

# VersaSuite

## DICOM Conformance Statement

Version 3.0

# 1. Conformance Statement Overview

This document is structured as suggested in the DICOM Standard (PS 3.2, 2008).

SOP Classes	User of Service (SCU)	Provider of Service (SCP)
<b>Verification</b>		
Verification	Yes	Yes
<b>Transfer</b>		
Secondary Capture Image Storage	Yes	Yes
Multi-frame Grayscale Byte Secondary Capture Image Storage	Yes	Yes
Multi-frame True Color Secondary Capture Image Storage	Yes	Yes
Raw Data Storage	Yes	Yes
Visible Light Endoscopic Image Storage	Yes	Yes
Visible Light Microscopic Image Storage	Yes	Yes
Visible Light Photographic Image Storage	Yes	Yes
Video Endoscopic Image Storage	Yes	Yes
Video Microscopic Image Storage	Yes	Yes
Video Photographic Image Storage	Yes	Yes
Ophthalmic Photography 8 Bit Image Storage	Yes	Yes
Ophthalmic Tomography Image Storage	Yes	Yes
Encapsulated PDF Storage	Yes	Yes
<b>Query/Retrieve</b>		
Study Root Query/Retrieve Information Model - FIND	No	Yes
Study Root Query/Retrieve Information Model - MOVE	No	Yes
<b>Workflow Management</b>		
Modality Worklist Information Model - FIND	No	Yes
Storage Commitment Push Model	No	Yes

The VersaSuite AE does not support Media Interchange.

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## 3. Introduction

### 3.1 Revision History

Document Version	Author	Date	Change
1.0 DRAFT	USSI	2011-09-12	Initial revision for VersaSuite

### 3.2 Audience

This document is intended for hospital staff, health system integrators, software designers or implementers. The reader should have a basic understanding of DICOM.

### 3.3 Remarks

If another device matches this conformance statement based on the comparison with its own conformance statement, there is a chance, but no guarantee, that they interoperate. DICOM only deals with communication; it does not specify what is needed for certain applications to run on a device.

### 3.4 Definitions, Terms and Abbreviations

Abbreviation	Definition
AE	Application Entity
AET	Application Entity Title
DICOM	Digital Imaging and Communications in Medicine
ILE	Implicit Little Endian
IOD	Information Object Definition
JPG-1	JPEG Coding Process 1 transfer syntax; JPEG Baseline; ISO 10918-1
MWL	Modality Work List
MPG2	Motion Picture Expert Group 2; Abbreviation and synonym for video encoding and compression transfer syntax.
NB	Network Broker
RLE	Run Length Encoding
SCP	Service Class Provider
SCU	Service Class User
SOP	Service Object Pair, pair of user and provider.
SW	Software
TCP/IP	Transmission Control Protocol / Internet Protocol
UID	Unique Identifier
VL	Visible Light

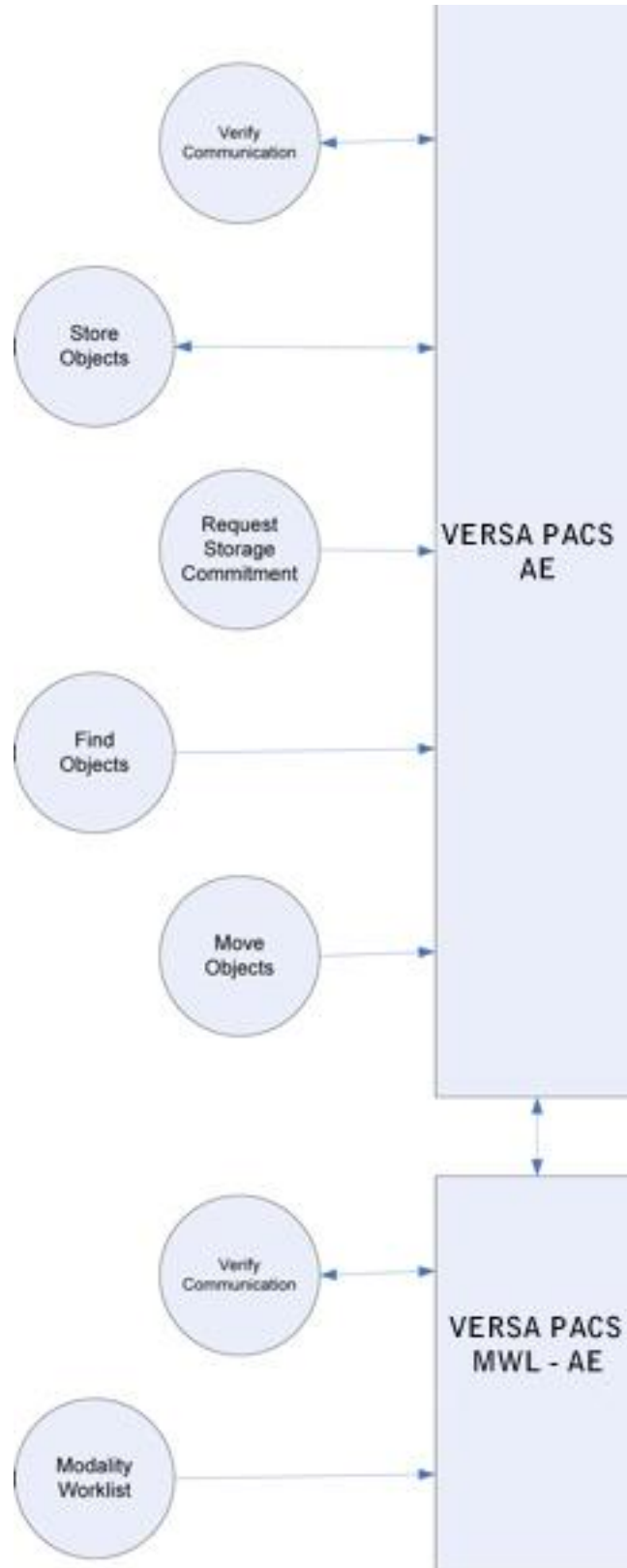
### 3.5 References

Digital Imaging and Communications in Medicine (DICOM), NEMA PS 3.1-3.18, 2008

## 4. Networking

### 4.1 Implementation Model

#### 4.1.1 Application Data Flow



The VersaSuite application Storage related activities and Worklist related activities are separate AEs.

## **4.1.2 Functional Definition of AEs**

### **4.1.2.1 Verification**

Both the VersaSuite AE and the VersaSuite MWL will respond to a DICOM C-Echo request from a remote AE in order to verify the communication. The VersaSuite AE can also initiate an association and request verification to a remote AE.

### **4.1.2.2 Receive Images**

The VersaSuite AE stores a received image in its internal data storage. The VersaSuite AE stores each image with the File Meta Information attached to it. The VersaSuite AE extracts the query information with respect to the patient, study, series, and instance, and stores this information in its internal index database.

### **4.1.2.3 Storage Commitment**

The VersaSuite AE acts as an SCP for Storage Commitment to take over the responsibility explicitly for storing received DICOM instances.

### **4.1.2.4 Query from other devices**

The VersaSuite AE responds to queries based on the information stored in its index database. When a DICOM query request is received, the VersaSuite AE converts the request into a corresponding database query. The results of the database query are then returned to the remote AE.

### **4.1.2.5 Retrieve to other devices**

The VersaSuite AE acts as an SCP for C-Move requests to retrieve DICOM instances.

### **4.1.2.6 Store to other devices**

The VersaSuite AE acts as an SCU for C-Store requests to transmit DICOM instances to a remote DICOM AE.

### **4.1.2.7 Modality Worklist**

The VersaSuite MWL AE returns a Modality Worklist item in response to a request from a remote AE. In order to return a worklist item, the user of the VersaSuite AE must schedule a patient using the MWL Scheduler UI. This information is cached in the local database. When a DICOM MWL request is received, the VersaSuite AE converts the request into a database query. The results of the database query are then returned via DICOM (as a MWL response) to the remote AE.

## 4.2 AE Specifications

### 4.2.1 VersaSuite Application Entity Specification

#### 4.2.1.1 SOP Classes

SOP Class Name	SOP Class UID	SCU	SCP
Verification	1.2.840.10008.1.1	Yes	Yes
Modality Worklist Information Model - FIND	1.2.840.10008.5.1.4.31	No	Yes
Ophthalmic Photography 8 Bit Image Storage	1.2.840.10008.5.1.4.1.1.77.1.5.1	Yes	Yes
Encapsulated PDF Storage	1.2.840.10008.5.1.4.1.1.104.1	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 True Color Secondary Capture Image Storage	1.2.840.10008.5.1.4.1.1.7.4	Yes	Yes
Raw Data Storage	1.2.840.10008.5.1.4.1.1.66	Yes	Yes
Visible Light Endoscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.1	Yes	Yes
Visible Light Microscopic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.2	Yes	Yes
Visible Light Photographic Image Storage	1.2.840.10008.5.1.4.1.1.77.1.4	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
Ophthalmic Tomography Image Storage	1.2.840.10008.5.1.4.1.1.77.1.5.4	Yes	Yes
Study Root Q/R Information Model – FIND	1.2.840.10008.5.1.4.1.2.2.1	No	Yes
Study Root Q/R Information Model – MOVE	1.2.840.10008.5.1.4.1.2.2.2	No	Yes
Storage Commitment Push Model	1.2.840.10008.1.20.1	No	Yes

#### 4.2.1.2 Associations Policies

Application Context Name	1.2.840.10008.3.1.1.1
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##### 4.2.1.2.1 General

Implementation Class UID	1.3.6.1.4.1.36376
Implementation Version Name	VersaSuite

The VersaSuite SW is configured to use two separate AEs for Storage and Worklist related activities.

##### 4.2.1.2.2 Number of Associations

Maximum number of simultaneous associations	99 per AE
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The maximum number of association applies per AE.

##### 4.2.1.2.3 Asynchronous Nature

VersaSuite does not support asynchronous communication (multiple outstanding transactions over a single Association).

##### 4.2.1.2.4 Implementation Identifying Information

#### 4.2.1.3 Association Initiation Policy

##### 4.2.1.3.1 Activity – Verification (SCU)

###### 4.2.1.3.1.1 Description and Sequencing of Activities

The VersaSuite AE sends DICOM Verification requests when the user requests a test of validity of a DICOM connection through the GUI.

#### 4.2.1.3.1.2 Proposed Presentation Contexts

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext. Neg.
Name	UID	Name List	UID List		
Verification	1.2.840.10008.1.1	ILE	1.2.840.10008.1.2	SCU	No

4.2.1.3.1.3 SOP Specific Conformance – Verification The VersaSuite AE provides standard conformance to the DICOM Verification Service Class as an SCU.

#### 4.2.1.3.2 Activity – Store Objects (SCU)

##### 4.2.1.3.2.1 Description and Sequencing of Activities

The VersaSuite AE will transmit instances either driven by user requests through the UI, by an automated forwarding mechanism or as reaction to a received C-MOVE request. The automatic forwarding can be configured by the user through the UI. An association is established when the user or the forwarding mechanism initiates a transmit request. The VersaSuite AE will establish an association automatically in response to a C-MOVE request.

##### 4.2.1.3.2.2 Proposed Presentation Contexts

The VersaSuite AE may request any of the Presentation Contexts listed in the following table for Storage. The VersaSuite AE will only propose the transfer syntax used when the object was initially accepted by the server.

Presentation Context Table				
Abstract Syntax	Transfer Syntax		Role	Ext. Neg.
Name / UID	Name List	UID List		
All SOP classes listed in section "Transfer" in 1	Implicit VR Little Endian Explicit VR Little Endian Explicit VR Big Endian RLE Lossless JPEG Baseline JPEG Lossless JPEG 2000 (Lossless Only) JPEG 2000 MPEG2 MPML	1.2.840.10008.1.2 1.2.840.10008.1.2.1 1.2.840.10008.1.2.2 1.2.840.10008.1.2.5 1.2.840.10008.1.2.4.50 1.2.840.10008.1.2.4.70 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.90 1.2.840.10008.1.2.4.100	SCU	No

##### 4.2.1.3.2.3 SOP Specific Conformance – Store Objects

The VersaSuite AE provides limited Standard conformance to the DICOM Storage Service Class as an SCU: Neither is it guaranteed that the DICOM Default Transfer Syntax (Implicit VR Little Endian) is always proposed in a presentation context. Nor is an "on-the-fly" transcoding to the DICOM Default Transfer Syntax supported for instances received and stored in lossless compression.

A successful C-Store response status will not generate any actions.

#### 4.2.1.4 Association Acceptance Policy

##### 4.2.1.4.1 Activity – Verification (SCP) 4.2.1.4.1.1 Description and Sequencing of Activities

Both the VersaSuite AE and the VersaSuite MWL AE will respond to Verification requests to provide an SCU with the ability to determine if the respective AEs are able to receive and handle DICOM requests.

##### 4.2.1.4.1.2 Accepted Presentation Contexts 4.2.1.4.1.3 SOP Specific Conformance – Verification

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext. Neg.
Name	UID	Name List	UID List		
Verification	1.2.840.10008.1.1	ILE	1.2.840.10008.1.2	SCP	No



The VersaSuite provides standard conformance to the DICOM Verification Service Class as an SCP. One of the following status codes are returned:

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	Operation performed properly.

Both VersaSuite AE and the VersaSuite MWL AE will always accept a Presentation Context for the Verification SOP Class with the default DICOM transfer syntax.

#### 4.2.1.4.2 Activity – Store Objects (SCP)

##### 4.2.1.4.2.1 Description and Sequencing of Activities

The VersaSuite AE will store DICOM instances that are sent to it from a remote SCU. All images received by the VersaSuite AE can be retrieved at a later time from the VersaSuite AE.

##### 4.2.1.4.2.2 Accepted Presentation Contexts

Presentation Context Table				
Abstract Syntax	Transfer Syntax		Role	Ext. Neg.
Name / UID	Name List			
All SOP classes listed in section "Transfer" in chapter 1	Implicit VR Little Endian	1.2.840.10008.1.2	SCP	No
	Explicit VR Little Endian	1.2.840.10008.1.2.1		
	Explicit VR Big Endian RLE	1.2.840.10008.1.2.2		
	Lossless JPEG Baseline	1.2.840.10008.1.2.5		
	JPEG Lossless JPEG 2000	1.2.840.10008.1.2.4.50		
	(Lossless Only) JPEG 2000	1.2.840.10008.1.2.4.70		
	MPEG2 MPML	1.2.840.10008.1.2.4.90		
		1.2.840.10008.1.2.4.91		
		1.2.840.10008.1.2.4.100		

The MPEG2 MPML Transfer syntax is accepted only for the following SOP Classes:

- Video Endoscopic Image Storage
- Video Microscopic Image Storage
- Video Photographic Image Storage
- Ophthalmic Photography 8 Bit Image Storage

For the Encapsulated PDF and the Raw Storage SOP Classes, only the following Transfer Syntaxes are accepted:

- Implicit VR Little Endian
- Explicit VR Little Endian
- Explicit VR Big Endian

##### 4.2.1.4.2.3 SOP Specific Conformance – Store Objects

The VersaSuite AE conforms to the DICOM Storage Service Class as a Level 2 (Full) SCP. No elements are discarded or coerced by the VersaSuite AE. All Type 1, Type 2 and Type 3 attributes will be retained. Private attributes will be stored and included when the object is sent out later to a remote AE.

In case an instance is received with an SOP Instance UID (0008,0018) that is equal to an instance that is already present on the VersaSuite AE, the object will not be accepted.

One of the following Status codes are returned by the VersaSuite AE: The VersaSuite AE will accept any number of Presentation Contexts per association request. Any single Abstract Syntax may be specified more than once in an association request, if the Transfer Syntaxes differ between the Presentation Contexts.

Service Status	Further Meaning	Error Code	Description
Refused	Out Of Resources	A700	Error while allocating enough storage space.
	No Such SOP class	0118	If a SOP Class is used, which was not negotiated.
	Unrecognized Operation	0211	Unrecognized value in Command Filed
Error	Invalid Attribute Value	0106	Unsupported SOP Instance UID prefix.
	Processing Failure	0110	Unexpected internal errors.
	Duplicate SOP instance	0111	SOP Instance UID is already present in this archive while a new C-STORE request is being processed.

	Invalid Object Instance	0117	The series of an incoming C-STORE request is already attached to another study.
	Missing Attribute Value	0121	An Instance UID is missing.
	SOP class Not Supported	0122	Incoming SOP Class is not supported by VERSA PACS
	Unable To Process	C000	Unexpected internal errors.
Success	Success	0000	Operation performed properly.

Explicit VR Little Endian is preferred over Implicit VR Little Endian as the accepted Transfer Syntax when both Transfer Syntaxes are offered in a Presentation Context in an Associate Request.

For Verification, the VersaSuite AE will only accept association requests for known (configured) remote AEs.

#### 4.2.1.4.3 Activity – Request Storage Commitment (SCP)

##### 4.2.1.4.3.1 Description and Sequencing of Activities

The VersaSuite AE stores instances that are sent to it from a remote SCU. The request for Storage Commitment may then be transmitted to the VersaSuite AE together with a list of references to one or more DICOM SOP instances.

##### 4.2.1.4.3.2 Accepted Presentation Contexts

##### 4.2.1.4.3.3 SOP Specific Conformance – Storage Commitment

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext. Neg.
Name	UID	Name List	UID List		
Storage Commitment Push Model	1.2.840.10008.1.20.1	ILE	1.2.840.10008.1.2	SCP	No

The VersaSuite AE provides conformance to the DICOM Storage Commitment Service Class as an SCP.

The N-EVENT-REPORT message is always sent in a separate association from the N-ACTION operation.

For Storage Commitment operations, the VersaSuite AE will only accept association requests for known (configured) remote AEs.

#### 4.2.1.4.4 Activity – Find Objects (SCP)

4.2.1.4.4.1 Description and Sequencing of Activities The VersaSuite AE will respond to query requests that are sent to it by a remote SCU.

4.2.1.4.4.2 Accepted Presentation Contexts C-Find Extended Negotiation is supported: For the fields "Relational-queries" and "Date-time matching", the value "1" is returned, meaning that those are supported by the VersaSuite AE.

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext. Neg.
Name	UID	Name List	UID List		
Study Root Q/R Information Model – FIND	1.2.840.10008.5.1.4.1.2.2.1	ILE	1.2.840.10008.1.2	SCP	Yes

4.2.1.4.4.3 SOP Specific Conformance – Find Objects The VersaSuite AE provides standard conformance to the DICOM Query/Retrieve Service Class as an SCP.

The VersaSuite AE supports both Hierarchical Queries and the Relational-queries extended SCP behavior. Matching for PN VR attributes is always done case-insensitive.

The following tables contain detailed information on matching and returned keys.

**Study Level Attributes:**

Description	Tag	Matching Type
Study Instance UID	(0020,000D)	U S
Study ID	(0020,0010)	U S
Accession Number	(0008,0050)	U S
Study Date	(0008,0020)	U CDT
Study Time	(0008,0030)	U CDT
Modalities in Study	(0008,0061)	U S
Referring Physician's Name	(0008,0090)	U S *
Study Description	(0008,1030)	U S *
Admitting Diagnoses Description	(0008,1080)	U S *
Patient's Name	(0010,0010)	U S *
Patient ID	(0010,0020)	U S
Issuer of Patient ID	(0010,0021)	U S
Other Patient IDs	(0010,1000)	U S
Patient's Birth Date	(0010,0030)	U S R
Patient's Sex	(0010,0040)	U S
Ethnic Group	(0010,2160)	U S
Patient Comments	(0010,4000)	U S *

**Series Level Attributes:**

Description	Tag	Matching Type
Modality	(0008,0060)	U S
Series Number	(0020,0011)	U S
Series Instance UID	(0020,000E)	U S
Series Date	(0008,0021)	U CDT
Series Time	(0008,0031)	U CDT
Series Description	(0008,103E)	U S *
Laterality	(0020,0060)	U S
Number of Series Related Instances	(0020,1209)	return key only
Performing Physicians' Name	(0008,1050)	U S *
Manufacturer's Model Name	(0008,1090)	U S

**Instance Level Attributes:**

Description	Tag	Matching Type
Instance Number	(0020,0013)	U S
SOP Instance UID	(0008,0018)	U S
SOP Class UID	(0008,0016)	U S
Instance Creation Date	(0008,0012)	U CDT
Instance Creation Time	(0008,0013)	U CDT
Acquisition Date Time	(0008,002A)	U CDT
Icon Image Sequence	(0088,0200)	return key only
Image Laterality	(0020,0062)	U S

**Matching Types:**

U – Universal Matching S – Single value Matching \* – Wildcard Matching R – Range Matching CDT – Combined Date Time Matching UNIQUE – Unique query key for that level

The VersaSuite AE returns one of the following status codes in a C-FIND response: For C-FIND operations, the VersaSuite AE will only accept association requests for known (configured) remote AEs.

<b>Service Status</b>	<b>Further Meaning</b>	<b>Error Code</b>	<b>Description</b>
Refused	Out Of Resources	A700	Error while allocating enough storage space.
	No Such SOP class	0118	If a SOP Class is used, which was not negotiated.
Error	Unrecognized Operation	0211	Unrecognized value in Command Filed
	Invalid Attribute Value	0106	Unsupported SOP Instance UID prefix.
	Processing Failure	0110	Unexpected internal errors.
Refused	Duplicate SOP instance	0111	SOP Instance UID is already present in this archive while a new C-STORE request is being processed.
	No Such SOP class	0118	If a SOP Class is used, which was not negotiated.
Failed	Unrecognized Operation	0211	Unrecognized value in Command Filed
	Invalid Attribute Value	0106	Wrong query retrieve level
	Processing Failure	0110	Unexpected internal errors.
Cancel	Unable To Process	C000	Unexpected internal errors.
		FE00	The original requester canceled this operation.
Pending	Pending	FF00	All Optional Keys are supported in the same manner as Required Keys.
Success	Success	0000	Operation performed properly.

#### 4.2.1.4.5 Activity – Move Objects (SCP)

##### 4.2.1.4.5.1 Description and Sequencing of Activities

The VersaSuite AE will respond to C-MOVE requests that are sent to it by a remote SCU. The VersaSuite AE will establish a new Association with the remote AE specified in the Move Destination for the CSTORE sub operation. The VersaSuite AE will always only propose the transfer syntax used when the object was initially sent to the server.

##### 4.2.1.4.5.2 Accepted Presentation Contexts

##### 4.2.1.4.5.3 SOP Specific Conformance – Move Objects

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext. Neg.
Name	UID	Name List	UID List		
Study Root Q/R Information Model – MOVE	1.2.840.10008.5.1.4.1.2.2.2	ILE	1.2.840.10008.1.2	SCP	No

The VersaSuite AE will establish an association with the destination specified in the C-MOVE request. One or more of the Presentation Contexts listed in chapter 4.2.1.4.2.2 may be negotiated in this association.

The VersaSuite AE returns one of the following status codes in a C-MOVE response:

Service Status	Further Meaning	Error Code	Description
Refused	No Such SOP class	0118	If a SOP Class is used, which was not negotiated.
	Unrecognized Operation	0211	Unrecognized value in Command Filed
Error	Processing Failure	0110	Unexpected internal errors.
	No Such Object Instance	0112	C-MOVE request for non existing SOP instance
	Unable To Process	C000	Unexpected internal errors.
Success	Success	0000	Operation performed properly.

#### 4.2.1.4.6 Activity – Query Modality Worklist (SCP)

##### 4.2.1.4.6.1 Description and Sequencing of Activities

The VersaSuite MWL AE will respond to DICOM C-FIND requests in response to a remote AE querying for a Modality Worklist. Before the VersaSuite MWL AE can respond to a DICOM Modality Worklist query, the integrated MWL Scheduler UI needs to be used by the user to schedule Procedure Steps.

##### 4.2.1.4.6.2 Accepted Presentation Contexts

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext. Neg.
Name	UID	Name List	UID List		
Modality Worklist Information Model - FIND	1.2.840.10008.5.1.4.31	ILE	1.2.840.10008.1.2	SCP	Yes

C-Find Extended Negotiation is supported: For the field "Date-time matching" the value "1" is returned, meaning that this is supported by the VersaSuite AE.

##### 4.2.1.4.6.3 SOP Specific Conformance – MWL

The VersaSuite MWL AE provides standard conformance to the DICOM Basic Worklist Management Service Class. The VersaSuite application can be configured to use only one AE for MWL and all the other described transactions.

The following table contains detailed information on matching and returned keys:

Description	Tag	Matching Type
Scheduled Procedure Step Sequence	(0040,0100)	
>Scheduled Station AE Title	(0040,0001)	U S
>Scheduled Procedure Step Start Date	(0040,0002)	U CDT
>Scheduled Procedure Step Start Time	(0040,0003)	U CDT
>Modality	(0008,0060)	U S
Requested Procedure ID	(0040,1001)	U S
Accession Number	(0008,0050)	U S
Patient's Name	(0010,0010)	U S *
Patient ID	(0010,0020)	U S
Issuer of Patient ID	(0010,0021)	U S
Patient's Birth Date	(0010,0030)	U S R
Patient's Sex	(0010,0040)	U S

The following table contains the supported return keys:

Description	Tag
Scheduled Procedure Step Sequence	(0040,0100)
>Scheduled Station AE Title	(0040,0001)
>Scheduled Procedure Step Start Date	(0040,0002)
>Scheduled Procedure Step Start Time	(0040,0003)
>Modality	(0008,0060)
>Scheduled Performing Physician's Name	(0040,0006)
>Scheduled Procedure Step Description	(0040,0007)
> Scheduled Protocol Code Sequence	(0040,0008)
>> Code Meaning	(0008,0104)
>> Code Value	(0008,0100)
>> Coding Scheme Designator	(0008,0102)
>> Coding Scheme Version	(0008,0103)
>Scheduled Procedure Step ID	(0040,0009)
Requested Procedure ID	(0040,1001)
Requested Procedure Description	(0032,1060)
Study Instance UID	(0020,000D)
Study Date (=Scheduled Procedure Step Start Date)	(0008,0020)
Study Time (=Scheduled Procedure Step Start Time)	(0008,0030)
Accession Number	(0008,0050)
Requesting Physician	(0032,1032)
Requested Procedure Code Sequence (=Scheduled Protocol Code Sequence)	(0032,1064)
> Code Meaning	(0008,0104)
> Code Value	(0008,0100)
> Coding Scheme Designator	(0008,0102)
> Coding Scheme Version	(0008,0103)
Referring Physician's Name	(0008,0090)
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)
Other Patient IDs	(0010,1000)
Ethnic Group	(0010,2160)
Patient Comments	(0010,4000)

VersaSuite MWL AE returns one of the following status codes in a C-FIND response:

Service Status	Further Meaning	Error Code	Description
Refused	No Such SOP class	0118	If a SOP Class is used, which was not negotiated.
	Unrecognized Operation	0211	Unrecognized value in Command Filed
Failed	Processing Failure	0110	Unexpected internal errors.
	Unable To Process	C000	Unexpected internal errors.
Cancel		FE00	The original requester canceled this operation.
Pending	Pending	FF00	All Optional Keys are supported in the same manner as Required Keys.
Success	Success	0000	Operation performed properly.

## **4.3 Network Interfaces**

### **4.3.1 Physical Network Interface**

The physical network interface is not visible for the applications. The application uses the communication stack as offered by the Operating System.

### **4.3.2 Additional Protocols**

No additional protocols are supported.

## 4.4 Configuration

### 4.4.1 AE Title/Presentation Address Mapping

The translation from Application Entity Title to Presentation Address (TCP/IP address) is stored in the local database. Along with this mapping, the database stores those AE titles that are allowed to communicate with the VersaSuite AE and the VersaSuite MWL AW.

#### 4.4.1.1 Local AE Titles

The IP is not configurable. The IP is administrated by the Operating System. The AE titles for the VersaSuite AE and the VersaSuite MWL AE is configurable. The VersaSuite application can be configured to use only one AE for all transactions.

#### 4.4.1.2 Remote AE Titles

The mapping of external AE Titles to TCP/IP addresses and ports is configurable.



## 5. Media Interchange

Media Interchange is not scope of this document since Media Interchange is not supported by VersaSuite.

## 6. Support of Character Sets

Supported Specific Character Set	
Character Set Description	Defined Term
Unicode	ISO_IR 192

## 7. Security

The DICOM capabilities of the VersaSuite Application do not support any specific security measures. It is assumed that VersaSuite is used within a secured environment. It is assumed that a secured environment includes at a minimum:

- Firewall or router protections to ensure that only approved external hosts have network access to VersaSuite.
- Firewall or router protections to ensure that VersaSuite only has network access to approved external hosts and services.
- Any communication with external hosts and services outside the locally secured environment use

Appropriate secure network channels (e.g. such as a Virtual Private Network (VPN)) Other network security procedures such as automated intrusion detection may be appropriate in some environments. Additional security features may be established by the local security policy and are beyond the scope of this conformance statement.

## 8. Annexes

### 8.1 IOD Contents

#### 8.1.1 Created SOP Instance(s)

VersaSuite does not create instances.

#### 8.1.2 Usage of Attributes From Received IOD's

#### 8.1.3 Attribute Mapping

#### 8.1.4 Coerced/Modified Files

No coercion of elements is done by VersaSuite.

### 8.2 Data Dictionary of Private Attributes

VersaSuite does not use any own private attributes.

### 8.3 Private Transfer Syntaxes

No Private Transfer Syntaxes are supported.