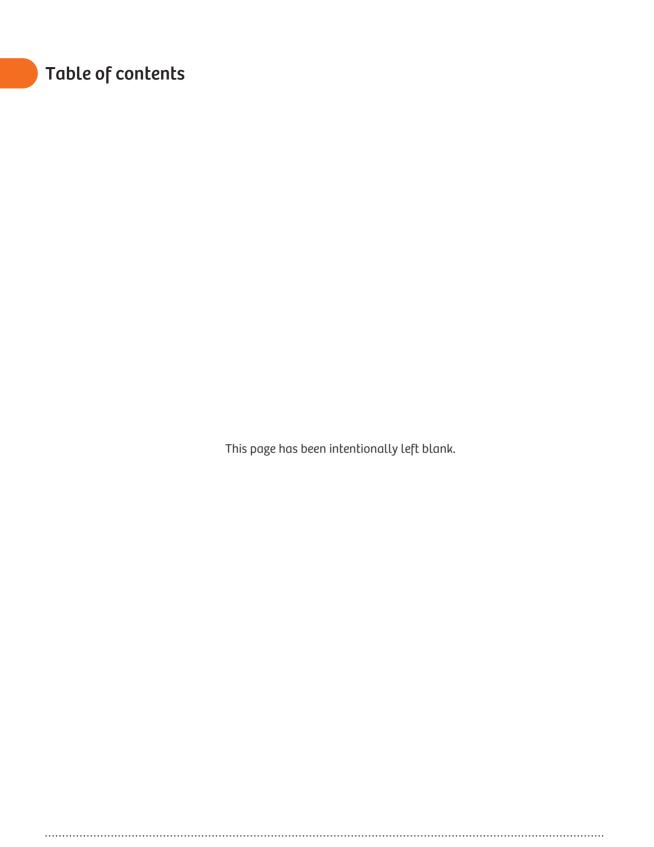


Table of contents

	1	Introduction	5
		1.1 Audience	5
		1.2 Remarks	5
		1.3 Definitions, Terms, and Abbreviations	6
		1.4 Further Informative References	7
•	2	Networking	ç
		2.1 Implementation Model	ç
		2.1.1 Application Data Flow	9
		2.1.2 Functional Definitions of Application Entities	10
		2.2 Application Entity Specification 2.2.1 Main AE Specification	10 10
		2.3 Network Interfaces	28
		2.3.1 Physical Network Interface	28
		2.3.2 Additional Protocols	28
		2.3.3 IPv4 and IPv6 Support	29
		2.4 Configuration 2.4.1 AE Title / Presentation Address Mapping	29
		2.4.2 Configurable Parameters	29
•	3	Media Interchange	31
	4	Support of Extended Character Sets	33
•	5	Attribute Confidentiality Profiles	35
	6	Security	37
		6.1 Security Profiles	37
		6.2 Association Level Security	37
		6.3 Application Level Security	37
•	7	Annexes	39
	8	DICOM Conformance Statement Overview	4 1

.....



1 Introduction

11 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.

12 Remarks

The scope of this DICOM Conformance Statement is to facilitate integration between AI-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 AI-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.

Siemens Healthineers reserves the right to modify the design and specifications contained herein without prior notice. Please contact your local Siemens Healthineers representative for the most recent product information.

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
FSC	File Set Creator
FSR	File Set Reader
FSU	File Set Updater
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 http:// medical.nema.org/)

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

1 Introduction

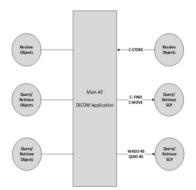
This page has been intentionally left blank.

2.1 Implementation Model

The Al-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 Al-Pathway Companion Connector.

2.1.1 Application Data Flow

The following figure provide a functional overview of the AI-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

2.1.2.1.1 Verification

Verification requests will be processed and responded by the Main AE.

2.1.2.1.2 Query/Retrieve

The DICOM query SCU will fetch the metadata at study and instance level, during patient meta data import into the AI-Pathway Companion Connector via the data import pipeline.

2.1.2.1.3 Storage

The Storage SCP of the Main AE will receive the Composite Image Objects for the display of images in the image viewer of the Al-Pathway Companion Prostate Cancer. The Main AE doesn't persist the Composite Image Objects into the media.

Application Entity Specification

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

Main AE Specification

2.2.1 2.2.1.1 SOP Classes

The Main AE provides Standard Conformance to the SOP Classes listed in table (→ Page 41 *Network Services*).

2.2.1.2 Association Policy

Application Context Name	1.3.6.1.4.1.30071.8

Max PDU size	64512			
Maximum number of simultaneous associations as an associa- tion acceptor	Storage	No limit on the number of associations		
Maximum number of simultaneous	Query	No limit on the number of associations		
associations as an associa- tion 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 43 *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

Abstract Synta	х	Transfer Syntax		Role	Extended Negotia- tion
Name	UID	Name List	UID List		
Study Root Query/ Retrieve Infor- mation Model – FIND	1.2.840.10008.5.1.4.1.2.2.1	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 - "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 Status	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

Service Status	Meaning	Protocol Codes	
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 Match- ing Key (SCP)	Query Match- ing Key (SCU)	Query Return Key (SCP)	Query Return Key (SCU)
Specific Char- acter 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	Y
Patient's Sex	(0010,0040)	N	N	N	Υ

Supported Patient Level attributes

Attribute Name	Attribute Tag	Query Match- ing Key (SCP)	Query Match- ing Key (SCU)	Query Return Key (SCP)	Query Return Key (SCU)
Specific Char- acter Set	(0008,0005)	N	N	N	Y
Study Date	(0008,0020)	N	N	N	Υ
Study Time	(0008,0030)	N	N	N	Υ
Accession Number	(0008,0050)	N	Υ	N	Y
Modalities in Study	(0008,0061)	N	N	N	Y

Attribute Name	Attribute Tag	Query Match- ing Key (SCP)	Query Match- ing Key (SCU)	Query Return Key (SCP)	Query Return Key (SCU)
Referring Physician's Name	(0008,0090)	N	N	N	Y
Study Descrip- tion	(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	Υ	N	Υ
Number of Study related Series	(0020,1206)	N	N	N	Y

Supported Study Level attributes

Attribute Name	Attribute Tag	Query Match- ing Key (SCP)	Query Match- ing Key (SCU)	Query Return Key (SCP)	Query Return Key (SCU)
Series Date	(0008,0021)	N	N	N	Υ
Series Time	(0008,0031)	N	N	N	Υ
Modality	(0008,0060)	N	N	N	Υ
Series Descrip- tion	(0008,103E)	N	N	N	Y
Body Part Examined	(0018,0015)	N	N	N	Υ
Series Instance UID	(0020,000E)	N	Υ	N	Υ

Attribute Name	Attribute Tag	Query Match- ing Key (SCP)	Query Match- ing Key (SCU)	Query Return Key (SCP)	Query Return Key (SCU)
Series Number	(0020,0011)	N	N	N	Υ
Number of Ser- ies Related Images	(0020,1209)	N	N	N	Υ
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)	Query Match- ing Key (SCU)	Query Return Key (SCP)	Query Return Key (SCU)
SOP Instance UID	(0008,0018)	N	Y	N	Υ
Instance Num- ber	(0020,0013)	N	N	N	Υ
SOP Class UID	(0008,0016)	N	N	N	Υ
Number of Frames	(0028,0008)	N	N	N	Υ
Rows	(0028,0010)	N	N	N	Υ
Columns	(0028,0011)	N	N	N	Υ
Bits Allocated	(0028,0100)	N	N	N	Υ
Photometric Interpretation	(0028,0004)	N	N	N	Υ
Retrieve URL	(0008,1190)	N	N	N	Υ

Attribute Name	Attribute Tag	Query Match- ing Key (SCP)	Query Match- ing Key (SCU)	Query Return Key (SCP)	Query Return Key (SCU)
Pixel Represen- tation	(0028,0103)	N	N	N	Y
Rescale Slope	(0028,1053)	N	N	N	Υ
Rescale Inter- cept	(0028,1052)	N	N	N	Y
Window Width	(0028,1051)	N	N	N	Υ
Window Center	(0028,1050)	N	N	N	Υ

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 Tem- plate	Description
All Stud- ies	/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.

DICOM Resource	URI Tem- plate	Description
All Instances	/instan- ces{? 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
Suc- cess	200 (OK)	The search completed successfully with results
Suc- cess	204 (No Content)	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 (Pay- load 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 Sy	rntax	Transfer Sy	yntax	Role	Extended Negotia- tion
Name	UID	Name List	UID List		
Study Root Query/ Retrieve Informa- tion Model – FIND	1.2.840.10008.5.1. 4.1.2.2.2	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big	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 Status	Meaning	Protocol Codes
Success	Matching is complete	0000

Service Status	Meaning	Protocol Codes
Canceled	Sub-operations termi- nated due to Cancel Indication	FE00
Warning	Sub-operations Com- plete - 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/ {series}/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
Suc- cess	200 (OK)	The search completed successfully with results

Status	Code	Description
Failure	400 (Bad Request)	The was a problem with the request. For example, the Query Parameter syntax is incorrect.
Failure	406 (Not Accepta- ble)	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 Syntax Transfer Syntax		tax	FSC		Role	Ext.	
Name	UID	Name List	UID List				Neg.
CT Image Storage	1.2.840.10008.5.1.4. 1.1.2	Implicit VR Little Endian	1.2.840.10008.1.2	-	-	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
		Explicit VR Little Endian	1.2.840.10008.1.2.1	0	М		
		JPEG Loss- less	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 Little Endian	1.2.840.10008.1.2	-	-	SCP	None
Storage		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
		Explicit VR Little Endian	1.2.840.10008.1.2.1	0	М		
		JPEG Loss- less	1.2.840.10008.1.2.4.70	0	М		

Abstract Sy	rntax	Transfer Syn	tax	FSC	FSR	Role	Ext.
Name	UID	Name List	UID List				Neg.
MR Image Storage	1.2.840.10008.5.1.4. 1.1.4	Implicit VR Little Endian	1.2.840.10008.1.2	-	-		None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
	Explicit VR Little Endian	1.2.840.10008.1.2.1	0	М			
		JPEG Loss- less	1.2.840.10008.1.2.4.70	0	М		
Enhanced MR Image Storage	1.2.840.10008.5.1.4. 1.1.4.1	Implicit VR Little Endian	1.2.840.10008.1.2	-	-	SCP None	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
		Explicit VR Little Endian	1.2.840.10008.1.2.1	0	М		
		JPEG Loss- less	1.2.840.10008.1.2.4.70	0	М		

Abstract Sy	rntax	Transfer Syn	Transfer Syntax		FSR	Role	Ext.
Name	UID	Name List	UID List				Neg.
US Image Storage	1.2.840.10008.5.1.4. 1.1.6.1	Implicit VR Little Endian	1.2.840.10008.1.2	-	-	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
		Explicit VR Little Endian	1.2.840.10008.1.2.1	0	М		
		JPEG Loss- less	1.2.840.10008.1.2.4.70	0	М		
Multi- frame Sin- gle Bit	1.2.840.10008.5.1.4. 1.1.7.1	Implicit VR Little Endian	1.2.840.10008.1.2	-	-	SCP	None
Secondary Capture Image		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
Storage		Explicit VR Little Endian	1.2.840.10008.1.2.1	-	-		
		JPEG Loss- less	1.2.840.10008.1.2.4.70	-	-		

Abstract Syntax		Transfer Syn	Transfer Syntax		FSR	Role	Ext.
Name	UID	Name List	UID List				Neg.
Multi- frame Grayscale	1.2.840.10008.5.1.4. 1.1.7.2	Implicit VR Little Endian	1.2.840.10008.1.2	-	-	SCP	None
Byte Sec- ondary Capture		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
Image Storage		Explicit VR Little Endian	1.2.840.10008.1.2.1	0	М		
		JPEG Loss- less	1.2.840.10008.1.2.4.70	0	М		
Multi- frame Grayscale	1.2.840.10008.5.1.4. 1.1.7.3	Implicit VR Little Endian	1.2.840.10008.1.2	-	-	SCP	None
Word Sec- ondary Capture Image Storage		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-	_	
		Explicit VR Little Endian	1.2.840.10008.1.2.1	0	М		
		JPEG Loss- less	1.2.840.10008.1.2.4.70	0	М		

Abstract Sy	ntax	Transfer Syn	Transfer Syntax		FSR	Role	Ext.
Name	UID	Name List	UID List				Neg.
Multi- frame True Color	1.2.840.10008.5.1.4. 1.1.7.4	Implicit VR Little Endian	1.2.840.10008.1.2	-	-	SCP	None
Secondary Capture Image		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
Storage		Explicit VR Little Endian	1.2.840.10008.1.2.1	0	М		
		JPEG Loss- less	1.2.840.10008.1.2.4.70	0	М		
Secondary Capture Image	1.2.840.10008.5.1.4. 1.1.7	Implicit VR Little Endian	1.2.840.10008.1.2	-	-	SCP	None
Storage		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
		Explicit VR Little Endian	1.2.840.10008.1.2.1	0	М		
		JPEG Loss- less	1.2.840.10008.1.2.4.70	0	М		

Abstract Syntax Transfer Syntax		tax	FSC	SC FSR	Role	Ext.	
Name	UID	Name List	UID List				Neg.
Nuclear Medicine Image Storage	1.2.840.10008.5.1.4. 1.1.20	Implicit VR Little Endian	1.2.840.10008.1.2	-	-	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
		Explicit VR Little Endian	1.2.840.10008.1.2.1	0	М		
		JPEG Loss- less	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 Little Endian	1.2.840.10008.1.2	-	-	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-	_	
		Explicit VR Little Endian	1.2.840.10008.1.2.1	0	М		
		JPEG Loss- less	1.2.840.10008.1.2.4.70	0	М		

Abstract Sy	rntax	Transfer Syn	Transfer Syntax		FSR	Role	Ext.
Name	UID	Name List	UID List				Neg.
Positron Emission Tomogra-	1.2.840.10008.5.1.4. 1.1.128	Implicit VR Little Endian	1.2.840.10008.1.2	-	-	SCP	None
phy Image Storage		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
		Explicit VR Little Endian	1.2.840.10008.1.2.1	0	М		
		JPEG Loss- less	1.2.840.10008.1.2.4.70	0	М		
Enhanced MR Color Image	1.2.840.10008.5.1.4. 1.1.4.3	Implicit VR Little Endian	1.2.840.10008.1.2	-	-	SCP	None
Storage		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
		Explicit VR Little Endian	1.2.840.10008.1.2.1	0	М		
		JPEG Loss- less	1.2.840.10008.1.2.4.70	0	М		

Abstract Sy	bstract Syntax		Transfer Syntax		FSR	Role	Ext.
Name	UID	Name List	UID List				Neg.
Enhanced CT Image Storage	1.2.840.10008.5.1.4. 1.1.2.1	Implicit VR Little Endian	1.2.840.10008.1.2	-	-	SCP	None
		Explicit VR Big Endian	1.2.840.10008.1.2.2	-	-		
		Explicit VR Little Endian	1.2.840.10008.1.2.1	0	М		
		JPEG Loss- less	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.

This page has been intentionally left blank.

3 Media Interchange

AI-Pathway Companion applications are not providing any means for media interchange.

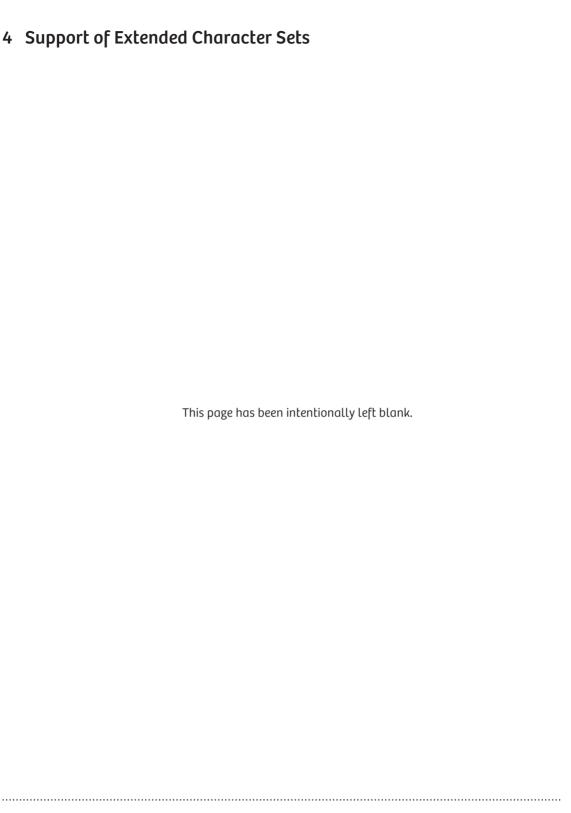
3 Media Interchange This page has been intentionally left blank.

4 Support of Extended Character Sets

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

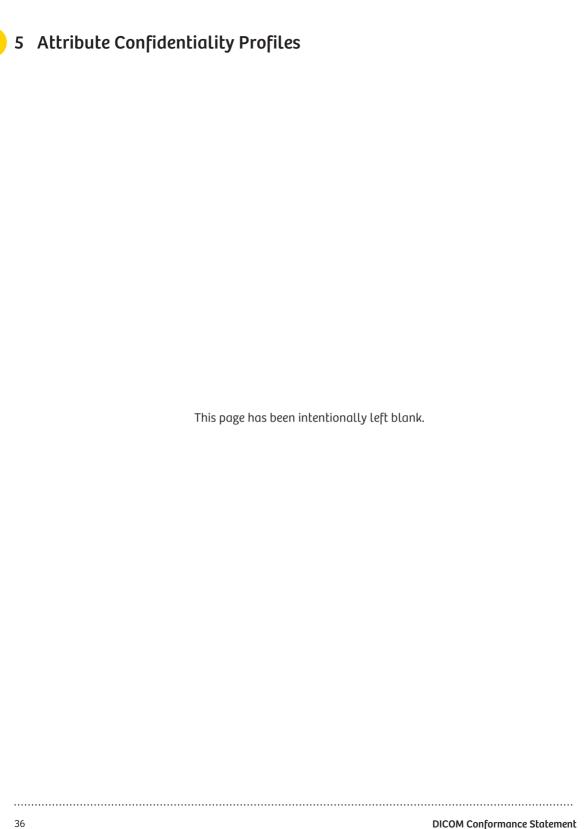
Character Set Description	Defined Term	Standard for Code Extension	ESC sequence	ISO regis- tration number	Charac- ter Set
Default repertoire	ISO 2022 IR 6	ISO 2022	ESC 02/08 04/02	ISO-IR 6	ISO 646
Latin alphabet No.1	ISO 2022 IR 100	ISO 2022	ESC 02/13 04/01	ISO-IR 100	Supple- mentary set
		ISO 2022	ESC 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 AI-Pathway Companion applications are not supporting any specific security mechanisms.

6.2 Association Level Security

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

6.3 Application Level Security

N/A

6 Security

This page has been intentionally left blank.

7 Annexes

N/A

7 Annexes

This page has been intentionally left blank.

8 DICOM Conformance Statement Overview

The AI-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)	er of Service (SCP)					
Verification								
Verification	1.2.840.10008.1.1	Yes		Yes				
Query/Retriev	ie							
Study Root Q/R - Infor- mation Model - FIND	1.2.840.10008.5.1.4.1. 2.2.1	Yes		No				
Study Root Q/R - Infor- mation Model - MOVE	1.2.840.10008.5.1.4.1. 2.2.1	Yes			Yes No			
SOP Classes r	nanaged by the Main AET							
		Al-Pathway Compani	on Conne	ector	AI-Pathway Com- panion Pros- tate Cancer			
		Create	Send	Store	Display			
Computed Radiography Image Stor- age	1.2.840.10008.5.1.4.1.1 .1	No	No	Yes	Yes			

8 DICOM Conformance Statement Overview

SOP Classes	SOP Class UID	User of Service (SCU)		Provid	er of Service (SCP)
Positron emission tomography	1.2.840.10008.5.1.4.1.1 .128	No	No	Yes	Yes
Computed Tomography	1.2.840.10008.5.1.4.1.1.2	No	No	Yes	Yes
Enhanced CT Image Storage	1.2.840.10008.5.1.4.1.1 .2.1	No	No	Yes	Yes
Nuclear Medicine	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 Resonance	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 Stor- age	1.2.840.10008.5.1.4.1.1 .4.3	No	No	Yes	Yes
RT Image Storage	1.2.840.10008.5.1.4.1.1 .481.1	No	No	Yes	Yes
Ultrasound Image Stor- age	1.2.840.10008.5.1.4.1.1 .6.1	No	No	Yes	Yes
Secondary Capture Image Stor- age	1.2.840.10008.5.1.4.1.1.7	No	No	Yes	Yes

.....

SOP Classes	SOP Class UID	User of Service (SCU)		Provid	ler of Service (SCP)
Multi-frame Single Bit Secondary Capture Image Stor- age	1.2.840.10008.5.1.4.1.1 .7.1	No	No	Yes	Yes
Multi-frame Grayscale Byte Secon- dary Cap- ture Image Storage	1.2.840.10008.5.1.4.1.1 .7.2	No	No	Yes	Yes
Multi-frame Grayscale Word Secon- dary Cap- ture Image Storage	1.2.840.10008.5.1.4.1.1 .7.3	No	No	Yes	Yes
Multi-frame True Color Secondary Capture Image Stor- age	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.

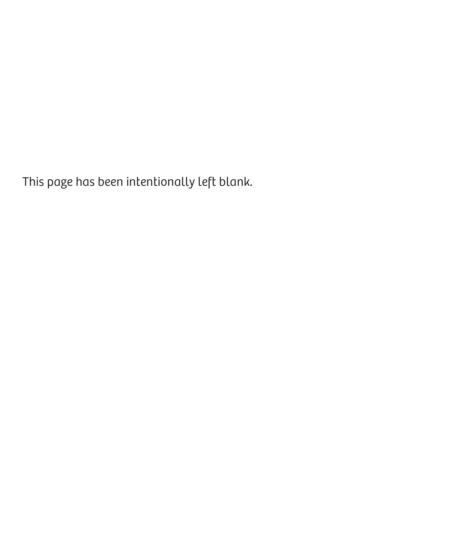
Name	Value
Application Context Name	1.2.840.10008.3.1.1.1

8 DICOM Conformance Statement Overview

Name	Value
Implementa- tion Class UID	1.3.6.1.4.1.30071.8
Implementa- tion Version Name	fo-dicom 4.0.2

Implementation Identifying Information

DICOM Conformance Statement Overview 8







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

The products/features (mentioned herein) are not commercially available in all countries. Their future availability cannot be

guaranteed. Please contact your local Siemens Healthineers organization for further information.

This document provides information regarding technical specifications, and standard and optional features. The listed specifications and features do not apply to all products.

Note: Technical data provided in this document may vary within defined tolerances. Original images always lose a certain amount of detail when reproduced.

The product names and/or brands referred to are the property of their respective trademark holders.

Made in Germany

Legal Manufacturer Siemens Healthcare GmbH Henkestr. 127 91052 Erlangen Germany Siemens Healthineers
Headquarters
Siemens Healthcare GmbH
Henkestr. 127

Henkestr. 127 91052 Erlangen Germany

Phone: +49 9131 84-0 siemens-healthineers.com