

AGFA HEALTHCARE

DICOM Conformance Statement

→ **Enterprise Imaging TRANSPORT Web 1.0**

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Conformance Statement Overview

Enterprise Imaging TRANSPORT Web, further referred to as TRANSPORT Web, is an application that allows its users to import/export DICOM and Non-DICOM data to/from separate DICOM archives. The application runs on separate server and is accessible to multiple users via a web interface.

TRANSPORT Web acts primarily as a storage class user (SCU) although it also provides a C-ECHO and a C-STORE storage class provider (SCP). No DICOM objects are stored for a longer period of time than is necessary to complete an import/export operation.

Table 1.1-1: Network Services Supported

SOP Classes	User of Service (SCU)	Provider of Service (SCP)	Display
Verification			
Verification	Yes	Yes	N/A
Transfer			
Computed Radiography Image Storage	Yes	Yes	No
Digital X-Ray Image Storage - For Presentation	Yes	Yes	No
Digital X-Ray Image Storage - For Processing	Yes	Yes	No
Digital Mammography X-Ray Image Storage - For Presentation	Yes	Yes	No
Digital Mammography X-Ray Image Storage - For Processing	Yes	Yes	No
Digital Intra-Oral X-Ray Image Storage - For Presentation	Yes	Yes	No
Digital Intra-Oral X-Ray Image Storage - For Processing	Yes	Yes	No
CT Image Storage	Yes	Yes	No
Enhanced CT Image Storage	Yes	Yes	No
Ultrasound Multi-frame Image Storage (Retired)	Yes	Yes	No
Ultrasound Multi-frame Image Storage	Yes	Yes	No
MR Image Storage	Yes	Yes	No
Enhanced MR Image Storage	Yes	Yes	No
Enhanced MR Color Image Storage	Yes	Yes	No
Nuclear Medicine Image Storage (Retired)	Yes	Yes	No
Ultrasound Image Storage (Retired)	Yes	Yes	No
Ultrasound Image Storage	Yes	Yes	No
Enhanced US Volume Storage	Yes	Yes	No
Secondary Capture Image Storage	Yes	Yes	No
Multi-frame Grayscale Byte Secondary Capture Image Storage	Yes	Yes	No
Multi-frame Grayscale Word Secondary Capture Image Storage	Yes	Yes	No
Multi-frame True Color Secondary Capture Image Storage	Yes	Yes	No
X-Ray Angiographic Image Storage	Yes	Yes	No
Enhanced XA Image Storage	Yes	Yes	No
X-Ray Radiofluoroscopic Image Storage	Yes	Yes	No
Enhanced XRF Image Storage	Yes	Yes	No
X-Ray Angiographic Bi-Plane Image Storage (Retired)	Yes	Yes	No
X-Ray 3D Angiographic Image Storage	Yes	Yes	No
X-Ray 3D Craniofacial Image Storage	Yes	Yes	No
Breast Tomosynthesis Image Storage	Yes	Yes	No
Intravascular Optical Coherence Tomography Image Storage - For Presentation	Yes	Yes	No
Intravascular Optical Coherence Tomography Image Storage - For Processing	Yes	Yes	No
Nuclear Medicine Image Storage	Yes	Yes	No

SOP Classes	User of Service (SCU)	Provider of Service (SCP)	Display
VL Endoscopic Image Storage	Yes	Yes	No
VL Microscopic Image Storage	Yes	Yes	No
VL Slide-Coordinates Microscopic Image Storage	Yes	Yes	No
VL Photographic Image Storage	Yes	Yes	No
Ophthalmic Photography 8 Bit Image Storage	Yes	Yes	No
Ophthalmic Photography 16 Bit Image Storage	Yes	Yes	No
Ophthalmic Tomography Image Storage	Yes	Yes	No
VL Whole Slide Microscopy Image Storage	Yes	Yes	No
Positron Emission Tomography Image Storage	Yes	Yes	No
Enhanced PET Image Storage	Yes	Yes	No
RT Image Storage	Yes	Yes	No
Video Endoscopic Image Storage	Yes	Yes	No
Video Microscopic Image Storage	Yes	Yes	No
Video Photographic Image Storage	Yes	Yes	No
MR Spectroscopy Storage	Yes	Yes	No
Multi-frame Single Bit Secondary Capture Image Storage	Yes	Yes	No
Standalone Overlay Storage (Retired)	Yes	Yes	No
Standalone Curve Storage (Retired)	Yes	Yes	No
12-lead ECG Waveform Storage	Yes	Yes	No
General ECG Waveform Storage	Yes	Yes	No
Ambulatory ECG Waveform Storage	Yes	Yes	No
Hemodynamic Waveform Storage	Yes	Yes	No
Cardiac Electrophysiology Waveform Storage	Yes	Yes	No
Basic Voice Audio Waveform Storage	Yes	Yes	No
General Audio Waveform Storage	Yes	Yes	No
Arterial Pulse Waveform Storage	Yes	Yes	No
Respiratory Waveform Storage	Yes	Yes	No
Standalone Modality LUT Storage (Retired)	Yes	Yes	No
Standalone VOI LUT Storage (Retired)	Yes	Yes	No
Grayscale Softcopy Presentation State Storage SOP Class	Yes	Yes	No
Color Softcopy Presentation State Storage SOP Class	Yes	Yes	No
Pseudo-Color Softcopy Presentation State Storage SOP Class	Yes	Yes	No
Blending Softcopy Presentation State Storage SOP Class	Yes	Yes	No
XA XRF Grayscale Softcopy Presentation State Storage	Yes	Yes	No
Raw Data Storage	Yes	Yes	No
Spatial Registration Storage	Yes	Yes	No
Spatial Fiducials Storage	Yes	Yes	No
Deformable Spatial Registration Storage	Yes	Yes	No
Segmentation Storage	Yes	Yes	No
Surface Segmentation Storage	Yes	Yes	No
Real World Value Mapping Storage	Yes	Yes	No
Stereometric Relationship Storage	Yes	Yes	No
Lensometry Measurements Storage	Yes	Yes	No
Autorefractive Measurements Storage	Yes	Yes	No
Keratometry Measurements Storage	Yes	Yes	No
Subjective Refraction Measurements Storage	Yes	Yes	No
Visual Acuity Measurements Storage	Yes	Yes	No
Spectacle Prescription Report Storage	Yes	Yes	No

SOP Classes	User of Service (SCU)	Provider of Service (SCP)	Display
Ophthalmic Axial Measurements Storage	Yes	Yes	No
Intraocular Lens Calculations Storage	Yes	Yes	No
Macular Grid Thickness and Volume Report Storage	Yes	Yes	No
Ophthalmic Visual Field Static Perimetry Measurements Storage	Yes	Yes	No
Basic Structured Display Storage	Yes	Yes	No
Basic Text SR Storage	Yes	Yes	No
Enhanced SR Storage	Yes	Yes	No
Comprehensive SR Storage	Yes	Yes	No
Procedure Log Storage	Yes	Yes	No
Mammography CAD SR Storage	Yes	Yes	No
Key Object Selection Document Storage	Yes	Yes	No
Chest CAD SR Storage	Yes	Yes	No
X-Ray Radiation Dose SR Storage	Yes	Yes	No
Colon CAD SR Storage	Yes	Yes	No
Implantation Plan SR Storage	Yes	Yes	No
Encapsulated PDF Storage	Yes	Yes	No
Encapsulated CDA Storage	Yes	Yes	No
Standalone PET Curve Storage (Retired)	Yes	Yes	No
RT Dose Storage	Yes	Yes	No
RT Structure Set Storage	Yes	Yes	No
RT Beams Treatment Record Storage	Yes	Yes	No
RT Plan Storage	Yes	Yes	No
RT Brachy Treatment Record Storage	Yes	Yes	No
RT Treatment Summary Record Storage	Yes	Yes	No
RT Ion Plan Storage	Yes	Yes	No
RT Ion Beams Treatment Record Storage	Yes	Yes	No
Query/Retrieve			
Patient Root Query/Retrieve Information Model – FIND	Yes	No	N/A
Patient Root Query/Retrieve Information Model – MOVE	Yes	No	N/A
Study Root Query/Retrieve Information Model – FIND	Yes	No	N/A
Study Root Query/Retrieve Information Model – MOVE	Yes	No	N/A
Workflow Management			
Modality Worklist Information Model – FIND	Yes	No	N/A
Storage Commitment Push Model SOP Class	Yes	Yes	N/A
Modality Performed Procedure Step SOP Class	Yes	No	N/A
Modality Performed Procedure Step Retrieve SOP Class	Yes	No	N/A
Unified Procedure Step Push SOP Class	No	No	N/A
Unified Procedure Step Pull SOP Class	No	No	N/A
Print Management			
Basic Grayscale Print Management Meta SOP Class	No	No	N/A
Basic Film Session SOP Class	No	No	N/A
Basic Film Box SOP Class	No	No	N/A
Basic Grayscale Image Box SOP Class	No	No	N/A
Basic Color Image Box SOP Class	No	No	N/A
Hardcopy Grayscale Image Storage SOP Class (Retired)	No	No	N/A
Hardcopy Color Image Storage SOP Class (Retired)	No	No	N/A
Print Job SOP Class	No	No	N/A
Basic Annotation Box SOP Class	No	No	N/A
Printer SOP Class	No	No	N/A

SOP Classes	User of Service (SCU)	Provider of Service (SCP)	Display
Basic Color Print Management Meta SOP Class	No	No	N/A
Presentation LUT SOP Class	No	No	N/A

No Media Services are supported.

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1 INTRODUCTION

1.1 Revision Record

DICOM Conformance Statement Template node ID: 8818332		
DICOM Conformance Statement Enterprise Imaging TRANSPORT Web 1.0		
Revision Number	Date	Reason for Change
1.0	August 6, 2015	Initial Version
1.1	September 23, 2015	Update document numbering
1.2	November 25, 2015	Add missing IOD descriptions for Secondary Capture Objects, Encapsulated PDF Storage Objects and Video Endoscopic Image Objects and the respective modules
1.3	December 10, 2015	Update different Modules of created SOP Instances (chapter 6.1.1)

1.2 Purpose and Intended Audience of this Document

This document is a DICOM Conformance Statement for the DICOM Services of the TRANSPORT Web product.

The user of this document is involved with system integration and/or software design. We assume that the reader is familiar with the terminology and concepts that are used in the DICOM 3.0 standard and the IHE Technical Framework.

Readers not familiar with DICOM 3.0 terminology should first read the appropriate parts of the DICOM standard itself, prior to reading this conformance statement.

Although the use of this conformance statement in conjunction with the DICOM 3.0 standard is intended to facilitate communication with TRANSPORT Web, it is not sufficient to guarantee, by itself, the inter-operation of the connection. The following issues need to be considered:

1.3 General Remarks

1.3.1 Integration and Validation Activities

The integration of any device into a system of interconnected devices goes beyond the scope of the DICOM 3.0 standard and this conformance statement when *interoperability* is desired. The responsibility for analyzing the applications requirements and developing a solution that integrates the Agfa equipment with other vendors' systems is the user's responsibility and should not be underestimated.

In some circumstances it might be necessary to perform a validation to make sure that functional interoperability between the Agfa equipment and non-Agfa devices works as expected. The user should ensure that any non-Agfa provider accepts responsibility for any validation required for their connection with the Agfa equipment.

1.3.2 Future Evolution

As the DICOM 3.0 standard evolves to meet the user's growing requirements and to incorporate new features and technologies, Agfa will follow the evolution of the standard. This evolution of the standard may require changes to devices that have implemented DICOM 3.0. The user should ensure that any non-Agfa provider, who connects with Agfa

devices, also plans for future evolution of the DICOM standard. A refusal to do so may result in the loss of functionality and/or connectivity between the different products.

1.4 Acronyms and Abbreviations

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

AE	DICOM Application Entity
AET	Application Entity Title
ACSE	Association Control Service Element
CD-R	Compact Disk Recordable
DICOM	Digital Imaging and Communications in Medicine
FSC	File-Set Creator
FSU	File-Set Updater
FSR	File-Set Reader
GSDF	Grayscale Standard Display Function
GSPS	Grayscale Softcopy Presentation State
IE	Information Entity
IOD	(DICOM) Information Object Definition
ISO	International Standard Organization
MPPS	Modality Performed Procedure Step
MSPS	Modality Scheduled Procedure Step
PDU	DICOM Protocol Data Unit
SCU	DICOM Service Class User (DICOM client)
SCP	DICOM Service Class Provider (DICOM server)
SOP	DICOM Service-Object Pair
UID	Unique Identifier
VR	Value Representation

1.5 Related Documents

- ACR-NEMA Digital Imaging and Communications in Medicine (DICOM) V3.0.
- IHE Radiology Technical Framework Revision 11 – Final Text, September 2014

2 NETWORKING

2.1 Implementation Model

The application has a single Application Entity (AE) which is initialized on first use and is responsible for all DICOM associations.

2.1.1 Application Data Flow Diagram

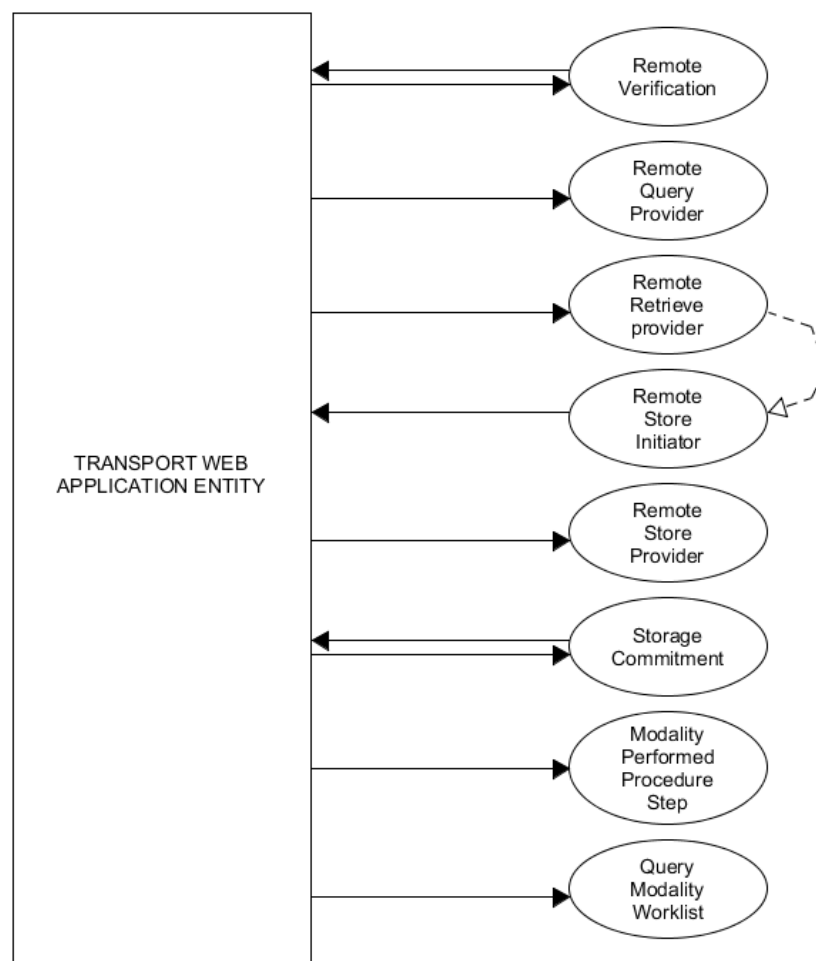


Figure 2.1-1: Functional Overview – Application Data Flow

2.1.2 Functional Definitions of AE's

The application only uses a single application entity.

2.1.2.1 Functional Capability of TRANSPORT Web

- Allow other DICOM nodes to verify the connection to the AE by acting as a Verification SCP. Check the connection to a peer AE by acting as a Verification SCU.

- Query and retrieve DICOM objects from another AE by acting as a DICOM Query/Retrieve SCU.
- Receive objects by acting as a DICOM Storage SCP.
- Store received or new objects to peer DICOM AEs by acting as SCU for various SOP classes.
- Request and receive storage commitment of objects by acting as DICOM Storage Commitment Push Model SCU.
- Send a query to a Modality Worklist by acting as SCU and then send a Modality Performed Procedure Step (MPPS) message to a remote AE.

2.1.3 Sequencing of Real World Activities

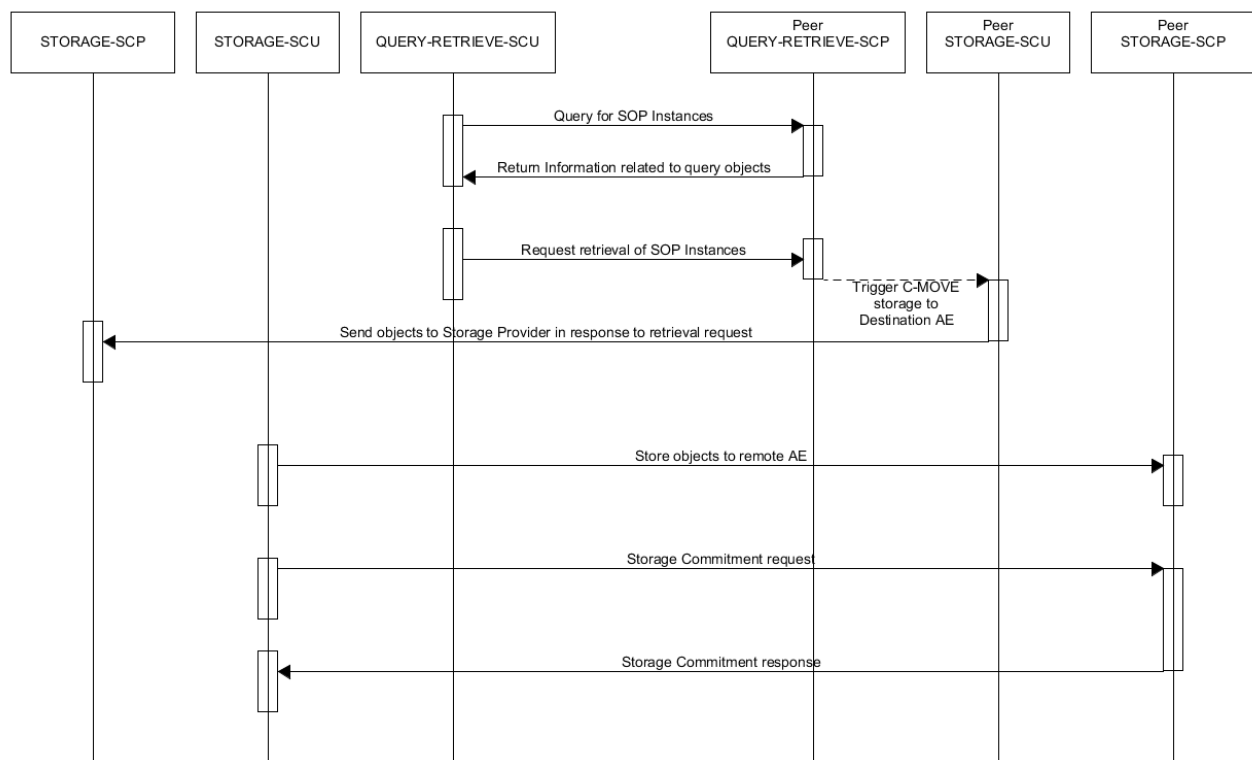


Figure 2.1-2: Sequencing constraints

2.2 AE Specifications

2.2.1 TRANSPORT Web Specification

TRANSPORT Web comprises of a single Application Entity (AE). Its Supported SOP Classes, Presentation Contexts, Association Initiation and Acceptance Policies and other relevant behaviors are documented in the following sections.

2.2.1.1 SOP Classes Supported

The Application Entity provides Standard Conformance to the following SOP Classes:

Table 2.2-1: SOP Classes for TRANSPORT Web

SOP Class Name	SOP Class UID	SCU	SCP
Verification			
Verification SOP Class	1.2.840.10008.1.1	Yes	Yes
Transfer			
Computed Radiography Image Storage	1.2.840.10008.5.1.4.1.1.1	Yes	Yes
Digital X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.1.1	Yes	Yes
Digital X-Ray Image Storage - For Processing	1.2.840.10008.5.1.4.1.1.1.1.1	Yes	Yes
Digital Mammography X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.1.2	Yes	Yes
Digital Mammography X-Ray Image Storage - For Processing	1.2.840.10008.5.1.4.1.1.1.2.1	Yes	Yes
Digital Intra-Oral X-Ray Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.1.3	Yes	Yes
Digital Intra-Oral X-Ray Image Storage - For Processing	1.2.840.10008.5.1.4.1.1.1.3.1	Yes	Yes
CT Image Storage	1.2.840.10008.5.1.4.1.1.2	Yes	Yes
Enhanced CT Image Storage	1.2.840.10008.5.1.4.1.1.2.1	Yes	Yes
Ultrasound Multi-frame Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.3	Yes	Yes
Ultrasound Multi-frame Image Storage	1.2.840.10008.5.1.4.1.1.3.1	Yes	Yes
MR Image Storage	1.2.840.10008.5.1.4.1.1.4	Yes	Yes
Enhanced MR Image Storage	1.2.840.10008.5.1.4.1.1.4.1	Yes	Yes
Enhanced MR Color Image Storage	1.2.840.10008.5.1.4.1.1.4.3	Yes	Yes
Nuclear Medicine Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.5	Yes	Yes
Ultrasound Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.6	Yes	Yes
Ultrasound Image Storage	1.2.840.10008.5.1.4.1.1.6.1	Yes	Yes
Enhanced US Volume Storage	1.2.840.10008.5.1.4.1.1.6.2	Yes	Yes
Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7	Yes	Yes
Multi-frame Grayscale Byte Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.2	Yes	Yes
Multi-frame Grayscale Word Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.3	Yes	Yes
Multi-frame True Color Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.4	Yes	Yes
X-Ray Angiographic Image Storage	1.2.840.10008.5.1.4.1.1.12.1	Yes	Yes
Enhanced XA Image Storage	1.2.840.10008.5.1.4.1.1.12.1.1	Yes	Yes
X-Ray Radiofluoroscopic Image Storage	1.2.840.10008.5.1.4.1.1.12.2	Yes	Yes
Enhanced XRF Image Storage	1.2.840.10008.5.1.4.1.1.12.2.1	Yes	Yes
X-Ray Angiographic Bi-Plane Image Storage (Retired)	1.2.840.10008.5.1.4.1.1.12.3	Yes	Yes
X-Ray 3D Angiographic Image Storage	1.2.840.10008.5.1.4.1.1.13.1.1	Yes	Yes
X-Ray 3D Craniofacial Image Storage	1.2.840.10008.5.1.4.1.1.13.1.2	Yes	Yes
Breast Tomosynthesis Image Storage	1.2.840.10008.5.1.4.1.1.13.1.3	Yes	Yes
Intravascular Optical Coherence Tomography Image Storage - For Presentation	1.2.840.10008.5.1.4.1.1.14.1	Yes	Yes

SOP Class Name	SOP Class UID	SCU	SCP
Intravascular Optical Coherence Tomography Image Storage - For Processing	1.2.840.10008.5.1.4.1.1.14.2	Yes	Yes
Nuclear Medicine Image Storage	1.2.840.10008.5.1.4.1.1.20	Yes	Yes
VL Endoscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.1	Yes	Yes
VL Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.2	Yes	Yes
VL Slide-Coordinates Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.3	Yes	Yes
VL Photographic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.4	Yes	Yes
Ophthalmic Photography 8 Bit Image Storage	1.2.840.10008.5.1.4.1.1.77.1.5.1	Yes	Yes
Ophthalmic Photography 16 Bit Image Storage	1.2.840.10008.5.1.4.1.1.77.1.5.2	Yes	Yes
Ophthalmic Tomography Image Storage	1.2.840.10008.5.1.4.1.1.77.1.5.4	Yes	Yes
VL Whole Slide Microscopy Image Storage	1.2.840.10008.5.1.4.1.1.77.1.6	Yes	Yes
Positron Emission Tomography Image Storage	1.2.840.10008.5.1.4.1.1.128	Yes	Yes
Enhanced PET Image Storage	1.2.840.10008.5.1.4.1.1.130	Yes	Yes
RT Image Storage	1.2.840.10008.5.1.4.1.1.481.1	Yes	Yes
Video Endoscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.1.1	Yes	Yes
Video Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.2.1	Yes	Yes
Video Photographic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.4.1	Yes	Yes
MR Spectroscopy Storage	1.2.840.10008.5.1.4.1.1.4.2	Yes	Yes
Multi-frame Single Bit Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.1	Yes	Yes
Standalone Overlay Storage (Retired)	1.2.840.10008.5.1.4.1.1.8	Yes	Yes
Standalone Curve Storage (Retired)	1.2.840.10008.5.1.4.1.1.9	Yes	Yes
12-lead ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.1	Yes	Yes
General ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.2	Yes	Yes
Ambulatory ECG Waveform Storage	1.2.840.10008.5.1.4.1.1.9.1.3	Yes	Yes
Hemodynamic Waveform Storage	1.2.840.10008.5.1.4.1.1.9.2.1	Yes	Yes
Cardiac Electrophysiology Waveform Storage	1.2.840.10008.5.1.4.1.1.9.3.1	Yes	Yes
Basic Voice Audio Waveform Storage	1.2.840.10008.5.1.4.1.1.9.4.1	Yes	Yes
General Audio Waveform Storage	1.2.840.10008.5.1.4.1.1.9.4.2	Yes	Yes
Arterial Pulse Waveform Storage	1.2.840.10008.5.1.4.1.1.9.5.1	Yes	Yes
Respiratory Waveform Storage	1.2.840.10008.5.1.4.1.1.9.6.1	Yes	Yes
Standalone Modality LUT Storage (Retired)	1.2.840.10008.5.1.4.1.1.10	Yes	Yes
Standalone VOI LUT Storage (Retired)	1.2.840.10008.5.1.4.1.1.11	Yes	Yes
Grayscale Softcopy Presentation State Storage SOP Class	1.2.840.10008.5.1.4.1.1.11.1	Yes	Yes
Color Softcopy Presentation State Storage SOP Class	1.2.840.10008.5.1.4.1.1.11.2	Yes	Yes
Pseudo-Color Softcopy Presentation State Storage SOP Class	1.2.840.10008.5.1.4.1.1.11.3	Yes	Yes
Blending Softcopy Presentation State Storage SOP Class	1.2.840.10008.5.1.4.1.1.11.4	Yes	Yes
XA XRF Grayscale Softcopy Presentation State Storage	1.2.840.10008.5.1.4.1.1.11.5	Yes	Yes
Raw Data Storage	1.2.840.10008.5.1.4.1.1.66	Yes	Yes
Spatial Registration Storage	1.2.840.10008.5.1.4.1.1.66.1	Yes	Yes
Spatial Fiducials Storage	1.2.840.10008.5.1.4.1.1.66.2	Yes	Yes
Deformable Spatial Registration Storage	1.2.840.10008.5.1.4.1.1.66.3	Yes	Yes
Segmentation Storage	1.2.840.10008.5.1.4.1.1.66.4	Yes	Yes
Surface Segmentation Storage	1.2.840.10008.5.1.4.1.1.66.5	Yes	Yes
Real World Value Mapping Storage	1.2.840.10008.5.1.4.1.1.67	Yes	Yes
Stereometric Relationship Storage	1.2.840.10008.5.1.4.1.1.77.1.5.3	Yes	Yes
Lensometry Measurements Storage	1.2.840.10008.5.1.4.1.1.78.1	Yes	Yes
Autorefractometry Measurements Storage	1.2.840.10008.5.1.4.1.1.78.2	Yes	Yes
Keratometry Measurements Storage	1.2.840.10008.5.1.4.1.1.78.3	Yes	Yes
Subjective Refraction Measurements Storage	1.2.840.10008.5.1.4.1.1.78.4	Yes	Yes

SOP Class Name	SOP Class UID	SCU	SCP
Visual Acuity Measurements Storage	1.2.840.10008.5.1.4.1.1.78.5	Yes	Yes
Spectacle Prescription Report Storage	1.2.840.10008.5.1.4.1.1.78.6	Yes	Yes
Ophthalmic Axial Measurements Storage	1.2.840.10008.5.1.4.1.1.78.7	Yes	Yes
Intraocular Lens Calculations Storage	1.2.840.10008.5.1.4.1.1.78.8	Yes	Yes
Macular Grid Thickness and Volume Report Storage	1.2.840.10008.5.1.4.1.1.79.1	Yes	Yes
Ophthalmic Visual Field Static Perimetry Measurements Storage	1.2.840.10008.5.1.4.1.1.80.1	Yes	Yes
Basic Structured Display Storage	1.2.840.10008.5.1.4.1.1.131	Yes	Yes
Basic Text SR Storage	1.2.840.10008.5.1.4.1.1.88.11	Yes	Yes
Enhanced SR Storage	1.2.840.10008.5.1.4.1.1.88.22	Yes	Yes
Comprehensive SR Storage	1.2.840.10008.5.1.4.1.1.88.33	Yes	Yes
Procedure Log Storage	1.2.840.10008.5.1.4.1.1.88.40	Yes	Yes
Mammography CAD SR Storage	1.2.840.10008.5.1.4.1.1.88.50	Yes	Yes
Key Object Selection Document Storage	1.2.840.10008.5.1.4.1.1.88.59	Yes	Yes
Chest CAD SR Storage	1.2.840.10008.5.1.4.1.1.88.65	Yes	Yes
X-Ray Radiation Dose SR Storage	1.2.840.10008.5.1.4.1.1.88.67	Yes	Yes
Colon CAD SR Storage	1.2.840.10008.5.1.4.1.1.88.69	Yes	Yes
Implantation Plan SR Storage	1.2.840.10008.5.1.4.1.1.88.70	Yes	Yes
Encapsulated PDF Storage	1.2.840.10008.5.1.4.1.1.104.1	Yes	Yes
Encapsulated CDA Storage	1.2.840.10008.5.1.4.1.1.104.2	Yes	Yes
Standalone PET Curve Storage (Retired)	1.2.840.10008.5.1.4.1.1.129	Yes	Yes
RT Dose Storage	1.2.840.10008.5.1.4.1.1.481.2	Yes	Yes
RT Structure Set Storage	1.2.840.10008.5.1.4.1.1.481.3	Yes	Yes
RT Beams Treatment Record Storage	1.2.840.10008.5.1.4.1.1.481.4	Yes	Yes
RT Plan Storage	1.2.840.10008.5.1.4.1.1.481.5	Yes	Yes
RT Brachy Treatment Record Storage	1.2.840.10008.5.1.4.1.1.481.6	Yes	Yes
RT Treatment Summary Record Storage	1.2.840.10008.5.1.4.1.1.481.7	Yes	Yes
RT Ion Plan Storage	1.2.840.10008.5.1.4.1.1.481.8	Yes	Yes
RT Ion Beams Treatment Record Storage	1.2.840.10008.5.1.4.1.1.481.9	Yes	Yes
Workflow Management			
Modality Worklist Information Model - FIND	1.2.840.10008.5.1.4.31	Yes	No
Unified Procedure Step Push SOP Class	1.2.840.10008.5.1.4.34.6.1	No	No
Unified Procedure Step Pull SOP Class	1.2.840.10008.5.1.4.34.6.3	No	No
Modality Performed Procedure Step SOP Class	1.2.840.10008.3.1.2.3.3	Yes	No
Modality Performed Procedure Step Retrieve SOP Class	1.2.840.10008.3.1.2.3.4	Yes	No
Storage Commitment Push Model SOP Class	1.2.840.10008.1.20.1	Yes	Yes
Query Retrieve			
Patient Root Query/Retrieve Information Model – FIND	1.2.840.10008.5.1.4.1.2.1.1	Yes	No
Patient Root Query/Retrieve Information Model – MOVE	1.2.840.10008.5.1.4.1.2.1.2	Yes	No
Study Root Query/Retrieve Information Model – FIND	1.2.840.10008.5.1.4.1.2.2.1	Yes	No
Study Root Query/Retrieve Information Model – MOVE	1.2.840.10008.5.1.4.1.2.2.2	Yes	No
Study Root Query/Retrieve Information Model - GET	1.2.840.10008.5.1.4.1.2.2.3	No	No
Print Management			
Basic Grayscale Print Management Meta SOP Class	1.2.840.10008.5.1.1.9	No	No
Basic Color Print Management Meta SOP Class	1.2.840.10008.5.1.1.18	No	No
Basic Annotation Box SOP Class	1.2.840.10008.5.1.1.15	No	No
Print Job SOP Class	1.2.840.10008.5.1.1.14	No	No
Presentation LUT SOP Class	1.2.840.10008.5.1.1.23	No	No
Basic Film Box SOP Class	1.2.840.10008.5.1.1.2	No	No
Basic Grayscale Image Box SOP Class	1.2.840.10008.5.1.1.4	No	No

SOP Class Name	SOP Class UID	SCU	SCP
Basic Color Image Box SOP Class	1.2.840.10008.5.1.1.4.1	No	No
Printer SOP Class	1.2.840.10008.5.1.1.16	No	No

2.2.1.2 Association Establishment Policies

2.2.1.2.1 General

The DICOM standard application context name, which is always proposed, is listed in Table 2.2-2.

Table 2.2-2: DICOM Application Context

Application Context Name	1.2.840.10008.3.1.1.1
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The maximum PDU length is 16384 bytes.

2.2.1.2.2 Number of Associations

The application may initiate and accept multiple DICOM Associations at any given time. The number of concurrent associations is only limited by the resources of the underlying system.

2.2.1.2.3 Asynchronous Nature

Not applicable as TRANSPORT Web operates synchronously.

2.2.1.2.4 Implementation Identifying Information

Table 2.2-3: DICOM implementation Class and Version for TRANSPORT Web

Implementation Class UID	1.2.40.0.13.1.1
Implementation Version Name	dcm4che-3.3.6

2.2.1.3 Association Initiation Policies

2.2.1.3.1 Verify Connection

2.2.1.3.1.1 Description and Sequencing of Activity

A verification request is sent to a remote Media Creation Server to check it's availability.

2.2.1.3.1.2 Proposed Presentation Contexts

Table 2.2-4: Presentation Context Proposed by TRANSPORT Web

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
Verification SOP Class	1.2.840.10008.1.1	Implicit VR, Little Endian	1.2.840.10008.1.1	SCU	None

2.2.1.3.1.3 SOP Specific Conformance - Verification

TRANSPORT Web provides standard conformance to the DICOM Verification SOP Class as SCU.

2.2.1.3.2 Query objects

2.2.1.3.2.1 Description and Sequencing of Activity

A query for objects on a DICOM peer AE is triggered when the user searches for patients/studies within the web-application.

The application can also send queries to peer AEs during data coercion and to verify the existence of certain DICOM instances on a target archive.

2.2.1.3.2.2 Proposed Presentation Contexts

The default behavior of TRANSPORT Web is to propose as SCU both Presentation Contexts.

Table 2.2-5: Presentation Context Proposed by TRANSPORT Web

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
Query/Retrieve Patient Root Info. Model – FIND	1.2.840.10008.5.1.4.1.2.1.1	Implicit VR, Little Endian	1.2.840.10008.1.2	SCU	None
Query/Retrieve Study Root Info. Model – FIND	1.2.840.10008.5.1.4.1.2.2.1	Implicit VR, Little Endian	1.2.840.10008.1.2	SCU	None

The first accepted Transfer Syntax is chosen by the initiator for the Association

Table 2.2-6: Supported C-FIND Query Attributes

C-FIND Attributes		
Level	Attribute Name	Tag
Patient	Additional Patient History	(0010,21B0)
Patient	Clinical Trial Protocol ID	(0012,0020)
Patient	Clinical Trial Subject ID	(0012,0040)
Patient	Current Patient Location	(0038,0300)
Patient	Ethnic Group	(0010,2160)
Patient	Issuer Of Patient ID	(0010,0021)
Patient	Number Of Patient Related Instances	(0020,1204)
Patient	Number Of Patient Related Series	(0020,1202)
Patient	Number Of Patient Related Studies	(0020,1200)
Patient	Other Patient IDs	(0010,1000)
Patient	Other Patient IDs Sequence	(0010,1002)
Patient	Other Patient Names	(0010,1001)

Patient	Patient Birth Date	(0010,0030)
Patient	Patient Birth Time	(0010,0032)
Patient	Patient Comments	(0010,4000)
Patient	Patient ID	(0010,0020)
Patient	Patient Name	(0010,0010)
Patient	Patient Sex	(0010,0040)
Patient	Patient State	(0038,0500)
Patient	Specific Character Set	(0008,0005)
Study	Accession Number	(0008,0050)
Study	Admitting Diagnoses Description	(0008,1080)
Study	Instance Availability	(0008,0056)
Study	Modalities In Study	(0008,0061)
Study	Name Of Physicians Reading Study	(0008,1060)
Study	Number Of Study Related Instances	(0020,1208)
Study	Number Of Study Related Series	(0020,1206)
Study	Patient Age	(0010,1010)
Study	Patient Size	(0010,1020)
Study	Patient Weight	(0010,1030)
Study	Procedure Code Sequence	(0008,1032)
Study	Referring Physician Name	(0008,0090)
Study	Retrieve AETitle	(0008,0054)
Study	SOPClasses In Study	(0008,0062)
Study	Specific Character Set	(0008,0005)
Study	Study Comments	(0032,4000)
Study	Study Date	(0008,0020)
Study	Study Description	(0008,1030)
Study	Study ID	(0020,0010)
Study	Study Instance UID	(0020,000D)
Study	Study Status ID	(0032,000A)
Study	Study Time	(0008,0030)
Series	Body Part Examined	(0018,0015)
Series	Clinical Trial Coordinating Center Name	(0012,0060)
Series	Clinical Trial Series Description	(0012,0072)
Series	Institution Name	(0008,0080)
Series	Institutional Department Name	(0008,1040)
Series	Manufacturer	(0008,0070)
Series	Modality	(0008,0060)
Series	Number Of Series Related Instances	(0020,1209)
Series	Performed Procedure Step ID	(0040,0253)
Series	Performing Physician Name	(0008,1050)
Series	Secondary Capture Device Manufacturer Model Name	(0018,1018)
Series	Series Date	(0008,0021)
Series	Series Description	(0008,103E)
Series	Series Instance UID	(0020,000E)
Series	Series Number	(0020,0011)
Series	Series Time	(0008,0031)
Series	Specific Character Set	(0008,0005)
Series	Station Name	(0008,1010)
Series	Request Attributes Sequence / Requested Procedure ID	(0040,1001)
Series	Request Attributes Sequence / Requesting Physician	(0032,1032)

Series	Request Attributes Sequence / Requesting Service	(0032,1033)
Series	Request Attributes Sequence / Scheduled Procedure Step ID	(0040,0009)
Instance	Acquisition Date	(0008,0022)
Instance	Acquisition Date Time	(0008,002A)
Instance	Acquisition Time	(0008,0032)
Instance	Columns	(0028,0011)
Instance	Completion Flag	(0040,A491)
Instance	Concept Name Code Sequence	(0040,A043)
Instance	Content Date	(0008,0023)
Instance	Content Description	(0070,0081)
Instance	Content Label	(0070,0080)
Instance	Content Time	(0008,0033)
Instance	Derivation Description	(0008,2111)
Instance	Frame Of Reference UID	(0020,0052)
Instance	Gantry Detector Tilt	(0018,1120)
Instance	High Bit	(0028,0102)
Instance	Image Laterality	(0020,0062)
Instance	Image Orientation Patient	(0020,0037)
Instance	Image Position Patient	(0020,0032)
Instance	Image Type	(0008,0008)
Instance	Instance Creation Time	(0008,0013)
Instance	Instance Number	(0020,0013)
Instance	Number Of Frames	(0028,0008)
Instance	Observation Date Time	(0040,A032)
Instance	Per Frame Functional Groups Sequence	(5200,9230)
Instance	Pixel Spacing	(0028,0030)
Instance	Presentation LUTShape	(2050,0020)
Instance	Retrieve AETitle	(0008,0054)
Instance	Rows	(0028,0010)
Instance	SOPClass UID	(0008,0016)
Instance	SOPInstance UID	(0008,0018)
Instance	Shared Functional Groups Sequence	(5200,9229)
Instance	Slice Location	(0020,1041)
Instance	Slice Thickness	(0018,0050)
Instance	Specific Character Set	(0008,0005)
Instance	Verification Flag	(0040,A493)
Instance	View Position	(0018,5101)

2.2.1.3.2.3 SOP Specific Conformance - Q/R Study Root

Query/Retrieve Study Root Info. Model is the default SOP class for queries performed by the user.

2.2.1.3.2.4 SOP Specific Conformance – Q/R Patient Root

By default, TRANSPORT Web uses Query/Retrieve Study Root Info model. In case the server does not support this SOP Class, Query/Retrieve Patient Root Info model is utilized.

2.2.1.3.3 Retrieve Objects

2.2.1.3.3.1 Description and Sequencing of Activity

TRANSPORT Web will retrieve DICOM objects from a remote AE during the processing of a workflow. These objects will either be modified and stored to a remote AE or made available to the user.

2.2.1.3.3.2 Proposed Presentation Contexts

Table 2.2-7: Presentation Context Proposed by TRANSPORT Web

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
Query/Retrieve Study Root Info. Model – MOVE	1.2.840.10008.5.1.4.1.2.2.2	Implicit VR, Little Endian	1.2.840.10008.1.2	SCU	None

2.2.1.3.3.3 SOP Specific Conformance - Query/Retrieve Study Root Info. Model

TRANSPORT Web can retrieve items on Study-, Series- and Instance-Level but because of performance considerations will normally retrieve whole studies in one request.

2.2.1.3.4 Store Objects

2.2.1.3.4.1 Description and Sequencing of Activity

DICOM Objects will be stored to remote AEs during the processing of a workflow that was previously triggered by the user. TRANSPORT Web optionally sends a Storage Commitment request for the transmitted objects immediately after the storage operation has finished.

2.2.1.3.4.2 Proposed Presentation Contexts

Table 2.2-8: Presentation Context Proposed by TRANSPORT Web

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
All Storage SOP Classes listed in Table 2.2-1		Implicit VR, Little Endian	1.2.840.10008.1.2	SCU	None

2.2.1.3.5 Storage Commitment Request

2.2.1.3.5.1 Description and Sequencing of Activity

If configured for the respective workflow, TRANSPORT Web sends a Storage Commitment request for the transmitted objects immediately after a storage operation has finished. The association is immediately released after the response to the initial Storage Commitment N-ACTION Request is received. That forces the peer AE, to send the N-EVENT-REPORT request containing the commitment result in a separate association, which has to be initiated – and released – by the peer AE.

2.2.1.3.5.2 Proposed Presentation Contexts

Table 2.2-9: Presentation Context Proposed by TRANSPORT Web

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
Storage Commitment Push Model SOP Class	1.2.840.10008.1.20.1	Implicit VR, Little Endian	1.2.840.10008.1.2	SCU	None

The following elements are sent as part of the N-ACTION request:

Table 2.2-10: Attributes for N-ACTION

Attribute	Tag
Transaction UID	(0008,1195)
Referenced SOP Sequence	(0008,1199)
>Referenced SOP Class UID	(0008,1150)
>Referenced SOP Instance UID	(0008,1155)

2.2.1.3.5.3 SOP Specific Conformance - Storage Commitment Push Model

TRANSPORT Web releases the association immediately after it receives the N-ACTION RSP to the initial Storage Commitment N-ACTION Request. That forces the peer AE to send the N-EVENT-REPORT request containing the commitment result in a separate association, which has to be initiated – and released – by the peer AE.

2.2.1.3.6 Query Modality Worklist

2.2.1.3.6.1 Description and Sequencing of Activity

TRANSPORT Web initiates a query request to a Modality Worklist when the user performs an import workflow for which an MWL search has been configured.

2.2.1.3.6.2 Proposed Presentation Contexts

Table 2.2-11: Presentation Context Proposed by TRANSPORT Web

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
Modality Worklist Information Model – FIND	1.2.840.10008.5.1.4.31	Implicit VR, Little Endian	1.2.840.10008.1.2	SCU	None

2.2.1.3.6.3 SOP Specific Conformance - Modality Worklist Information Model

TRANSPORT Web provides standard conformance to the Modality Worklist Information Model – FIND SOP Class as SCU.

DICOM Message Service Element (DIMSE) Service C-FIND Attributes:

Table 2.2-12: Supported Attributes from Modality Worklist Information Model

Attribute	Tag
Accession Number	(0008,0050)
Admission ID	(0038,0010)
Admitting Date	(0038,0020)
Admitting Time	(0038,0021)
Allergies	(0010,2110)
Current Patient Location	(0038,0300)
Institution Name	(0008,0080)
Issuer Of Patient ID	(0010,0021)
Medical Alerts	(0010,2000)
Patient Birth Date	(0010,0030)
Patient ID	(0010,0020)
Patient Name	(0010,0010)
Patient Sex	(0010,0040)
Patient State	(0038,0500)
Patient Transport Arrangements	(0040,1004)
Patient Weight	(0010,1030)
Pregnancy Status	(0010,21C0)
Referenced Study Sequence	(0008,1110)
Referring Physician Address	(0008,0092)
Referring Physician Name	(0008,0090)
Referring Physician Telephone Numbers	(0008,0094)
Requested Procedure Description	(0032,1060)
Requested Procedure ID	(0040,1001)
Requesting Physician	(0032,1032)
Route Of Admissions	(0038,0016)
Special Needs	(0038,0050)
Specific Character Set	(0008,0005)
Study Instance UID	(0020,000D)
Scheduled Procedure Step Sequence / Modality	(0008,0060)

Attribute	Tag
Scheduled Procedure Step Sequence / Requested Contrast Agent	(0032,1070)
Scheduled Procedure Step Sequence / Scheduled Performing Physician Name	(0040,0006)
Scheduled Procedure Step Sequence / Scheduled Procedure Step Description	(0040,0007)
Scheduled Procedure Step Sequence / Scheduled Procedure Step ID	(0040,0009)
Scheduled Procedure Step Sequence / Scheduled Procedure Step Start Date	(0040,0002)
Scheduled Procedure Step Sequence / Scheduled Procedure Step Start Time	(0040,0003)
Scheduled Procedure Step Sequence / Scheduled Procedure Step Status	(0040,0020)
Scheduled Procedure Step Sequence / Scheduled Station AETitle	(0040,0001)
Scheduled Procedure Step Sequence / Scheduled Station Name	(0040,0010)
Referenced Study Sequence / Referenced SOPClass UID	(0008,1150)
Referenced Study Sequence / Referenced SOPInstance UID	(0008,1155)
Referenced Study Sequence / Study Instance UID	(0020,000D)

2.2.1.3.7 Modality Performed Procedure Step

2.2.1.3.7.1 Description and Sequencing of Activity

After finishing an import workflow, TRANSPORT Web sends a DICOM MPPS message to the server if the corresponding option is activated in the import workflow configuration.

2.2.1.3.7.2 Proposed Presentation Contexts

Table 2.2-13: Presentation Context Proposed by TRANSPORT Web

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
Modality Performed Procedure Step	1.2.840.10008.3.1.2.3.3	Implicit VR, Little Endian	1.2.840.10008.1.2	SCU	None

2.2.1.3.7.3 SOP Specific Conformance - MPPS

TRANSPORT Web supports the following DIMSE Service N-CREATE MPPS Attributes:

Table 2.2-14: Supported Attributes for MPPS N-CREATE

Attribute	Tag
Specific Character Set	(0008,0005)
SOP Class UID	(0008,0016)
SOP Instance UID	(0008,0018)
Modality	(0008,0060)
Procedure Code Sequence	(0008,1032)
>Code Value	(0008,0100)

Attribute	Tag
>Coding Scheme Designator	(0008,0102)
>Code Meaning	(0008,0104)
Patient's Name	(0010,0010)
Patient ID	(0010,0020)
Issuer of Patient ID	(0010,0021)
Patient's Birth Date	(0010,0030)
Patient's Sex	(0010,0040)
Patient's Mother's Birth Name	(0010,1060)
Study ID	(0020,0010)
Admission ID	(0038,0010)
Performed Station AE Title	(0040,0241)
Performed Station Name	(0040,0242)
Performed Location	(0040,0243)
Performed Procedure Step Start Date	(0040,0244)
Performed Procedure Step Start Time	(0040,0245)
Performed Procedure Step End Date	(0040,0250)
Performed Procedure Step End Time	(0040,0251)
Performed Procedure Step Status	(0040,0252)
Performed Procedure Step ID	(0040,0253)
Performed Procedure Step Description	(0040,0254)
Performed Procedure Type Description	(0040,0255)
Performed Protocol Code Sequence	(0040,0260)
>Code Value	(0008,0100)
>Coding Scheme Designator	(0008,0102)
>Code Meaning	(0008,0104)
Scheduled Step Attributes Sequence	(0040,0270)
>Accession Number	(0008,0050)
>Referenced Study Sequence	(0008,1110)
>>Referenced SOP Class UID	(0008,1150)
>>Referenced SOP Class UID	(0008,1155)
>Study Instance UID	(0020,000D)
>Requested Procedure Description	(0032,1060)
>Requested Procedure Code Sequence	(0032,1064)
>>Code Value	(0008,0100)
>>Coding Scheme Designator	(0008,0102)
>>Code Meaning	(0008,0104)
>Scheduled Procedure Step Description	(0040,0007)
>Scheduled Protocol Code Sequence	(0040,0008)
>>Code Value	(0008,0100)
>>Coding Scheme Designator	(0008,0102)
>>Code Meaning	(0008,0104)
>Scheduled Procedure Step ID	(0040,0009)
>Requested Procedure ID	(0040,1001)
Performed Procedure Step Discontinuation Reason Code Sequence	(0040,0281)
>Code Value	(0008,0100)
>Coding Scheme Designator	(0008,0102)
>Code Meaning	(0008,0104)
Performed Series Sequence	(0040,0340)

Attribute	Tag
>Retrieve AE Title	(0008,0054)
>Series Description	(0008,103E)
>Performing Physician's Name	(0008,1050)
>Operator's Name	(0008,1070)
>Referenced Image Sequence	(0008,1140)
>>Referenced SOP Class UID	(0008,1150)
>>Referenced SOP Class UID	(0008,1155)
>Protocol Name	(0018,1030)
>Series Instance UID	(0020,000E)
>Referenced Non-Image Composite SOP Instance Sequence	(0040,0220)
>>Referenced SOP Class UID	(0008,1150)
>>Referenced SOP Class UID	(0008,1155)

TRANSPORT Web supports the following DIMSE Service N-SET MPPS Attributes:

Table 2.2-15: Supported Attributes for MPPS N-SET

Attribute	Tag
Procedure Code Sequence	(0008,1032)
>Code Value	(0008,0100)
>Coding Scheme Designator	(0008,0102)
>Code Meaning	(0008,0104)
Performed Procedure Step Start Date	(0040,0244)
Performed Procedure Step Start Time	(0040,0245)
Performed Procedure Step End Date	(0040,0250)
Performed Procedure Step End Time	(0040,0251)
Performed Procedure Step Status	(0040,0252)
Performed Procedure Step Description	(0040,0254)
Performed Procedure Type Description	(0040,0255)
Performed Procedure Step Discontinuation Reason Code Sequence	(0040,0281)
>Code Value	(0008,0100)
>Coding Scheme Designator	(0008,0102)
>Code Meaning	(0008,0104)
Performed Series Sequence	(0040,0340)
>Retrieve AE Title	(0008,0054)
>Series Description	(0008,103E)
>Performing Physician's Name	(0008,1050)
>Operator's Name	(0008,1070)
>Referenced Image Sequence	(0008,1140)
>>Referenced SOP Class UID	(0008,1150)
>>Referenced SOP Class UID	(0008,1155)
>Protocol Name	(0018,1030)
>Series Instance UID	(0020,000E)
>Referenced Non-Image Composite SOP Instance Sequence	(0040,0220)
>>Referenced SOP Class UID	(0008,1150)
>>Referenced SOP Class UID	(0008,1155)

2.2.1.4 Association Acceptance Policies

TRANSPORT Web accepts all calling Application Entity Titles (AETs). The called AET - as well as the TCP port number on which the application is listening for incoming association requests - can be configured by the administrator. Associations are accepted if at least one offered presentation context is acceptable.

2.2.1.4.1 Verify Connection

2.2.1.4.1.1 Description and Sequencing of Activity

TRANSPORT Web responds to a Verification request from a DICOM SCU.

2.2.1.4.1.2 Accepted Presentation Contexts

Table 2.2-16: Acceptable Presentation Contexts for TRANSPORT Web

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
Verification SOP Class	1.2.840.10008.1.1	Implicit VR, Little Endian	1.2.840.10008.1.1	SCP	None

2.2.1.4.1.3 SOP Specific Conformance - Verification

Table 2.2-17: Response Status for Verification

Service Status	Further Meaning	Error Code	Reason
Success	Success	0000	Successful connection to the verification service.

2.2.1.4.2 Receive Objects

2.2.1.4.2.1 Description and Sequencing of Activity

TRANSPORT Web accepts an association when it receives an association request from a DICOM Storage SCU.

2.2.1.4.2.2 Accepted Presentation Contexts

Table 2.2-18: Acceptable Presentation Contexts for TRANSPORT Web

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
All Storage SOP Classes listed in Table 2.2-1		Implicit VR, Little Endian	1.2.840.10008.1.2	SCP	no

2.2.1.4.2.3 SOP Specific Conformance – All Storage SOP Classes

The Storage Service of TRANSPORT Web only accepts objects that were requested by its Retrieve Service prior to the store operation with a MOVE operation.

The following error/warning status codes can be sent by TRANSPORT Web in the context of a C-STORE-RSP message:

Table 2.2-19: Response Status for Storage Operations

Service Status	Further Meaning	Error Code	Reason
Error	Not Authorized	0123	Objects are stored that have not been requested by the application.
Error	Unable to process	C000	Internal error.
Success		0000	

2.2.1.4.3 Storage Commitment

2.2.1.4.3.1 Description and Sequencing of Activity

A Storage Commitment Report is caused by a former Storage Commitment Request issued by TRANSPORT Web to the remote system. Since the association is immediately released after the response to the initial Storage Commitment N-ACTION Request is received, the peer AE is forced to send the N-EVENT-REPORT request containing the commitment result in a separate association, which has to be initiated – and released – by the peer AE.

2.2.1.4.3.2 Accepted Presentation Contexts

Table 2.2-20: Acceptable Presentation Contexts for TRANSPORT Web

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Extended Negotiation
Name	UID	Name List	UID List		
Storage Commitment Push Model SOP Class	1.2.840.10008.1.20.1	Implicit VR, Little Endian	1.2.840.10008.1.1	SCU	None

2.2.1.4.3.3 SOP Specific Conformance – Storage Commitment Push Model

If a complete success of the requested Storage Commitment is notified by the N-EVENT-REPORT any temporary import files for the workflow are deleted. If configured, a Key Object Rejection Note is sent to the source archive to delete the original data.

2.3 Network Interfaces

TRANSPORT Web provides DICOM V3.0 TCP/IP Network Communication Support as defined in PS 3.8 of the DICOM Standard. *TRANSPORT Web* inherits its TCP/IP stack from the computer system upon which it executes.

2.3.1 Physical Medium Support

TRANSPORT Web is indifferent to the physical medium over which TCP/IP executes; it inherits the medium from the computer system upon which it is being executed.

2.3.2 Additional Protocols

TRANSPORT Web may utilize the DNS protocol to resolve host-/domain-names to their IP address.

2.4 Configuration

2.4.1 AE Title/ Presentation Mapping

The mapping of Application Entity Titles (AETs) to presentation addresses is determined by the configuration which can be manipulated with the client application.

2.4.1.1 Local AE Titles

Table 2.4-1: AE Title Configuration Table

Application Entity	Default AE Title	Default TCP/IP Port
TRANSPORT Web	HERMES	5525

2.4.1.2 Remote AE Titles

None.

3 MEDIA INTERCHANGE

This section is not applicable because TRANSPORT Web neither creates nor reads DICOM interchange media.

4

SUPPORT FOR EXTENDED CHARACTER SETS

Support extends to correctly decoding and displaying the correct symbol in the supported character sets for all names and strings received over the network. To achieve this TRANSPORT Web converts all text to UTF8.

Sorting of text-strings is performed according to the locale configured for the application.

5 SECURITY

5.1 Security Profiles

TRANSPORT Web supports secure DICOM communication in conformance with the Basic TLS Secure Transport Connection Profile. DICOM user authentication is also supported.

5.2 Association Level Security

TRANSPORT Web does not support any Association Level Security.

5.3 Application Level Security

TRANSPORT Web requires users to authenticate with username and password in order to use any functionality.

6 ANNEXES

6.1 IOD Contents

6.1.1 Created SOP Instance(s)

TRANSPORT Web creates Key Objects (KO), Non-DICOM Import Objects (OT), Encapsulated PDF Storage Objects (SR) and Video Endoscopic Image Objects (ES).

Key Object Rejection Note Objects can be created to delete objects from a source archive after they have been successfully transferred to a destination archive.

If any Non-DICOM images that are supported by TRANSPORT Web are imported, the application creates one DICOM object of modality OT per import file.

Imported Office documents (PDF, Word, Excel, PowerPoint) will be encapsulated in DICOM objects of the type Encapsulated PDF Storage.

Videos will be imported by TRANSPORT Web as Video Endoscopic Image Objects of modality ES.

Table 6.1-1: IOD of KO SOP Instances

IE	Module	Reference	Presence of Module
Patient	Patient	Table 6.1-5	ALWAYS
Study	General Study	Table 6.1-6	ALWAYS
	Patient Study	Table 6.1-7	ALWAYS
Series	General Series	Table 6.1-8	ALWAYS
Equipment	General Equipment	Table 6.1-9	ALWAYS
Document	Key Object Document	Table 6.1-12	ALWAYS
	Document Content	Table 6.1-13	ALWAYS
	SOP Common	Table 6.1-10	ALWAYS

Table 6.1-2: IOD of OT SOP Instances

IE	Module	Reference	Presence of Module
Patient	Patient	Table 6.1-5	ALWAYS
Study	General Study	Table 6.1-6	ALWAYS
	Patient Study	Table 6.1-7	ALWAYS
Series	General Series	Table 6.1-8	ALWAYS
Equipment	General Equipment	Table 6.1-9	ALWAYS
Image	General Image	Table 6.1-14	ALWAYS
	Image Pixel	Table 6.1-11	ALWAYS
	SC Image	-	Module is always empty (no M fields)
	SOP Common	Table 6.1-10	ALWAYS

Table 6.1-3: IOD of Encapsulated Document

IE	Module	Reference	Presence of Module
Patient	Patient	Table 6.1-5	ALWAYS
Study	General Study	Table 6.1-6	ALWAYS
	Patient Study	Table 6.1-7	ALWAYS
Series	General Series	Table 6.1-8	ALWAYS
Equipment	General Equipment	Table 6.1-9	ALWAYS
Document	Encapsulated Document	Table 6.1-15	ALWAYS
	SOP Common	Table 6.1-10	ALWAYS

Table 6.1-4: IOD of ES SOP Instances

IE	Module	Reference	Presence of Module
Patient	Patient	Table 6.1-5	ALWAYS
Study	General Study	Table 6.1-6	ALWAYS
	Patient Study	Table 6.1-7	ALWAYS
Series	General Series	Table 6.1-8	ALWAYS
Equipment	General Equipment	Table 6.1-9	ALWAYS
Image	General Image	Table 6.1-14	ALWAYS
	Cine	Table 6.1-16	ALWAYS
	Multi-frame	Table 6.1-17	ALWAYS
	Image Pixel	Table 6.1-11	ALWAYS
	Acquisition Context	-	Module is always empty (no M fields)
	VL Image	Table 6.1-18	ALWAYS
	SOP Common	Table 6.1-10	ALWAYS

Table 6.1-5: Patient Module of created SOP Instances

Attribute Name	Tag	VR	Value	Presence of Value	Source
Patient's Name	(0010,0010)	PN	Obtained directly from referenced image	ALWAYS	AUTO
Patient ID	(0010,0020)	LO	Obtained directly from referenced image	ALWAYS	AUTO
Issuer of Patient ID	(0010,0021)	LO	Obtained directly from referenced image	VNAP	AUTO
Patient's Birth Date	(0010,0030)	DA	Obtained directly from referenced image	VNAP	AUTO
Patient's Sex	(0010,0040)	CS	Obtained directly from referenced image	VNAP	AUTO
Other Patient IDs	(0010,1000)	LO	Obtained directly from referenced image	VNAP	AUTO
Other Patient Names	(0010,1001)	PN	Obtained directly from referenced image	ANAP	AUTO
Ethnic Group	(0010,2160)	SH	Obtained directly from referenced image	VNAP	AUTO
Patient Comments	(0010,4000)	LT	Obtained directly from referenced image	VNAP	AUTO

Table 6.1-6: General Study Module of created SOP Instances

Attribute Name	Tag	VR	Value	Presence of Value	Source
Study Instance UID	(0020,000D)	UI	Generated by application	ALWAYS	AUTO
Study Date	(0008,0020)	DA	Generated by application: <yyyymmdd>	ALWAYS	AUTO
Study Time	(0008,0030)	TM	Generated by application : <hhmmss>	ALWAYS	AUTO
Referring Physician's Name	(0008,0090)	PN	Obtained directly from referenced image	VNAP	AUTO
Study ID	(0020,0010)	SH	Empty	VNAP	AUTO
Accession Number	(0008,0050)	SH	MWL/Generated by application/Empty	VNAP	AUTO
Study Description	(0008,1030)	LO	Introduced by user	ANAP	USER

Table 6.1-7: Patient Study Module of created SOP Instances

Attribute Name	Tag	VR	Value	Presence of Value	Source
Patient's Age	(0010,1010)	AS	Empty	ANAP	AUTO
Patient's Size	(0010,1020)	DS	Empty	ANAP	AUTO
Patient's Weight	(0010,1030)	DS	Empty	ANAP	AUTO

Table 6.1-8: General Series Module of created SOP Instances

Attribute Name	Tag	VR	Value	Presence of Value	Source
Modality	(0008,0060)	CS	OT for Non-DICOM Import Objects KO for Flags SR for Encapsulated PDF and Office Documents ES for Imported Video Objects	ALWAYS	AUTO
Series Instance UID	(0020,000E)	UI	Generated by application	ALWAYS	AUTO
Series Number	(0020,0011)	IS	Generated by application	ALWAYS	AUTO
Series Date	(0008,0021)	DA	<yyyymmdd> Sessions: Attribute not present	ANAP	AUTO
Series Time	(0008,0031)	TM	<hhmmss> Sessions: Attribute not present	ANAP	AUTO
Series Description	(0008,103E)	LO	Introduced by the user	ANAP	USER
Referenced Performed Procedure Step Sequence	(0008,1111)	SQ	Obtained directly from referenced image	ANAP	AUTO
>Referenced SOP Class UID	(0008,1150)	UI	Obtained directly from referenced image	ANAP	AUTO
>Referenced SOP Instance UID	(0008,1155)	UI	Obtained directly from referenced image	ANAP	AUTO

Attribute Name	Tag	VR	Value	Presence of Value	Source
Body Part Examined	(0018,0015)	CS	Obtained directly from referenced image Sessions : Attribute not present	ANAP	AUTO

Table 6.1-9: General Equipment Module of created SOP Instances

Attribute Name	Tag	VR	Value	Presence of Value	Source
Manufacturer	(0008,0070)	LO	Agfa Healthcare N.V.	VNAP	AUTO
Software Versions	(0018,1020)	LO	Generated by application (Program Version)	ANAP	AUTO

Table 6.1-10: SOP Common Module of created SOP Instances

Attribute Name	Tag	VR	Value	Presence of Value	Source
SOP Class UID	(0008,0016)	UI	Secondary Capture = 1.2.840.10008.5.1.4.1.1.7.4 Flags and Sessions = 1.2.840.10008.5.1.4.1.1.88.59 Encapsulated PDF Storage = 1.2.840.10008.5.1.4.1.1.104.1 Video Endoscopic Image Storage = 1.2.840.10008.5.1.4.1.1.77.1.1.1	ALWAYS	AUTO
SOP Instance UID	(0008,0018)	UI	Created by application	ALWAYS	AUTO
Specific Character Set	(0008,0005)	CS	Supported Character Sets listed in Chapter 4	ALWAYS	CONFIG
Instance Creation Date	(0008,0012)	DA	<yyyymmdd>	ALWAYS	AUTO
Instance Creation Time	(0008,0013)	TM	<hhmmss>	ALWAYS	AUTO
Instance Number	(0020,0013)	IS	Created by application	ALWAYS	AUTO

Table 6.1-11: Image Pixel Module of created SOP Instances

Attribute Name	Tag	VR	Value	Presence of Value	Source
Samples per Pixel	(0028,0002)	US	Generated by application	ALWAYS	AUTO
Photometric Interpretation	(0028,0004)	CS	RGB	ALWAYS	AUTO
Rows	(0028,0010)	US	Generated by application	ALWAYS	AUTO
Columns	(0028,0011)	US	Generated by application	ALWAYS	AUTO
Bits Allocated	(0028,0100)	US	Generated by application	ALWAYS	AUTO
Bits Stored	(0028,0101)	US	Generated by application	ALWAYS	AUTO
High Bit	(0028,0102)	US	Generated by application	ALWAYS	AUTO
Pixel Representation	(0028,0103)	US	Generated by application	ALWAYS	AUTO
Pixel Data	(7FE0,0010)	OW OB	Generated by application	ALWAYS	AUTO
Planar Configuration	(0028,0006)	US	Generated by application	VNAP	AUTO

Table 6.1-12: Key Object Document Module of created Flags SOP Instances

Attribute Name	Tag	VR	Value	Presence of Value	Source
Instance Number	(0020,0013)	IS	Generated by application	ALWAYS	AUTO
Content Date	(0008,0023)	DA	<yyyymmdd>	ANAP	AUTO
Content Time	(0008,0033)	TM	<hhmmss>	ANAP	AUTO
Current Requested Procedure Evidence Sequence	(0040,A375)	SQ	One or more items	ALWAYS	AUTO
>Study Instance UID	(0020,000D)	UI	Obtained from referenced image/s	ALWAYS	AUTO
>Referenced Series Sequence	(0008,1115)	SQ	One or more items	ALWAYS	AUTO
>>Series Instance UID	(0020,000E)	UI	Obtained from referenced image/s	ALWAYS	AUTO
>>Referenced SOP Sequence	(0008,1199)	SQ	One or more items	ALWAYS	AUTO
>>>Referenced SOP Class UID	(0008,1150)	UI	Obtained from referenced image/s	ALWAYS	AUTO
>>>Referenced SOP Instance UID	(0008,1155)	UI	Obtained from referenced image/s	ALWAYS	AUTO

Table 6.1-13: Key Object Document Content Module of created Flags SOP Instances

Attribute Name	Tag	VR	Value	Presence of Value	Source
Specific Character Set	(0008,0005)	CS	Generated by Application	ALWAYS	AUTO
Instance Number	(0020,0013)	IS	Generated by application	ALWAYS	AUTO
Content Date	(0008,0023)	DA	<yyyymmdd>	ANAP	AUTO
Content Time	(0008,0033)	TM	<hhmmss>	ANAP	AUTO
Concept Name Code Sequence	(0040,A043)	SQ	One or more Items	ALWAYS	AUTO
> Code Value	(0008,0100)	SH	Generated by Application	ALWAYS	AUTO
>Coding Scheme Designator	(0008,0102)	SH	Generated by Application	ALWAYS	AUTO
>Code Meaning	(0008,0104)	LO	For Sessions: Key Object Description	ANAP	AUTO
Content Sequence	(0040,A730)	SQ	Some Items	ALWAYS	AUTO
>Relationship Type	(0040,A010)	CS	CONTAINS	ALWAYS	AUTO
>Value Type	(0040,A040)	CS	TEXT or IMAGE	ALWAYS	AUTO
Text Value	(0040,A160)	UT	For Sessions: Introduced by the user For Flags: Attribute not present	ANAP	USER
>Referenced SOP Sequence	(0008,1199)	SQ	Two or more items	ALWAYS	AUTO
>Referenced SOP Class UID	(0008,1150)	UI	Obtained from referenced image/s	ALWAYS	AUTO
>Referenced SOP Instance UID	(0008,1155)	UI	Obtained from referenced image/s	ALWAYS	AUTO

Table 6.1-14: General Image Module of created Flags SOP Instances

Attribute Name	Tag	VR	Value	Presence of Value	Source
Instance Number	(0020,0013)	IS	Generated by Application	ALWAYS	AUTO
Content Date	(0008,0023)	DA	Generated by Application	ALWAYS	AUTO
Content Time	(0008,0033)	TM	Generated by Application	ALWAYS	AUTO
Acquisition Date	(0008,0022)	DA	Generated by Application	ALWAYS	AUTO
Acquisition Time	(0008,0032)	TM	Generated by Application	ALWAYS	AUTO

Table 6.1-15: Encapsulated Document Module of created Flags SOP Instances

Attribute Name	Tag	VR	Value	Presence of Value	Source
Instance Number	(0020,0013)	IS	Generated by Application	ALWAYS	AUTO
Content Date	(0008,0023)	DA	Generated by Application	ALWAYS	AUTO
Content Time	(0008,0033)	TM	Generated by Application	ALWAYS	AUTO
Acquisition Date	(0008,0022)	DA	Generated by Application	ALWAYS	AUTO
Acquisition Time	(0008,0032)	TM	Generated by Application	ALWAYS	AUTO
Burned In Annotation	(0028,0301)	CS	NO	ALWAYS	AUTO
Document Title	(0042,0010)	ST	Name of imported file	ALWAYS	AUTO
Concept Name Code Sequence	(0040,A043)	SQ	Empty	ALWAYS	AUTO
MIMEType Of Encapsulated Document	(0042,0012)	LO	Generated by Application according to mime-	ALWAYS	AUTO
Encapsulated Document	(0042,0011)	OB	Data of imported file	ALWAYS	AUTO

Table 6.1-16: Cine Module of created Flags SOP Instances

Attribute Name	Tag	VR	Value	Presence of Value	Source
Frame Time	(0018,1063)	DS	40	ALWAYS	AUTO
Cine Rate	(0018,0040)	IS	25	ALWAYS	AUTO

Table 6.1-17: Multi-frame Module of created Flags SOP Instances

Attribute Name	Tag	VR	Value	Presence of Value	Source
Number Of Frames	(0028,0008)	IS	1	ALWAYS	AUTO
Frame Increment Pointer	(0028,0009)	AT	(0018,1063) FrameTime	ALWAYS	AUTO

Table 6.1-18: VL Image Module of created Flags SOP Instances

Attribute Name	Tag	VR	Value	Presence of Value	Source
Photometric Interpretation	(0028,0004)	CS	YBR_PARTIAL_422	ALWAYS	AUTO
Bits Allocated	(0028,0100)	US	8	ALWAYS	AUTO
Bits Stored	(0028,0101)	US	8	ALWAYS	AUTO
High Bit	(0028,0102)	US	7	ALWAYS	AUTO
Pixel Representation	(0028,0103)	US	0	ALWAYS	AUTO
Samples Per Pixel	(0028,0002)	US	3	ALWAYS	AUTO
Planar Configuration	(0028,0006)	US	0	ALWAYS	AUTO

6.1.2 Usage of Attributes from received IODs

No specific fields are required.

6.1.3 Attribute Mapping

Not applicable.

6.1.4 Coerced/ Modified Fields

TRANSPORT Web acting as SCU can modify attributes when importing objects and selecting a target patient via MWL or DICOM patient search.

Table 6.1-19: Coerced Fields by MWL search

Attribute Name	Tag
Accession Number	(0008,0050)
Issuer Of Patient ID	(0010,0021)
Other Patient IDs	(0010,1000)
Patient Birth Date	(0010,0030)
Patient ID	(0010,0020)
Patient Name	(0010,0010)
Patient Sex	(0010,0040)
Procedure Code Sequence	(0008,1032)
Study Date	(0008,0020)
Study Description	(0008,1030)
Study ID	(0020,0010)
Study Instance UID	(0020,000D)
Study Time	(0008,0030)
ReferencedStudySequence / Referenced SOP Class UID	(0008,1150)
ReferencedStudySequence / Referenced SOP Instance UID	(0008,1155)
Request Attributes Sequence / Requested Procedure Description	(0032,1060)
Request Attributes Sequence / Requested Procedure ID	(0040,1001)
Request Attributes Sequence / Scheduled Procedure Step Description	(0040,0007)
Request Attributes Sequence / Scheduled Procedure Step ID	(0040,0009)
Referenced Performed Procedure Step Sequence / SOPClass UID	(0008,0016)

Attribute Name	Tag
Referenced Performed Procedure Step Sequence / SOPInstance UID	(0008,0018)
Original Attributes Sequence / Attribute Modification Date Time	(0400,0562)
Original Attributes Sequence / Modifying System	(0400,0563)
Original Attributes Sequence / Original Attributes Sequence	(0400,0561)
Original Attributes Sequence / Reason For The Attribute Modification	(0400,0565)

Table 6.1-20: Coerced Fields by DICOM patient search

Attribute Name	Tag
Patient Name	(0010,0010)
Patient ID	(0010,0020)
Issuer Of Patient ID	(0010,0021)
Patient Birth Date	(0010,0030)
Patient Birth Time	(0010,0032)
Patient Sex	(0010,0040)
Other Patient IDs	(0010,1000)
Other Patient Names	(0010,1001)
Other Patient IDs Sequence	(0010,1002)

Table 6.1-21: Anonymized attributes that the user can modify

Attribute Name	Tag
Patient's Name	(0010,0010)
Patient ID	(0010,0020)
Study Description	(0008,1030)
Institution Name	(0008,0080)
Institutional Department Name	(0008,1040)
Clinical Trial Subject ID	(0012,0040)

Table 6.1-22: Anonymized attributes that the user can optionally preserve

Attribute Name	Tag
Patient Age	(0010,0040)
Patient Sex	(0010,1010)
Study Description	(0008,1030)
Series Description	(0008,103E)

Table 6.1-23: Attributes that are always cleared/removed/randomized during anonymization

Attribute Name	Tag
Accession Number	(0008,0050)
Additional Patient History	(0010,21B0)
Admitting Diagnoses Description	(0008,1080)
Context UID	(0008,0117)
Creator VersionUID	(0008,9123)
Current Patient Location	(0038,0300)
Derivation Description	(0008,2111)

Attribute Name	Tag
Device Serial Number	(0018,1000)
Device UID	(0018,1002)
Ethnic Group	(0010,2160)
Frame Of Reference UID	(0020,0052)
Instance Creator UID	(0008,0014)
Institution Address	(0008,0081)
Irradiation Event UID	(0008,3010)
Issuer Of Patient ID	(0010,0021)
Medical Record Locator	(0010,1090)
Multi Frame Source SOP InstanceUID	(0008,1167)
Name Of Physicians Reading Study	(0008,1060)
Occupation	(0010,2180)
Operators Name	(0008,1070)
Original Attributes Sequence	(0400,0561)
Other Patient IDs	(0010,1000)
Other Patient IDs Sequence	(0010,1002)
Other Patient Names	(0010,1001)
Patient Additional Position	(300A,0184)
Patient Address	(0010,1040)
Patient Age	(0010,1010)
Patient Birth Date	(0010,0030)
Patient Birth Name	(0010,1005)
Patient Birth Time	(0010,0032)
Patient Comments	(0010,4000)
Patient ID	(0010,0020)
Patient Institution Residence	(0038,0400)
Patient Mother Birth Name	(0010,1060)
Patient Sex	(0010,0040)
Patient Size	(0010,1020)
Patient Telephone Numbers	(0010,2154)
Patient Weight	(0010,1030)
Performing Physician Name	(0008,1050)
Physicians Of Record	(0008,1048)
Private Record UID	(0004,1432)
Referenced Frame Of Reference UID	(3006,0024)
Referenced SOP Instance UID	(0008,1155)
Referring Physician Address	(0008,0092)
Referring Physician Name	(0008,0090)
Referring Physician Telephone Numbers	(0008,0094)
Related Frame Of Reference UID	(3006,00C2)
Request Attributes Sequence	(0040,0275)
Requested Procedure ID	(0040,1001)
Requesting Physician	(0032,1032)
Requesting Service	(0032,1033)
Series Description	(0008,103E)
Series Instance UID	(0020,000E)
SOP Instance UID	(0008,0018)
Station Name	(0008,1010)
Study Comments	(0032,4000)

Attribute Name	Tag
Study ID	(0020,0010)
Study Instance UID	(0020,000D)
Synchronization Frame Of Reference UID	(0020,0200)

6.2 Data Dictionary of Private Attributes

No private attributes are defined.

6.3 Coded Terminology and Templates

The value for Code Meaning will be displayed for all code sequences. No local lexicon is provided to look up alternative code meanings.

6.4 Grayscale Image Consistency

Not applicable as the product does not display any DICOM images.

6.5 Standard Extended / Specialized / Private SOPs

None.

6.6 Private Transfer Syntaxes

None.