

GE HEALTHCARE  
STATEMENT

DIRECTION DOC2652554 REV 3

**A.3.3 Ultrasound Multi-frame Image IOD Specific Private Modules**

N/A

**A.3.4 Ultrasound Multi-frame Image IOD Specific Values and Code Sets**

N/A

**A.4 Secondary Capture Image IOD**

The following table defines the structure of Secondary Capture Image IOD.

**TABLE A.4.1  
SECONDARY CAPTURE IMAGE IOD**

Module Name	Presence (Module)	Condition	Reference
Patient	ALWAYS		Table A.1.1
General Study	ALWAYS		Table A.1.1
Patient Study	ALWAYS		Table A.1.1
General Series	ALWAYS		Table A.1.1
General Equipment	ALWAYS		Table A.1.1
SC Equipment	ALWAYS		Table A.4.2
General Image	ALWAYS		Table A.1.1
Image Pixel	ALWAYS		Table A.1.1
SC Image	ALWAYS		Table A.4.2
VOI LUT	ALWAYS		Table A.1.1
SOP Common	ALWAYS		Table A.1.1

**A.4.1 Secondary Capture Image IOD Specific Modules**

**TABLE A.4.2  
SECONDARY CAPTURE IMAGE IOD SPECIFIC MODULES**

Attribute Name	Tag	Source	Presence (Attribute)	Presence (Value)	Value	Conditions	Comment
<b>SC Equipment</b>							
Modality	(0008,0060)	FIXED	ALWAYS	ALWAYS	"US"		
Conversion Type	(0008,0064)	FIXED	ALWAYS	ALWAYS	"WSD"		
Secondary Capture Device ID	(0018,1010)	FIXED	ALWAYS	ALWAYS	Same as the value of (0008,1090) "Manufacturer's Model Name"		

GE HEALTHCARE  
STATEMENT

DIRECTION DOC2652554 REV 3

Secondary Capture Device Manufacturer	(0018,1016)	FIXED	ALWAYS	ALWAYS	Same as the value of (0008,0070) "Manufacturer"		
Secondary Capture Device Manufacturer's Model Name	(0018,1018)	FIXED	ALWAYS	ALWAYS	Same as the value of (0008,1090) "Manufacturer's Model Name"		
Secondary Capture Device Software Versions	(0018,1019)	FIXED	ALWAYS	ALWAYS	Same as the value of (0018,1020) "Software Versions"		
<b>SC Image</b>							
Date of Secondary Capture	(0018,1012)	GENERATED	ALWAYS	ALWAYS			
Time of Secondary Capture	(0018,1014)	GENERATED	ALWAYS	ALWAYS			

**A.4.2 Secondary Capture Image IOD Specific Functional Group Macros**

N/A

**A.4.3 Secondary Capture Image IOD Specific Private Modules**

N/A

**A.4.4 Secondary Capture Image IOD Specific Values and Code Sets**

N/A

**A.5 Basic Directory IOD**

The following table defines the structure of the Basic Directory IOD:

**TABLE A.5.1  
BASIC DIRECTORY IOD MODULES**

Module Name	Presence (Module)	Condition	Reference
File Set Identification	ALWAYS		Table A.5.1
Directory Information	ALWAYS		Table A.5.1

**A.5.1 Basic Directory IOD Specific Modules**

**TABLE A.5.2  
BASIC DIRECTORY IOD SPECIFIC MODULES**

Attribute Name	Tag	Source	Presence (Attribute)	Presence (Value)	Value	Conditions	Comment
<b>File Set Identification Module</b>							
File-set ID	(0004,1130)	FIXED	ALWAYS	ALWAYS	Empty		
<b>Directory Information Module</b>							
Offset of the First Directory Record of the Root Directory Entity	(0004,1200)	GENERATED	ALWAYS	ALWAYS			
Offset of the Last Directory Record of the Root Directory Entity	(0004,1202)	GENERATED	ALWAYS	ALWAYS			
File-set Consistency Flag	(0004,1212)	GENERATED	ALWAYS	ALWAYS	0	If FSC/FSU. Ignored when reading (if FSR)	0 = no known inconsistencies
Directory Record Sequence	(0004,1220)	GENERATED	ALWAYS	ALWAYS			Is created by FSC
>Offset of the Next Directory Record	(0004,1400)	GENERATED	ALWAYS	ALWAYS			
>Record In-use Flag	(0004,1410)	GENERATED	ALWAYS	ALWAYS	FFFFH (65535)	If FSC/FSU	The whole record is skipped during reading (if FSR) if the value is 0.
>Offset of Referenced Lower-Level Directory Entity	(0004,1420)	GENERATED	ALWAYS	ALWAYS			
>Directory Record Type	(0004,1430)	SRC_INSTANCE, GENERATED	ALWAYS	ALWAYS	PATIENT, STUDY, SERIES, IMAGE, SR DOCUMENT		These are the supported values when writing

GE HEALTHCARE  
STATEMENT

DIRECTION DOC2652554 REV 3

>Referenced File ID	(0004,1500)	GENERATED	CONDITIONAL	CONDITIONAL	File path consisting of 5 elements: 1.GEMS_IMG or GEMS_REP 2.Month of exam 3.Day of exam 4.Patient initials and time of exam 5.Time stamp	Set only if Record Type is IMAGE or SR DOCUMENT	GEMS_IMG" Is used if IMAGE. GEMS_REP is used if SR DOCUMENT.
>Referenced SOP Class UID in File	(0004,1510)	GENERATED	CONDITIONAL	ALWAYS		Set only if Record Type is IMAGE or SR DOCUMENT	
>Referenced SOP Instance UID in File	(0004,1511)	GENERATED	CONDITIONAL	ALWAYS		Set only if Record Type is IMAGE or SR DOCUMENT	
>Referenced Transfer Syntax UID in File	(0004,1512)	GENERATED	CONDITIONAL	ALWAYS		Set only if Record Type is IMAGE or SR DOCUMENT	
>Record Selection Keys							See Table A.5.3 – Table A.5.7

**A.5.2 Basic Directory IOD Specific Functional Group Macros**

The records in the Directory Records Sequence are filled with additional attributes depending on the Record Type, as described in the below tables.

The following comment is referenced in the below tables:

- 1) Is filled in by FSC and FSU as in chapters 4, 5, 6 and 7.

**TABLE A.5.3**  
**ATTRIBUTES SPECIFIC TO RECORD TYPE PATIENT**

Attribute Name	Tag	Source	Presence (Attribute)	Presence (Value)	Value	Conditions	Comment
Specific Character Set	(0008,0005)	GENERATED	CONDITIONAL	CONDITIONAL			See 1)
Patient's Name	(0010,0010)	USER/MWL	ALWAYS	CONDITIONAL			
Patient ID	(0010,0020)	USER/MWL	ALWAYS	CONDITIONAL			See 1). If empty, a Patient Id is created by the equipment.
Patient's Birth Date	(0010,0030)	USER/MWL	ALWAYS	CONDITIONAL			See 1)

**GE HEALTHCARE  
STATEMENT**

**VIVID AND ECHOPAC V206  
CONFORMANCE**

**DIRECTION DOC2652554 REV 3**

Patient's Sex	(0010,0040)	USER/MWL	ALWAYS	CONDITIONAL			See 1)
Referenced Patient Sequence	(0008,1120)	SRC_INSTANCE	CONDITIONAL	CONDITIONAL		Taken from worklist if it is there.	See 1)
>Referenced SOP Class UID	(0008,1150)	MWL	ALWAYS	CONDITIONAL			See 1)
>Referenced SOP Instance UID	(0008,1155)	MWL	ALWAYS	CONDITIONAL			See 1)
Patient's Birth Time	(0010,0032)	USER/MWL	ALWAYS	CONDITIONAL			See 1)
Other Patient Ids	(0010,1000)	USER/MWL	ALWAYS	CONDITIONAL			See 1)
Other Patient Names	(0010,1001)	SRC_INSTANCE	CONDITIONAL	CONDITIONAL		Taken from source image if there	See 1)
Ethnic Group	(0010,2160)	MWL	ALWAYS	CONDITIONAL			See 1)
Patient Comments	(0010,4000)	MWL	ALWAYS	CONDITIONAL			See 1)

**TABLE A.5.4  
ATTRIBUTES SPECIFIC TO RECORD TYPE STUDY**

Attribute Name	Tag	Source	Presence (Attribute)	Presence (Value)	Value	Conditions	Comment
Specific Character Set	(0008,0005)	GENERATED	CONDITIONAL	CONDITIONAL			See 1)
Study Date	(0008,0020)	GENERATED	ALWAYS	ALWAYS			See 1). If empty, a Study Date is created by the equipment.
Study Time	(0008,0030)	GENERATED	ALWAYS	ALWAYS			See 1). If empty, a Study Time is created by the equipment.
Accession Number	(0008,0050)	USER/MWL	ALWAYS	CONDITIONAL			See 1)
Referring Physician's Name	(0008,0090)	USER/MWL	ALWAYS	CONDITIONAL			See 1)
Study Description	(0008,1030)	USER/MWL	ALWAYS	CONDITIONAL			See 1)
Physician(s) of Record	(0008,1048)	MWL	CONDITIONAL	CONDITIONAL			See 1)
Name of Physician(s) Reading Study	(0008,1060)	SRC_INSTANCE	CONDITIONAL	CONDITIONAL		Taken from source image if there	See 1)
Referenced Study Sequence	(0008,1110)	FIXED	ALWAYS	ALWAYS	Empty		See 1)

**VIVID AND ECHOPAC V206  
CONFORMANCE**

**GE HEALTHCARE  
STATEMENT**

**DIRECTION DOC2652554 REV 3**

>Referenced SOP Class UID	(0008,1150)	MWL	ALWAYS	CONDITIONAL			See 1)
>Referenced SOP Instance UID	(0008,1155)	MWL	ALWAYS	CONDITIONAL			See 1)
Admitting Diagnoses Description	(0008,1080)	SRC_INSTANCE	CONDITIONAL	CONDITIONAL		Taken from source image if there	See 1)
Patient's Age	(0010,1010)	SRC_INSTANCE	CONDITIONAL	CONDITIONAL		Taken from source image if there	See 1)
Patient's Size	(0010,1020)	USER/MWL	ALWAYS	CONDITIONAL			See 1)
Patient's Weight	(0010,1030)	USER/MWL	ALWAYS	CONDITIONAL			See 1)
Occupation	(0010,2180)	SRC_INSTANCE	CONDITIONAL	CONDITIONAL		Taken from source image if there	See 1)
Additional Patient's History	(0010,2180)	USER/MWL	CONDITIONAL	CONDITIONAL			See 1)
Study Instance UID	(0020,000D)	GENERATED/MWL	ALWAYS	CONDITIONAL			See 1)
Study ID	(0020,0010)	USER/MWL	ALWAYS	CONDITIONAL			See 1). If empty, a Study Id is created by the equipment.

**TABLE A.5.5  
ATTRIBUTES SPECIFIC TO RECORD TYPE SERIES**

Attribute Name	Tag	Source	Presence (Attribute)	Presence (Value)	Value	Conditions	Comment
Specific Character Set	(0008,0005)	GENERATED	CONDITIONAL	CONDITIONAL			Is filled in by FSC or FSU as contained in the image or SR document message, if one of the tags contains extended characters
Series Date	(0008,0021)	GENERATED	ALWAYS	ALWAYS			As in 1) if the instance is IMAGE.
Series Time	(0008,0031)	GENERATED	ALWAYS	ALWAYS			As in 1) if the instance is IMAGE.
Modality	(0008,0060)	GENERATED	ALWAYS	ALWAYS	"US" or "SR"		See 1)
Manufacturer	(0008,0070)	FIXED	ALWAYS	ALWAYS	See Table A.1.3		See 1)

VIVID AND ECHOPAC V206  
CONFORMANCE

GE HEALTHCARE  
STATEMENT

DIRECTION DOC2652554 REV 3

Institution Name	(0008,0080)	CONFIGURATIO N	CONDITIONAL	CONDITIONAL			See 1)
Station Name	(0008,1010)	CONFIGURATIO N	ALWAYS	ALWAYS			See 1)
Series Description	(0008,103E)	USER	ALWAYS	CONDITIONAL			As in 1) if the instance is IMAGE.
Institutional Department Name	(0008,1040)	USER/ CONFIGURATIO N	CONDITIONAL	CONDITIONAL			See 1)
Performing Physicians' Name	(0008,1050)	USER/MWL	CONDITIONAL	CONDITIONAL			As in 1) if the instance is IMAGE.
Operator's Name	(0008,1070)	USER/ CONFIGURATIO N	ALWAYS	CONDITIONAL			As in 1) if the instance is IMAGE.
Manufacturer's Model Name	(0008,1090)	GENERATED	ALWAYS	ALWAYS			See 1)
Referenced Performed Procedure Step Sequence	(0008,1111)	SRC_INSTANCE	CONDITIONAL	CONDITIONAL		Used if Modality Performed Procedure Step is enabled.	See 1)
>Referenced SOP Class UID	(0008,1150)	SRC_INSTANCE	ALWAYS	ALWAYS			See 1)
>Referenced SOP Instance UID	(0008,1155)	SRC_INSTANCE	ALWAYS	ALWAYS			See 1)
Software Versions	(0018,1020)	GENERATED	ALWAYS	ALWAYS			See 1)
Protocol Name	(0018,1030)	CONFIGURATIO N	CONDITIONAL	CONDITIONAL			As in 1) if the instance is IMAGE.
Series Instance UID	(0020,000E)	GENERATED	ALWAYS	ALWAYS			See 1)
Series Number	(0020,0011)	GENERATED	ALWAYS	ALWAYS			See 1). If empty, a Series Number is created by the equipment.
Performed Procedure Step Start Date	(0040,0244)	GENERATED	CONDITIONAL	CONDITIONAL			As in 1) if the instance is IMAGE.
Performed Procedure Step Start Time	(0040,0245)	GENERATED	CONDITIONAL	CONDITIONAL			As in 1) if the instance is IMAGE.
Performed Procedure Step ID	(0040,0253)	SRC_INSTANCE	CONDITIONAL	CONDITIONAL		Used if Modality Performed Procedure Step is enabled.	As in 1) if the instance is IMAGE.

VIVID AND ECHOPAC V206  
CONFORMANCE

GE HEALTHCARE  
STATEMENT

DIRECTION DOC2652554 REV 3

Performed Procedure Step Description	(0040,0254)	GENERATED	CONDITIONAL	CONDITIONAL		Used if Modality Performed Procedure Step is enabled.	As in 1) if the instance is IMAGE.
Performed Protocol Code Sequence	(0040,0260)	MWL/ CONFIGURATIO N	CONDITIONAL	CONDITIONAL		Taken from worklist or selected protocol.	
Request Attributes Sequence	(0040,0275)		ALWAYS	CONDITIONAL		The content depends on the available values	As in 1) if the instance is IMAGE.
>Scheduled Procedure Step Description	(0040,0007)	MWL	CONDITIONAL	CONDITIONAL		Taken from worklist	As in 1) if the instance is IMAGE.
>Scheduled Protocol Code Sequence	(0040,0008)	MWL	CONDITIONAL	CONDITIONAL		Taken from worklist	As in 1) if the instance is IMAGE.
>Scheduled Procedure Step ID	(0040,0009)	MWL	CONDITIONAL	CONDITIONAL		Taken from worklist	As in 1) if the instance is IMAGE.
>Requested Procedure ID	(0040,1001)	MWL	CONDITIONAL	CONDITIONAL		Taken from worklist	As in 1) if the instance is IMAGE.

**TABLE A.5.6**  
**ATTRIBUTES SPECIFIC TO RECORD TYPE IMAGE**

Attribute Name	Tag	Source	Presence (Attribute)	Presence (Value)	Value	Conditions	Comment
Specific Character Set	(0008,0005)	GENERATED	CONDITIONAL	CONDITIONAL			See 1)
Image Type	(0008,0008)	GENERATED	ALWAYS	ALWAYS			See 1)
Content Date	(0008,0023)	GENERATED	ALWAYS	ALWAYS			See 1)
Content Time	(0008,0033)	GENERATED	ALWAYS	ALWAYS			See 1)
Contrast/Bolus Agent	(0018,0010)	USER	CONDITIONAL	CONDITIONAL			See 1)
Instance Number	(0020,0013)	GENERATED	ALWAYS	ALWAYS			See 1). If empty, an Instance Number is created by the equipment.
Photometric Interpretation	(0028,0004)	GENERATED	ALWAYS	ALWAYS			See 1)
Number Of Frames	(0028,0008)	GENERATED	ALWAYS	ALWAYS			See 1)
Rows	(0028,0010)	GENERATED	ALWAYS	ALWAYS			See 1)

**GE HEALTHCARE  
STATEMENT**

**VIVID AND ECHOPAC V206  
CONFORMANCE**

**DIRECTION DOC2652554 REV 3**

Columns	(0028,0011)	GENERATED	ALWAYS	ALWAYS			See 1)
Lossy Image Compression	(0028,2110)	GENERATED	CONDITIONAL	ALWAYS			See 1)
Lossy Image Compression Ratio	(0028,2112)	GENERATED	CONDITIONAL	ALWAYS			See 1)

**TABLE A.5.7  
ATTRIBUTES SPECIFIC TO RECORD TYPE SR DOCUMENT**

Attribute Name	Tag	Source	Presence (Attribute)	Presence (Value)	Value	Conditions	Comment
Specific Character Set	(0008,0005)	GENERATED	CONDITIONAL	CONDITIONAL			See 1)
Content Date	(0008,0023)	GENERATED	ALWAYS	ALWAYS			See 1)
Content Time	(0008,0033)	GENERATED	ALWAYS	ALWAYS			See 1)
Instance Number	(0020,0013)	GENERATED	ALWAYS	ALWAYS			See 1). If empty, an Instance Number is created by the equipment.
Concept Name Code Sequence	(0040,A043)	GENERATED	ALWAYS	ALWAYS			See 1)
Completion Flag	(0040,A491)	FIXED	ALWAYS	ALWAYS	PARTIAL		See 1)
Verification Flag	(0040,A493)	FIXED	ALWAYS	ALWAYS	UNVERIFIED		See 1)

**A.5.3 Basic Directory IOD Specific Private Modules**

N/A

**A.5.4 Basic Directory IOD Specific Values and Code Sets**

N/A

**A.6 Comprehensive SR IOD**

The following table defines the structure of the Comprehensive Structured Report IOD:

**TABLE A.6.1  
COMPREHENSIVE SR IOD MODULES**

Module Name	Presence (Module)	Condition	Reference
Patient	ALWAYS		Table A.1.1
General Study	ALWAYS		Table A.1.1
Patient Study	ALWAYS		Table A.1.1
SR Document Series	ALWAYS		Table A.6.2
General Equipment	ALWAYS		Table A.1.1
SR Document General	ALWAYS		Table A.6.2

**GE HEALTHCARE  
STATEMENT**

**VIVID AND ECHOPAC V206  
CONFORMANCE**

**DIRECTION DOC2652554 REV 3**

SR Document Content	ALWAYS		Table A.6.2
SOP Common	ALWAYS		Table A.1.1

**A.6.1 Comprehensive SR IOD Specific Modules**

**TABLE A.6.2  
COMPREHENSIVE SR SPECIFIC MODULES**

Attribute Name	Tag	Source	Presence (Attribute)	Presence (Value)	Value	Conditions	Comment
<b>SR Document Series</b>							
Modality	(0008,0060)	FIXED	ALWAYS	ALWAYS	SR		
Referenced Performed Procedure Step Sequence	(0008,1111)	GENERATED	ALWAYS	ALWAYS	Performed Procedure Step SOP Instance.	If MPPS enabled.	
					Empty.	If MPPS disabled.	
>Referenced SOP Class UID	(0008,1150)	GENERATED	CONDITIONAL	ALWAYS		Used if Modality Performed Procedure Step is enabled.	
>Referenced SOP Instance UID	(0008,1155)	GENERATED	CONDITIONAL	ALWAYS		Used if Modality Performed Procedure Step is enabled.	
Series Instance UID	(0020,000E)	GENERATED	ALWAYS	ALWAYS			Uniquely generated by the equipment
Series Number	(0020,0011)	GENERATED	ALWAYS	ALWAYS			Internal number which is incremented for each new series within a study.
<b>SR Document General</b>							
Content Date	(0008,0023)	GENERATED	ALWAYS	ALWAYS			Date of creation
Content Time	(0008,0033)	GENERATED	ALWAYS	ALWAYS			Time of creation
Instance Number	(0020,0013)	GENERATED	ALWAYS	ALWAYS			Internal number which is incremented for each new SR document within a series.
Referenced Request Sequence	(0040,A370)	GENERATED	ALWAYS	ALWAYS			

VIVID AND ECHOPAC V206  
CONFORMANCE

GE HEALTHCARE  
STATEMENT

DIRECTION DOC2652554 REV 3

>Study Instance UID	(0020,000D)	GENERATED	ALWAYS	ALWAYS			Taken from Study Instance UID in General Study Module
>Referenced Study Sequence	(0008,1110)	FIXED	ALWAYS	ALWAYS	Empty		
>Accession Number	(0008,0050)	GENERATED	ALWAYS	ALWAYS			Taken from Accession Number in General Study Module
>Placer Order Number/Imaging Service Request	(0040,2016)	FIXED	ALWAYS	ALWAYS	Empty		
>Filler Order Number/Imaging Service Request	(0040,2017)	FIXED	ALWAYS	ALWAYS	Empty		
>Requested Procedure ID	(0040,1001)	GENERATED	ALWAYS	ALWAYS	Taken from worklist	If worklist is the source	
					Empty	If worklist is not the source	
>Requested Procedure Description	(0032,1060)				Taken from worklist	If worklist is the source	
					Empty	If worklist is not the source	
>Requested Procedure Code Sequence	(0032,1064)	FIXED	ALWAYS	ALWAYS	Empty		
Performed Procedure Code Sequence	(0040,A372)	FIXED	ALWAYS	ALWAYS	Empty		
Completion Flag	(0040,A491)	FIXED	ALWAYS	ALWAYS	PARTIAL		
Verification Flag	(0040,A493)	FIXED	ALWAYS	ALWAYS	UNVERIFIED		
<b>SR Document Content</b>							
Value Type	(0040,A040)	FIXED	ALWAYS	ALWAYS	CONTAINER		
Concept Name Code Sequence	(0040,A043)	GENERATED	ALWAYS	ALWAYS			
>Code Value	(0008,0100)	GENERATED	ALWAYS	ALWAYS	125200	If TID 5200	
					125195	If TID 5220	
					125100	If TID 5100	
>Coding Scheme Designator	(0008,0102)	GENERATED	ALWAYS	ALWAYS	DCM		
>Code Meaning	(0008,0104)	GENERATED	ALWAYS	ALWAYS	Adult Echocardiograph	If TID 5200	

**GE HEALTHCARE  
STATEMENT**

**VIVID AND ECHOPAC V206  
CONFORMANCE**

**DIRECTION DOC2652554 REV 3**

					y Procedure Report		
					Pediatric Cardiac Ultrasound Report	If TID 5220	
					Vascular Ultrasound Procedure Report	If TID 5100	
Continuity of Content	(0040,A050)	FIXED	ALWAYS	ALWAYS	SEPARATE		
Content Template Sequence	(0040,A504)	GENERATED	ALWAYS	ALWAYS			
>Mapping Resource	(0008,0105)	FIXED	ALWAYS	ALWAYS	DCMR		
>Template Identifier	(0040,DB00)	GENERATED	ALWAYS	ALWAYS	5200 or 5100 or 5220		
Content Sequence	(0040,A730)	GENERATED	ALWAYS	ALWAYS			See template "Adult Echocardiography Procedure Report" or "Pediatric Cardiac Ultrasound Report" or "Vascular Ultrasound Procedure Report".
> Relationship Type	(0040,A010)	GENERATED	ALWAYS	ALWAYS			See template "Adult Echocardiography Procedure Report" or "Pediatric Cardiac Ultrasound Report" or "Vascular Ultrasound Procedure Report".
> SR Document Content Module		GENERATED	ALWAYS	ALWAYS			See template "Adult Echocardiography Procedure Report" or "Pediatric Cardiac Ultrasound Report" or "Vascular Ultrasound Procedure Report".

GE HEALTHCARE  
STATEMENT

---

DIRECTION DOC2652554 REV 3

**A.6.2 Comprehensive SR IOD Specific Functional Group  
Macros**

N/A

**A.6.3 Comprehensive SR IOD Specific Private Modules**

N/A

**A.6.4 Comprehensive SR IOD Specific Values and Code Sets**

N/A

## **B. Structured Report Content Encoding**

### ***B.1 Vascular Ultrasound Procedure Report (TID 5100)***

See chapter 15 “Vascular Ultrasound Procedure Report”.

### ***B.2 Adult Echocardiography Procedure Report (TID 5200)***

See chapters 14 “Adult and Pediatric Echocardiography Procedure Reports”.

### ***B.3 Pediatric Cardiac Ultrasound Reports (TID 5220)***

See chapters 14 “Adult and Pediatric Echocardiography Procedure Reports”.

### ***B.4 User Defined Template Structure***

See chapter 16 “DICOM Structure Reports – User Defined objects”.

## C. Security Details

### C.1 External Network Requirements details

#### C.1.1 Basic Time Synchronization

Not Applicable.

#### C.1.2 Basic Network Address Management

Standard functionality supported. Some of the configurable parameters are listed in the table below.

Parameters
DHCP Enabled/disabled
IP-address
Subnet mask
Default gateway
Obtain DNS address automatically
Preferred and alternative DNS server IP-address
List of DNS servers
NetBIOS settings
Speed and Duplex

#### C.1.3 Application Configuration Management

Actor	LDAP Security Pattern	Supported	Comments
LDAP Client	Anonymous	Y	
	Authenticated	Y	
	TLS - Anonymous	Y	
	TLS – Authenticated	Y	

#### C.1.4 DNS Service Discovery

Standard functionality supported.

## C.2 DICOM® Security Profile Details

#### C.2.1 Online Electronic Storage Secure Use

Not Applicable.

**GE HEALTHCARE  
STATEMENT**

**DIRECTION DOC2652554 REV 3**

**C.2.2 Audit Trail Messages**

Not Applicable.

**C.2.3 Audit Trail Message Transmission Profile – Syslog – TLS**

Not Applicable.

**C.2.4 Audit Trail Message Transmission Profile - Syslog-UDP**

Not Applicable.

**C.2.5 Secure Transport Connection Details**

The scanner supports import of public certificates and private certificate key through configuration user interface. The product uses these certificate/key for authentication and encryption when it acts as a TLS server and when it acts as a TLS client.

**SECURE TRANSPORT CONNECTION PROFILES AND CIPHER SUITES**

Profile	Cipher Suite	Default Preference Order (from 1=preferred to n=less preferred)
BCP195 TLS Secure Transport Connection	TLS_RSA_WITH_AES_128_CBC_SHA	1
	TLS_RSA_WITH_3DES_EDE_CBC_SHA	2
Non-Downgrading BCP195 TLS Secure Transport Connection	NA	
CRYPTREC TLS	NA	

The following table describes the Secure Transport Connection configuration parameters supported by this product:

Local Secure Transport Connection configuration parameters			
Parameter	Configurable	Default Value	Comment
Port			See Section Error! Reference source not found. Error! Reference source not found.
Remote Secure Transport Connection configuration parameters			
Parameter	Configurable	Default Value	Comment
Port			See Section Error! Reference source not found. Error! Reference source not found.

GE HEALTHCARE  
STATEMENT

---

DIRECTION DOC2652554 REV 3

**C.2.6 Attribute Confidentiality Details**

Not Applicable.

**C.2.7 Digital Signature details**

Not Applicable.

**C.2.8 Additional DICOM® Security Profiles supported**

Not Applicable.

## D. Mapping of Attributes

### D.1 Modality Worklist, Instances and MPPS messages

The table below describes the mapping of attributes between Modality Worklist, Instances and MPPS messages.

In the Scenarios column the following values are supported:

*SCHEDULED: the image acquisition was scheduled at the RIS and procedure details have been communicated in the MWL query)*

*UNSCHEDULED: the image acquisition was performed without Modality Worklist information*

*APPEND: instances acquired are added to an existing study after the initial procedure was finalized*

*GROUP: multiple requested procedures are grouped into one study.]*

In the Value Source columns, the following values are supported:

GENERATED: the value is generated by the system.

SRC\_INSTANCE: the value is copied from previously created instances.

MWL: the value is copied from modality worklist.

USER: the value is entered by the user.

SCANNED: the value is read from a barcode scanner or similar device.

EMPTY: the attribute is sent without value.

The Destination column uses either ROOT, if the attribute is added to the root of the instance or list the attribute Tag of the Sequence, the attribute will be added to. The comment column can be used to provide additional information regarding the values added to the IOD.

**TABLE D.1.1**  
**ATTRIBUTE MAPPING**

Attribute Name	Tag	Scenario	Image		MPPS		Comments
			Value Source	Destination Tag	Value Source	Destination Tag	
Study Instance UID	(0020,000D)	SCHEDULED	MWL	ROOT	SRC_INSTANCE	(0040,0270)	
		UNSCHEDULED	GENERATED	ROOT	EMPTY	(0040,0270)	
		APPEND	SRC_INSTANCE	ROOT	SRC_INSTANCE	(0040,0270)	
Accession Number	(0008,0050)	SCHEDULED	MWL	ROOT	SRC_INSTANCE	(0040,0270)	
		UNSCHEDULED	EMPTY	ROOT	EMPTY	(0040,0270)	
		APPEND	SRC_INSTANCE	ROOT	SRC_INSTANCE	(0040,0270)	
Modality	(0008,0060)	SCHEDULED	MWL	ROOT	SRC_INSTANCE	ROOT	US or SR, from Scheduled Procedure Step Sequence (0040,0100), MWL from (0008,0060)

**GE HEALTHCARE  
STATEMENT**

**VIVID AND ECHOPAC V206  
CONFORMANCE**

**DIRECTION DOC2652554 REV 3**

Attribute Name	Tag	Scenario	Image		MPPS		Comments
			Value Source	Destination Tag	Value Source	Destination Tag	
		UNSCHEDULED	GENERATED	ROOT	SRC_INSTANCE	ROOT	US or SR, from Scheduled Procedure Step Sequence (0040,0100), MWL from (0008,0060)
		APPEND	SRC_INSTANCE	ROOT	SRC_INSTANCE	ROOT	US or SR, from Scheduled Procedure Step Sequence (0040,0100), MWL from (0008,0060)
Referenced Study Sequence	(0008,1110)	SCHEDULED	MWL	(0040,0275) <sup>(a)</sup> (0040,A370) <sup>(b)</sup>	SRC_INSTANCE	(0040,0270)	
		UNSCHEDULED	N/A	N/A	EMPTY	(0040,0270)	
		APPEND	SRC_INSTANCE	(0040,0275) <sup>(a)</sup> (0040,A370) <sup>(b)</sup>	SRC_INSTANCE	(0040,0270)	
Referenced SOP Class UID	(0008,1150)	SCHEDULED	MWL	ROOT	SRC_INSTANCE	(0008,1120)	
		UNSCHEDULED	EMPTY	ROOT	SRC_INSTANCE	(0008,1120)	
		APPEND	SRC_INSTANCE	ROOT	SRC_INSTANCE	(0008,1120)	
Referenced SOP Instance UID	(0008,1155)	SCHEDULED	MWL	ROOT	SRC_INSTANCE	(0008,1120)	
		UNSCHEDULED	EMPTY	ROOT	SRC_INSTANCE	(0008,1120)	
		APPEND	SRC_INSTANCE	ROOT	SRC_INSTANCE	(0008,1120)	
Study ID	(0020,0010)	SCHEDULED	GENERATED	ROOT	SRC_INSTANCE	ROOT	Copied from Requested Procedure ID (0040,1001)
		UNSCHEDULED	USER	ROOT	SRC_INSTANCE	ROOT	Copied from Requested Procedure ID (0040,1001)
		APPEND	GENERATED	ROOT	SRC_INSTANCE	(0040,0270)	Copied from Requested Procedure ID (0040,1001)
Requested Procedure Description	(0032,1060)	SCHEDULED	MWL	(0040,0275) <sup>(a)</sup> (0040,A370) <sup>(b)</sup>	SRC_INSTANCE	(0040,0270)	To Performed Procedure Step Description (0040,0254)
		UNSCHEDULED	N/A	N/A	EMPTY	(0040,0270)	To Performed Procedure Step Description (0040,0254)
		APPEND	SRC_INSTANCE	(0040,0275) <sup>(a)</sup> (0040,A370) <sup>(b)</sup>	SRC_INSTANCE	(0040,0270)	To Performed Procedure Step Description (0040,0254)
Requested Procedure Code Sequence	(0032,1064)	SCHEDULED	MWL	(0040,0275) <sup>(a)</sup> (0040,A370) <sup>(b)</sup>	SRC_INSTANCE	(0008,1032)	To Procedure Code Sequence
		UNSCHEDULED	N/A	N/A	EMPTY	(0008,1032)	To Procedure Code Sequence
		APPEND	SRC_INSTANCE	(0040,0275) <sup>(a)</sup> (0040,A370) <sup>(b)</sup>	SRC_INSTANCE	(0008,1032)	To Procedure Code Sequence

**GE HEALTHCARE  
STATEMENT**

**VIVID AND ECHOPAC V206  
CONFORMANCE**

**DIRECTION DOC2652554 REV 3**

Attribute Name	Tag	Scenario	Image		MPPS		Comments
			Value Source	Destination Tag	Value Source	Destination Tag	
Requested Procedure ID	(0040,1001)	SCHEDULED	MWL	(0040,0275) <sup>(a)</sup> (0040,A370) <sup>(b)</sup>	SRC_INST ANCE	(0040,0270)	<sup>(a)</sup> for use in Image IODs <sup>(b)</sup> for use in Evidence Documents
		UNSCHEDULED	N/A	N/A	EMPTY	(0040,0270)	
		APPEND	SRC_INST ANCE	(0040,0275) <sup>(a)</sup> (0040,A370) <sup>(b)</sup>	SRC_INST ANCE	(0040,0270)	<sup>(a)</sup> for use in Image IODs <sup>(b)</sup> for use in Evidence Documents
Scheduled Performing Physician's Name	(0040,0006)	SCHEDULED	MWL	ROOT	SRC_INST ANCE	ROOT	Maps to the attribute "Performing Physician's Name"
		UNSCHEDULED	EMPTY	ROOT	SRC_INST ANCE	ROOT	Maps to the attribute "Performing Physician's Name"
		APPEND	SRC_INST ANCE	ROOT	SRC_INST ANCE	ROOT	Maps to the attribute "Performing Physician's Name"
Scheduled Procedure Step Description	(0040,0007)	SCHEDULED	MWL	(0040,0275) <sup>(a)</sup> N/A <sup>(b)</sup>	SRC_INST ANCE	(0040,0270)	
		UNSCHEDULED	N/A	N/A	EMPTY	(0040,0270)	
		APPEND	SRC_INST ANCE	(0040,0275) <sup>(a)</sup> N/A <sup>(b)</sup>	SRC_INST ANCE	(0040,0270)	
Scheduled Protocol Code Sequence	(0040,0008)	SCHEDULED	MWL	(0040,0275) <sup>(a)</sup> N/A <sup>(b)</sup>	SRC_INST ANCE	(0040,0270)	
		UNSCHEDULED	N/A	N/A	EMPTY	(0040,0270)	
		APPEND	SRC_INST ANCE	(0040,0275) <sup>(a)</sup> N/A <sup>(b)</sup>	SRC_INST ANCE	(0040,0270)	
Scheduled Procedure Step ID	(0040,0009)	SCHEDULED	MWL	(0040,0275) <sup>(a)</sup> N/A <sup>(b)</sup>	SRC_INST ANCE	(0040,0270)	
		UNSCHEDULED	N/A	N/A	EMPTY	(0040,0270)	
		APPEND	SRC_INST ANCE	(0040,0275) <sup>(a)</sup> N/A <sup>(b)</sup>	SRC_INST ANCE	(0040,0270)	
Patient Name	(0010,0010)	SCHEDULED	MWL	ROOT	SRC_INST ANCE	ROOT	
		UNSCHEDULED	USER	ROOT	SRC_INST ANCE	ROOT	
		APPEND	SRC_INST ANCE	ROOT	SRC_INST ANCE	ROOT	
Patient ID	(0010,0020)	SCHEDULED	MWL	ROOT	SRC_INST ANCE	ROOT	
		UNSCHEDULED	USER	ROOT	SRC_INST ANCE	ROOT	

**GE HEALTHCARE  
STATEMENT**

**VIVID AND ECHOPAC V206  
CONFORMANCE**

**DIRECTION DOC2652554 REV 3**

Attribute Name	Tag	Scenario	Image		MPPS		Comments
			Value Source	Destination Tag	Value Source	Destination Tag	
		APPEND	SRC_INSTANCE	ROOT	SRC_INSTANCE	ROOT	
Patient Birth Date	(0010,0030)	SCHEDULED	MWL	ROOT	SRC_INSTANCE	ROOT	
		UNSCHEDULED	USER	ROOT	SRC_INSTANCE	ROOT	
		APPEND	SRC_INSTANCE	ROOT	SRC_INSTANCE	ROOT	
Patient Sex	(0010,0040)	SCHEDULED	MWL	ROOT	SRC_INSTANCE	ROOT	
		UNSCHEDULED	USER	ROOT	SRC_INSTANCE	ROOT	
		APPEND	SRC_INSTANCE	ROOT	SRC_INSTANCE	ROOT	
Admission ID	(0038,0010)	SCHEDULED	MWL	ROOT	SRC_INSTANCE	ROOT	
		UNSCHEDULED	EMPTY	ROOT	SRC_INSTANCE	ROOT	
		APPEND	SRC_INSTANCE	ROOT	SRC_INSTANCE	ROOT	

<sup>(a)</sup> for use in Image IODs

<sup>(b)</sup> for use in Evidence Documents

## E. Index of Tables

Table 0.1 Network Services.....	i
Table 0.2 Media Services.....	i
Table 2.7.1 Supported Specific Character Sets.....	23
Table 3.3.1 Exam Save – Supported SOP Classes and Transfer syntaxes .....	27
Table 3.3.2 DICOM Browse – SUPPORTED SOP CLASSES AND TRANSFER SYNTAXES.....	28
Table 3.3.3 Exam Read – Supported SOP Classes and Transfer syntaxes .....	29
Table 4.3.1 Mapping of DICOM entities to Vivid v206 entities.....	32
Table 5.3.1 Mapping of DICOM Entities to Vivid v206 Entities.....	37
Table 6.3.1 Mapping of DICOM Entities to Vivid v206 Entities.....	40
Table 7.3.1 Mapping of DICOM Entities to Vivid v206 Entities.....	43
Table 7.5.1 SR Root Templates .....	44
Table 8.3.1 Mapping of DICOM Entities to Vivid v206 Entities.....	48
Table 9.3.1 Mapping of DICOM Entities to Vivid v206 Entities.....	53
Table 9.4.1 Supported C-FIND Query Parameters for Modality Worklist-SCU .....	54
Table 11.2.1 STORAGE COMMITMENT MODULE.....	63
Table 11.2.2 STORAGE COMMITMENT REQUEST - ACTION INFORMATION... ..	64
Table 11.2.3 STORAGE COMMITMENT RESULT - EVENT INFORMATION.....	65
Table 12.2.1 Basic Grayscale Print Management Meta SOP Class.....	67
Table 12.2.2 Basic Color Print Management Meta sop class .....	67
Table 12.3.1 DIMSE Service Group.....	68
Table 12.3.2 DIMSE Service Group.....	69
Table 12.3.3 DIMSE Service Group.....	69
Table 12.3.4 DIMSE Service Group.....	70
Table 12.3.5 DIMSE Service Group.....	70
Table 12.4.1 Film Session IOD Modules.....	71
Table 12.4.2 Basic Film Box IOD Modules .....	71
Table 12.4.3 Basic Image Box IOD Modules.....	71
Table 12.4.4 Printer IOD Modules .....	72
Table 12.5.1 SOP Common Module Attributes.....	72
Table 12.5.2 Basic Film Session Presentation Module Attributes.....	73
Table 12.5.3 Basic Film Session Relationship Module Attributes .....	73
Table 12.5.4 Basic Film Box Presentation Module Attributes .....	74
Table 12.5.5 Basic Film Box Relationship Module Attributes.....	75
Table 12.5.6 Image Box Pixel Presentation Module Attributes .....	76
Table 12.5.7 Printer Module Attributes.....	77
Table 13.2.1 Mapping of DICOM Entities to Vivid v206 Entities.....	79
Table 13.3.1 Supported STUDY level C-FIND Matching Keys for Study Root Q/R Model -SCU .....	80
Table 17.2.1 External Network Requirements.....	325
Table 17.4.1 Secure Use and User Identity Profiles.....	325
Table 17.4.2 Secure Transport Connection Profiles .....	326

GE HEALTHCARE  
STATEMENT

---

**DIRECTION DOC2652554 REV 3**

Table A.1.1 Shared modules .....	329
Table A.1.2 Shared private modules .....	344
Table A.1.3 Shared values and code sets .....	345
Table A.2.1 Ultrasound Image IOD Modules .....	347
Table A.3.1 Ultrasound Multi-frame Image IOD .....	348
Table A.3.2 Ultrasound Multi-frame Image IOD Specific Modules .....	348
Table A.4.1 Secondary Capture Image IOD .....	349
Table A.4.2 Secondary Capture Image IOD Specific Modules .....	350
Table A.5.1 Basic Directory IOD Modules .....	351
Table A.5.2 Basic Directory IOD Specific Modules .....	351
Table A.5.3 Attributes specific to record type PATIENT .....	353
Table A.5.4 Attributes specific to record type STUDY .....	353
Table A.5.5 Attributes specific to record type SERIES .....	355
Table A.5.6 Attributes specific to record type IMAGE .....	357
Table A.5.7 Attributes specific to record type SR DOCUMENT .....	357
Table A.6.1 Comprehensive SR IOD modules .....	358
Table A.6.2 Comprehensive SR Specific Modules .....	358
Table D.1.1 Attribute mapping .....	366