Digital Imaging and Communications in Medicine (DICOM)

Supplement 209: Revision of the DICOM Conformance Statement

Prepared by: Working Group 31

DICOM Standards Committee, Working Group 6

1300 N. 17th Street, Suite 900

Rosslyn, Virginia 22209 USA

Status: July 1, 2021, Public Comment Draft

Developed pursuant to DICOM Work Item 2016-12-C

Table of Contents

Document History

2020/10/13	Version 0		Initial version
2021/03/15	Version 1 or 2?		

Open Issues

#	Issue
Open Issues regarding the Supplement	
1	How can adoption of the new template be encouraged? And How can documentation burden for small vendors be kept at a minimum?
2	If you have tried using this new DCS template, what is your experience
Open Issues regarding Annex A	
3	Should describing multiple products / versions in a single DICOM Conformance Statement be explicitly prohibited or permitted? And if permitted, should conventions be introduced to document any differences between the included products / versions? Existing Part 2 is silent on this topic, some vendors publish a single DCS for product families
4	Currently Table A.1-2 Supported Real-Time Video SOP Classes is listed in the Section for Content and Transfer. Would it be better to Create a new Service specific section A.1.x for Real Time Video?
5	What is the best way to describe consumption of an SR? Currently Table A.1-4 in the Overview sections provides a means to describe whether a specific IOD cannot be displayed at all, whether basic display is supported or whether structured data are extracted, or markers are displayed on an image? Is this sufficient? If not provide input on the information that is needed and how to best document it.
6	In the web services subsections (Sections A.1.3.x) of the overview the resources are currently listed. Is that too much information for the overview and should we remove it?
7	How/where should the handling of SNOMED CT codes versus the use of the retired SNOMED RT codes be documented? Options include: • In the configuration section: However, that would not address product implementations that decided to use either one or the other code set or have another way of deciding which codes to set • Add a generic subsection in Section 5 to describe the Terminology used
8	Do we need to document data retention capabilities in the DICOM Conformance Statement? For now, we keep it out because data retention depends on site policies and supporting functionality should be documented in product manuals. Aspects of these capabilities may be addressed in the configuration section.
9	Is there a better way to represent the information in Figure A.4-1: <*Product*> Application Data Flow Diagram? Also is there an UML notation for this?
10	Is it useful to keep Section A.5.2.5.3 Transcoding of transfer syntaxes? If this table is useful, does it contain enough information or is there additional information needed?

11	In the Security section (section A.8), what is the right balance between listing all security profiles for transparancy and opening a vulnerability risk in documenting what is supported and what is not? In the same vein, listing all profiles in section A.8.4 whether they are supported or not is conflicting with “google search” use case. Should this rule in Section A.8.4 be relaxed to address that use case? Should we emphasize references to other security documents, or even require them; for example, the MDS2 security document?
12	In the Security Details section (section A.11), should we require a structured format, or is free text (as currently within) acceptable?
13	In Table A.11-5 is there a better heading for the Parameter Column?
14	Should Annex A.12 Mapping of Attributes be extended to define mappings to or from non DICOM standards. If so, which mappings would be helpful, e.g., HL7 order messages to DMWL?

410

Closed Issues

1	In the Overview Section: How detailed must the table for the supported services really be. There are two types of users for the overview. The more technical users, who want to know some level of technical details, and the more clinically oriented users, who really want a high-level overview? How can we best accommodate these two different usage scenarios? The subgroup decided to move the detailed tables initially planned as Section 5.1 Summary of all supported Services into the overview. Is this approach ok? Answer: Approach was accepted by WG 31 and WG 6
2	Based on the results of the survey about 40% of the respondents were interested in seeing basic configuration information in the overview, is this necessary and if so, what is the information that is needed here? For now, we leave it out. Answer: There is no reasonable way to provide a configuration summary, the information in section 6 is already pretty high level and therefore we decided to keep it out of the overview.
3	In general, should sections for services not supported be removed from the document or should they be kept and marked with N/A. The advantage of keeping them would be that section numbering would be consistent across different vendors. The disadvantage would be, that depending on the amount of services supported, there may be many sections marked as N/A. Current instructions indicate to mark them as N/A Answer: In order to improve comparability between different product DCS documentsand to keep consistent numbering, it was decided to mark sections for non supported services as N/A on the highest level, where it does apply, e.g if you do not support Web Services you can mark section 5.3 as N/A and delete all sub -sections.
4	Appendix A: Should IOD tables be part of an Appendix or the Storage Subsection of Section 5? Answer: After discussion in WG 31 and WG 6 it was decided that readability is improved if the IOD tables are in an appendix. How are Web services documented in the Summary subsection of Section 5 and/or throughout the document? Answer: After discussion with WG 6, Web Services have been integrated into the respective overview tables. Detailed descriptions for the capabilities and parameters, configuration and error handling have been added to the respective Sections
5	Section 7 and Section 8 are two different ways to present the Network Communication Details. Final decision about which approach will be used is still outstanding.

	Answer: Combined both approaches. See current Structure of Section 7. Section 8 will be added for Security
6	How to document Application specific capabilities or licensable features in general and in the overview the Summary subsection of Section 5? Answer: Provide footnotes under tables. If more details are needed, refer to an annex
7	How to represent the connection between AE and services Answer: During the WG31 meeting at the RSNA it was suggested to provide a table at the beginning of section 5 which provides a mapping between AEs and Services
8	Should we represent all the details of sequencing (including association details) in section 4 or should it be represented in Technical Details or Services Section. If we move it to more detailed section, do we keep a summary in section 4. Answer: It was decided to provide a high-level diagram showing the different components/services of the system in Section 4. Details flow diagrams would be provided in Section 7
9	Where should status codes be documented? The two options are • In the service definitions of Section 5 • As a subsection in the Section 7 on Network Communication Details. Current thinking is to bundle them altogether in Section 7. Answer: WG 6 also suggested to keep it in section 7
10	In Section 5.2, how granular do we need to provide these services. Do we need to list the exact SOP Classes (e.g all different Storage SOP Classes supported?) or the different query/retrieve models or is the service itself sufficient? Answer: For now, the decision is to keep it on the service level.
11	Section 6: Decide on which approach to use for configuration Answer: ALT 1 (sub section for each DICOM service) – Decision made during WG31 meeting of sept 10th 2018
12	Section 1.3: The table here is for workflow management and therefore contains a variety of services e.g. Worklist related services, Storage Commitment, MPPS; UPS. Some of them have an equivalent in the web services world, some of them don't. As of now, the only one having this correlation is UPS, however there is no distinction between different SOP Classes as in the DIMSE world. UPS –RS defines action types, which relate to one command in the various SOP Classes. How do we document, which of the action types referred to are supported by the client? Answer: Based on Discussions with working group 27 and also taking into account Supp 183, the tables for DIMSE and Web services have been put into separate sub sections
13	Current Section 3 contains a lot of boiler plate text that is usually copied from Part 2. Is this really needed? Can we just reference text in Part 2? Answer: Kept information as it was in current part 2
14	Should private attributes be listed as a separate section or inside the created IOD Definitions? Answer: Documentation of private attributes follows the mechanism used for all other attributes as well. They are documented in a section for Shared Private attributes and also there is a specific subsection for private attributes in each IOD. Section 1.3: There certain action types (e.g. getCapabilities) in the web service definition for which there is not DIMSE equivalent. How/Where do we document them in the overview? Answer: Web services are documented separately from DIMSE and documentation is in alignment with Supp 183. Therefore, there is no mapping between DIMSE and Web Services any more
15	Section 1.4: In DIMSE on the one hand we distinguish between different retrieve models (e.g Patient, Study, Patient Study) and between different “retrieval levels” (e.g. PATIENT, STUDY, SERIES, INSTANCE).

	In WADO-RS on the other hand there are the so-called action types (RetrieveStudy, RetrieveSeries, RetrieveInstance, RetrieveFrame, RetrieveBulkData, RetrieveMetaData, RetrieveRendered), which partially have an equivalent in the query level, but not all of them. However, if I understand, all these action types have to be supported anyway. Nevertheless, I was wondering whether with this background you would fill in the table (e.g you support the study root query retrieve model and you support WADO-RS, how would you set your check marks in the table). Is WADO-RS by the way it is defined per se equivalent to the STUDY retrieve level? Answer: Web services are documented separately from DIMSE and documentation is in alignment with Supp 183. Therefore, there is no mapping between DIMSE and Web Services any more
16	Section 1.4: For WADO-RS do we need to distinguish between different transfer syntaxes Answer documentation is aligned with Supp 183
17	Section 7.3.9.1: For discussion with WG 27: Is this way of documenting status codes sufficient. Our assumption is, that for • User Agents: We provide a description of what the system does when encountering a status code • Origin Server: We define the condition when a specific code is returned Answer: Documentation of status codes should be aligned with the way how status codes are documented in Supp 183
18	What is the best way to document SR content? Answer: This depends on the TID. Two examples were chosen (an Echocardiography SR as an example for a TID which has a simple structure, but needs to list a lot of different values, and the Mammography CAD SR, which provides a complex structure)
19	The decision was made that in the IOD tables documented in Annex A all attributes that are included in an IOD are listed and not only the optional ones. In the presence column reflects the actual usage of the attribute in the created IOD and does NOT reflect any requirements from the DICOM standard (e.g. Type 1, 2, 3, …). Answer: Approach is the same as used in existing Part PS3.2 examples, but we rather used readable terms than acronyms. Text has been improved to clarify this
20	Do we need to document the display of CAD markers, e.g the type of marker used, the condition upon which they are displayed, the handling of rendering intent, Text and measurement overlays, … or is this rather content of a user manual. Answer: Detailed information regarding the display of CAD marks should documented in the usere manual. High level information is provided in the overview
21	In the Overview Section for Storage (may be moved to content section later on) do we need to indicate in addition to creation, display and process whether instances are kept permanently and made available for later usage or should we remove the archiving column? Answer: For now, we decided to keep the column. Detailed information about how images are handled with regards to compression are provided in Section A.5.2.5.2 and A.5.2.5.3
22	For reasons of consistency between different documents and easier comparability should we have an exhaustive list in each table and mark supported yes and no or should we remove lines that are not supported. There are the following ptions a. Decide on a table by table basis b. Decide to remove non supported rows in each table c. Decide to keep all rows and mark them yes/no d. Decide to keep all rows and mark them as yes/no just in the overview Answer: Option B was chosen for easier maintenance and to allow easy searching for supported services
23	Does Section 1.1 in the Overview meet expectations for splitting out content related information from the actual Services? Answer: Approach was reviewed during Nov. WG 6meeting and was approved

24	Table 5.2-8 Display and Processing Capabilities was improved to better document dependencies between attributes, does it meet your expectations. Answer: Approach was reviewed during Nov. WG 6meeting and was approved
25	In the storage SCU section there is information regarding Association Negotiation. Shouldn't this be done in the Association Initiation section for the particualr AE? For example, if you have multiple Storage SCU AE's that had differnet assocaiation initiation policies, then it would be difficult to document here. Perhaps you could smply reference the section(s) on Association Initiation (under Section 7.x) fort he applicable AE(s)? Answer: We decided to keep it here, because the audience between Section 5 and 7 is really different and we think this information would be lost in the technical details of section 7. However, we clarified the instructios to make sure to document if if differs in different scenarios
26	In the context of the above item, also provide examples/instructions that to document if this is different for a suboperation triggered by cmove, cget. Also need to see whether something similar needs to be added into cmove sections below. Answer: clarified the instructions to deal with different scenarios as well. Is this sufficient
27	Look into how to document cross service considersations. Make a subsection 5.x Cross Service considerations. Answer: we created a subsection, but we only provided high level instructions without going into too much detail:
28	Shall we retire and create a new Annex at the end for the template defined in this document or shall we overwrite the current annex A? A new Annex will be created. The xisting Annex A will remain as retired, however, for public comment the draft text will show the new Annex as letter A to avoid reformatting now. A key point is that we need to be clear that the old Annex A is still valid, which is done using our retirement convention
29	Tables in Section A.1.1 Content and Transfer of the Overview Section: For each service group (e.g. DIMSE, DICOM Web, Media Service) should there be one column to list supported roles or should there be one column for each role marked with Y/N to indicate support. For better readability and better comparability, the second approach was used throughout this document

Scope and Field of Application

This Supplement provides updates to PS3.2, redefining the content and structure of the DICOM Conformance Statement to

- Better meet the needs of all user groups (service, R&D, testing, sales …)
- Better facilitate comparability of different products' DICOM functionality
    - Provide essential information in Tables
- Avoid ambiguities/inconsistencies between different vendor documentations
- Address functionalities not currently documented (web services, security)
- Provide a detailed template that could be used by vendors for populating information

Changes to NEMA Standards Publications PS 3.2

Digital Imaging and Communications in Medicine (DICOM)
Part 2: Conformance Scope and Field of Application

.

2 Normative References

3 Definitions

4 Symbols and Abbreviations

5 Conventions

Modify Section 5.1.1 as indicated below

5.1.1 Network-Associations

An association between a local Application Entity and a remote Application Entity over a network supporting a remote Real-World Activity is depicted within an Application Data Flow Diagram by placing the remote Real-World Activity to the right of the related local Application Entity with one or two arrows drawn between them as shown in Figure 5.1-4. The dashed line represents the DICOM Standard network interfaces, which could be DIMSE**,** ~~**or**~~ **DICOM Web Services or DICOM Real Time Video** between the local Application Entities, and whichever remote Application Entities handle the remote Real-World Activities. An arrow from the local Application Entity to the remote Real-World Activity indicates that an occurrence of the local Real-World Activity will cause the local Application Entity to initiate an association, causing the remote Real-World Activity to occur. An arrow from the remote Real-World Activity to the local Application Entity indicates that the local Application Entity expects to receive an association request when the remote Real-World Activity occurs, causing the local Application Entity to perform the local Real-World Activity.

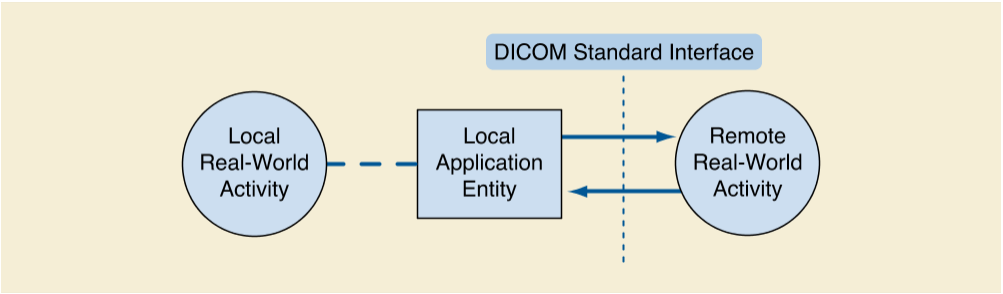


Figure 5.1-4. Associations Convention

.

6 Purpose of a Conformance Statement

Modify Section 6 as indicated below

An implementation need not employ all the optional components of the DICOM Standard. After meeting the minimum general requirements, a conformant DICOM implementation may utilize the SOP Classes, communications protocols, Media Storage Application Profiles, optional (Type 3) Attributes, codes and controlled terminology, etc., needed to accomplish the designed task.

Note

In fact, it is expected that an implementation might only support the SOP Classes related to its Real-World Activities. For example, a simple film digitizer may not support the SOP Classes for other imaging modalities since such support may not be required. On the other hand, a complex storage server might be required to support SOP Classes from multiple modalities to adequately function as a storage server. The choice of which components of the DICOM Standard are utilized by an implementation depends heavily on the intended application and is beyond the scope of this Standard.

In addition, the DICOM Standard allows an implementation to extend or specialize the DICOM defined SOP Classes, as well as define Private SOP classes.

A Conformance Statement allows a user to determine which optional components of the DICOM Standard are supported by a particular implementation, and which additional extensions or specializations an implementation adds. By comparing the Conformance Statements from two different implementations, a knowledgeable user should be able to determine whether and to what extent communications might be supported between the two implementations.

~~**Different**~~ **The same** structure~~s~~ ~~are~~ **is** used for the content of Conformance Statements ~~**depending**~~ **regardless** of whether the implementation supports a DICOM network interface, a DICOM Media Storage interface, **a DICOM Web interface** or a combination thereof. In the latter case, a single Conformance Statement shall be provided that consists of the appropriate sections **filled.**. **Sections not relevant for the implementation shall be kept and marked as not applicable. (See the template Appendix A)**

The first part of the conformance statement contains a DICOM Conformance Statement Overview, which is typically **a few** ~~**one-page description**~~ **summary** in the beginning of the document providing a high-level description. It should also list the ~~Networking and~~ **transfer capabilities, DIMSE services,** Media Service**s** ~~Classes~~ **and DICOM Web services**, including their roles (SCU/SCP, FSC, FSR, etc.)~~.~~ **and supported transfer syntaxes. The list of all root SR Template IDs supported by the system should also be contained in this overview.**

6.1 Overview of Implementation Model Section for Conformance Statement

• A functional overview containing the Application Data Flow Diagram that shows all the Application Entities. It also shows how they relate to both local and remote Real-World Activities

6.2 6.~~1~~2 Overview of ~~Networking~~ Service & Interoperability Description Section for Conformance Statements

The ~~**networking**~~ **Service & Interoperability description** section of a Conformance Statement consists of the following major parts:

~~**• a functional overview containing the Application Data Flow Diagram that shows all the Application Entities, including any sequencing constraints among them. It also shows how they relate to both local and remote Real World Activities.**~~

6.2.1 Mapping of Services to Application Entities

• Provides an overview of the Application Entities and the Services supported by each AE.

6.2.2 Supported DIMSE services

- **Provides** a more detailed specification of each ~~Application Entity, listing the~~ SOP Classes supported **within the various services (Worklist, MPPS, Storage, Query/Retrieve, Print, etc.)** ~~and outlining the policies with which it initiates or accepts associations;~~

~~• for each Application Entity and Real-World Activity combination, a description of proposed (for Association Initiation) and accepTable (for Association Acceptance) Presentation Contexts;~~

~~**Note**~~

~~**A Presentation Context consists of an Abstract Syntax plus a list of accepTable Transfer Syntaxes. The Abstract Syntax identifies one SOP Class or Meta SOP Class (a collection of related SOP Classes identified by a single Abstract Syntax UID). By listing the Application Entities with their proposed and accepted Presentation Contexts, the Conformance Statement is identifying the set of Information Objects and Service Classes that are recognized by this implementation;**

- **Provides** for each SOP Class related to an Abstract Syntax, a list of any SOP options supported;

~~• a set of communications protocols that this implementation supports;~~

- **Provides** a description of any extensions, specializations, and publicly disclosed privatizations in this implementation;

~~• a section describing DICOM related configuration details;~~

- **Provides** a description of any implementation details that may be related to DICOM conformance or interoperability;
- **Provides** a description of which codes and controlled terminology mechanisms are used.

6.2.3 Supported DICOMweb™ services

• Provides a more detailed specification of each DICOMweb™ service supported

6.2.4 Overview of Supported Media Storage Services Section for Conformance Statements

The media storage section of a Conformance Statement consists of the following major parts:

~~• a functional overview containing the Application Data Flow Diagram that shows all the Application Entities, including any sequencing constraints among them. It also shows how they relate to both local and remote Real-World Activities;~~

- a more detailed specification of each Application Entity listing the Media Storage Application Profiles supported ~~(this defines SOP Classes supported and media selected),~~ which outlines the policies with which it creates, reads, or updates File-sets on the media;

~~• a list of optional SOP Classes supported;~~

~~• for each Media Storage SOP Class related to a media storage Application Profile, a list of any SOP options supported;~~

~~• for each Media Storage SOP Class related to a media storage Application Profile, a list of optional Transfer Syntaxes supported;~~

- a description of any extensions, specializations, and publicly disclosed privatizations in this implementation such as Augmented or Private Application Profiles;

~~• a section describing DICOM related configuration details;~~

- a description of any implementation details that may be related to DICOM conformance or interoperability;
- a description of which codes and controlled terminology mechanisms are used.

6.3 Overview of DICOM Configuration Section for Conformance Statements

Section describing DICOM-related configuration details for the supported communication mechanisms;

- **DIMSE services**
- **DICOM Web services**
- **Media Storage services**
- **Audit Trail – Syslog**

6.4 Overview of Network and Media Communication Details section for Conformance Statements

The network and Media Communication Details section of a Conformance Statement consists of the following major parts:

- **Real World activity Data Flow Diagrams that shows the sequencing activities among the Application Entities.**
- **Associations parameters**
- **Policies with which each Application Entity and Real-World Activity combination initiates or accepts associations.**
- **Transfer syntaxes selection preferences**
- **Status codes and handling for DIMSE services and DICOMweb™ services**

7 Conformance Requirements

Modify Section 7 as indicated below

An implementation claiming DICOM conformance may choose to support one ~~of the following~~ **or more of the following communication mechanism**:

- ~~**network conformance according to Section 7.1 (DICOM Network Conformance Requirements);**~~**Conformance to the DIMSE protocol (See Section 7.1 Conformance Requirements using DICOM DIMSE Protocol)**
- **Conformance to the DICOMweb Protocol (See Section 7.2 Conformance Requirements using DICOMweb Protocol)**
- **Conformance to DICOM Media Storage (See Section 7.3 Conformance Requirements: Using DICOM Media Storage)** ~~**media storage conformance according to Section 7.2 (DICOM Media Storage Conformance Requirements);**~~

~~**• both of the above.**~~

7.1 ~~DICOM Networking~~ Conformance Requirements using DICOM DIMSE Protocol

An implementation claiming DICOM network conformance shall:

- conform to the minimum conformance requirements defined in this Section.
- provide with the implementation a Conformance Statement structured according to the rules and policies in this Part including Annex A;
- conform to at least one Standard or Standard Extended SOP class as defined in PS3.4;

  Note

  Conformance to a Standard or Standard Extended SOP class implies conformance to the related IOD outlined in PS3.3, the Data Elements defined in PS3.6, and the operations and notifications defined in PS3.7.

- comply with the rules governing SOP Class types outlined in Section 7.~~3~~**4**.
- accept a Presentation Context for the Verification SOP Class as an SCP if the implementation accepts any DICOM association requests;
- produce and/or process Data Sets as defined in PS3.5;

  Note

  Conformance to PS3.5 also implies conformance to PS3.6.

- obtain legitimate right to a registered <org id> for creating UIDs (see PS3.5) if an implementation utilizes Privately Defined UIDs (i.e., UIDs not defined in the DICOM Standard);
- support the following communication mode:
  - TCP/IP (See PS3.8).

Insert Section 7.2

7.2 Conformance Requirements using DICOMweb™ Protocol

An implementation claiming DICOMweb™ conformance shall:

- **conform to the minimum conformance requirements defined in this Section;**
- **provide a Conformance Statement with the implementation structured according to the rules and policies in this Part including Annex C;**
- **conform to PS3.18;**
- **comply with the rules governing SOP Class types outlined in Section 7.4;**
- **produce and/or process Data Sets as defined in PS3.5;**

Note

Conformance to PS3.5 also implies conformance to PS3.6.

- **obtain legitimate right to a registered <org id> for creating UIDs (see PS3.5) if an implementation utilizes Privately Defined UIDs (i.e., UIDs not defined in the DICOM Standard);**

Update Section 7.3 as indicated below

7.3 ~~7.2~~ DICOM Media Interchange Conformance Requirements

An implementation claiming DICOM Media Interchange conformance shall:

- conform to the minimum conformance requirements defined in this Section;
- provide a Conformance Statement with the implementation structured according to the rules and policies in this Part including Annex ~~C~~ **A**.

Update section numbering for all remaining sections and subsections in Section 7 to reflect insertion of Section 7.2.

Retire Annex A and replace with the following text

A DICOM Conformance Statement Template (Nomative) (Retired)

Retired

Note to reader: For public comment the following section is shown as ANNEX A. The letter will be revised for final text.

A DICOM Conformance Statement Template (Normative)

The content and organization of DICOM Conformance Statements shall conform to this template

The following formatting conventions are used in this template to guide Conformance Statement authors. A DICOM Conformance Statement shall:

- Include, without modification, text shown in regular font (i.e. non-italic). Such text is standard “boilerplate” like introductions to sections, tables that list mandatory attributes, etc.
- Remove text shown in *italic font* and *[enclosed by square brackets]*. Such text provides instructions to Conformance Statement authors on how to use this template. The text may be retained until the author has no further use for it but should be removed before publication of the Conformance Statement.
- Either remove text shown in *italic font* or modify it appropriately and change it to regular font. Such text is example text that may provide typical phrasing, examples of the types of topics that might be addressed in a certain section, or list optional attributes which should be deleted if not supported, etc.
- Replace text <enclosed in angle brackets> with appropriate text. Such text is a placeholder for variables like the product name. Remove the < > characters when replacing the text.
- Replace text <<enclosed in double angle brackets>> with a single value from the enclosed list. Such text provides a list of alternatives such as DICOM Defined Terms for an attribute value. Remove the << >> characters when replacing the text.
    - If values other than those listed may be used, that is indicated by an ellipsis before the closing angle brackets (i.e., “…>>”)
    - If multiple values can be selected, instruction text will document that fact.
    - If some of the multiple values are mandatory, the mandatory values are shown in regular font and the optional values are shown in italic font.

The following conventions are used in this template to encourage uniformity that makes it easier for consumers to read conformance statements from different vendors. A DICOM Conformance Statement shall:

- Indicate support in tables (e.g., in the SCU and SCP column of table with rows for SOP Classes) by using Y for yes and N for no.
- Include rows in Tables only for things (e.g., SOP Classes, services, attributes, etc.) supported by your implementation. Things that are not supported do not have to be listed.
- Format supported value ranges in table cells using square brackets as follows: [lower value … upper value
- Format multiple supported values in table cells separated by semicolon in the cell
- Replace the content of Sections that are not applicable to the implementation with the text “N/A” and append “- N/A” to the end of the section title. This is done rather than deleting the section; however, if all the subsections in a section are marked “N/A”, the subsections may be deleted, and the parent section may be marked “N/A”.
- Consider providing information (e.g., extensive explanation) as a footnote under the Table when the information exceeds the comfortable size of the cell.

The Appendices are mandatory parts of this template and shall be populated if applicable to the implementation. For example, the IOD definitions must be filled in if the implementation supports creation of DICOM Objects.

If throughout the document any of the tables get too wide for portrait mode it is recommended to switch to landscape mode for the table.

Tables are split into subsections for better readability. If a subsection of the table is not supported, remove the complete subsection from the table.

Ensure consistent spelling with the DICOM standard throughout the entire DICOM Conformance Statement.

In any case where this template contradicts normative statements in other Parts of the DICOM Standard, those other Parts take precedence. Part 2 may, at times, lag behind updates to the rest of the Standard.

The template content begins after this line.

A.0 Cover Page

[A DICOM Conformance Statement may have a cover page, which, if present, shall include:

- *The commercial name and version(s) of the concerned product or products (if applicable to several products) including all optional features. The product version shall correspond to the functionality as described in this conformance statement.*
- *Date of the document]*

A.1 Overview

[Provide a short description of the product's DICOM® functionality.]

[Edit the following illustration, depicting DICOM® Services implemented in your product and the interactions with remote systems connected to your product. Replace "Product" with your product name and "Remote Systems x" with a system category like modality, PACS, RIS,… or DICOM® Service by the applicable service like storage, query/ retrieve, query modality worklist, ….]

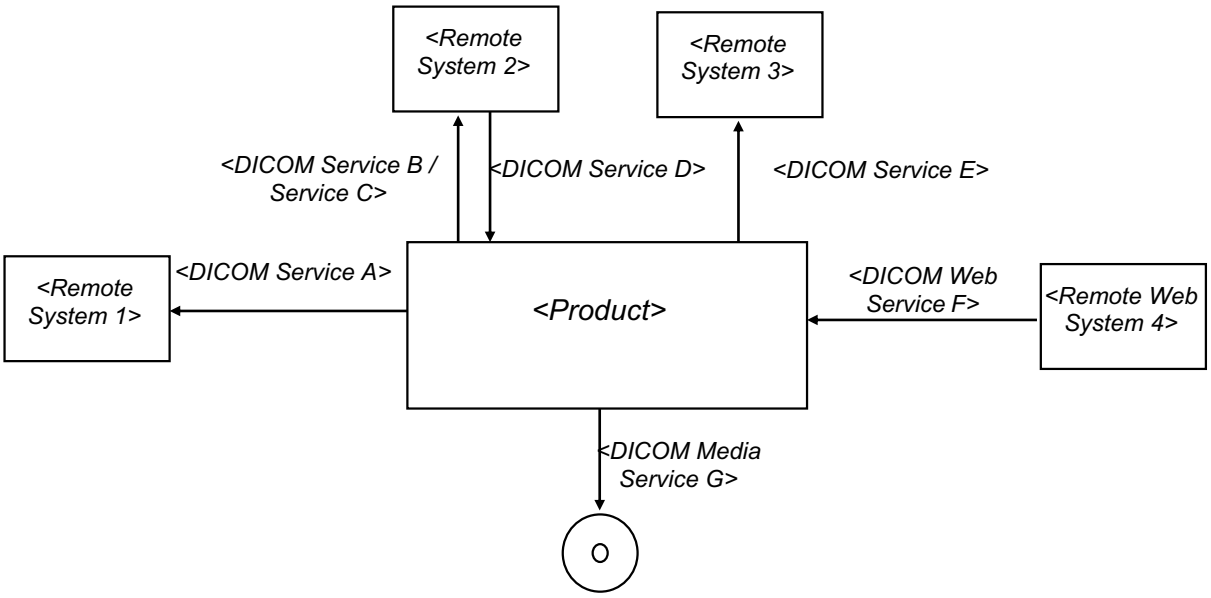


Figure A.1-1: Overview of Implemented Services

A.1.1 Content and Transfer

Table A.1-1 lists all Storage SOP Classes and the supported transfer mechanisms as well as the usage scenarios for those instances.

The Transfer Syntax Set Column lists the sets of transfer syntaxes defined in Table A.1-3 that are applicable to each SOP Class. The DIMSE and Media Services columns indicates the roles supported for each SOP Class.

The Function Columns indicate how the instances are used by the system:

- Create: The system creates instances of the SOP Class. The type of the created SOP Class is indicated by one of the following codes:
  - S: Standard SOP Class
  - SE: Standard Extended SOP Class
  - SP: Specialized SOP Class
  - P: Private SOP Class
- Display: The system displays the instances of the SOP Class to the user, either by displaying image IODs natively or by applying another IOD on top of the images (e.g., a Presentation State or CAD SR).
- Process: The system processes the instances of the SOP Class to derive some further information that is made available to the user (e.g. a CAD processing algorithm, or a 3D Rendering).
- Archive: The system stores the instances of the SOP class to long term storage and makes them available at a later point according to the data retention policies of the institution.

[List all Storage SOP Classes supported by your system in numerical order of the SOP Class UID. Indicate in the Transfer Syntax Set Column which of the Transfer Syntax Sets defined in Table A.1-3 below are supported. Note that for each SOP Class, multiple transfer syntax sets can be supported.]

[For the Create Function column and the DICOMweb™ Columns, use values as defined above. For all other supported role/Function columns, list Y for yes and N for no.]

Table A.1-1 Storage SOP Classes

SOP Classes		Transfer Syntax Set	DIMSE		DICOM Web		Media Services			Function			
			SCU	SCP	UA	OS	FSC	FSU	FSR	Create	Display	Process	Archive
Computed Radiography Image Storage	*1.2.840.10008.5.1.4.1.1.1*	*U, LL, L*											
Digital X-Ray Image Storage - For Presentation	*1.2.840.10008.5.1.4.1.1.1.1*	*U, LL, L*											
Digital X-Ray Image Storage – For Processing	*1.2.840.10008.5.1.4.1.1.1.1.1*	*U, LL, L*											
Digital Mammography X-Ray Image Storage – For Presentation	*1.2.840.10008.5.1.4.1.1.1.2*	*U, LL*											
VL Photographic Image Storage	*1.2.840.10008.5.1.4.1.77.1.4*	*U, LL, L*											
Video Photographic Image Storage	*1.2.840.10008.5.1.4.1.77.1.4.1*	*V*											
Enahnced SR Storage	*1.2.840.10008.5.1.4.1.88.22*	*NI*								*See Table A.1-4 below*			
Comprehensive SR Storage	*1.2.840.10008.5.1.4.1.88.22*	*NI*								*See* Table A.1-4 *below*			
Media Storage Directory Storage	*1.2.840.10008.1.3.10*	*NI*											

Table A.1-2 lists all supported Real-Time Video SOP Classes and transfer syntaxes

[List all supported Real-Time Video SOP Classes in the Table below]

Table A.1-2 Supported Real-Time Video SOP Classes

SOP Classes		Transfer Syntax Set	RTV	
			SCU	SCP
Video Endoscopic Image Real-Time Communication	*1.2.840.10008.10.1*	*RTV*		

SOP Classes		Transfer Syntax Set	RTV	
			SCU	SCP
Video Photographic Image Real-Time Communication	*1.2.840.10008.10.2*	*RTV*		
Audio Waveform Real-Time Communication	*1.2.840.10008.10.3*	*RTV*		
Rendition Selection Document Real-Time Communication	*1.2.840.10008.10.4*	*N/A*		

700 *[*Table A.1-3 *defines some example Transfer Syntax Sets that are referenced by their abbreviation in* Table A.1-1 *above. You can modify the Transfer Syntax sets below to match your product implementation and extend the Table with additional Transfer Syntax sets as needed. For additional Transfer Syntax Sets, create additional rows and assign abbreviations in () that can be referenced in the Table above.]*

Table A.1-3 Supported Transfer Syntaxes

Transfer Syntax Set	Transfer Syntax	Transfer Syntax UID	DICOMweb Bulkdata Media Type
Lossless Compressed Transfer Syntax Set (LL)	*JPEG Lossless, Non-Hierarchical, First-Order Prediction (Process 14) lossless compressed*	*1.2.840.10008.1.2.4.70*	*image/jpeg*
	JPEG 2000 Image Compression (Lossless Only) compressed	*1.2.840.10008.1.2.4.90*	*image/jp2*
	RLE Lossless compressed	*1.2.840.10008.1.2.5*	*image/x-dicom-rle]*
Lossy Compressed Tranfer Syntax Set (L)	*JPEG Baseline (Process 1) lossy compressed*	*1.2.840.10008.1.2.4.50*	*image/jpeg*
	JPEG Extended (Process 2 & 4) lossy compressed	*1.2.840.10008.1.2.4.51*	*image/jpeg*
	JPEG 2000 Image Compression lossy compressed	*1.2.840.10008.1.2.4.91*	*image/jp2*
Non-Image Transfer Syntax Set (NI)	*Implicit Value Representation Little Endian native*	*1.2.840.10008.1.2*	*Not valid*
	Explicit Value Representation Little Endian native	*1.2.840.10008.1.2.1*	*application/octet-stream*
	Explicit Value Representation Big Endian	*1.2.840.10008.1.2.2*	*Not valid*
Uncompressed TS Set (U)	*Implicit Value Representation Little Endian native*	*1.2.840.10008.1.2*	*Not valid*
	Explicit Value Representation Little Endian native	*1.2.840.10008.1.2.1*	*application/octet-stream*
	Explicit Value Representation Big Endian	*1.2.840.10008.1.2.2*	*Not valid*

Video Transfer Syntax Set (V)	*MPEG2 Main Profile / Main Level*	*1.2.840.10008.1.2.4.100*	*video/mpeg2*
	MPEG2 Main Profile / High Level	*1.2.840.10008.1.2.4.101*	*video/ mpeg2*
	MPEG-4 AVC/H.264 High Profile / Level 4.1	*1.2.840.10008.1.2.4.102*	*video/mp4*
	MPEG-4 AVC/H.264 BD-compatible High Profile / Level 4.1	*1.2.840.10008.1.2.4.103*	*video/mp4*
	MPEG-4 AVC/H.264 High Profile / Level 4.2 For 2D Video	*1.2.840.10008.1.2.4.104*	*video/mp4*
Real-Time Video Transfer Syntax Set (RTV)	*SMPTE ST 2110-20 Uncompressed Progressive Active Video*	*1.2.840.10008.1.2.7.1*	*N/A*
	SMPTE ST 2110-20 Uncompressed Interlaced Active Video	*1.2.840.10008.1.2.7.2*	*N/A*
	SMPTE ST 2110-30 PCM Digital Audio	*1.2.840.10008.1.2.7.3*	*N/A*

A.1.1.1 Structured Reporting Root Template IDs

Table A.1-4 lists all root SR Template IDs that are supported by the system. The Create column indicates whether the system can create instances of the specified TID. The Display/Processing column indicates how the system uses the content of the SR:

- NONE: The system will not use the information of the SR for any further display/processing, the system just stores instances locally for later retrieval.
- DUMP: The system displays the content of the SR, without using the data for any further processing.
- DISCRETE_EXTRACTION: The system can extract structured data from the content and use the data for subsequent workflow steps (e.g. reporting).
- DISPLAY_ON_IMAGE: The systems uses the information in the SR to display information directly on the images (e.g. Mammography CAD markers).

The SOP Class UID Column indicates which of the SR Storage SOP Classes are used to encode the information on the Creator side.

[Table A.1-4 provides some examples, add/remove TIDs to match your product implementation. For guidance on the meaning of the columns see description above. Note that in the Display/Processing column multiple values can be supported.

It is recommended to add a link to the Root Template ID Column to the relevant Subsection of Annex A.10]

Table A.1-4 Supported SR Template ID (TID)

Name	Root Template ID	Create	Display/ Processing	SOP Class UID	Condition
Adult Echocardiography Procedure Report	*TID 5200*	*No*	*DISCRETE_EXTRACTION*	*1.2.840.10008.5.1.4.1.1.88.33*	
Mammography CAD Document Root	*TID 4000*	*Yes*	*DISPLAY_ON_IMAGE*	*1.2.840.10008.5.1.4.1.1.88.33* *1.2.840.10008.5.1.4.1.1.88.50*	*Based on asscociation negotiation*

A.1.2 DIMSE Services

A.1.2.1 Verification

[Modify Table A.1-5 to reflect Support for the Verification SOP Class].

Table A.1-5 Verification SOP Class

SOP Classes		Transfer Syntax		User of Service (SCU)	Provider of Service (SCP)
Verification	1.2.840.10008.1.1	Implicit Little Endian	1.2.840.10008.1.2		
		Explicit Little Endian	1.2.840.10008.1.2.1		

A.1.2.2 Storage

For details on supported Storage SOP Classes see Section A.1.1.

A.1.2.3 Worflow Management

[Modify Table A.1-6 to reflect SOP classes in the Workflow Management area that are supported. For each supported service indicate the role it supports. If it neither supports a SOP Class as SCU nor SCP, remove the respective line from the Table]

Table A.1-6 Workflow Management SOP Classes

SOP Classes		Transfer Syntax		SCU	SCP
Modality Worklist Information Model – FIND	*1.2.840.10008.5.1.4.31*	*Implicit Little Endian*	*1.2.840.10008.1.2*		
		Explicit Little Endian	*1.2.840.10008.1.2.1*		
Modality Performed Procedure Step SOP Class	*1.2.840.10008.3.1.2.3.3*	*Implicit Little Endian*	*1.2.840.10008.1.2*		
		Explicit Little Endian	*1.2.840.10008.1.2.1*		
Storage Commitment Push Model SOP Class	*1.2.840.10008.1.20.1*	*Implicit Little Endian*	*1.2.840.10008.1.2*		
		Explicit Little Endian	*1.2.840.10008.1.2.1*		
Unified Worklist and Procedure Step Service	*1.2.840.10008.5.1.4.34.6*	*Implicit Little Endian*	*1.2.840.10008.1.2*		
		Explicit Little Endian	*1.2.840.10008.1.2.1*		
Unified Procedure Step - Push SOP Class	*1.2.840.10008.5.1.4.34.6.1*	*Implicit Little Endian*	*1.2.840.10008.1.2*		
		Explicit Little Endian	*1.2.840.10008.1.2.1*		
Unified Procedure Step - Watch SOP Class	*1.2.840.10008.5.1.4.34.6.2*	*Implicit Little Endian*	*1.2.840.10008.1.2*		
		Explicit Little Endian	*1.2.840.10008.1.2.1*		

SOP Classes		Transfer Syntax		SCU	SCP
Unified Procedure Step - Pull SOP Class	*1.2.840.10008.5.1.4.34.6.3*	*Implicit Little Endian*	*1.2.840.10008.1.2*		
		Explicit Little Endian	*1.2.840.10008.1.2.1*		
Unified Procedure Step - Event SOP Class	*1.2.840.10008.5.1.4.34.6.4*	*Implicit Little Endian*	*1.2.840.10008.1.2*		
		Explicit Little Endian	*1.2.840.10008.1.2.1*		
Instance Availability Notification	*1.2.840.10008.5.1.4.33*	*Implicit Little Endian*	*1.2.840.10008.1.2*		
		Explicit Little Endian	*1.2.840.10008.1.2.1*		

A.1.2.4 Query Retrieve

[Table A.1-7 lists the most commonly used SOP Classes for Querying and retrieving from a remote DICOM® node, nevertheless DICOM® PS3.4 defines many more additional SOP Classes for querying). If your product supports any of these additional SOP Classes, add them to the Table below and delete SOP Classes not supported by your product. If you neither support a SOP Class as SCU or SCP, remove the respective line from the Table.]

Table A.1-7 Query/Retrieve SOP Classes

SOP Classes		Transfer Syntax		DIMSE	
				SCU	SCP
Patient Root Q/R Information Model – FIND	*1.2.840.10008.5.1.4.1.2.1.1*	*Implicit Little Endian*	*1.2.840.10008.1.2*		
		Explicit Little Endian	*1.2.840.10008.1.2.1*		
Study Root Q/R - Information Model – FIND	*1.2.840.10008.5.1.4.1.2.2.1*	*Implicit Little Endian*	*1.2.840.10008.1.2*		
		Explicit Little Endian	*1.2.840.10008.1.2.1*		
Patient Root Q/R - Information Model – MOVE	*1.2.840.10008.5.1.4.1.2.1.2*	*Implicit Little Endian*	*1.2.840.10008.1.2*		
		Explicit Little Endian	*1.2.840.10008.1.2.1*		
Study Root Q/R - Information Model – MOVE	*1.2.840.10008.5.1.4.1.2.2.2*	*Implicit Little Endian*	*1.2.840.10008.1.2*		
		Explicit Little Endian	*1.2.840.10008.1.2.1*		

A.1.2.5 Printing

[Table A.1-8 lists the most commonly used SOP Classes for Printing and DICOM® PS3.4 defines additional SOP Classes for printing. If your product supports any of these additional SOP Classes, add them to the Table below, and remove any rows that do not apply to your product. If you neither support a SOP Class as SCU nor SCP, remove the respective line from the Table]

Table A.1-8 Printing SOP Classes

SOP Classes	SOP Class UID	Transfer Syntax		SCU	SCP
Basic Grayscale Print Management Meta SOP Class	*1.2.840.10008.5.1.1.9*	*Implicit Little Endian*	*1.2.840.10008.1.2*		
		Explicit Little Endian	*1.2.840.10008.1.2.1*		
Basic Color Print Management Meta SOP Class	*1.2.840.10008.5.1.1.18*	*Implicit Little Endian*	*1.2.840.10008.1.2*		
		Explicit Little Endian	*1.2.840.10008.1.2.1*		
Basic Annotation Box SOP Class	*1.2.840.10008.5.1.1.15*	*Implicit Little Endian*	*1.2.840.10008.1.2*		
		Explicit Little Endian	*1.2.840.10008.1.2.1*		
Print Job SOP Class	*1.2.840.10008.5.1.1.14*	*Explicit Little Endian*	*1.2.840.10008.1.2.1*		
		Explicit Little Endian	*1.2.840.10008.1.2.1*		
Presentation LUT SOP Class	*1.2.840.10008.5.1.1.23*	*Implicit Little Endian*	*1.2.840.10008.1.2*		
		Explicit Little Endian	*1.2.840.10008.1.2.1*		
Printer Configuration Retrieval SOP Class	*1.2.840.10008.5.1.1.17.376*	*Implicit Little Endian*	*1.2.840.10008.1.2*		
		Explicit Little Endian	*1.2.840.10008.1.2.1*		

A.1.3 DICOM Web Services

A.1.3.1 URI Service (WADO-URI)

[Complete Table A.1-9 to indicate support for the URI Web Service. If you do not support URI Web Service, remove table, and mark section as N/A]

Table A.1-9 URI Service

Service	Transaction	User Agent	Origin Server
URI Webservice (WADO-URI)	*Retrieve DICOM Instances*		
	Retrieve Rendered Instance		

For resources supported see Table A.1-1 in Section A.1.1

A.1.3.2 Study Service

[Complete Table A.1-10 to indicate support for the Study Web Service. If you do not support the Study Web Service, remove table, and mark section as N/A]

Table A.1-10 Study Service

Service	Transaction	Resources	User Agent	Origin Server
Study Web Service	*Retrieve Capabilities*			
	Retrieve (WADO-RS)	Study		
		Study Metadata		
		Study Bulkdata		
		Study Pixel Data		
		Rendered Study		
		Study Thumbnail		
		Series		
		Series Metadata		
		Series Bulkdata		
		Series Pixel Data		
		Rendered Series		
		Series Thumbnail		
		Instance		
		Instance Metadata		
		Instance Bulkdata		
		Instance Pixel Data		
		Rendered Instance		
		Instance Thumbnail		
		Frames		
		Rendered Frames		
		Frame Thumbnail		
		Bulkdata		
	Search (QIDO-RS)	All Studies		
		Study		
		Study's Series		

		Study's Instances		
		All Series		
		Series		
		Series Instances		
		All Instances		
		Instance		
	Store (STOW-RS)	All Studies		
		Study		
		Bulkdata		

A.1.3.3 Worklist Service

[Complete Table A.1-11 to indicate support for the Worklist Web Service. If you do not support the Worklist Web Service, remove table, and mark section as N/A]

Table A.1-11 Worklist Service

Service	Transaction	Resources	User Agent	Origin Server
Worklist Web Service (UPS-RS)	*Retrieve Capabilities*			
	Create Workitem	Worklist		
		Workitem		
	Update Workitem	Workitem		
	Retrieve Workitem	Workitem		
	Change Workitem State	Workitem		
	Request Cancelation	Workitem		
	Search	Worklist		
	Subscribe	Worklist		
		Filtered Worklist		
		Workitem		
	Unsubscribe	Worklist		
		Filtered Worklist		
		Workitem		
	Workitem Event Report			

A.1.3.4 Non-Patient Instance Service

Table A.1-12 lists the supported Non-Patient Instances Webservices, transactions, resources, and roles. For details on the supported resource categories (e.g. Color Palette, Defined Procedure Protocol, Hanging Protocol or Implant Templates), see Table A.1-1.

[Complete Table A.1-12 to indicate support for the Non-Patient Instance Web Service. If you do not support the Non-Patient Instance Web Service, remove table, and mark section as N/A]

Table A.1-12 Non Patient Instance Service

Service	Transaction	Resources	User Agent	Origin Server
Non-Patient Instances Web Service	*Retrieve Capabilities*			
	Retrieve	Instance		

	Store	All Instances		
		Instance		
	Search (Note)	All Instances		

A.1.4 Media Services

[Table A.1-13 lists Media Storage Application profiles and supported roles. Extend/modify the Table to list the profiles supported by your system.]

785 **Table A.1-13 Supported Media Application Profiles**

Media Storage Application Profile	Write Files (FSC or FSU)	Read Files (FSR)	Update Files (FSU)
Compact Disk – Recordable			
STD-GEN-CD			
AUG-GEN-CD			
DVD			
AUG-GEN-DVD-JPEG			
AUG- GEN-DVD-J2K			
STD-GEN-DVD-JPEG			
STD-GEN-DVD-J2K			
USB			
AUG- GEN-USB-J2K			
STD-GEN-USB-J2K			

A.1.5 De-Identification Profiles

[Complete Table A.1-14 to list supported De-Identification profiles and options. If you do not support the de-identification remove table, and mark section as N/A]

790 **Table A.1-14 De-Identification Profiles**

Profile	Option
Basic Application Level Confidentiality Profile	*Clean Pixel Data Option*

A.2 Table of Contents

The Table of contents shall be provided to assist readers in easily finding the needed information

A.3 Introduction

A.3.1 Revision History

[If required by company guidelines provide the revision history for this document, otherwise mark this section as N/A]

Revision	Date	Reason for Change

A.3.2 Audience

This document is intended for hospital staff, health system integrators, Research and Development, sales, and service. It is assumed that the reader has a working knowledge of the DICOM® Standard.

[The following text may be used as an example to define audiences, but can be extended/modified by the editors of the DICOM Conformance Statement to meet their company needs]

The document structure was designed for easier access to relevant information for different user groups:

- ***Clinical Users**, who want to get an overview of the implemented interoperability features of the system can see Section A.4 Implementation Model.*
- *Personnel involved in **Sales** can use the information in Section **Error! Reference source not found.** Overview to assess the compatibility between different systems involved in a sales situation.*
- ***System Integrators** can use information in Section 7.3A.6 Configuration during system installation and also information from Section A.5 Service and Interoperability Description for details regarding the implemented services.*
- ***Field Service Engineers** can use the details from Section A.5 Service and Interoperability Description and from Section A.7 Network and Media Communication Detailsfor troubleshooting.*
- ***Hospital IT staff** focusing on security can use the details provided in Section A.8 Security regarding implemented Security features.*
- ***Research Personnel** may be interested in using information provided in Annex 7.3A.9 Information Object Definitions (IODs) or Annex A.10 Structured Report Content Encoding to get detailed imaging and measurement information.*

A.3.3 Remarks

[Any important remarks, disclaimers, and general information are specified. The following example may be used as a template.]

The scope of this DICOM® Conformance Statement is to facilitate integration between <*Product*> and other DICOM® products. The Conformance Statement should be read and understood in conjunction with the DICOM® Standard [1]. DICOM® by itself does not guarantee interoperability.

- The Conformance Statement does, however, facilitate a first-level comparison for interoperability between different applications supporting compatible DICOM® functionality.
- This Conformance Statement should not replace validation with other DICOM® equipment to ensure proper exchange of intended information. In fact, it is the user's responsibility to perform the following validation activities:
- The comparison of conformance statements from <Product> and other DICOM® conformant equipment is the first step towards assessing interconnectivity and interoperability between those systems.
- Test procedures should be defined and executed to validate the required level of interoperability with specific DICOM® conformant equipment, as established by the healthcare facility.

[If the product has an IHE Integration Statement, the following statement may be applicable]:

<Product> has participated in an industry-wide testing program sponsored by Integrating the Healthcare Enterprise (IHE). The IHE Integration Statement of <Product> together with the IHE Technical Framework may facilitate the process of validation testing.

A.3.4 Terms and Definitions

[Terms and definitions should be listed here. The following examples may be used as a template. Add and remove terms as needed. Only list terms used throughout the document.]

Informal definitions are provided for the following terms used in this Conformance Statement. The DICOM® Standard is the authoritative source for formal definitions of these terms.

Abstract Syntax	*The information agreed to be exchanged between applications, generally equivalent to a Service/Object Pair (SOP) Class. Examples: Verification SOP Class, Modality Worklist Information Model Find SOP Class, Computed Radiography Image Storage SOP Class.*
Application Entity (AE)	*A representation of the external behavior of an application process in terms of DICOM network services, Web services and/or media exchange capabilities implemented in one or more roles. A single device may have multiple Application Entities.*
Application Entity Title (AET)	*The externally known name of an Application Entity, used to identify a DICOM® application to other DICOM® applications on the network.*
Application Context	*The specification of the type of communication used between Application Entities. Example: DICOM® network protocol.*
Association	*A network communication channel set up between Application Entities.*
Attribute	*A unit of information in an object definition; a data element identified by a tag. The information may be a complex data structure (Sequence), itself composed of lower level data elements. Examples: Patient ID (0010,0020), Accession Number (0008,0050), Photometric Interpretation (0028,0004), Procedure Code Sequence (0008,1032).*
Information Object Definition (IOD)	*The specified set of Attributes that comprise a type of data object; does not represent a specific instance of the data object, but rather a class of similar data objects that have the same properties. Examples: MR Image IOD, CT Image IOD, Print Job IOD. The Attributes within an IOD may be specified as Mandatory (Type 1), Required but possibly unknown (Type 2), or Optional (Type 3), and there may be conditions associated with the use of an Attribute (Types 1C and 2C).*
Media Application Profile	*The specification of DICOM® information objects and encoding exchanged on removable media (e.g., CDs).*
Module	*A set of Attributes within an Information Object Definition that are logically related to each other. Example: Patient Module includes Patient Name, Patient ID, Patient Birth Date, and Patient Sex.*
Negotiation	*First phase of Association establishment that allows Application Entities to agree on the types of data to be exchanged and how that data will be encoded.*
Origin Server	*Refers to the program that can originate authoritative responses to HTTP requests for a given target resource. The term “server” refers to any implementation that receives a web service request message from a user agent.*
Presentation Context	*The set of DICOM® network services used over an Association, as negotiated between Application Entities; includes Abstract Syntaxes and Transfer Syntaxes.*
Private SOP Class	*An SOP Class that is not defined in the DICOM Standard but is published in an implementation's Conformance Statement.*
Protocol Data Unit	

(PDU)	*A packet (piece) of a DICOM® message sent across the network. Devices must specify the maximum size packet they can receive for DICOM® messages.*
Security Profile	*A set of mechanisms, such as encryption, user authentication, or digital signatures, used by an Application Entity to ensure confidentiality, integrity, and/or availability of exchanged DICOM® data.*
Service Class Provider (SCP)	*Role of an Application Entity that provides a DICOM® network service; typically, a server that performs operations requested by another Application Entity (Service Class User). Examples: Picture Archiving and Communication System (image storage SCP, and image query/retrieve SCP), Radiology Information System (modality worklist SCP).*
Service Class User (SCU)	*Role of an Application Entity that uses a DICOM® network service; typically, a client. Examples: imaging modality (image storage SCU, and modality worklist SCU), imaging workstation (image query/retrieve SCU).*
Service/Object Pair Class (SOP Class)	*The specification of the network or media transfer (service) of a particular type of data (object); the fundamental unit of DICOM® interoperability specification. Examples: Ultrasound Image Storage Service, Basic Grayscale Print Management.*
Service/Object Pair Instance (SOP Instance)	*An information object; a specific occurrence of information exchanged in a SOP Class. E.g., a specific X-ray image.*
Specialized SOP Class	*A SOP class that is derived from the Standard that is specialized by additional type 1, 1C, 2, 2C, or 3 attributes by enumeration of specific permitted values for Attributes, or by enumeration of specific permitted Templates. The additional Attributes may either be drawn from the Data Dictionary in PS3.6 or may be Private Attributes.*
Standard SOP Class	*A SOP class defined in the Standard, and that is implemented and used without any modifications.*
Standard Extended SOP Class	*A SOP class that is defined in the standard, and that is extended by additional type 3 attributes. The additional Attributes may either be drawn from the DICOM Data Dictionary in PS3.6 or may be Private Attributes.*
Tag	*A 32-bit identifier for a data element, represented as a pair of four-digit hexadecimal numbers, the "group" and the "element". If the "group" number is odd, the tag is for a private (manufacturer-specific) data element. Examples: (0010,0020) [Patient ID], (07FE,0010) [Pixel Data], (0019,0210) [private data element].*
Transfer Syntax	*The encoding used for exchange of DICOM® information objects and messages. Examples: JPEG compressed (images), Little Endian Explicit Value Representation.*
Unique Identifier (UID)	*A globally unique "dotted decimal" string that identifies a specific object or a class of objects; an ISO-8824 Object Identifier. Examples: Study Instance UID, SOP Class UID, SOP Instance UID.*
User Agent	*A client in a network protocol used in communications within a client–server distributed computing system. In particular, the Hypertext Transfer Protocol (HTTP) identifies the client software originating the request, using a user-agent header, even when the client is not operated by a user*
Value Representation (VR)	*The format type of an individual DICOM® data element, such as text, an integer, a person's name, or a code. DICOM® information objects can be transmitted with either explicit identification of the type of each data element (Explicit VR), or without explicit identification (Implicit VR); with Implicit VR, the receiving application must use a DICOM® data dictionary to look up the format of each data element.*

A.3.5 Abbreviations

Abbreviations that are used in this DICOM conformance statement are listed here.

[Modify the list of abbreviatons: delete terms that are not used within the Conformance Statement or add any additional terms that are used.]

AE	*Application Entity*
AET	*Application Entity Title*
CAD	*Computer Aided Detection*
CDA	*Clinical Document Architecture*
CID	*Context Identifier*
DHCP	*Dynamic Host Configuration Protocol*
DICOM®	*Digital Imaging and Communications in Medicine*
FSC	*File-Set Creator*
FSU	*File-Set Updater*
FSR	*File-Set Reader*
IHE	*Integrating the Healthcare Enterprise*
IOD	*Information Object Definition*
IPv4	*Internet Protocol version 4*
IPv6	*Internet Protocol version 6*
ISO	*International Organization for Standardization*
MPPS	*Modality Performed Procedure Step*
MWL	*Modality Worklist*
NEMA	*National Electrical Manufacturers Association*
NTP	*Network Time Protocol*
OID	*Object Identifier*
OS	*Origin Server*
PDU	*Protocol Data Unit*
QIDO-RS	*Query based on ID for DICOM® Objects by RESTful Services*
SCP	*Service Class Provider*
SCU	*Service Class User*
SOP	*Service-Object Pair*
SPS	*Scheduled Procedure Step*
SR	*Structured Reporting*
STOW-RS	*STore Over the Web by RESTful Services*
TCP/IP	*Transmission Control Protocol/Internet Protocol*
TID	*Template Identifier*
UA	*User Agent*
UL	*Upper Layer*
UPS	*Unified Procedure Step*
UPS-RS	*Unified Procedure Step by RESTful Services*

VR	*Value Representation*
WADO-RS	*Web Access to DICOM® Objects by RESTful Services*
WADO-URI	*Web Access to DICOM® Objects by URI*
UID	*Unique Identifier*

A.3.6 References

[Referenced documents should be listed here, including appropriate product manuals (such as service manuals that specify how to set DICOM® communication parameters). References to the DICOM® Standard should provide the URL for the free published version of the Standard, but should not specify a date of publication]:

1. NEMA PS3 Digital Imaging and Communications in Medicine (DICOM®) Standard, available free at http://www.dicomstandard.org/current

2. *IHE Radiology Technical Framework available at https://www.ihe.net/resources/technical_frameworks/#radiology*

A.4 Implementation Model

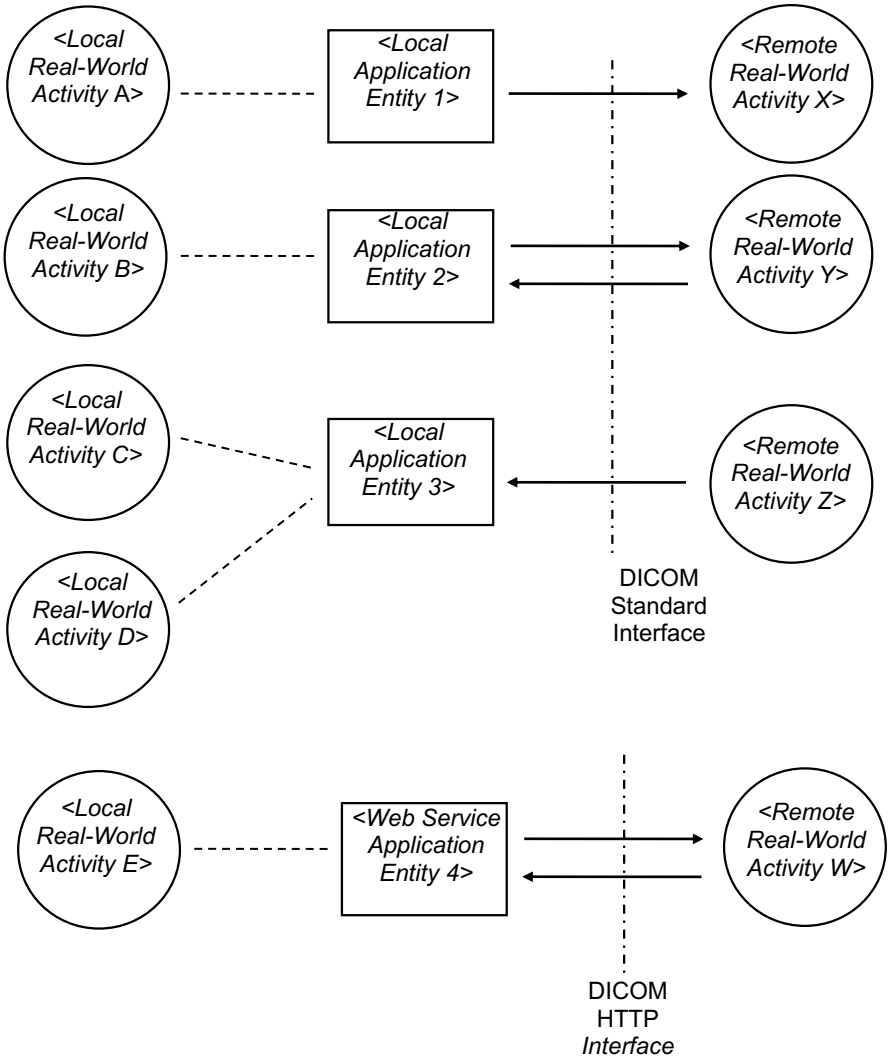
[Provide a short description of your implementation, including list of product names and versions that this DICOM Conformance Statement (DCS) intends to cover, as well as the use of DICOM® Networking, DICOM® Media Interchange and DICOM® Web Services to achieve their purpose.]

[Also provide some high-level details of your product architecture, which are relevant to interoperability features of the product (e.g. implementation of functionality in separate applications).]

A.4.1 Application Entities and Data Flow

The network and media interchange application model for the <*Product*> is shown in Figure A.4-1: <*Product*>Application Data Flow Diagram.

[Edit and the Application Data Flow Diagram and description below as appropriate. Note that the Real-World Activity and Application Entity names specified in the figure must be used consistently throughout the document. If your product supports configurable AE definition, then describe the default configuration of AEs in this section. As a reminder, an AE is a representation of the external behavior of an application process in terms of DICOM network services, web services and/or media exchange capabilities implemented in one or more roles. A single device may have multiple Application Entities.]


<Local Real-World Activity A>
<Local Application Entity 1>
<Remote Real-World Activity X>
<Local Real-World Activity B>
<Local Application Entity 2>
<Remote Real-World Activity Y>
<Local Real-World Activity C>
<Local Application Entity 3>
<Remote Real-World Activity Z>
<Local Real-World Activity D>
DICOM Standard Interface
<Local Real-World Activity E>
<Web Service Application Entity 4>
<Remote Real-World Activity W>
DICOM HTTP Interface

1000

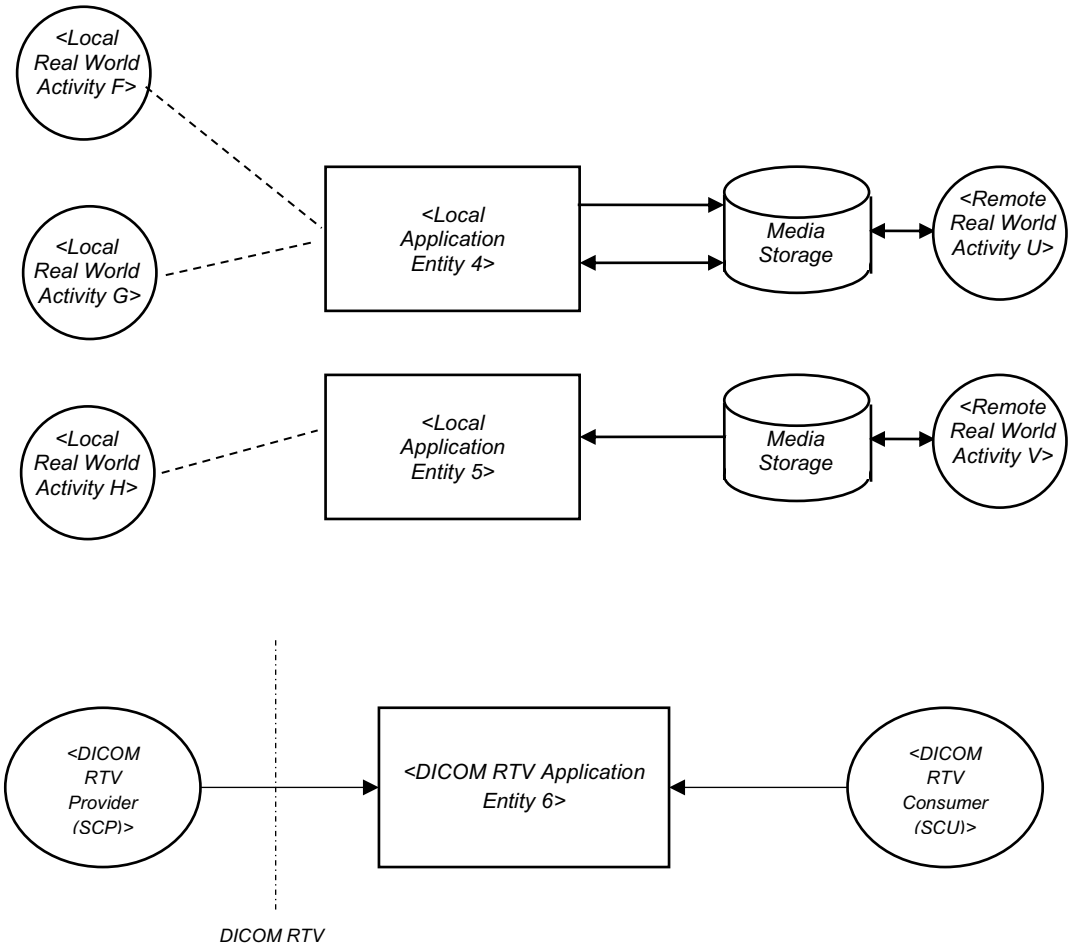


Figure A.4-1: <*Product*>Application Data Flow Diagram

[For each AE listed in Figure A.4-1 add one subsection A.4.1.x to describe the AE's DICOM functionality with regards to supported DIMSE, DICOMweb™ and Media Services, including the real-world activities that may trigger the service.]

[If your system supports flexible grouping of Services into Application Entities, keep the following paragraph, otherwise delete it]

This section describes the organization of the supported Services into Application Entities based on the default configuration of the system. This may change based on the actual setup at the customer side. See Section 7.3A.6 for details about the configurability of Services into AEs.

A.4.1.1 Functional Definition of <*Application Entity 1*>

[Provide a functional description of <Application Entity 1>, i.e. the DICOM Services (DIMSE, DICOM Web and Media Services), and supported roles, real world activities triggering the service and AE specific behavior]

A.5 Service and Interoperability Description

A.5.1 Mapping of Services to Application Entities

Table A.5-1 provides an overview of the Application Entities and the Services supported by each AE.

[Table A.5-1 provides the mapping between Application Entities, Services and Roles as indicated in the example below.]

Table A.5-1 Service to AE Mapping

Application Entity	Supported Services	Role								
		DIMSE		DICOMweb™		DICOM Media			Real-Time Video	
		SCU	*SCP*	*Origin Server*	*User Agent*	*FSC*	*FSU*	*FSR*	SCU	SCP
<Application Entity 1>	*Basic Worklist Management*									
	MPPS									
<Application Entity 2>	*Storage*									
	Storage Commitment									
	Query/Retrieve									
<Application Entity 3>	*Storage*									
	Query/Retrieve									
<Application Entity 4>	*Print Management*									
<Media Entity 1>	*Media Storage*									
<RTV Entity 1>	*Real-Time Video*									

[If needed, explain specific behavior of an AE, e.g., if you have an AE that provides specifically storage of de-identified instances or if support querying of rejected instances as defined in the IOCM profile, e.g:

<Application Entity 3>: This implementation of Query/Retrieve service handles retrieval of rejected instances as defined in the IHE Radiology IOCM Profile [2].]

A.5.2 Supported DIMSE Services

[The following sections define the details of the supported DIMSE Services in more details. Fill in the information for all services supported by the system. Tables are given as examples and should be modified to meet the functionality of the system.]

[Sections for services/roles not supported by the system should not be removed but rather marked as "Not Applicable". Note that it is helpful to add N/A to the section title that is not applicable]

A.5.2.1 Basic Worklist Management Service

A.5.2.1.1 SCU of the Modality Worklist Information Model – FIND SOP Class

As a Service Class User of the Modality Worklist Information Model – FIND SOP Class, the <*Product*> uses the C-FIND-RQ message to query the SCP. It supports the Query Keys listed in Table A.5-2.

In the Matching Type column the following values can be used:

- SINGLE_VALUE: SCU can request Single Value matching.
- UID: SCU can request UID matching.

- WILDCARD: SCU can request Wildcard matching.
- RANGE: SCU can request Range matching.
- SEQUENCE: SCU can request Sequence matching.
- RETURN_KEY: SCU can request attribute as a return value (universal matching).

In the Query Value Source column, the following values can be used:

- FIXED: The query value cannot be modified by the user or by configuration.
- GENERATED: The query value is generated by the system (e.g current date as the study date).
- CONFIGURATION: The query value is dependent on system configuration.
- USER: The query value is entered by the user.
- SCANNED: The query value is read from a barcode scanner or similar device.
- EMPTY: The query value is left empty to indicate it is a a return key only.

In the Display on UI column the following values can be used:

- D: the return value is displayed on the main UI by default.
- C: the return value is displayed on the main UI if configured.
- N: the return value is never displayed.

[Modify the Table A.5-2 to include all attributes supported by your system and use the terms defined for Matching Type, Query Value Source and Display on UI above. If Display on UI values are modified from the ones received, indicate in a footnote. If multiple codes are supported for the Query Value Source, list all of them.]

Table A.5-2 Supported C-FIND Query Parameters for Modality Worklist -SCU

Attribute Name	Tag	Matching Type	Query Value Sources	Value	Dis-play on UI	Comments
Scheduled Procedure Step						
Schedule Procedure Step Sequence	(0040,0100)	*SEQUENCE*				
>Scheduled Station AE Title	(0040,0001)	*SINGLE_VALUE*	*GENERATED*		*D*	*AE title of system performing query*
>Scheduled Procedure Step Start date	(0040,0002)	*RANGE*	*GENERATED*		*D*	*Current date and time minus 1 hour plus 24 hours ahead*
>Scheduled Procedure Step Start Time	(0040,0003)	*RANGE*	*GENERATED*		*D*	
>Modality	(0008,0060)	*SINGLE_VALUE*	*FIXED*	*CT*		
>Scheduled Performing Physician's Name	(0040,0006)	*RETURN_KEY*	*EMPTY*		*D*	
…						
Requested Procedure						
Study Instance UID	*(0020,000D)*	*RETURN_KEY*	*EMPTY*			
…						
Imaging Service Request						
Accession Number	*(0008,0050)*	*SINGLE VALUE*	*USER*		*D*	*See Annex D for details*

Attribute Name	Tag	Matching Type	Query Value Sources	Value	Dis-play on UI	Comments
Issuer of Accession Number Sequence	*(0008,0051)*	*RETURN KEY*	*EMPTY*			
…						
Visit Identification						
…						
Visit Status						
…						
Patient Identification						
Patient's Name	(0010,0010)	*WILDCARD*	*USER*		*D*	
…						
Patient Demographics						

[Describe scenarios in which the product can issue C-FIND-CANCEL requests, e.g.,

The product issues C-FIND CANCEL requests in the following scenarios:
** Configurable maximum of matches detected*
** Initiated by user]*

[Also describe the SCU behavior if the cancelation request is ignored by the SCP and continues sending responses.]

[Document your product's query capabilities and behavior for handling non-default character sets, especially for handling person names (VR of PN).]

A.5.2.1.2 SCP of the Modality Worklist Information Model – FIND SOP Class

As a Service Class Provider of the Modality Worklist Information Model – FIND SOP Class, the <*Product*> uses the C-FIND-RSP to communicate matches back to the SCU. It supports the Matching Keys listed in Table A.5-3.

In the Matching Type column, the following values can be used:

- SINGLE_VALUE: SCP can perform single value matching.
- UID: SCU can perform UID matching.
- WILDCARD: SCU can perform Wildcard matching.
- RANGE: SCU can perform Range matching.
- SEQUENCE: SCU can perform sequence matching.
- RETURN KEY: SCU can send attribute as a return value (universal matching).

[Table A.5-3 below contains a set of attributes that could be supported by a product. Add and remove attributes in order to match your product implementation using the matching type as defined above. If multiple codes are supported, list all of them. Use the Comments column if clarification is needed.]

Table A.5-3 Supported C-FIND Return Keys for Modality Worklist - SCP

Attribute Name	Tag	Matching Type	Comments
Scheduled Procedure Step			
Schedule Procedure Step Sequence	(0040,0100)		
>Scheduled Station AE Title	(0040,0001)	*SINGLE_VALUE*	

Attribute Name	Tag	Matching Type	Comments
>Scheduled Procedure Step Start Date	(0040, 0002)	*RANGE*	
>Scheduled Procedure Step Start Time	(0040, 0003)	*RANGE*	
>Modality	(0008,0060)	*SINGLE_VALUE*	
>Scheduled Performing Physician's Name	(0040,0006)	*WILDCARD*	
…			
Requested Procedure			
Study Instance UID	(0020,000D)	*RETURN KEY*	
…			
Imaging Service Request			
Accession Number	(0008,0050)	*SINGLE_VALUE*	
Issuer of Accession Number Sequence	*(0008,0051)*	*RETURN KEY*	
Requesting Physician	(0032,1032)	*RETURN KEY*	
Referring Physician's Name	(0008,0090)	*RETURN KEY*	
…			
Visit Identification			
…			
Visit Relationship			
…			
Patient Identification			
…			
Patient Demographics			
…			

[Describe the behavior of the product when it receives a C-FIND-CANCEL request.]

[Document your product's query capabilities and behavior for handling non-default character sets, especially for handling person names (VR of PN).]

A.5.2.2 Modality Performed Procedure Step Service

A.5.2.2.1 SCU of the Modality Performed Procedure Step SOP Class

As a Service Class User of the Modality Performed Procedure Step SOP Class, the <*Product*> supports the attributes listed in Table A.5-4 in the N-CREATE-RQ and N-SET-RQ messages, if it creates the message.

In the Source column the following values can be used:

- FIXED: the value is pre-defined and cannot be modified.
- GENERATED: the value is generated by the system.
- CONFIGURATION: the value is copied from system configuration.
- 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.

[List all attributes provided in the MPPS message and list the values that are used to populate the N-CREATE or N-SET messages, add or remove attributes as applicable for your product and note that in the source column, multiple values can be provided in a comma separated list.]

Table A.5-4 Supported N-CREATE and N-SET Attributes for Modality Performed Procedure Step - SCU

Attribute Name	Tag	Source	Value N-CREATE	Value N-SET	Comments
Specific Character Set	(0008,0005)	*FIXED*	*ISO_IR 100*	*ISO_IR 100*	
Performed Procedure Step Relationship					
Scheduled Step Attribute Sequence	(0040,0270)				
>Study Instance UID	(0020,000D)	*MWL*			
>Accession Number	(0008,0050)	*MWL; USER; EMPTY*			
>Issuer of Accession Number Sequence	*(0008,0051)*	*MWL; GENERATED*			
…					
Patient's Name	(0010,0010)	*MWL; USER*			
Patient ID	(0010,0020)	*MWL; GENERATED*			
…					
Performed Procedure Step Information					
Modality	(0008,0060)	*GENERATED*	*CT*		
Study ID	(0020,0010)	*GENERATED*	*Copied from Requested Procedure ID*		
Performed Protocol Code Sequence	(0040,0260)	*GENERATED*			
…					
Image Acquisition Results					
…					

[Describe the triggers by which your product initiates sending messages, e.g., the N-CREATE is sent when starting image acquisition and N-SET is sent when the study is closed.]

[If product also supports forwarding of MPPS messages (e.g., as described by the MPPS Manager Actor in the IHE Schedule Workflow profile), provide a description of the product behavior here.]

A.5.2.2.2 SCP of the Modality Performed Procedure Step SOP Class

As a Service Class Provider of the Modality Performed Procedure Step SOP Class, the product receives N-CREATE-RQ and N-SET-RQ messages from a remote SCU indicating the status of a procedure.

[Indicate in the Table below whether your product has specific requirements with regards to the message content, e.g., whether specific attributes are required (YES) or not (NO)]

Table A.5-5 lists the message content that is required.

Table A.5-5 Supported N-CREATE and N-SET Attributes for Modality Performed Procedure Step - SCP

Attribute Name	Tag	Required in N-CREATE	Required in N-SET	Comments
Specific Character Set	(0008,0005)			
Performed Procedure Step Relationship				
Scheduled Step Attribute Sequence	(0040,0270)			
>Study Instance UID	(0020,000D)			
>Accession Number	(0008,0050)			
>Issuer of Accession Number Sequence	*(0008,0051)*			
Patient Name	(0010,0010)			
Patient ID	(0010,0020)			
…				
Performed Procedure Step Information				
Modality	(0008,0060)			
Study ID	(0020,0010)			
Performed Protocol Code Sequence	(0040,0260)			
…				
Image Acquisition Results				
…				

[Describe the behavior of the product upon receiving an MPPS message, both the N-CREATE and the N SET.]

A.5.2.3 Unified Worklist and Procedure Step Service

[If your product supports any of the Unified Worklist SOP Classes, list the Supported SOP Classes, the role, a list of supported messages, and the content of each supported message. If one or more of the Unified Worklist SOP Classes are not supported, keep the section, but include text indicating the SOP Class is "Not Supported".]

A.5.2.4 Instance Availability Notification Service

A.5.2.4.1 SCU of the Instance Availability Notification SOP Class

As a Service Class User of the Instance Availability Notification SOP Class, the system uses the N-CREATE-RQ message to inform remote SCPs about the availability and status of instances stored. Details of the message content are summarized in Table A.5-6.

In the Source Column the following values can be used:

- FIXED: The value is predefined and cannot be modified by data entry or by configuration.
- GENERATED: The query value is generated by the system (e.g current date as the study date).
- CONFIGURATION: The query value is dependent on system configuration.
- IMAGE: The value is copied from the object header.
- MWL: The value is copied from Modality Workflist.
- MPPS: The value is copied from the MPPS message.

[The Table below list some attribute for instance availability notification as examples. Complete Table with attributes supported by your product. For the Source column use values as defined above.]

Table A.5-6: Supported N-CREATE attributes for Instance Availability Notification - SCU

Attribute Name	Tag	Source	Value	Comments
Specific Character Set	(0008,0005)	*FIXED*	*ISO_IR_100*	
Referenced Performed Procedure Step Sequence	(0008,1111)	*GENERATED*		
>…	(0008,1150)			
>Performed Workitem Code Sequence	(0040,4019)	*GENERATED*		
>>…				
Study Instance UID	(0020,000D)	*IMAGE*		
Referenced Series Sequence	(0008,1115)	*IMAGE*		
>Series Instance UID	(0020,000E)	*IMAGE*		
>Referenced SOP Sequence	(0008,1199)	*IMAGE*		
>>…				
>>Instance Availability	(0008,0056)	*GENERATED*	*See Table A.5-7*	
>>Retrieve AE Title	(0008,0054)	*CONFIGURATION*		
…				

The <*Product*> supports the values listed in Table A.5-7, for the Instance Availability Attribute (0018,0056).

[Fill in the Table with values supported for the Instance Availability attribute and define the meaning of these values in the context of your <Product>]

Table A.5-7: Meaning of Instance Availability values

Value	Meaning
ONLINE	
NEARLINE	
OFFLINE	
UNAVAILABLE	

[Describe the mechanism that triggers sending of an instance availability notification, the frequency and retrieve capabilities for referenced instances.]

[Describe the relationship between the Instance Availability Notification and Performed Procedure Step SOP Class, if both are supported.]

A.5.2.4.2SCP of the Instance Availability Notification SOP Class

As a Service Class Provider of the Instance Availability Notification SOP Class, the system receives the N-CREATE-RQ message containing information on the availability and status of instances stored.

Table A.5-8 describes the behavior of <*Product*> when encountering one of the following values for the Instance Availabilty Attribute (0018,0056).

[Fill in the Table with values supported for the Instance Availability attribute and define the policies of the product upon encountering these values.]

Table A.5-8: Behavior on Instance Availability values

Value	Behavior
ONLINE	
NEARLINE	
OFFLINE	
UNAVAILABLE	

[Describe the relationship between the Instance Availability Notification and Performed Procedure Step SOP Class, if both are supported and if a relationship exists.]

A.5.2.5 Storage Service

A.5.2.5.1 SCU of the Storage SOP Classes

As a Service Class User of the Storage Service Class, the <*Product*> uses the C-STORE-RQ message to request storage of DICOM objects by a remote SCP. See Section A.1.1 Content and Transfer in the Overview for the list of supported SOP Classes.

For details regarding the IODs created by the system, see Annex A.

[Provide some details regarding the triggering of storage requests (e.g automatically when an instance is stored, automatically when the study is closed, or initiated by the user).]

[Describe when and how your product divides sets of instances into multiple series and or studies.]

[Describe the behavior of your product in the case of a C-STORE operation using a referenced pixel data transfer syntax such as JPIP Referenced Pixel Data Transfer Syntax. This includes the duration of validity of the reference.]

A.5.2.5.2 SCP of the Storage SOP Classes

As a Service Class Provider of the Storage Service Class, the <*Product*> receives the C-STORE-RQ message from remote SCUs. See Section A.1.1 Content and Transfer in the Overview for the list of supported SOP Classes.

Table A.5-9 defines the conformance levels of <*Product*>

Table A.5-9: Conformance Levels

Conformance Level	*<<0, 1, or 2>>*
Level of Digital Signature	*<<1, 2, or 3>>*

The <*Product*> coerces the attributes listed in Table A.5-10 upon receiving them from other systems.

The SOP Class UID Column indicates whether the coercion is applicable to specific SOP classes or to ALL SOP Classes.

The Type of Change column defines the coercion done to the attributes, the following values can be used:

- MODIFIED: The value of the attribute is changed; the new value is described in the New Value column.
- ADDED: The attribute is added with the value defined in the New Value column.
- REMOVED: That attribute is completely removed from the instance.

The Condition column defines the condition under which coercion is performed. The following values can be used:

- ALWAYS: Data coercion is performed on each instance of the specified SOP class that is received by the system.

- EXTERNAL: Data coercion is performed on instances received from systems external to the institution.
- CONFIGURATION: Data coercion is performed based on system configuration.
- OTHER: Data coercion is performed for other conditions. Details are defined in the Comment column.

[Table A.5-10 defines some examples on which data coercion can be performed. Add/remove scenarios as they apply to your product implementation. In case you use OTHER as a condition, the Comment columns must be used to define the condition in further detail. It is recommended to include attributes that are coerced in the Modified Attributes Sequence (0400,0550) of the Original Attributes Sequence (0400,0561), which is documented in Annex A.1.1 in the SOP Common Module.]

Table A.5-10: Attribute Coercion by Storage SCP

Attribute Name	Tag	SOP Class UID	Type of Change	New Value	Condition	Comment
Patient ID	*(0010, 0020)*	*ALL*	*MODIFIED*	*Local patient ID*	*EXTERNAL*	
Issuer of Patient ID	*(0010, 0021)*	*ALL*	*ADDED*	*Local site as Issuer*	*ALWAYS*	
Lossy Image Compression	*(0028, 2110)*	*ALL*	*ADDED*	*01*	*CONFIGURATION*	*If lossy compression is enabled on system*
Patient Name	*(0010, 0010)*	*CT Image Storage (1.2.840.10008.5.1.4.1.1.2)*	*MODIFIED*	*Pat_xxx (where xxx is a sequential number)*	*OTHER*	*Studies received through CLINICALTRIAL AE*
…						

Table A.5-11 lists any restrictions on displaying or processing instances.

[Provide display/processing restrictions in Table A.5-11. There are different scenarios:

- *Restrictions based on a single attribute. Values for the Attribute Name and Tag need to be provided. If there is no specific restriction on specific values, but the presence of the attribute would prevent display or processing, just use ABSENT for the value column.*

- *Restrictions based on the dependency of attributes. In this scenario merge the Comments and Type cells for the affected attributes and explain the dependency in the Comments column*

List restrictions based on IODs to which they apply. Use the Type column to indicate "P" for Post Processing and "D" for Display.]

[If there are no restrictions on display or processing requirements, replace the sentence above with No restriction to display or post processing apply.]

Table A.5-11: Display and Processing Restrictions for Storage SCP

Attribute Name	Tag	Value	Comment	Type
CT Image Storage (1.2.840.10008.5.1.4.1.1.2)				
Bits Stored	*(0028,0101)*	*16*		*D*

Digital Mammography X-Ray Image Storage – For Processing (1.2.840.10008.5.1.4.1.1.1.2.1)				
Detector ID	*(0018,700A)*	*ABSENT*	*Value needs to be present for Licensing purposes*	*P*
All IODs				
Transfer Syntax UID	*(0002,0010)*	*1.2.840.10008.1.2.4.70*	*Lossless compressed RGB images cannot be displayed*	*D*
Photometric Interpretation	*(0028,0004)*	*RGB*		

Table A.5-12 lists the behavior upon receiving instances from a remote node:

[Fill in Table A.5-12 for details. The Table shows some examples which can be reused, modified, deleted, or extended based on your product implementation]

Table A.5-12: Behavior when storing instances

Action upon Receiving	Result	System behavior
Perform Attribute Validation	*Minor DICOM inconsistencies*	*Fix error and log warning message:* *•Incorrect characters are replaced with "?"* *•Attributes exceeding length of VR are truncated* *•Type 2 attributes not present are inserted with zero length*
	Duplicate Instance	*<Reject/Overwrite/Ignore>Instances>*
	DICOM Validation error	*Send failure code on association*
	Success	*Instances are stored in internal database*
Adding to an existing study	*Mismatch in patient identifying information detected*	*Instances are stored in exception queue*
	Success	*Instances are stored in local database*
Localize Patient Information	*Patient mismatch detected*	*Instances are stored in exception queue*
	Success	*Original patient identity information is copied to Other Patient ID Sequence (0010,1002)* *Instances are stored in internal database.*
Coercion of non-patient-identifying attributes	*Success*	*Original values of coerced attributes are copied to Original Attributes Sequence (0040,0561)* *Instances are stored in local database*
Evaluate KOS object Document Title	*Manifest*	*Use referenced data for cross-enterprise document sharing*

	Rejected for Quality Reasons Rejected for Patient Safety Reasons	*Only provide instances referenced in retrieval on specialized AE title*
	Incorrect Modality Workflist Entry	*Hide instances from display and never provide in retrieve requests*
	All other titles	*Display key images according to specified title*
…		

[If compression is supported and you want to document it, list the following information, otherwise remove the compression related information below:

Indicate which SOP Classes are compressed by the system (either provide SOP Class Name and UID or list ALL, if compression is applied to all SOP Classes, or ALL_OTHER if it is applied to all others that are not listed in the Table before.

For the condition column use: ALWAYS, if compression is always performed, CONFIGURATION if it is based on internal configuration settings, AS_IS if images are store the way they were received, and OTHER for all other conditions (add a comment in this situation).

For the type of compression use the Transfer Syntax UID to indicate the compression mechanism applied.]

Table A.5-13: Image Compression by Storage SCP

SOP Class	SOP Class UID	Condition	Type of compression	Comment
Digital Mammography X-Ray Image Storage – For Processing	*1.2.840.10008.5.1.4.1.1.2.1*	*CONFIGURATION*	*1.2.840.10008.1.2.4.70*	
ALL_OTHER		*CONFIGURATION*	*1.2.840.10008.1.2.4.50*	

[If no compression is supported, list the following:]

No compression is applied to objects received from external devices

[Describe the mechanism by which additional SOP Classes are dynamically supported.]

A.5.2.5.3Transcoding of Transfer Syntaxes

Table A.5-14 defines possible transcodings between transfer syntaxes when objects received (stored locally) are sent out again. The following values can be used:

- Supported: When transcoding is possible and same SOP Instance UID is re-used.
- New UID: When transcoding is possible however a new SOP Instance is created for transfer, e.g. due to lossy compression.
- Not supported: When transcoding is not possible at all.

[Table A.5-14 shows an example of how this transcoding could look, modify and add columns and rows as needed for transfer syntaxes supported by your product. If you need to provide further details on specific transcoding those can be added as notes under the Table.]

Table A.5-14: Transcoding of Transfer Syntaxes

Sent Transfer Syntax / Stored Transfer Syntax	**Implicit Little Endian**	***Explicit Little Endian***	***JPEG Lossless, Non-Hierarchical, First-Order Prediction (Process 14) lossless compressed***	***JPEG Baseline (Process 1) lossy compressed***	***…***
Implicit Little Endian	*Supported*	*Supported (see Note 1)*	*Supported*	*New UID*	
Explicit Little Endian	*Supported*	*Supported*	*Supported*	*New UID*	
JPEG Lossless, Non-Hierarchical, First-Order Prediction (Process 14) lossless compressed	*Supported*	*Supported*	*Supported*	*New UID*	
JPEG Baseline (Process 1) lossy compressed	*Not supported*	*Not supported*	*Not supported*	*Supported*	
ACME Private Transfer Syntax 1 (See note 2)	*Not supported*	*Supported*	*Not supported*	*Not supported*	
…					

Note 1: Explanation of details of transcoding (e.g., for known private attributes, the correct VR will be used. All others will be encoded as VR UN

Note 2: This Private Transfer Syntax is using ELE with compressed pixel data.

A.5.2.6 Storage Commitment Service

A.5.2.6.1SCU of the Storage Commitment SOP Class

As a Service Class User of the Storage Commitment SOP Class, the <*Product*> uses the N-ACTION-RQ message to request storage commitment from a remote SCP. In turn, it receives N-EVENT-REPORT-RQ messages from the SCP indicating success or failure of the request.

[Provide a list of Storage SOP Classes for which the product requests storage commitment. Also indicate whether this is configurable.]

[If Storage Commitment is provided for all supported SOP Classes you can provided a reference to the list of supported Storage SOP Classes in the overview, e.g.]

As the SCU of the Storage Commitment Push Model SOP Classes the product supports committing all Storage SOP Classes listed in Section A.1.1 Content and Transfer are supported.

[If Storage commitment is provided for a subset of all supported Storage SOP classes, provide a list of those, and delete the paragraph above.]

[Specify whether your product supports the Storage Media File Set ID and UID attributes in the N-ACTION-Request. If this is supported, also list the Media Application profiles supported in this context.]

Table A.5-15 lists the behavior of <*Product*> for each possible Failure Reason (0008,1197) in the Failed SOP Sequence (0008,1198) upon receiving an N-EVENT-REPORT request from the SCP with an Event Type ID of 2 (Storage Commitment Request Complete – Failures Exist).

[Fill in the behavior of your product upon encountering the Status Code. Note that for each code, that is listed in the Table, a behavior needs to be provided. If your system does not support specific codes, list "Code is ignored by the system".]

Table A.5-15: Failure Behavior for Storage Commitment SCU

Status Code	Description	Behavior
0000H	Success	*Instances will be removed from system after configurable time or if space is needed*
0110H	Processing failure: A general failure in processing the operation was encountered.	*The request for storage commitment is marked as failed. A warning is displayed if the user tries to delete affected instances*
0112H	No such object instance: One or more of the elements in the Referenced SOP Instance Sequence was not available.	*The instance is re-sent, and the N-ACTION request is repeated.*
0119H	Class / Instance conflict: The SOP Class of an element in the Referenced SOP Instance Sequence did not correspond to the SOP Class registered for this SOP Instance at the SCP.	*Code is ignored by the system*
0122H	Referenced SOP Class not supported: Storage Commitment has been requested for a SOP Instance with a SOP Class that is not supported by the SCP.	*The request for storage commitment is marked as failed. A warning is displayed if the user tries to delete affected instances*
0131H	Duplicate transaction UID: The Transaction UID of the Storage Commitment Request is already in use.	*The request for storage commitment is marked as failed. A warning is displayed if the user tries to delete affected instances*
0213H	Resource limitation: The SCP does not currently have enough resources to store the requested SOP Instance(s).	*The request for storage commitment is marked as failed. A warning is displayed if the user tries to delete affected instances*

[Describe your product behavior in case the N-EVENT-REPORT request is not received after a specific time, e.g., <Product> expects to receive the N-EVENT-REPORT request in a configurable time frame after the N-ACTION is sent. If the N-EVENT-REPORT is not received within this configurable timeframe it repeats the N-ACTION-REQUEST.]

[Describe the policies for deleting instances from your product, both upon successful starage commitment as well as in failure scenarios.]

A.5.2.6.2 SCP of the Storage Commitment SOP Class

As a Service Class Provider of the Storage Commitment SOP Class, the <*Product*> receives the N-ACTION-RQ message to request storage commitment from a remote SCU. In turn it initiates the N-EVENT_REPORT-RQ messages from to the SCU indicating success or failure of the request.

Table A.5-16 lists conditions upon which an error codes is sent in the Failure Reason (0008,1197) Attribute in the Failed SOP Sequence (0008,1198) of the N-EVEN-REPORT request.

[Fill in the conditions under which your product is sending the listed Status Codes. Note that for each code, that is listed in the Table, a condition needs to be provided. If your system does not support specific codes, list "Code is not supported"]

Table A.5-16: Failure Conditions on Storage Commitment SCP

Status Code	Description	Conditions
0110H	Processing failure: A general failure in processing the operation was encountered.	
0112H	No such object instance: One or more of the elements in the Referenced SOP Instance Sequence was not available.	
0119H	Class / Instance conflict: The SOP Class of an element in the Referenced SOP Instance Sequence did not correspond to the SOP Class registered for this SOP Instance at the SCP.	
0122H	Referenced SOP Class not supported: Storage Commitment has been requested for a SOP Instance with a SOP Class that is not supported by the SCP.	
0131H	Duplicate transaction UID: The Transaction UID of the Storage Commitment Request is already in use.	
0213H	Resource limitation: The SCP does not currently have enough resources to store the requested SOP Instance(s).	

[Specify whether your product supports the Storage Media File Set ID and UID attributes in the N-ACTION-Request. If this is supported, also list the Media Application profiles supported in this context.]

[Specifiy whether the Retrieve AE title attribute is supported and if so what policies for its usage exist.]

[Describe the policies and nature of commitment of the product, e.g. the duration of storage, retrieve capabilities, latency, capacity, and other pertinent information.]

[Describe how long it typically needs to send the N-EVENT-REPORT-RQ after the N-ACTION-RQ is received.]

A.5.2.7 Query/Retrieve Service Class

[The sections below define some of the most used Query Retrieve SOP Classes as examples, however, there are many more Query/Retrieve SOP Classes defined in DICOM PS 3.4. If your product supports any of these additional SOP Classes, add additional Sections for these SOP Classes for SCU and SCP.]

A.5.2.7.1 SCU of the Study Root Q/R - Information Model – FIND SOP Class

As a Service Class User of the Study Root Q/R - Information Model - FIND SOP Class, the <*Product*> uses the C-FIND-RQ message and supports the Query Keys listed in Table A.5-17

In the Matching Type Column the following values can be used:

- SINGLE_VALUE: SCU can request single value matching.
- UID: SCU can request UID matching.
- WILDCARD: SCU can request Wildcard matching.
- RANGE: SCU can request Range matching.
- SEQUENCE: SCU can request Sequence matching.
- RETURN_KEY: SCU can request Attribute as a return value (universal matching).

In the Query Value column the following values can be used:

- FIXED: The query value cannot be modified by the user or by configuration.
- GENERATED: The query value is generated by the system (e.g current date as the study date).
- CONFIGURATION: The query value is dependent on system configuration.
- USER: The query value is entered by the user.
- SCANNED: The query value is read from a barcode scanner or similar device.
- EMPTY: The query value is left empty to indicate it is a a return key only.

[Modify the Table below to include all attributes supported by your system (standard attributes as well as private attributes) and use the terms defined for matching type, query value source and Display on UI above. If multiple codes are supported, list all of them.]

Table A.5-17: Supported C-FIND Matching Keys for Study Root Q/R Model -SCU

Attribute Name	Tag	Matching Type	Query Value	Value	Display on UI	Comments
Study Level						
Study Date	(0008,0020)	*RANGE*	*USER*		*YES*	
Study Time	(0008,0030)	*RANGE*	*USER*		*YES*	
Accession Number	(0008,0050)	*SINGLE_ VALUE*	*USER*		*YES*	
Patient's Name	(0010,0010)	*WILDCARD*	*USER*		*YES*	
Patient ID	(0010,0020)	*SINGLE_ VALUE*	*USER, GENERATE D*		*YES*	
Study Instance UID	(0020,000D)	*RETURN_KE Y*	*EMPTY*		*NO*	
Modalities in Study	*(0008,0061)*	*SINGLE_ VALUE*	*USER*		*YES*	
Study Description	*(0008,1030)*	*WILDCARD*	*USER*		*YES*	
…						
Series Level						
Modality	*(0008,0060)*	*SINGLE_ VALUE*	*USER*		*YES*	
Body Part Examined	*(0018,0015)*	*SINGLE_ VALUE*	*USER*		*YES*	
…						
Instance Level						
…						
Private Attributes						
Private Creator	*(0009,0010)*	*SINGLE_ VALUE*	*FIXED*		*NO*	
Private Value1	*(0009,1001)*	*RETURN_KE Y*	*EMPTY*		*YES*	
…						

[Describe scenarios in which the SCU can issue C-FIND-CANCEL requests, e.g.

The product issues C-FIND CANCEL requests in the following scenarios:
** Configurable maximum of matches detected*
** Initiated by user]*

[Also describe the behavior if the SCP ignores the cancelation request and continues sending responses.]

[Document your product's query capabilities and behavior for handling non-default character sets, especially for handling person names (VR of PN)]

A.5.2.7.2 SCU of the Patient Root Q/R - Information Model – FIND SOP Class

[If this SOP Class is supported, fill in the section as indicated in Section A.5.2.7.1. Otherwise mark as N/A]

A.5.2.7.3 SCU of the Study Root Q/R - Information Model – MOVE SOP Class

[Describe if List of UID matching may be used to retrieve multiple entities at STUDY, SERIES, or IMAGES levels.]

[Also specify the conditions under which a C-MOVE CANCEL may be sent.]

[Indicate whether your product supports sending matching instances to a different AE Title.]

[Indicate your product behavior in case no C-STORE request are received after a specific time, e.g. <Product> expects to receive the C-STORE request in a configurable time frame after the C-MOVE request is sent. If no C-STORE requests are received within this configurable timeframe it repeats the C-MOVE-Request.]

A.5.2.7.4 SCU of the Patient Root Q/R - Information Model – MOVE SOP Class

[If this SOP Class is supported, fill in the section as indicated in Section A.5.2.7.3. Otherwise mark as N/A.]

A.5.2.7.5 SCP of the Study Root Q/R - Information Model – FIND SOP Class

As a Service Class Provider of the Study Root Q/R - Information Model - FIND SOP Class, the <*Product*> uses the C-FIND-RSP to communicate matches back to the SCU. It supports the Matching Keys listed in Table:

In the Matching Type Column the following values can be used:

- SINGLE_VALUE: SCP can perform single value matching
- UID: SCP can perform UID matching
- WILDCARD: SCP can perform Wildcard matching
- RANGE: SCP can perform Range matching
- SEQUENCE: SCP can perform sequence matching
- RETURN_KEY: SCP can send attribute as a return value (universal matching)

[The Table below contains a set of attributes (standard attributes as well as private attributes) that could be supported by a product. Add and remove attributes in order to match your product implementation using the matching type as defined above. If multiple codes are supported, list all of them. Use the notes column if clarification is needed.]

Table A.5-18: Supported C-FIND Return Keys for Study Root Q/R Model -SCP

Attribute Name	Tag	Matching Type	Comments
Study Level			
Study Date	(0008,0020)	*RANGE*	
Patient's Name	(0010,0010)	*WILDCARD*	
Patient ID	(0010,0020)	*SINGLE_ VALUE*	

Attribute Name	Tag	Matching Type	Comments
Study Instance UID	(0020,000D)	*UNIVERSAL*	
Modalities in Study	(0008,0061)	*SINGLE_VALUE*	
Study Description	(0008,1030)	*WILDCARD*	
…			
Series Level			
…			
Instance Level			
…			
Private Attributes			
…			

[Document your product behavior in case you are encountering non supported private attributes]

[Describe the behavior of the product if it receives a C-FIND-CANCEL request.]

[Document your product's query capabilities and behavior for handling non-default character sets, especially for handling person names (VR of PN)]

[If your product supports Extended Negotiation for fuzzy matching describe how matching is performed, e.g. whether your matching is insensitive to case, position, accent, or character encoding, or whether you support phonetic matching.]

A.5.2.7.6SCP of the Patient Root Q/R - Information Model – FIND SOP Class

[If this SOP Class is supported, fill in the section as indicated in Section A.5.2.7.5. Otherwise mark as N/A.]

A.5.2.7.7SCP of the Study Root Q/R - Information Model – MOVE SOP Class

As the SCP of the Study Root Q/R – Information Model –MOVE, the <*Product*> receives the C-MOVE-RQ and in turn uses the C-STORE-RQ sub operation to send matching SOP Instances to the Move Destination AE included in the C-MOVE-RQ.

[Provide a list of Storage SOP Classes supported or reference Storage Table in Overview e.g.]

As the SCU of the storage service class, all Storage SOP Classes listed in Section A.1.1 are supported.

[Describe the relationship between the incoming C-MOVE-Request and the C-STORE suboperation, e.g. is each instance sent on one association or is the same association used for all instances, is this behavior configurable.]

[Describe your product behavior if a C-MOVE-CANCEL Request is received.]

A.5.2.7.8 SCP of the Patient Root Q/R - Information Model – MOVE SOP Class

[If this SOP Class is supported, fill in the section as indicated in Section A.5.2.7.7. Otherwise mark as N/A.]

A.5.2.8 Print Management Service

[If your system does not support the Print Management service, you can indicate that this section is not applicable and remove all the Print management service subsections.]

A.5.2.8.1 SCU of the Basic Grayscale Print Management Meta SOP Class

[If your system does not support the Basic Grayscale Print Management Meta SOP Class as SCU, you can indicate that this section is not applicable and remove all the content of this section including the subsections.]

The Basic Grayscale Print Management Meta SOP Class is composed of the mandatory SOP Classes shown in Table A.5-19.

Table A.5-19: Basic Grayscale Print Management SOP Classes - SCU

SOP Class Name	SOP Class UID
Basic Film Session	1.2.840.10008.5.1.1.1
Basic Film Box	1.2.840.10008.5.1.1.2
Basic Grayscale Image Box	1.2.840.10008.5.1.1.4
Printer	1.2.840.10008.5.1.1.16

A.5.2.8.1.1 Basic Film Session SOP Class

Table A.5-20 list the supported DIMSE services for the Basic Film Session SOP Class:

[List the supported DIMSE service elements. Remove the non-supported ones]

Table A.5-20: Services for the Basic Film Session SOP Class - SCU

DIMSE Service Element	Purpose
N-CREATE	Create the film session
N-SET	*Update the film session*
N-DELETE	*Delete the film session*
N-ACTION	*Print all film boxes in the film session*

Table A.5-21 lists the supported N-CREATE *and N-SET* attributes for Basic Film Session:

[List the supported attributes and their possible value / range. List the default value when relevant. All tags are optional for the SCU in the Basic film session. See example below]

Table A.5-21: Supported N-CREATE *and* N-SET Attributes for the Basic Film Session SOP Class - SCU

Attribute Name	Tag	Values	Default
Number of Copies	*(2000,0010)*	*<range or fixed value>*	*1*
Print Priority	*(2000,0020)*	*<<HIGH LOW MED>>*	*LOW*
Medium Type	*(2000,0030)*	*<<BLUE FILM CLEAR FILM MAMMO BLUE FILM MAMMO CLEAR FILM PAPER …>>*	
Film Destination	*(2000,0040)*	*<<MAGAZINE PROCESSOR BIN_I …>>*	*PROCESSOR*
Film Session Label	*(2000,0050)*		
Memory Allocation	*(2000,0060)*		
Owner ID	*(2100,0160)*		

A.5.2.8.1.2 Basic Film Box SOP Class

Table A.5-22 list the supported DIMSE services for the Basic Film Box SOP Class:

[List the supported DIMSE service elements. Remove the non-supported ones]

Table A.5-22: Supported Services for the Basic Film Box SOP Classess

DIMSE Service Element	Purpose
N-CREATE	Create the film Box in a previously created film session
N-ACTION	Print the Film Box
N-SET	*Update the Film Box*
N-DELETE	*Delete the Film Box*

Table A.5-23 list the supported N-CREATE and N-SET attributes for Basic Film Box:

[List the supported attributes and their possible values. Provide the default value when relevant. See example below.]

Table A.5-23: Supported N-CREATE and N-SET Attributes for the Basic Film Box SOP Class - SCU

Attribute Name	Tag	Values	Default
Image Display Format	(2010,0010)	*<<STANDARD\C,R ROW\R1,R2,R3, etc. COL\C1,C2,C3, etc. SLIDE SUPERSLIDE CUSTOM\i>>*	*STANDARD\1,1*
Annotation Display Format ID	*(2010,0030)*	*Possible values to be provided by the printer manufacturer*	
Film Orientation	*(2010,0040)*	*<<PORTRAIT LANDSCAPE>>*	*PORTRAIT*
Film Size ID	*(2010,0050)*	*<<8INX10IN 8_5INX11IN 10INX12IN 11INX14IN 11INX17IN 14INX14IN 14INX17IN 24CMX24CM 24CMX30CM A4 A3 …>>*	
Magnification Type	*(2010,0060)*	*<<REPLICATE BILINEAR CUBIC NONE …>>*	*CUBIC*
Smoothing Type	*(2010,0080)*	*<possible values or range>*	
Border Density	*(2010,0100)*	*<<BLACK WHITE I, where i represents the desired density in hundredths of OD …>>*	*BLACK*

Attribute Name	Tag	Values	Default
Empty Image Density	*(2010,0110)*	*<<BLACK WHITE I, where i represents the desired density in hundredths of OD …>>*	*BLACK*
Minimum Density	*(2010,0120)*	*<possible values or range in hundredths of OD>*	
Maximum Density	*(2010,0130)*	*<possible values or range in hundredths of OD>*	*300*
Trim	*(2010,0140)*	*<<YES NO>>*	*NO*
Configuration Information	*(2010,0150)*		
Illumination	*(2010,015E)*	*<possible values or range>*	*2000*
Reflective Ambient Light	*(2010,0160)*	*<possible values or range>*	*10*
Ref. Film Session Seq.	(2010,0500)	*<possible values or range>*	
>Ref. SOP Class UID	(0008,1150)	1.2.840.10008.5.1.1.1	
>Ref. SOP Instance UID	(0008,1155)		
Ref. Presentation LUT Seq.	*(2050,0500)*		
>Ref. SOP Class UID	*(0008,1150)*	*1.2.840.10008.5.1.1.23*	
>Ref. SOP Instance UID	*(0008,1155)*		

A.5.2.8.1.3 Basic Grayscale Image Box SOP Class

Table A.5-24 list the supported DIMSE service for the Basic Grayscale Image Box SOP Class:

Table A.5-24: Services for the Basic Grayscale Image Box SOP Class

DIMSE Service Element	Purpose
N-SET	Set Image attributes for a previously created film box

1400

Table A.5-25 lists the supported N-SET attributes for Basic Grayscale Image Box:

[List the supported attributes and their possible values. Provide the default value when relevant. See example below.]

Table A.5-25: Supported N-SET Attributes for the Basic Grayscale Image Box SOP Class -SCU

Attribute Name	Tag	Values	Default
Magnification Type	*(2010,0060)*	*<<REPLICATE BILINEAR CUBIC NONE …>>*	*CUBIC*
Smoothing Type	*(2010,0080)*	*<possible values or range>*	*143*
Minimum Density	*(2010,0120)*	*<possible values or range in hundredths of OD>*	
Maximum Density	*(2010,0130)*	*<possible values or range in hundredths of OD>*	*300*
Configuration Information	*(2010,0150)*		
Image Box Position	(2020,0010)	*x (where x = # image)*	
Polarity	*(2020,0020)*	*<<NORMAL REVERSE>>*	*NORMAL*

Attribute Name	Tag	Values	Default
Requested Image Size	*(2020,0030)*	*width, x-dimension, in mm*	
Requested Decimate/Crop Behavior	*(2020,0040)*	*<<DECIMATE CROP FAIL>>*	
Basic Grayscale Image Sequence	(2020,0110)		
>Samples Per Pixel	(0028,0002)	1	
>Photometric Interpretation	(0028,0004)	<<MONOCHROME1 MONOCHROME2>>	
>Rows	(0028,0010)		
>Columns	(0028,0011)		
>Pixel Aspect Ratio	*(0028,0034)*		*1\1*
>Bits Allocated	(0028,0100)	*<<8 16>>*	
>Bits Stored	(0028,0101)	*<<8 12>>*	
>High Bit	(0028,0102)	*<<7 11>>*	
>Pixel Representation	(0028,0103)	*0*	*0*
>Pixel Data	(7FE0,0010)		
Ref. Presentation LUT Seq.	*(2050,0500)*		
>Ref. SOP Class UID	*(0008,1150)*	*1.2.840.10008.5.1.1.23*	
>Ref. SOP Instance UID	*(0008,1155)*		

1405 **A.5.2.8.1.4 Printer SOP Class**

Table A.5-27 list the supported DIMSE services for the Printer SOP Class:

[List the supported DIMSE service elements supported. Remove the non-supported one.]

Table A.5-26: Services for the Printer SOP Class

DIMSE Service Element	Purpose
N-EVENT-REPORT	Report the printer status in an asynchronous way
N-GET	*Retrieve printer information and status.*

1410 An N-EVENT-REPORT request can be received by the SCU at any time during an association.

Table A.5-27 summarizes the behavior of the SCU when receiving Event Types within the N-EVENT-REPORT.

Table A.5-27: Printer SOP Class N-EVENT-REPORT Behavior

Event Type Name	Event Type ID	Behavior
Normal	1	
Warning	2	
Failure	3	

[Remove the following text and Table if N-GET is not supported]

1415 Table A.5-28 list the supported N-GET attributes for Printer SOP Class:

[List the supported attributes and the behavior of the SCU when receiving Printer Status / Printer status info. Remove the non-supported attributes from the Table]

Table A.5-28: Supported N-GET Attributes for the Printer SOP Class - SCU

Attribute Name	Tag	Behavior

Printer Status	(2110,0010)	*<<NORMAL WARNING FAILURE>>*
Printer Status Info	(2110,0020)	
Printer Name	*(2110,0030)*	
Manufacturer	*(0008,0070)*	
Manufacturer Model Name	*(0008,1090)*	
Device Serial Number	*(0018,1000)*	
Software Versions	*(0018,1020)*	
Date Last Calibration	*(0018,1200)*	
Time Last Calibration	*(0018,1201)*	

A.5.2.8.2 SCU of the Basic Color Print Management Meta SOP Class

[If your system does not support the Basic Color Print management SOP Class as SCU, you can indicate that this section is not applicable and remove all the content of this section including the subsections.]

The Basic Color Print Management SOP Class is composed of the mandatory SOP Classes listed in Table A.5-29:

Table A.5-29: Basic Color Print Management SOP Classes

SOP Class Name	SOP Class UID
Basic Film Session	1.2.840.10008.5.1.1.1
Basic Film Box	1.2.840.10008.5.1.1.2
Basic Color Image Box	1.2.840.10008.5.1.1.4.1
Printer	1.2.840.10008.5.1.1.16

A.5.2.8.2.1 Basic Film Session SOP Class

[If your system also supports the Basic Grayscale Print Management Meta SOP Class and the film session parameters are identical for color, see 'Basic Film Session SOP Class' for 'Basic Grayscale Print Management Meta SOP Class in Section A.5.2.8.1.1'. Otherwise, copy the film session table here and fill in the proper values.]

A.5.2.8.2.2 Basic Film Box SOP Class

[If your system also supports the Basic Grayscale Print Management Meta SOP Class and the film session parameters are identical for color, see 'Basic Film Box SOP Class' for 'Basic Grayscale Print Management Meta SOP Class' in Section A.5.2.8.1.2. Otherwise copy the film box table here and fill in the proper values.]

A.5.2.8.2.3 Basic Color Image Box SOP Class

Table A.5-30 list the supported DIMSE service for the Basic Color Image Box SOP Class:

Table A.5-30:Services for the Color Box Image SOP Class - SCU

DIMSE Service Element	Purpose
N-SET	Set each Image attributes for a previously created film box

Table A.5-31 list the supported N-SET attributes for Basic Color Image Box:

[List the supported attributes and their possible values. Provide the default value when relevant. See example below.]

Table A.5-31: Supported N-SET Attributes for the Basic Color Box SOP Class - SCU

Attribute Name	Tag	Values	Default
Magnification Type	*(2010,0060)*	*<<REPLICATE BILINEAR CUBIC NONE …>>*	*CUBIC*
Smoothing Type	*(2010,0080)*	*<possible values or range>*	*143*
Image Position	(2020,0010)	*x (where x = # image)*	
Polarity	*(2020,0020)*	*<<NORMAL REVERSE>>*	*NORMAL*
Requested Image Size	*(2020,0030)*	*width, x-dimension, in mm*	
Requested Decimate/Crop Behavior	*(2020,0040)*	*<<DECIMATE CROP FAIL>>*	
Basic Color Image Sequence	(2020,0111)		
>Samples Per Pixel	(0028,0002)	3	
>Photometric Interpretation	(0028,0004)	RGB	
>Planar Configuration	(0028,0006)	1 (frame interleave)	
>Rows	(0028,0010)		
>Columns	(0028,0011)		
>Pixel Aspect Ratio	(0028,0034)		*1\1*
>Bits Allocated	(0028,0100)	8	
>Bits Stored	(0028,0101)	8	
>High Bit	(0028,0102)	7	
>Pixel Representation	(0028,0103)	0	
>Pixel Data	(7FE0,0010)		

A.5.2.8.2.4 Printer SOP Class

[If your system also supports the Basic Grayscale Print Management Meta SOP Class, see 'Printer SOP Class' for 'Basic Grayscale Print Management Meta SOP Class' in Section A.5.2.8.1.4. Otherwise copy the Printer SOP Class Table here and fill in the proper values]

A.5.2.8.3 SCU of the Basic Basic Annotation Box SOP Class

[If your system does not support the Basic Annotation Box SOP Class as SCU, you can indicate that this section is not applicable and remove all the content of this section.]

Table A.5-32 list the supported DIMSE service for the Basic Annotation Box SOP Class:

Table A.5-32: Services for the Basic Annotation Box SOP Class – SCU

DIMSE Service Element	Purpose
N-SET	Set each image attributes for a previously created film box

Table A.5-33 list the supported N-SET attributes for Basic Annotation Box SOP Class:

[List the supported attributes and their possible values. Provide the default value when relevant. See example below.]

Table A.5-33: Supported N-SET Attributes for the Bascic Annotation Box SOP Class-SCU

Attribute Name	Tag	Values	Default
Annotation Position	(2030,0010)	*1 to 6*	
Text string	*(2030,0020)*	*Free text*	

A.5.2.8.4 SCU of the Print Job SOP Class

[If your system does not support the Print Job SOP Class as SCU, you can indicate that this section is not applicable and remove all the content of this section.]

Table A.5-34 list the supported DIMSE services for the Print Job SOP Class:

[List the supported DIMSE service elements supported. Remove the non-supported one.]

Table A.5-34: Services for the Print Job SOP Class - SCU

DIMSE Service Element	Purpose
N-EVENT-REPORT	Report the printer status in an asynchronous way
N-GET	*Retrieve printer information and status.*

An N-EVENT-REPORT request can be received by the SCU at any time during an association if the print Job SOP Class has been negotiated by the SCU.

Table A.5-35 summarizes the behavior of the SCU when receiving Event Types within the N-EVENT-REPORT.

Table A.5-35: Print Job SOP Class N-EVENT-REPORT Behavior

Event Type Name	Event Type ID	Behavior
Pending	1	
Printing	2	
Done	3	
Failure	4	

[Remove the following text and Table if N-GET is not supported.]

Table A.5-36 list the supported N-GET attributes for Print Job SOP Class:

[List the supported attributes and the behavior of the SCU when receiving Execution Status / Execution Status Info. Remove the non-supported attributes from the Table]

Table A.5-36: Supported N-GET Attributes for the Print Job SOP Class - SCU

Attribute Name	Tag	Behavior
Print Priority	(2000,0020)	
Execution Status	*(2100,0020)*	*<<PENDING PRINTING DONE FAILURE>>*
Execution Status Info	*(2100,0030)*	
Creation Date	*(2100,0040)*	
Creation Time	*(2100,0050)*	
Originator	*(2100,0070)*	
Printer Name	*(2110,0030)*	

A.5.2.8.5 SCU of the Presentation LUT SOP Class

[If your system does not support the Presentation LUT SOP Class as SCU, you can indicate that this section is not applicable and remove all the content of this section.]

Table A.5-37 list the supported DIMSE services for the Presentation LUT SOP Class:

[Lis the supported DIMSE service elements. Remove the non-supported ones]

Table A.5-37: Services for the Presentation LUT SOP Class - SCU

DIMSE Service Element	Purpose
N-CREATE	Create the Presentation LUT Instance
N-DELETE	*Delete the Presentation LUT Instance*

Table A.5-38 list the supported N-CREATE attributes for Presentation LUT:

[List the supported attributes. Either Presentation LUT sequence or Presentation LUT shape must be present (not both)]

Table A.5-38: Supported N-CREATE Attributes for the Presentation LUT SOP Class-SCU

Attribute Name	Tag	Values	Default
Presentation LUT sequence	*(2050,0010)*		
> LUT Descriptor	*(0028,3002)*		
> LUT Explanation	*(0028,3003)*		
> LUT Data	*(0028,3006)*		
Presentation LUT Shape	*(2050,0020)*	*<<IDENTITY LIN OD>>*	

A.5.2.8.6 SCU of the Printer Configuration Retrieval SOP Class

[If your system does not support the Printer Configuration Retrieval SOP Class as SCU, you can indicate that this section is not applicable and remove all the content of this section.]

Table A.5-39 list the supported DIMSE services are supported for the Printer Configuration Retrieval SOP Class:

Table A.5-39: Services for the Printer Configuration Retrieval SOP Class - SCU

DIMSE Service Element	Purpose
N-GET	Retrieve printer configuration.

A.5.2.8.7 SCP of the Basic Grayscale Print Management Meta SOP Class

[If your system does not support the Basic Grayscale Print management SOP Class as SCP, you can indicate that this section is not applicable and remove all the content of this section including the subsections.]

The Basic Grayscale Print management SOP Class is composed of the mandatory SOP Classes listed in Table A.5-40:

Table A.5-40: Basic Grayscale Print Management SOP Classes - SCP

SOP Class Name	SOP Class UID
Basic Film Session	1.2.840.10008.5.1.1.1
Basic Film Box	1.2.840.10008.5.1.1.2
Basic Grayscale Image Box	1.2.840.10008.5.1.1.4
Printer	1.2.840.10008.5.1.1.16

A.5.2.8.7.1 Basic Film Session SOP Class

Table A.5-41 lists the supported DIMSE services for the Basic Film Session SOP Class:

[List the supported DIMSE service elements. Remove the non-supported ones]

Table A.5-41: Services for the Basic Film Session SOP Class - SCP

DIMSE Service Element	Purpose

N-CREATE	Create the film session
N-SET	Update the film session
N-DELETE	Delete the film session
N-ACTION	*Print all film boxes in the film session*

Table A.5-42 lists the supported N-CREATE and N-SET attributes for Basic Film Session:

[List the supported attributes and their possible value / range. Indicate the default value when relevant. See example below]

Table A.5-42 - Supported N-CREATE and N-SET attributes for Basic Film Session - SCP

Attribute Name	Tag	Values	Default
Number of Copies	(2000,0010)	<range or fixed value>	1
Print Priority	(2000,0020)	*<<HIGH* *LOW* *MED>>*	*LOW*
Medium Type	(2000,0030)	*<<BLUE FILM* *CLEAR FILM* *MAMMO BLUE FILM* *MAMMO CLEAR FILM* *PAPER* *…>>*	
Film Destination	(2000,0040)	*<<MAGAZINE* *PROCESSOR* *BIN_I* *…>>*	*PROCESSOR*
Film Session Label	*(2000,0050)*		
Memory Allocation	*(2000,0060)*		
Owner ID	*(2100,0160)*		

[If the SCP supports N-ACTION for the Film Session SOP Class, then the SCP must specify the maximum number of collated films.]

A.5.2.8.7.2 Basic Film Box SOP Class

Table A.5-43 lists the supported DIMSE services for the Basic Film Box SOP Class:

[List the supported DIMSE service elements. Remove the non-supported ones]

Table A.5-43: Services Supported for the Basic Film Box SOP Class - SCP

DIMSE Service Element	Purpose
N-CREATE	Create the film Box in a previously created film session
N-ACTION	Print the film Box
N-DELETE	Delete the film Box
N-SET	Update the film Box

Supported N-CREATE and N-SET attributes for Basic Film Box:

Table A.5-42 lists the supported N-CREATE and N-SET attributes for Basic Film Box:

[List the supported attributes and their possible values. Indicate the default value when relevant. See example below]

Table A.5-44: Supported N-CREATE and N-SET attributes for Basic Film Box - SCP

Attribute Name	Tag	Values	Default
Image Display Format	(2010,0010)	<<STANDARD\C,R ROW\R1,R2,R3, etc. COL\C1,C2,C3, etc. SLIDE SUPERSLIDE CUSTOM\i>>	STANDARD\1,1
Annotation Display Format ID	(2010,0030)	Possible values to be provided by the printer manufacturer	
Film Orientation	(2010,0040)	<<PORTRAIT LANDSCAPE>>	PORTRAIT
Film Size ID	(2010,0050)	<<8INX10IN 8_5INX11IN 10INX12IN 11INX14IN 11INX17IN 14INX14IN 14INX17IN 24CMX24CM 24CMX30CM A4 A3 …>>	
Magnification Type	(2010,0060)	<<REPLICATE BILINEAR CUBIC NONE …>>	CUBIC
Smoothing Type	(2010,0080)	<possible values or range>	143
Border Density	(2010,0100)	<<BLACK WHITE I, where i represents the desired density in hundredths of OD …>>	BLACK
Empty Image Density	(2010,0110)	<<BLACK WHITE I, where i represents the desired density in hundredths of OD …>>	BLACK
Minimum Density	(2010,0120)	<possible values or range in hundredths of OD>	
Maximum Density	(2010,0130)	<possible values or range in hundredths of OD>	320
Trim	(2010,0140)	<<YES NO>>	NO
Configuration Information	(2010,0150)		
Illumination	(2010,015E)	<possible values or range>	2000
Reflective Ambient Light	(2010,0160)	<possible values or range>	10
Ref. Film Session Seq.	(2010,0500)		
>Ref. SOP Class UID	(0008,1150)	1.2.840.10008.5.1.1.1	
>Ref. SOP Instance UID	(0008,1155)		
Ref. Image Box Seq.	(2010,0510)	Provided in the N-CREATE-RSP	
>Ref. SOP Class UID	(0008,1150)	1.2.840.10008.5.1.1.4	
>Ref. SOP Instance UID	(0008,1155)		
Ref. Annotation Box Seq.	(2010,0520)		

Attribute Name	Tag	Values	Default
>Ref. SOP Class UID	(0008,1150)	1.2.840.10008.5.1.1.15	
>Ref. SOP Instance UID	(0008,1155)		
Ref. Presentation LUT Seq.	(2050,0500)		
>Ref. SOP Class UID	(0008,1150)	1.2.840.10008.5.1.1.23	
>Ref. SOP Instance UID	(0008,1155)		

[Describe each supported custom Image Display Format (2010,0010) and provide details such as position and dimensions of each composing image box, and numbering scheme of the image positions.]

[Describe each supported Annotation Display Format ID (2010,0030) (e.g., position and dimensions of annotation box, font, number of characters.)]

[Describe supported configuration information (e.g., identification, content).]

A.5.2.8.7.3 Basic Grayscale Image Box SOP Class

Table A.5-45 lists the supported DIMSE service for the Basic Grayscale Image Box SOP Class:

Table A.5-45: Services for the Basic Grayscale Image Box SOP Class- SCP

DIMSE Service Element	Purpose
N-SET	Set each Image attributes for a previously created film box

Table A.5-46 lists the supported N-SET attributes for Basic Grayscale Image Box:

[List the supported attributes and their possible values. Indicate the default value when relevant. See example below]

Table A.5-46: Supported N-SET attributes for Basic Grayscale Image Box - SCP

Attribute name	Tag	Values	Default
Magnification Type	*(2010,0060)*	*<<REPLICATE BILINEAR CUBIC NONE …>>*	*CUBIC*
Smoothing Type	*(2010,0080)*	*<possible values or range>*	*143*
Minimum Density	*(2010,0120)*	*<possible values or range in hundredths of OD>*	
Maximum Density	*(2010,0130)*	*<possible values or range in hundredths of OD>*	*320*
Configuration Information	*(2010,0150)*		
Image Box Position	(2020,0010)	*1-x (where x = # images)*	
Polarity	(2020,0020)	*<<NORMAL REVERSE>>*	*NORMAL*
Requested Image Size	*(2020,0030)*	*width, x-dimension, in mm*	
Requested Decimate/Crop Behavior	*(2020,0040)*	*<<DECIMATE CROP FAIL>>*	
Basic Grayscale Image Sequence	(2020,0110)		
>Samples Per Pixel	(0028,0002)	*1*	
>Photometric Interpretation	(0028,0004)	*<<MONOCHROME1 MONOCHROME2>>*	

Attribute name	Tag	Values	Default
>Rows	(0028,0010)		
>Columns	(0028,0011)		
>Pixel Aspect Ratio	*(0028,0034)*		*1\1*
>Bits Allocated	(0028,0100)	*<<8 16>>*	
>Bits Stored	(0028,0101)	*<<8 12>>*	
>High Bit	(0028,0102)	*<<7 11>>*	
>Pixel Representation	(0028,0103)	*0*	*0*
>Pixel Data	(7FE0,0010)		
Ref. Presentation LUT Seq.	*(2050,0500)*		
>Ref. SOP Class UID	*(0008,1150)*	*1.2.840.10008.5.1.1.23*	
>Ref. SOP Instance UID	*(0008,1155)*		

[If cropping or decimating of images is supported, describe the algorithm for removing rows and columns from the image.]

A.5.2.8.7.4 Printer SOP Class

Table A.5-47 lists the supported DIMSE services for the Printer SOP Class:

[List the supported DIMSE service elements. Remove the non-supported one]

Table A.5-47: Services for the Printer SOP Class - SCP

DIMSE Service Element	Purpose
N-EVENT-REPORT	Report the printer status in an asynchronous way
N-GET	Retrieve printer information and status.

Table A.5-48 lists the Printer SOP Class N-EVENT-REPORT Behavior:

Table A.5-48: Printer SOP Class N-EVENT-REPORT Behvaior

Event Type Name	Event Type ID	Attribute Name	Tag	Values
Normal	1	N/A		
Warning	2	Printer Status info	(2110,0020)	*[Indicate the possible values supported by the printer out of the defined terms table see PS 3.3 Section C.13.9.1 for Defined Terms when the Printer Status is equal to WARNING or FAILURE]*
		Film Destination	*(2000,0040)*	
		Printer Name	*(2110,0030)*	
Failure	3	Printer Status info	(2110,0020)	*[Indicate the possible values supported by the printer out of the defined terms Table See PS 3.3 Section C.13.9.1 for Defined Terms when the Printer Status is equal to WARNING or FAILURE]*
		Film Destination	*(2000,0040)*	
		Printer Name	*(2110,0030)*	

Table A.5-49 lists the supported N-GET attributes for Printer SOP Class:

[List the supported attributes and the behavior of the SCU when receiving Printer Status / Printer status info. Remove the non-supported attributes from the Table]

Table A.5-49: Supported N-GET Attributes for the Printer SOP Class - SCP

Attribute Name	Tag	Values
Printer Status	(2110,0010)	*<<NORMAL WARNING FAILURE>>*
Printer Status Info	(2110,0020)	*[Indicate the possible values supported by the printer out of the defined terms Table See PS 3.3 Section C.13.9.1 for Defined Terms when the Printer Status is equal to WARNING or FAILURE]*
Printer Name	*(2110,0030)*	
Manufacturer	*(0008,0070)*	
Manufacturer Model Name	*(0008,1090)*	
Device Serial Number	*(0018,1000)*	
Software Versions	*(0018,1020)*	
Date Last Calibration	*(0018,1200)*	
Time Last Calibration	*(0018,1201)*	

A.5.2.8.8 SCP of the Basic Color Print Management Meta SOP Class

[If your system does not support the Basic Color Print management SOP Class as SCP, you can indicate that this section is not applicable and remove all the content of this section including the subsections.]

The Basic Color Print management SOP Class is composed of the mandatory SOP Classes listed in Table A.5-50:

Table A.5-50: Basic Color Print Management SOP Classes - SCP

SOP Class Name	SOP Class UID
Basic Film Session	1.2.840.10008.5.1.1.1
Basic Film Box	1.2.840.10008.5.1.1.2
Basic Color Image Box	1.2.840.10008.5.1.1.4.1
Printer	1.2.840.10008.5.1.1.16

A.5.2.8.8.1 Basic Film Session SOP Class

[If your system supports the Basic Grayscale Print management Meta SOP Class and the film session parameters are identical for color, see 'Basic Film Session SOP Class' for 'Basic Grayscale Print Management Meta SOP Class' in Section A.5.2.8.7.1. Otherwise copy the film session Table here and fill in the proper values.]

A.5.2.8.8.2 Basic Film Box SOP Class

[If your system supports the Basic Grayscale Print management Meta SOP Class and the fim session parameters are identical for color, see 'Basic Film Box SOP Class' for 'Basic Grayscale Print Management Meta SOP Class' in Section A.5.2.8.7.2. Otherwise copy the film box Table here and fill in the proper values.]

A.5.2.8.8.3 Basic Color Image Box SOP Class

Table A.5-51 lists the supported DIMSE service for the Basic Color Image Box SOP Class:

Table A.5-51: Services for the Basic Color Image Box SOP Class - SCP

DIMSE Service Element	Purpose
N-SET	Set each Image attributes for a previously created film box

Table A.5-52 lists the supported N-SET attributes for Basic Color Image Box:

[List the supported attributes and their possible values. Indicate the default value when relevant. See example below]

Table A.5-52: Supported N-SET attributes for Basic Color Image Box – SCP

Attribute Name	Tag	Values	Default
Magnification Type	*(2010,0060)*	*<<REPLICATE BILINEAR CUBIC NONE …>>*	*CUBIC*
Smoothing Type	*(2010,0080)*	*<possible values or range>*	*143*
Image Position	(2020,0010)	*1 - x (where x = # images)*	
Polarity	(2020,0020)	*<<NORMAL REVERSE>>*	*NORMAL*
Requested Image Size	*(2020,0030)*	*width, x-dimension, in mm*	
Requested Decimate/Crop Behavior	*(2020,0040)*	*<<DECIMATE CROP FAIL>>*	
Basic Color Image Sequence	(2020,0111)		
>Samples Per Pixel	(0028,0002)	3	
>Photometric Interpretation	(0028,0004)	RGB	
>Planar Configuration	(0028,0006)	1 (frame interleaves)	
>Rows	(0028,0010)		
>Columns	(0028,0011)		
>Pixel Aspect Ratio	(0028,0034)		*1\1*
>Bits Allocated	(0028,0100)	8	
>Bits Stored	(0028,0101)	8	
>High Bit	(0028,0102)	7	
>Pixel Representation	(0028,0103)	0	
>Pixel Data	(7FE0,0010)		

[In case your printer is a grayscale printer that supports printing of color images (e.g it supports the Basic Color Print Management Meta SOP Class), describe the behavior when printing color images.]

A.5.2.8.8.4 Printer SOP Class

[If your system supports the Basic Grayscale Print management Meta SOP Class, see 'Printer SOP Class' for 'Basic Grayscale Print Management Meta SOP Class' in Section A.5.2.8.7.4. Otherwise copy the Printer SOP Class Table here and fill in the proper values.]

A.5.2.8.9 SCP of the Basic Basic Annotation Box SOP Class

[If your system does not support the Basic Annotation Box SOP Class as SCP, you can indicate that this section is not applicable and remove all the content of this section.]

Table A.5-53 list the supported DIMSE service for the Basic Annotation Box SOP Class:

Table A.5-53: Services for the Basic Annotation Box SOP Class - SCP

DIMSE Service Element	Purpose
N-SET	Set each Image attributes for a previously created film box

Table A.5-54 lists the supported N-SET attributes for Basic Annotation Box SOP Class:

[List the supported attributes and their possible values. Indicate the default value when relevant. See example below]

Table A.5-54: Supported N-SET attributes for Basic Annotation Box SOP Class: SCP

Attribute Name	Tag	Values	Default
Annotation Position	(2030,0010)		
Text string	(2030,0020)	*Free text*	

A.5.2.8.10 SCP of the Print Job SOP Class

[If your system does not support the Print Job SOP Class as SCP, you can indicate that this section is not applicable and remove all the content of this section.]

Table A.5-55 lists the supported DIMSE services for the Print Job SOP Class:

Table A.5-55: Services for the Print Job SOP Class - SCP

DIMSE Service Element	Purpose
N-EVENT-REPORT	Report the printer status in an asynchronous way
N-GET	Retrieve printer information and status.

An N-EVENT-REPORT request can be received by the SCU at any time during an association if the print Job SOP Class has been negotiated by the SCU.

Table A.5-56 summarizes the behavior of the SCU when receiving Event Types within the N-EVENT-REPORT.

Table A.5-56 lists the Print Job SOP Class N-EVENT-REPORT Behavior:

Table A.5-56: Print Job SOP Class N-EVENT-REPORT Behavior - SCP

Event Type name	Event Type ID	Attribute Name	Tag	Values
Pending	1	Execution Status Info	(2100,0030)	*[Indicate the possible values supported by the printer out of the defined terms Table See PS 3.3 Section C.13.9.1 for Defined Terms when the Execution Status info is PENDING or FAILURE]*
		Film Session Label	*(2000,0050)*	
		Printer Name	*(2110,0030)*	
Printing	2	Execution Status Info	(2100,0030)	NORMAL
		Film Session Label	*(2000,0050)*	
		Printer Name	*(2110,0030)*	
Done	3	Execution Status Info	(2100,0030)	NORMAL
		Film Session Label	*(2000,0050)*	
		Printer Name	*(2110,0030)*	

Failure	4	Execution Status Info	(2100,0030)	*[Indicate the possible values supported by the printer out of the defined terms Table See PS 3.3 Section C.13.9.1 for Defined Terms when the Execution Status info is PENDING or FAILURE]*
		Film Session Label	*(2000,0050)*	
		Printer Name	*(2110,0030)*	

[Remove the complete Table if N-GET is not supported.]

Table A.5-57 lists the supported N-GET attributes for Print Job SOP Class:

[List the supported attributes and the supported values when relevant. Remove the non-supported attributes from the Table]

Table A.5-57: Supported N-GET Attributes for the Print Job SOP Class - SCP

Attribute Name	Tag	Values
Print Priority	(2000,0020)	*<<HIGH MEDIUM LOW>>*
Execution Status	(2100,0020)	*<<PENDING PRINTING DONE FAILURE>>*
Execution Status Info	(2100,0030)	*[Indicate the possible values supported by the printer out of the defined terms Table. See PS3.3 Section C.13.9.1 for Defined Terms when the Execution Status info is PENDING or FAILURE]*
Creation Date	*(2100,0040)*	
Creation Time	*(2100,0050)*	
Originator	*(2100,0070)*	
Printer Name	*(2110,0030)*	

A.5.2.8.11 SCP of the Basic Presentation LUT SOP Class

[If your system does not support the Presentation LUT SOP Class as SCP, you can indicate that this section is not applicable and remove all the content of this section.]

Table A.5-58 lists the supported DIMSE services for the Presentation LUT SOP Class:

Table A.5-58: Services for the Presentation LUT SOP Class SCP

DIMSE Service Element	Purpose
N-CREATE	Create the Presentation LUT Instance
N-DELETE	Delete the Presentation LUT Instance

Table A.5-59 lists the supported N-CREATE attributes for Presentation LUT:

[List the supported attributes in the Table below.]

Table A.5-59: Supported N-CREATE attributes for Presentation LUT - SCP

Attribute Name	Tag	Values	Default
Presentation LUT sequence	(2050,0010)		
>LUT Descriptor	(0028,3002)		
>LUT Explanation	*(0028,3003)*		
>LUT Data	*(0028,3006)*		
Presentation LUT Shape	(2050,0020)	IDENTITY LIN OD	

A.5.2.8.12SCP of the Printer Configuration Retrieval SOP Class

[If your system does not support the Printer Configuration Retrieval SOP Class as SCP, you can indicate that this section is not applicable and remove all the content of this section.]

Table A.5-60 list the supported DIMSE services for the Printer Configuration SOP Class:

Table A.5-60: Services for the Printer Configuration Retrieval SOP Class

DIMSE Service Element	Purpose
N-GET	Retrieve printer configuration.

A.5.3 Supported DICOM Web Services

A.5.3.1 URI Web Service (WADO URI)

[If your system does not support the URI Web service (also known as WADO-URI), you can indicate that this section is not applicable and remove the subsections below.]

This section provides details regarding the URI Web service. For an overview of supported transactions see Table A.1-9 URI Service.

A.5.3.1.1 Supported Media Types

A.5.3.1.1.1 DICOM Media Types

[If your system does not support the DICOM Media Type, you can indicate that this section is not applicable and remove text below]

The supported DICOM Storage SOP Classes / transfer syntaxes are listed in Section A.1.1 of this document.

[Provide requirements for display and processing of instances received via Web services. This could either be done by referencing section A.5.2.5.2 if the same requirements apply, or by copying the Tables from Section A.5.2.5.2 and filling them appropriately, if requirements for Web services differ.]

A.5.3.1.1.2 Rendered Media Types

[If your system does not support the Rendered Media Type, you can indicate that this section is not applicable and remove the Table below.]

Table A.5-61 lists the supported rendered Media types depending on the Media Type category

[Indicate which category / Media types are supported by your system by marking the cells with Y or N. Remove rows for Media Types neither supported as User Agent nor as Orignin Server].

Table A.5-61: Supported Rendered Media Types

Category	Media Type	URI User Agent	URI Origin server
Single Frame Image	image/jpeg		
	image/gif		
	image/png		
	image/jp2		
Multi-Frame Image	*image/gif*		
Video	*video/mpeg*		
	video/mp4		
	video/H265		
Text	text/html		
	text/plain		
	text/xml		
	text/rtf		
	application/pdf		

A.5.3.1.2 Retrieve DICOM Instance Transaction - URI Web Service

[If your system does not support the URI Web service Retrieve DICOM Instance transaction, you can indicate that this section is not applicable and remove the subsections below.

Provide requirements for display and processing of instances contained on the medium. This could either be done by referencing section 5.2.5.2 (as indicated below), if the the same requirements apply, or by copying the Tables from Section 5.2.5.2 and filling them appropriately if requirements for external media differ.]

In order to display or process DICOM instances retrieved via URI Web Service, see Section A.5.2.5.2

A.5.3.1.2.1 User Agent

[If your system does not support the URI Web service Retrieve DICOM Instance Transaction as a user agent, you can indicate that this section is not applicable and remove the Table and subsections below]

The URI Web Service user agent supports the Query Parameters listed in Table A.5-62:

[List the supported parameters and their supported values in information on your implementation in the Comments column when necessary]

Table A.5-62: Query Parameters for Retrieve DICOM Instance URI Web Service - User Agent

Query Parameter	Supported values	Comments
requestType	WADO	
studyUID	Study Instance UID	
seriesUID	Series Instance UID	
objectUID	SOP Instance UID	
contentType	<<application/dicom>>	*[Must be compatible with the acceptable Media Types in the HTTP Header]* See in the overview section Table 1.1-3 the supported DICOM SOP Classes / Transfer Syntaxes. Look for R in the User Agent column
Charset		
Anonymize	<<yes>>	
transferSyntax		

The URI Web Service user agent supports the Header Fields listed in Table A.5-63:

[List the supported Header Fields and their supported values. Fill in information on your implementation in the Comments column when necessary]

Table A.5-63: Header Fields for Retrieve DICOM Instance URI Web Service - User Agent

Header Field	Supported values	Comments
Accept	**<<**application/DICOM**>>**	See in the overview section Table 1.1-3 the supported DICOM SOP Classes / Transfer Syntaxes. Look for R in the User Agent column
Accept-Charset		

A.5.3.1.2.2 Origin Server

[If your system does not support the URI Web service Retrieve DICOM Instance as origin server, you can indicate that this section is not applicable and remove the subsections below]

The URI Web Service origin server receives GET request for studies, series and instances containing query parameters and headers fields. Supported values are listed in the query parameters and header fields Tables (Table A.5-64 and Table A.5-65).

The URI is composed by a base URI: See Section 6.4.1 the base URI of the Origin server.

The URI Web Service origin server supports the Query Parameters listed in Table A.5-64:

[List the supported parameters and their values. Fill in information on your implementation in the Comments column when necessary]

Table A.5-64: Query Parameters for Retrieve DICOM Instance URI Web Service - Origin Server

Query Parameter	Supported Values	Comments
requestType	WADO	
studyUID	Study Instance UID	
seriesUID	Series Instance UID	
objectUID	SOP Instance ID	
contentType	**<<**application/dicom**>>**	See in the overview section Table 1.1-3 the supported DICOM SOP Classes / Transfer Syntaxes. Look for R in the Origin server column
Charset		
Anonymize		
transferSyntax		

The URI Web service origin server supports the Header Fields listed in Table A.5-65:

[List the supported Header Fields and their supported values. Fill in information on your implementation in the Comments column when necessary]

Table A.5-65: Header Fields for Retrieve DICOM Instance URI Web Service - Origin Server

Header Field	Supported values	Comments
Accept	application/dicom	See in the overview section Table 1.1-3 the supported DICOM SOP Classes / Transfer Syntaxes. Look for R in the Origin server column
Accept-Charset		

A.5.3.1.3 Retrieve Rendered Instance Transaction - URI Web Service

[If your system does not support the URI Web service Retrieve Rendered Instance, you can indicate that this section is not applicable and remove the subsections below.

Provide requirements for display and processing of instances contained on the medium. This could either be done by referencing section 5.2.5.2 (as indicated below), if the the same requirements apply, or by copying the Tables from Section 5.2.5.2 and filling them appropriately if requirements for external media differ.]

To display or process DICOM instances retrieved via URI Webservice, see Section A.5.2.5.2.

A.5.3.1.3.1 User Agent

[If your system does not support the URI Web service Retrieve Rendered Instance Transaction as a user agent, you can indicate that this section is not applicable and remove the Table and subsections below]

The URI Web service user agent supports the Query Parameters listed in Table A.5-66:

[List the supported parameters and their supported values. Fill in information on your implementation in the Comments column when necessary]

Table A.5-66: Query Parameters for Retrieve Rendered Instance URI Web Service - User Agent

Query Parameter	Supported Values	Comments
requestType	WADO	
studyUID	Study Instance UID	
seriesUID	Series Instance UID	
objectUID	SOP Instance UID	
contentType	<<image/jpeg image/gif image/png image/jp2	See Section 5.3.1.1.2 Rendered Media Type for details

Query Parameter	Supported Values	Comments
	video/mpeg video/mp4 video/H265 text/html text/plain>>	
Charset		
Annotation		
Rows		
Columns		
Region		
windowCenter		
windowWidth		
frameNumber		
imageQuality		*[The value must be between 1 and 100. 0 means low quality and 100 is high quality]*
presentationUID and presentationSeriesUID		*[if presentationUID specified then presentationSeriesUID must be present.]*

The URI Web Service user agent supports Header Fields listed in Table A.5-67:

[List the supported Header Fields and their supported values. Fill in information on your implementation in the Comments column when necessary]

Table A.5-67: Header Fields for Retrieve Rendered Instance URI Web Service - User Agent

Header Field	Supported values	Comments
Accept	<<Image/jpeg *Image/gif* *Image/png* *Image/jp2* *video/mpeg* *video/mp4* *video/H265* text/html text/plain>>	See section 5.3.1.1.2 Rendered Media Type for details
Accept-Charset		

A.5.3.1.3.2 Origin Server

[If your system does not support the URI Web service Retrieve Rendered Instance as origin server, you can indicate that this section is not applicable and remove the subsections below]

The URI Web Service origin server receives GET request for studies, series and instances containing query parameters and headers fields. Supported values are listed in the query parameters and header fields Tables (Table A.5-68 and Table A.5-69).

The URI is composed by a base URI: See Section A.6.3.2.1 for the base URI of the Origin server.

The URI Web Service origin server supports Query Parameters listed in Table A.5-68:

[List the supported parameters and their supported values. Fill in information on your implementation in the Comments column when necessary]

Table A.5-68: Query Parameters for Retrieve Rendered Instance URI Web Service - Origin Server

Query Parameter	Supported Values	Comments
requestType	WADO	
studyUID	Study Instance UID	
seriesUID	Series Instance UID	
objectUID	SOP Instance ID	
contentType	<<image/jpeg *image/gif* *imag/png* *image/jp2* *video/mpeg* *video/mp4* *video/H265* text/html text/plain**>>**	See details in section 5.3.1.1.3 rendered media type
Charset		
Annotation	<<patient technique>> *Add additionally supported key word values here*	
Rows		
Columns		
Region		
windowCenter		
windowWidth		
frameNumber		
imageQuality		*[it must be between 1 and 100.]*
presentationUID and presentationSeriesUID		*[if presentationUID specified then presentationSeriesUID must be present.]*

The URI Web Service origin server supports Header Fields listed in Table A.5-69:

[List the supported Header Fields and their supported values. Fill in information on your implementation in the Comments column when necessary]

Table A.5-69: Header Fields for Retrieve Rendered Instance URI Web Service - Origin Server

Header Field	Supported values	Comments
Accept	<<Image/jpeg *Image/gif* *Image/png* *Image/jp2* *video/mpeg* *video/mp4* *video/H265* text/html text/plain>>	See details in Section 5.3.1.1.3 rendered media type

A.5.3.2 Studies Web Service

[If your system does not support the Studies Web service, you can indicate that this section is not applicable and remove the subsections below]

This section provides details regarding the Studies Web service. For an overview of supported transactions and resources see Table A.1-10 Study Service.

A.5.3.2.1 Supported Media Types

A.5.3.2.1.1 DICOM Instance Media Types

[If your system does not support the DICOM Media Type, you can indicate that this section is not applicable and remove the text and subsections below]

The supported DICOM Storage SOP Classes / Transfer Syntaxes are listed in Section 1.1 of this document.

[Provide requirements for display and processing of instances received via Web services. This could either be done by referencing section A.5.2.5.2 if the same requirements apply, or by copying the Tables from Section A.5.2.5.2 and filling them appropriately, if requirements for Web services differ.]

A.5.3.2.1.2 DICOM Bulkdata Media Type

[If your system does not support the DICOM Bulkdata Media Type, you can indicate that this section is not applicable and remove text below.

Indicate in the Table the combination media type / transfer syntaxes supported by your user agent and / or origin server for each category. Remove the unsupported Media Types. X represents the default Transfer Syntaxes to be supported for each category]

Uncompressed Bulkdata is transferred using Explicit VR Little Endian Transfer Syntax.

Table A.5-70 lists the supported Media Types and Transfer Syntax UIDs for Compressed Bulkdata:

Table A.5-70: DICOM Compressed Bulkdata Media Types

Category	Media Type	Transfer Syntax UID	Transfer Syntax Name	User Agent	Origin Server
Single Frame Image	image/jpeg	1.2.840.10008.1.2.4.70	JPEG Lossless, Non-Hierarchical, First-Order Prediction (Process 14 Selection Value 1): Default Transfer Syntax for Lossless JPEG Image Compression		
		1.2.840.10008.1.2.4.50	*JPEG Baseline (Process 1): Default Transfer Syntax for Lossy JPEG 8 Bit Image Compression*		
		1.2.840.10008.1.2.4.51	*JPEG Extended (Process 2 & 4): Default Transfer Syntax for Lossy JPEG 12 Bit Image Compression (Process 4 only)*		
		1.2.840.10008.1.2.4.57	*JPEG Lossless, Non-Hierarchical (Process 14)*		
	image/x-dicom-rle	1.2.840.10008.1.2.5	RLE Lossless		
	image/x-jls	1.2.840.10008.1.2.4.80	JPEG-LS Lossless Image Compression		
		1.2.840.10008.1.2.4.81	*JPEG-LS Lossy (Near-Lossless) Image Compression*		
	image/jp2	1.2.840.10008.1.2.4.90	JPEG 2000 Image Compression (Lossless Only)		
		1.2.840.10008.1.2.4.91	*JPEG 2000 Image Compression*		
	image/jpx	1.2.840.10008.1.2.4.92	JPEG 2000 Part 2 Multi-component Image Compression (Lossless Only)		
		1.2.840.10008.1.2.4.93	*JPEG 2000 Part 2 Multi-component Image Compression*		

Multi-Frame Image	image/jpeg	1.2.840.10008.1.2.4.70	JPEG Lossless, Non-Hierarchical, First-Order Prediction (Process 14 Selection Value 1): Default Transfer Syntax for Lossless JPEG Image Compression		
		1.2.840.10008.1.2.4.50	*JPEG Baseline (Process 1): Default Transfer Syntax for Lossy JPEG 8 Bit Image Compression*		
		1.2.840.10008.1.2.4.51	*JPEG Extended (Process 2 & 4): Default Transfer Syntax for Lossy JPEG 12 Bit Image Compression (Process 4 only)*		
		1.2.840.10008.1.2.4.57	*JPEG Lossless, Non-Hierarchical (Process 14)*		
	image/x-dicom-rle	1.2.840.10008.1.2.5	RLE Lossless		
	image/x-jls	1.2.840.10008.1.2.4.80	JPEG-LS Lossless Image Compression		
		1.2.840.10008.1.2.4.81	*JPEG-LS Lossy (Near-Lossless) Image Compression*		
	image/jp2	1.2.840.10008.1.2.4.90	JPEG 2000 Image Compression (Lossless Only)		
		1.2.840.10008.1.2.4.91	*JPEG 2000 Image Compression*		
	image/jpx	1.2.840.10008.1.2.4.92	JPEG 2000 Part 2 Multi-component Image Compression (Lossless Only)		
		1.2.840.10008.1.2.4.93	*JPEG 2000 Part 2 Multi-component Image Compression*		
Video	video/mpeg2	*1.2.840.10008.1.2.4.100*	*MPEG2 Main Profile @ Main Level*		
		1.2.840.10008.1.2.4.101	MPEG2 Main Profile @ High Level		
	video/mp4	1.2.840.10008.1.2.4.102	MPEG-4 AVC/H.264 High Profile / Level 4.1		
		1.2.840.10008.1.2.4.103	*MPEG-4 AVC/H.264 BD-compatible High Profile / Level 4.1*		
		1.2.840.10008.1.2.4.104	*MPEG-4 AVC/H.264 High Profile / Level 4.2 For 2D Video*		
		1.2.840.10008.1.2.4.105	*MPEG-4 AVC/H.264 High Profile / Level 4.2 For 3D Video*		
		1.2.840.10008.1.2.4.106	*MPEG-4 AVC/H.264 Stereo High Profile / Level 4.2*		

A.5.3.2.1.3 Rendered Media Types

[If your system does not support the Rendered Media Type, you can indicate that this section is not applicable and remove the Table below]

Table A.5-71 lists the supported rendered Media types for each Media Type category.

[Indicate which category / Media types are supported by your system by marking the cells with Y or N. Remove remove rows for Media Types neither supported as User Agent nor as Orignin Server.

In the Transformation column specify to which transfer syntax UID the origin server transforms the received image. N/A indicates that the media type does not require transformation since there is an existing DICOM transfer syntax for it.]

Table A.5-71: Rendered Media Types

Category	Media Type	User Agent	Origin server	Transformation
Single Frame Image	image/jpeg			
	image/gif			
	image/png			
	image/jp2			
Multi-Frame Image	*image/gif*			
Video	*video/mpeg*			
	video/mp4			
	video/H265			
Text	text/html			
	text/plain			
	text/xml			
	text/rtf			
	application/pdf			

A.5.3.2.2 Retrieve Transaction (WADO-RS)

[If your system does not support the Studies Web service Retrieve transaction (also known as WADO-RS), you can indicate that this section is not applicable and remove the subsections below]

The Studies Web service Retrieve Transaction is also known as WADO-RS.

A.5.3.2.2.1 User Agent

[If your system does not support the Studies Web service Retrieve Transaction as a user agent, you can indicate that this section is not applicable and remove the Table and subsections below]

The Retrieve Transaction user agent can request resources listed in Table A.5-72:

[List the supported resources for your Retrieve Transaction user agent. Remove the non-supported resources rows. fill in specific details on your implementation if existing in the Comments column.]

Table A.5-72: Resources Retrieve Transaction - User Agent

Resource	Comments
DICOM® Instance resources – See resources path in PS3.18 Table 10.4.1-1	
Study Instances	
Series Instances	
Individual Instance	
DICOM Metadata resources – See resources path in PS3.18 Table 10.4.1-2	
Study Metadata	
Series Metadata	
Instance Metadata	
DICOM Bulkdata resources – See resources path in PS3.18 Table 10.4.1-5	
Study Bulkdata	
Series Bulkdata	
Instance Bulkdata	
Bulkdata	
DICOM Pixel Data resources – See resources path in PS3.18 table 10.4.1-6	
Study Pixel Data	
Series Pixel Data	
Instance Pixel Data	
Frame Pixel data	
Rendered resources – See resources path in PS3.18 Table 10.4.1-3	
rendered study	
rendered series	
rendered instance	
rendered frame	

rendered bulk	
Thumbnail resources – See resources path in PS3.18 Table 10.4.1-4	
Study Thumbnail	
Series Thumbnail	
Instance Thumbnail	
Frame Thumbnail	

[If rendering of thumbnails is supported, provide a high-level description of the method used for rendering thumbnails for the study, series, or instance.

For example, the description could indicate whether a representative instance is chosen from a series, and how that instance is selected, or that per-modality fixed content is used.]

The Retrieve Transaction user agent supports the Query Parameters listed in Table A.5-73:

[Include a row in the table for each parameter your user agent is able to send, including parameters always sent and parameters optionally sent. Remove the rows for parameters your user agent is not able to send. See PS3.18 Section 8.3.5 for the list of Retrieve Query Parameters.

For each row, indicate in the Supported Values column specific values your user agent may send and/or a description of how the value is populated. The Comments column may be used to explain details of your implementation that may be useful to integrators, such as:

- *Whether and how values are configurable*
- *Situations when the parameter may or may not be sent, or when specific values may be used*
- *How the Accept Query Parameter is intended to relate to the Accept Header Field*
- *Other idiosyncrasies of the implementation*

]

Table A.5-73: Query Parameters for Retrieve Transaction - User Agent

Query Parameter	Supported values	Comments
Accept	*[See examples in header parameters]*	
Rendered Resource		
Annotation	<<patient technique>>	
Charset	<<UTF-8 ISO-8859-1 …>>	
quality		
viewport		
window		
iccprofile	<<no yes srgb adobergb rommrgb>>	
Thumbnail Resource		
Charset	<<UTF-8 ISO-8859-1 …>>	
viewport		

The Retrieve Transaction user agent supports Header Fields listed in Table A.5-74:

[List the supported Header Fields and their supported values. Fill in information on your implementation in the Comments column when necessary. See PS3.18 Section 10.4.4 for the list of Resources and their corresponding Media Types]

Table A.5-74: Header Fields for Retrieve Transaction - User Agent

Header Field	Supported values	Comments
Instance resource		
Accept	*multipart/related; type="application/dicom"; transfer-syntax={uid}*	See in the overview section Table 1.1-3 the supported DICOM SOP Classes / Transfer Syntaxes. Look for R in the User Agent column
	multipart/related; type="application/octet-stream"	
Metadata resource		
Accept	<<multipart/related; type="application/DICOM+xml" multipart/related; type="application/DICOM+json">>	
Bulkdata & Pixel Data resource		
Accept	Uncompressed: <<multipart/related; type="application/octet-stream">> Compressed: <<multipart/related; type="{media-type}">> supported {media-type} being <<Image/jpeg *image/x-dicom-rle* *image/x-jls* *Image/jp2* *image/jpx* *video/mpeg2* *video/mp4*>>	See details in section 5.3.2.1.1.1 DICOM Bulkdata Media Types
Rendered Resource		
Accept	<<Image/jpeg Image/gif Image/png *Image/jp2* *Image/gif* *video/mpeg* *video/mp4* *video/H265* text/html text/plain *text/xml*>>	See details in section 5.3.2.1.2 Rendered Media Type
Thumbnail Resource		
Accept	<<Image/jpeg Image/gif Image/png *Image/jp2* *Image/gif* *video/mpeg* *video/mp4* *video/H265* text/html text/plain *text/xml*>>	See details in section 5.3.2.1.2 Rendered Media Type

All Resources		
Accept-Charset	<<UTF-8 ISO-8859-1 …>>	

A.5.3.2.2.2 Origin Server

[If your system does not support the Studies Web service Retrieve transaction as origin server, you can indicate that this section is not applicable and remove the Table and subsections below]

The Retrieve transaction origin server receives GET request to retrieve specific studies, series or instances.

The user agent specifies the target resource as part of the URI and the accepTable response Content-Type in the HTTP Header (i.e. dicom, dicom+xml, dicom+json, octet-stream, compressed pixel data).

The URI is composed by a base URI: See section A.6.3.2.1 for the base URI of the Origin server

The Retrieve Transaction origin server supports resources listed in Table A.5-75:

[List the supported resources for your Retrieve Transaction origin server. Remove the non-supported resources rows. Fill in specific details on your implementation if existing in the Comments column.]

Table A.5-75: Resources Retrieve Transaction - Origin Server

Resource	Comments
DICOM® Instance resources – See resources path in PS3.18 Table 10.4.1-1	
Study Instances	
Series Instances	
Individual Instance	
DICOM Metadata resources – See resources path in PS3.18 Table 10.4.1-2	
Study Metadata	
Series Metadata	
Instance Metadata	
DICOM Bulkdata resources – See resources path in PS3.18 Table 10.4.1-5	
Study Bulkdata	
Series Bulkdata	
Instance Bulkdata	
Bulkdata	
DICOM Pixel Data resources – See resources path in PS3.18 table 10.4.1-6	
Study Pixel Data	
Series Pixel Data	
Instance Pixel Data	
Frame Pixel data	
Rendered resources – See resources path in PS3.18 Table 10.4.1-3	
rendered study	
rendered series	
rendered instance	
rendered frame	
rendered bulk	
Thumbnail resources – See resources path in PS3.18 Table 10.4.1-4	
Study Thumbnail	
Series Thumbnail	
Instance Thumbnail	
Frame Thumbnail	

Table A.5-76 lists Query parameters supported for the Retrieve Transaction service as an origin server:

[List the supported parameters and their supported values. Fill in information on your implementation in the Comments column when necessary. See PS3.18 Section 8.3.5 for the list of Retrieve Query Parameters.]

Table A.5-76: Query Parameters for Retrieve Transaction - Origin Server

Query Parameter	Supported values	Comments
Accept	*[Supported values are the same as for the Accept Header Field]*	
Rendered resource		
Annotation	<<patient technique>> *[Add additionally supported key word values here]*	
Charset	<<UTF-8 ISO-8859-1 …>>	
Quality		
Viewport		
Window		
iccprofile	<<no yes srgb adobergb rommrgb>>	
Thumbnail resource		
Charset	<<UTF-8 ISO-8859-1 …>>	
Viewport		

The Retrieve Transaction origin server supports Header Fields listed in Table A.5-77:

[List the supported Header Field and their supported values. Fill in information on your implementation in the Comments column when necessary. See PS3.18 Section 10.4.4 for the list of Resources and their corresponding Media Types]

Table A.5-77: Header Fields for Retrieve Transaction - Origin Server

Header Field	Supported values	Comments
Instance resource		
Accept	*multipart/related; type="application/dicom"; transfer-syntax={uid}*	See in the overview section Table 1.1-3 the supported DICOM SOP Classes / Transfer Syntaxes. Look for R in the User Agent column
	multipart/related; type="application/octet-stream"	
Metadata resource		
Accept	<<multipart/related; type="application/DICOM+xml" multipart/related; type=“application/DICOM+json”>>	
Bulkdata & Pixel Data resource		
Accept	Uncompressed: <<multipart/related; type="application/octet-stream">> Compressed: <<multipart/related; type="{media-type}">>	See details in section 5.3.2.1.1.1 DICOM Bulkdata Media Types

	supported {media-type} being <<Image/jpeg *image/x-dicom-rle* *image/x-jls* *Image/jp2* *image/jpx* *video/mpeg2* *video/mp4*>>	
Rendered Resource		
Accept	<<Image/jpeg Image/gif Image/png *Image/jp2* *Image/gif* *video/mpeg* *video/mp4* *video/H265* text/html text/plain *text/xml*>>	See details in section 5.3.2.1.2 Rendered Media Type
Thumbnail Resource		
Accept	<<Image/jpeg Image/gif Image/png *Image/jp2* *Image/gif* *video/mpeg* *video/mp4* *video/H265* text/html text/plain *text/xml*>>	See details in section 5.3.2.1.2 Rendered Media Type
All Resources		
Content-Type	Content-Type returned by the origin server in the response. It contains the media type of the Payload. See Accept for supported values	
Accept-Charset	<<UTF-8 ISO-8859-1 …>>	

A.5.3.2.3 Store Transaction (STOW-RS)

[If your system does not support the Studies Web service Store transaction (also known as STOW-RS), you can indicate that this section is not applicable and remove the subsections below]

A.5.3.2.3.1 User Agent

[If your system does not support the Studies Web service Store transaction as a user agent, you can indicate that this section is not applicable and remove the Table and subsections.]

For details regarding the IODs created by the system, see Annex A.

The Store transaction user agent can request Resources listed in Table A.5-78:

[List the supported resources for your Store Transaction user agent. Remove the non-supported resources rows. Fill in specific details on your implementation if existing in the Comments column.]

Table A.5-78: Resources Store Transaction – User Agent

Resource	Comments
	See resource path in PS3.18 Table: 10.5.1-1
All Studies	
Study	

The Store transaction user agent supports Header Fields listed in Table A.5-79:

[List the supported Header Fields and their supported values. Fill in information on your implementation in the Comments column when necessary]

Table A.5-79: Header Fields for Store Transaction - User Agent

Header Field	Supported values	Comments
Content-Type	multipart/related; type="application/dicom"; transfer-syntax={uid}	See in the overview section "Table 1.1 3 Storage SOP Classes" the supported DICOM SOP Classes / Transfer syntaxes (look fo S in the User Agent column)
	multipart/related; type="application/dicom+xml"; boundary={messageBoundary} multipart/related; type="application/dicom+json"; boundary={messageBoundary}	
	Uncompressed: multipart/related; type="application/octet-stream" *Compressed:* *multipart/related; type="{media-type}"* *supported {media-type} being* *<<Image/jpeg* *image/x-dicom-rle* *image/x-jls* *Image/jp2* *image/jpx* *video/mpeg2* *video/mp4>>*	See details in section 5.3.2.1.1.1 DICOM Bulkdata Media Types
Content-Length		*[If Content-Encoding is not present]*
Content-Encoding		*[If Content-Length is not present]*

A.5.3.2.3.2 Origin Server

[If your system does not support the Studies Web service Store transaction as origin server, you can indicate that this section is not applicable and remove the Table and subsections.]

The Store transaction origin server receives POST request to store or append to an existing resource on the server.

The user agent specifies the target resource as part of the URI and encapsulates the data in a multipart request body with a proper Content-Type (i.e. BINARY, XML or JSON).

The URI is composed by a base URI: See base URI for the origin server in Section A.6.3.2.2.

The Store transaction origin server can request Resources listed in Table A.5-80:

[Fill in specific details on your implementation if existing in the Comments column.]

Table A.5-80: Resources Store Transaction - Origin Server

Resource	Comments
	See resource path in PS3.18 Table: 10.5.1-1
All Studies	
Study	

1845 The Store transaction origin server supports Header Fields listed in Table A.5-81:

[List the supported Header Fields and their supported values. Fill in information on your implementation in the Comments column when necessary]

Table A.5-81: Header Fields for Store Transaction - Origin Server

Header Field	Supported values	Comments
Content-Type	multipart/related; type="application/DICOM"; boundary={messageBoundary} multipart/related; type="application/DICOM+xml"; boundary={messageBoundary} multipart/related; type="application/DICOM+json"; boundary={messageBoundary} multipart/related; type="application/octet-stream"	See in the overview section “Table 1.1 3 Storage SOP Classes” the supported DICOM SOP Classes / Transfer syntaxes (look fo S in the Origin server column)
	multipart/related; type="application/DICOM+xml"; boundary={messageBoundary} multipart/related; type="application/DICOM+json"; boundary={messageBoundary}	
	Uncompressed: multipart/related; type="application/octet-stream" *Compressed:* *multipart/related; type="{media-type}"* *supported {media-type} being <<Image/jpeg* *image/x-dicom-rle* *image/x-jls* *Image/jp2* *image/jpx* *video/mpeg2* *video/mp4>>*	See details in section 5.3.2.1.1.1 DICOM Bulkdata Media Types
Content-Length		*[If Content-Encoding is not present]*

Content-Encoding		*[If Content-Length is not present]*

A.5.3.2.4 Search Transaction (QIDO-RS)

[If your system does not support the Studies Web service Search transaction (also known as QIDO-RS), you can indicate that this section is not applicable and remove the subsections below]

A.5.3.2.4.1User Agent

[If your system does not support the Studies Web service Search transaction as user agent, you can indicate that this section is not applicable and remove the Table.]

The Search transaction user agent can request resources listed in Table A.5-82:

[List the supported resources for your Search Transaction user agent. Remove the non-supported resources rows. fill in specific details on your implementation if existing in the Comments column.]

Table A.5-82: Resources Search Transaction - User Agent

Resource	Comments
	See resource path in PS3.18 Table: 10.6.1-1
All studies	
All series	
All instances	
Study's Series	
Study's instances	
Study Series's Instances	

The Search transaction user agent supports query parameters listed in Table A.5-83:

[Indicate the supported parameters and their supported values. For detail on the implementation possibilities see the PS3.18 section 8.3.4 Table 8.3.4-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-83: Query Parameters for Search Transaction - User Agent

Query Parameter	Supported Values	Comments
match	Attribute values to address the search (matching key). See the supported DICOM attribute in the Table 5.3-24	
includefield	Attributes to be included in the response (return key). See the supported DICOM attributes in the Table 5.3-24	
fuzzymatching	<<true false>>	
Limit		*[Maximum number of results the server returns.]*
Offset		*[Number of results the server skips before the first returned result]*

[Indicate which DICOM query attributes are supported and if they are supported as Matching and/or Return (include) key. Add or remove attributes according to your implementation. If the tables are the same as used in DIMSE Services, you can enter a reference to Table A.5-17 and remove the text and table below. Otherwise provide the following text and Table Table A.5-84]

Table A.5-84 lists the DICOM query attributes supported by the Search Transaction user agent.

Table A.5-84: Supported Query Attributes User Agent

Attribute Name	Tag	Matching Key	Return Key	Comments
Study Level (May be used for All studies, All series, All instance resource query)				
SpecificCharacterSet	(0008,0005)			
StudyDate	(0008,0020)			
StudyTime	(0008,0030)			
AccessionNumber	(0008,0050)			
ModalitiesInStudy	(0008,0061)			
ReferringPhysicianName	(0008,0090)			
TimezoneOffsetFromUTC	(0008,0201)			
PatientName	(0010,0010)			
PatientID	(0010,0020)			
PatientBirthDate	(0010,0030)			
PatientSex	(0010,0040)			
StudyInstanceUID	(0020,000D)			
StudyID	(0020,0010)			
NumberOfStudyRelatedSeries	(0020,1206)			
NumberOfStudyRelatedInstances	(0020,1208)			
…				
Series Level (May be used for All Series, Study's Series, Study's Instances, All Instances resource query)				
SpecificCharacterSet	(0008,0005)			
Modality	(0008,0060)			
TimezoneOffsetFromUTC	(0008,0201)			
SeriesDescription	(0008,103E)			
SeriesInstanceUID	(0020,000E)			
SeriesNumber	(0020,0011)			
NumberOfSeriesRelatedInstances	(0020,1209)			
PerformedProcedureStepStartDate	(0040,0244)			
PerformedProcedureStepStartTime	(0040,0245)			
RequestAttributeSequence	(0040,0275)			
> RequestedProcedureID	(0040,1001)			
> ScheduledProcedureStepID	(0040,0009)			
…				
Instance Level (May be used for All instances, Study’s instance, Study Series’s instance resource query)				
SpecificCharacterSet	(0008,0005)			
SOPClassUID	(0008,0016)			
SOPInstanceUID	(0008,0018)			
InstanceAvailability	(0008,0056)			
TimezoneOffsetFromUTC	(0008,0201)			
RetrieveURL	(0008,1190)			
InstanceNumber	(0020,0013)			
Rows	(0028,0010)			
Columns	(0028,0011)			
BitsAllocated	(0028,0100)			
NumberOfFrames	(0028,0008)			

Attribute Name	Tag	Matching Key	Return Key	Comments
…				

The Search transaction user agent supports Header Fields listed in Table A.5-85:

[List the supported Header Fields and their supported values. Fill in information on your implementation in the Comments column when necessary]

Table A.5-85: Header Fields for Search Transaction - User Agent

Header Field	Supported values	Comments
Accept	<<multipart/related; type=”application/dicom+xml” application/dicom+json>>	
Accept-Charset	See section 5.5 for supported values	

A.5.3.2.4.2 Origin Server

[If your system does not support the Studies Web service Search transaction as origin server, you can indicate that this section is not applicable and remove the Table and subsections below]

The Search transaction origin server receives GET request to search for studies, series or instances.

[Specify here if this is a native or a DIMSE proxy implementation]

The user agent specifies the target resource as part of the URI and the accepTable response Content-Type in the HTTP Header (i.e. dicom+xml or dicom+json).

The URI is composed by a base URI: See base URI for the origin server in chaper A.6.3.2.3.

The Search transaction origin server supports resources listed in Table A.5-86:

[fill in specific details on your implementation if existing in the Comments column.]

Table A.5-86: Resources Search Transaction - Origin Server

Transaction	Resource	Comments
		See resource path in PS3.18 Table: 10.6.1-1
Search	All studies	
	All series	
	All instances	
	Study’s Series	
	Study’s instances	
	Study Series’s Instances	

The Search transaction origin server supports query parameters listed in Table A.5-87:

[List the supported parameters and their supported values. For detail on the implementation possibilities see the DICOM PS3.18 section 8.3.4 Table 8.3.4-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-87: Query Parameters for Search Transaction - Origin Server

Query Parameter	Supported Values	Comments

match	Attribute values to address the search (matching key). See the supported DICOM attributes provided in the response in the Table 5.3-29	
includefield	Attributes to be included in the response (return key). See the supported DICOM attributes provided in the response in the Table 5.3-29	
fuzzymatching	<<true false>>	
limit		
offset	Number of results the server skips before the first returned result	

The Search transaction origin server supports Header Fields listed in Table A.5-88:

[List the supported Header Fields and their supported values. Fill in information on your implementation in the Comments column when necessary]

Table A.5-88: Header Fields for Search Transaction - Origin Server

Header Field	Supported values	Comments
Accept	Received in the user agent request: multipart/related; type="application/dicom+xml" application/dicom+json	
Content-Type	Application/dicom+json (Default) Multipart/related; type="application/dicom+xml"	
Content-Length		*[If Content-Encoding is not present]*
Content-Encoding		*[If Content-Length is not present]*

[Indicate which DICOM query attributes are supported / returned in the response and if they are supported as Matching and/or Return (include) key. If the tables are the same as used in DIMSE Services you can enter a reference to Table A.5-18 and remove the text and table below. Otherwise provide the following text and Table A.5-89, and add or remove attributes according to your implementation. In the Table below, attributes / matching /return keys in black are mandatory to be supported]

Table A.5-89 lists the DICOM query / returned attributes supported by the Search transaction origin server.

Table A.5-89: Query / Return Key Search Transaction - Origin Server

Attribute Name	Tag	Matching Key	Return Key	Comments on the Response
Study Level (May be used for All studies, All series, All instance resource query)				
StudyDate	(0008,0020)			
StudyTime	(0008,0030)			
AccessionNumber	(0008,0050)			
ModalitiesInStudy	(0008,0061)			
ReferringPhysicianName	(0008,0090)			
TimezoneOffsetFromUTC	(0008,0201)			Will be returned if known
Retrieve URL	(0008,1190)			Will be present if the Instance is retrievable by the Retrieve transaction

Attribute Name	Tag	Matching Key	Return Key	Comments on the Response
PatientName	(0010,0010)			
PatientID	(0010,0020)			
PatientBirthDate	(0010,0030)			
PatientSex	(0010,0040)			
StudyInstanceUID	(0020,000D)			
StudyID	(0020,0010)			
NumberOfStudyRelatedSeries	(0020,1206)			
NumberOfStudyRelatedInstances	(0020,1208)			
…				
Series Level (May be used for All Series, Study's Series, Study's Instances, All Instances resource query)				
Modality	(0008,0060)			
TimezoneOffsetFromUTC	(0008,0201)			Will be present if known
SeriesDescription	(0008,103E)			Will be present if known
Retrieve URL	(0008,1190)			Will be present if the Instance is retrievable by the Retrieve transaction
SeriesInstanceUID	(0020,000E)			
SeriesNumber	(0020,0011)			
NumberOfSeriesRelatedInstances	(0020,1209)			
PerformedProcedureStepStartDate	(0040,0244)			Will be present if known
PerformedProcedureStepStartTime	(0040,0245)			Will be present if known
RequestAttributeSequence	(0040,0275)			Will be present if known
> RequestedProcedureID	(0040,1001)			
> ScheduledProcedureStepID	(0040,0009)			
…				
Instance Level (May be used for All instances, Study's instance, Study Series's instance resource query)				
SOPClassUID	(0008,0016)			
SOPInstanceUID	(0008,0018)			
InstanceAvailability	*(0008,0056)*			Will be present if known
TimezoneOffsetFromUTC	(0008,0201)			Will be present if known
RetrieveURL	(0008,1190)			Will be present if the Instance is retrievable by the Retrieve transaction
InstanceNumber	(0020,0013)			
Rows	(0028,0010)			Will be present if known
Columns	(0028,0011)			Will be present if known
BitsAllocated	(0028,0100)			Will be present if known
NumberOfFrames	(0028,0008)			Will be present if known
…				

1910

A.5.3.3 Worklist Web Service

[If your system does not support the Worklist web service (also known as UPS-RS), you can indicate that this section is not applicable and remove the subsections below.]

This section provides details regarding the Worklist Web Service. For an overview of supported transactions and resources see Table A.1-11 Worklist Service.

A.5.3.3.1 Create Transaction Worklist Web Service

[If your system does not support the Worklist Web service Create Workitem transaction, you can indicate that this section is not applicable and remove the Table and subsections below.]

A.5.3.3.1.1 User Agent

[If your system does not support the Worklist Web service Create Workitem transaction as a user agent, you can indicate that this section is not applicable and remove the Table and subsections.]

The Worklist Web Service user agent can request resources listed in Table A.5-90 for the Create Workitem transaction.

[Indicate the supported resources. Remove the non-supported resources rows. fill in specific details on your implementation if existing in the Comments column.]

Table A.5-90: Resources for the Worklist Web Service Create Transaction - User Agent

Resource	Comments
	See resource path in PS3.18 section: 11.4.1.1
worklist	
workitems	

Table A.5-91 lists the Query parameters supported by Worklist Web Service user agent for the Create transaction.

[List the supported parameters and their supported values. See possible parameters / values in PS3.18 Table 11.1.2-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-91: Query Parameters for Create Workitem Worklist Web Service – User Agent

Query Parameter	Supported values	Comments

Table A.5-92 lists the Header fields supported by the Worklist Web service user agent for the create transaction.

[List the supported Header fields and their supported values. See possible Header fields / values in PS3.18 Table: 11.4.1-3. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-92: Header Fields for Create Workitem Worklist Web Service – User Agent

Header Field	Supported values	Comments

A.5.3.3.1.2 Origin Server

[If your system does not support the Worklist Web service Create transaction as origin server, you can indicate that this section is not applicable and remove the Table and subsections below.]

The Worklist Web Service origin server supports resources listed in Table A.5-93 for the Create transaction:

[fill in specific details on your implementation if existing in the Comments column.]

Table A.5-93: Resources for the Worklist Web Service Create Transaction - Origin Server

Resource	Comments
	See resource path in PS3.18 section: 11.4.1.1
worklist	
workitems	

Table A.5-94 lists the Query parameters supported by Worklist Web Service origin server for the create transaction:

[Indicate the supported parameters and their supported values. See possible parameters / values in PS3.18 Table: 11.4.1-3. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-94: Query Parameters for Worklist Web Service Create Transaction - Origin Server

Query Parameter	Supported values	Comments

Table A.5-95 lists the Header fields supported by the Worklist Web service origin server for the Create transaction:

[List the supported Header fields and their supported values. See possible Header fields / values in PS3.18 Table: 11.4.1-3. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-95: Header Fields for Worklist Web Service Create Transaction - Origin Server

Header Field	Supported values	Comments

A.5.3.3.2 Retrieve Transaction Worklist Web Service

[If your system does not support the Worklist Web service Retrieve Transaction, you can indicate that this section is not applicable and remove the Table and subsections below.]

A.5.3.3.2.1 User Agent

[If your system does not support the Worklist Web service Retrieve Transaction as a user agent, you can indicate that this section is not applicable and remove the Table and subsections.]

The Retrieve Workitem transaction user agent can request resources listed in Table A.5-96:

[Fill in specific details on your implementation if existing in the Comments column.]

Table A.5-96: Resources for the Worklist Web Service Retrieve Transaction- User Agent

Resource	Comments
	See resource path in PS3.18 section 11.5.1
workitem	*/workitems/{workitem}*

Table A.5-97 lists the Query parameters supported by Worklist Web Service user agent for the Retrieve transaction:

[List the supported parameters and their supported values. See possible parameters / values in the DICOM PS3.18 Table: 11.1.2-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-97: Query Parameters for Retrieve Workitem Worklist Web Service – User Agent

Query Parameter	Supported values	Comments

Table A.5-98 lists the Header fields supported by the Worklist Web service user agent for the Retrieve transaction:

[List the supported Header fields and their supported values. See possible Header fields / values in PS3.18 Table: 11.5.1-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-98: Header Fields for Retrieve Workitem Worklist Web Service – User Agent

Header Field	Supported values	

1975

A.5.3.3.2.2 Origin Server

[If your system does not support the Worklist Web service Retrieve Transaction as an origin server, you can indicate that this section is not applicable and remove the Table and subsections.]

The Retrieve Workitem transaction origin server can request resources listed in Table A.5-99:

1980 *[Fill in specific details on your implementation if existing in the Comments column.]*

Table A.5-99: Resources for the Worklist Web Service Retrieve Transaction- Origin Server

Resource	Comments
	See resource path in PS3.18 section 11.5.1
workitem	

Table A.5-100 lists the Query parameters supported by Worklist Web Service origin server for the Retrieve transaction:

1985 *[Indicate the supported parameters and their supported values. See possible parameters / values in PS 3.18* Table: 11.1.2-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-100: Query Parameters for Retrieve Workitem Worklist Web Service – Origin Server

Query Parameter	Supported values	Comments

Table A.5-101 lists the Header fields supported by the Worklist Web service origin server for the Retrieve transaction.

1990 *[List the supported Header fields and their supported values. See possible Header fields / values in PS3.18* Table: 11.5.1-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-101: Header Fields for Retrieve Workitem Worklist Web Service – Origin Server

Header Field	Supported values	

A.5.3.3.3 Update Transaction Worklist Web Service

1995 *[If your system does not support the Worklist Web service Update Transaction, you can indicate that this section is not applicable and remove the subsections below]*

A.5.3.3.3.1 User Agent

[If your system does not support the Worklist Web service Update Transaction as a user agent, you can indicate that this section is not applicable and remove the Table and subsections below.]

2000 The Update Workitem transaction user agent can request resources listed in Table A.5-102:

[Fill in specific details on your implementation if existing in the Comments column.]

Table A.5-102: Resources for the Update transaction Worklist Web Service- User Agent

Resource	Comments
	See resource path in PS3.18 *section 11.6.1*
workitem	

Table A.5-103 lists the Query parameters supported by Worklist Web Service user agent for the update transaction:

[List the supported parameters and their supported values. See possible parameters / values in PS3.18 section: 11.6.1.2. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-103: Query Parameters for Update Transaction Worklist Web Service – User Agent

Query Parameter	Supported values	Comments

Table A.5-104 lists the Header fields supported by the Worklist Web service user agent for the update transaction:

[List the supported Header fields and their supported values. See possible Header fields / values in PS3.18 section: 11.6.1.3. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-104: Header Fields for Update Transaction Worklist Web Service – User Agent

Header Field	Supported values	

A.5.3.3.3.2Origin Server

[If your system does not support the Worklist Web service Update Transaction as a origin server, you can indicate that this section is not applicable and remove the Table and subsections below.]

The Update Workitem transaction origin server can request resources listed in Table A.5-105:

[Fill in specific details on your implementation if existing in the Comments column.]

Table A.5-105: Resources for the Update transaction Worklist Web Service- Origin Server

Resource	Comments
	See resource path in PS3.18 *section 11.6.1*
workitem	

Table A.5-106 lists the Query parameters supported by Worklist Web Service origin server for the update transaction:

[List the supported parameters and their supported values. See possible parameters / values in PS3.18 section: 11.6.1.2. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-106: Query Parameters for Update Transaction Worklist Web Service – Origin Server

Query Parameter	Supported values	Comments

Table A.5-107 lists the Header fields supported by the Worklist Web service user agent for the update transaction:

[List the supported Header fields and their supported values. See possible Header fields / values in PS3.18 section: 11.6.1.3. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-107: Header Fields for Update Transaction Worklist Web Service – Origin Server

Header Field	Supported values	Comments

A.5.3.3.4 Change State Transaction Worklist Web Service

[If your system does not support the Worklist Web service Change State Transaction, you can indicate that this section is not applicable and remove the Table and subsections below.]

A.5.3.3.4.1 User Agent

[If your system does not support the Worklist Web service Change State Transaction as a user agent, you can indicate that this section is not applicable and remove the Table and subsections below.]

The Change State transaction user agent can request resources listed in Table A.5-108:

Table A.5-108: Resources for the Change State Worklist Web Service- User Agent

Resource	Comments
	See resource path in PS3.18 Table 11.1.1-1
Workitem state	/workitems/{workitem}/state

Table A.5-109 lists the Query parameters supported by Worklist Web Service user agent for the Change State transaction:

[List the supported parameters and their supported values. See possible parameters / values in PS3.18 Table: 11.1.2-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-109: Query Parameters for Change State Worklist Web Service – User Agent

Query Parameter	Supported values	Comments

Table A.5-110 lists the Header fields supported by the Worklist Web service user agent for the change state transaction.

[List the supported Header fields and their supported values. See possible Header fields / values in PS3.18 Table: 11.7.1-1. Fill in information on your implementation in the Comments column when necessary]

Table A.5-110: Header Fields for Change State Worklist Web Service – User Agent

Header Field	Supported values	Comments

A.5.3.3.4.2 Origin Server

[If your system does not support the Worklist Web service Change State transaction as origin server, you can indicate that this section is not applicable and remove the Table and subsections below.]

The Worklist Web Service origin server supports resources listed in Table A.5-111 for the Change State transaction

Table A.5-111: Resources for the Change State Worklist Web Service - Origin Server

Resource	Comments
	See resource path in PS3.18 Table 11.1.1-1
Workitem state	/workitems/{workitem}/state

Table A.5-112 lists the Query parameters supported by Worklist Web Service origin server for the change state transaction:

[List the supported parameters and their supported values. See possible parameters / values in PS3.18 Table: 11.1.2-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-112: Query Parameters for Worklist Web Service Change State Transaction - Origin Server

Query Parameter	Supported values	Comments

Table A.5-113 lists the Header fields supported by the Worklist Web service origin server for the change state transaction.

[List the supported Header fields and their supported values. See possible Header fields / values in PS3.18 Table: 11.7.1-1. Fill in information on your implementation in the Comments column when necessary]

Table A.5-113: Header Fields for Worklist Web Service Change State Transaction - Origin Server

Header Field	Supported values	Comments

A.5.3.3.5 Request Cancelation Transaction Worklist Web Service

[If your system does not support the Worklist Web service Request Cancellation Transaction, you can indicate that this section is not applicable and remove the subsections below.]

A.5.3.3.5.1 User Agent

[If your system does not support the Worklist Web service Request Cancellation Transaction as user agent, you can indicate that this section is not applicable and remove the Table and subsections below.]

The Request Cancellation transaction user agent can request resources listed in Table A.5-114.

Table A.5-114: Resources for the Worklist Web Service Request Cancellation Transaction - User Agent

Resource	Comments
	See resource path in PS3.18 section 11.8.1
Workitem Request Cancellation	/workitems/{workitem}/cancelrequest

Table A.5-115 lists the Query parameters supported by Worklist Web Service user agent for the Request Cancellation transaction.

[List the supported parameters and their supported values. See possible parameters / values in PS3.18 Table: 11.1.2-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-115: Query Parameters for Request Cancellation Worklist Web Service – User Agent

Query Parameter	Supported values	Comments

Table A.5-116 lists the Header fields supported by the Worklist Web service user agent for the request cancellation transaction.

[List the supported Header fields and their supported values. See possible Header fields / values in PS3.18 Table 11.8.1-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-116: Header Fields for Request Cancellation Worklist Web Service – User Agent

Header Field	Supported values	Comments

A.5.3.3.5.2 Origin Server

[If your system does not support the Worklist Web service Request Cancellation transaction as origin server, you can indicate that this section is not applicable and remove the Table and subsection below.]

The Worklist Web Service origin server supports resources listed in Table A.5-117 for the Request Cancellation transaction

Table A.5-117: Resources for the Worklist Web Service Request Cancellation - Origin Server

Resource	Comments
	See resource path in PS3.18 section 11.8.1
Workitem Request Cancellation	/workitems/{workitem}/cancelrequest

Table A.5-118 lists the Query parameters supported by Worklist Web Service origin server for the Request Cancellation transaction.

[List the supported parameters and their supported values. See possible parameters / values in PS3.18 Table: 11.1.2-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-118: Query Parameters for Worklist Web Service Request Cancellation Transaction - Origin Server

Query Parameter	Supported values	Comments

Table A.5-119 lists the Header fields supported by the Worklist Web service origin server for the Request Cancellation Transaction.

[List the supported Header fields and their supported values. See possible Header fields / values in PS3.18 Table 11.8.1-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-119: Header Fields for Worklist Web Service Request Cancellation Transaction - Origin Server

Header Field	Supported values	Comments

A.5.3.3.6 SearchTransaction Worklist Web Service

[If your system does not support the Worklist Web service Search Transaction, you can indicate that this section is not applicable and remove the subsections below.]

A.5.3.3.6.1 User Agent

[If your system does not support the Worklist Web service Search Transaction as user agent, you can indicate that this section is not applicable and remove the Table and subsections below.]

The Search transaction user agent can request resources listed in Table A.5-120:

Table A.5-120: Resources for the Worklist Web Service Search Transaction - User Agent

Resource	Comments
	See resource path in PS3.18 section 11.9.1
Workitem	/workitems

Table A.5-121 lists the Query parameters supported by Worklist Web Service user agent for the Search transaction.

[List the supported parameters and their supported values. See possible parameters / values in PS3.18 Table: 8.3.4-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-121: Query Parameters for Search Transaction Worklist Web Service – User Agent

Query Parameter	Supported values	Comments

Table A.5-122 lists the Header fields supported by the Worklist Web service user agent for the Search transaction.

[List the supported Header fields and their supported values. See possible Header fields / values in PS3.18 Table 11.9.1-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-122: Header Fields for Search Transaction Worklist Web Service – User Agent

Header Field	Supported values	Comments

A.5.3.3.6.2 Origin Server

[If your system does not support the Worklist Web service Search transaction as origin server, you can indicate that this section is not applicable and remove the Table and subsections below.]

The Worklist Web Service origin server supports resources listed in Table A.5-123 for the Search transaction

Table A.5-123: Resources for the Worklist Web Service Search Transaction - Origin Server

Resource	Comments
	See resource path in PS3.18 section 11.9.1
workitem	/workitems?{&match*}{&includefield}{&fuzzymatching}{&offset}{&limit}

Table A.5-124 lists the Query parameters supported by Worklist Web Service origin server for the Search transaction.

[List the supported parameters and their supported values. See possible parameters / values in PS3.18 Table: 8.3.4-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-124: Query Parameters for Worklist Web Service Search Transaction - Origin Server

Query Parameter	Supported values	Comments

Table A.5-125 lists the Header fields supported by the Worklist Web service origin server for the Search Transaction.

[List the supported Header fields and their supported values. See possible Header fields / values in PS3.18 Table 11.9.1-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-125: Header Fields for Worklist Web Service Search Transaction - Origin Server

Header Field	Supported values	Comments

A.5.3.3.7 Subscribe Transaction Worklist Web Service

[If your system does not support the Worklist Web service Subscribe Transaction, you can indicate that this section is not applicable and remove the subsections below.]

A.5.3.3.7.1 User Agent

[If your system does not support the Worklist Web service Subscribe Transaction as user agent, you can indicate that this section is not applicable and remove the Table and subsections below.]

The Subscribe transaction user agent can request resources listed in Table A.5-126:

[List the supported resources. Remove the non-supported resources rows. Fill in specific details on your implementation if existing in the Comments column.]

Table A.5-126: Resources for the Worklist Web Service Subscribe Transaction - User Agent

Resource	Comments
	See resource path in PS3.18 Table 11.10.1-1
worklist	/workitems/1.2.840.10008.5.1.4.34.5/subscribers/{aetitle}
Filtered worklist	/workitems/1.2.840.10008.5.1.4.34.5.1/subscribers/{aetitle}
workitem	/workitems/{workitem}/subscribers/{aetitle}

Table A.5-127 lists the Query parameters supported by Worklist Web Service user agent for the Subscribe transaction:

[List the supported parameters and their supported values. See possible parameters / values in PS3.18 Table: 11.10.1-2. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-127: Query Parameters for Subscribe Transaction Worklist Web Service – User Agent

Query Parameter	Supported values	Comments

Table A.5-128 lists the Header fields supported by the Worklist Web service user agent for the Subscribe transaction:

[List the supported Header fields and their supported values. See possible Header fields / values in PS3.18 Table 8.4.1-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-128: Header Fields for Subscribe Transaction Worklist Web Service – User Agent

Header Field	Supported values	Comments

A.5.3.3.7.2 Origin Server

[If your system does not support the Worklist Web service Subscribe transaction as origin server, you can indicate that this section is not applicable and remove the Table and subsections below.]

The Worklist Web Service origin server supports resources listed in Table A.5-129 for the Subscribe transaction:

[List the supported resources. Remove the non-supported resources rows. Fill in specific details on your implementation if existing in the Comments column.]

Table A.5-129: Resources for the Worklist Web Service Subscribe Transaction - Origin Server

Resource	Comments
	See resource path in PS3.18 Table 11.10.1-1
worklist	/workitems/1.2.840.10008.5.1.4.34.5/subscribers/{aetitle}
Filtered worklist	/workitems/1.2.840.10008.5.1.4.34.5.1/subscribers/{aetitle}
workitem	/workitems/{workitem}/subscribers/{aetitle}

Table A.5-130 lists the Query parameters supported by Worklist Web Service origin server for the Subscribe transaction:

[List the supported parameters and their supported values. See possible parameters / values in PS3.18 Table: 11.10.1-2. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-130: Query Parameters for Worklist Web Service Subscribe Transaction - Origin Server

Query Parameter	Supported values	Comments

Table A.5-131 lists the Header fields supported by the Worklist Web service origin server for the Subscribe Transaction:

[List the supported Header fields and their supported values. See possible Header fields / values in the DICOM PS3.18 Table 8.4.1-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-131: Header Fields for Worklist Web Service Subscribe Transaction - Origin Server

Header Field	Supported values	Comments

A.5.3.3.8 Unsubscribe Transaction Worklist Web Service

[If your system does not support the Worklist Web service Unsubscribe Transaction, you can indicate that this section is not applicable and remove the subsections below.]

A.5.3.3.8.1 User Agent

[If your system does not support the Worklist Web service Unsubscribe Transaction as user agent, you can indicate that this section is not applicable and remove the Table and subsections below]

The Unsubscribe transaction user agent can request resources listed in Table A.5-132:

[List the supported resources. Remove the non-supported resources rows. Fill in specific details on your implementation if existing in the Comments column.]

Table A.5-132: Resources for the Worklist Web Service Unsubscribe Transaction - User Agent

Resource	Comments

	See resource path in PS3.18 Table 11.11.1-1
Workitem	workitems/{workitem}/subscribers/{aetitle}
worklist	/workitems/1.2.840.10008.5.1.4.34.5/subscribers/{aetitle}{/suspend}
Filtered worklist	/workitems/1.2.840.10008.5.1.4.34.5.1/subscribers/{aetitle}{/suspend}

Table A.5-133 lists the Header fields supported by the Worklist Web service user agent for the Unsubscribe transaction:

[List the supported Header fields and their supported values. See possible Header fields / values in PS3.18 Table 8.4.1-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-133: Header Fields for Unsubscribe Transaction Worklist Web Service – User Agent

Header Field	Supported values	Comments

A.5.3.3.8.2 Origin Server

[If your system does not support the Worklist Web service Unsubscribe transaction as origin server, you can indicate that this section is not applicable and remove the Table and subsections below.]

The Worklist Web Service origin server supports resources listed in Table A.5-134 for the Unsubscribe transaction:

Table A.5-134: Resources for the Worklist Web Service Unsubscribe Transaction - Origin Server

Resource	Comments
	See resource path in PS3.18 Table 11.11.1-1
workitem	workitems/{workitem}/subscribers/{aetitle}
worklist	/workitems/1.2.840.10008.5.1.4.34.5/subscribers/{aetitle}{/suspend}
Filtered worklist	/workitems/1.2.840.10008.5.1.4.34.5.1/subscribers/{aetitle}{/suspend}

Table A.5-135 lists the Header fields supported by the Worklist Web service origin server for the Unsubscribe Transaction:

[List the supported Header fields and their supported values. See possible Header fields / values in PS3.18 Table 8.4.1-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-135: Header Fields for Worklist Web Service Unsubscribe Transaction - Origin Server

Header Field	Supported values	Comments

A.5.3.4 Non-Patient Instance Web Service

[If your system does not support the Non-Patient Instance Web services (also called NPI), you can indicate that this section is not applicable and remove the subsections below].

This section provides details regarding the Non-Patient Instance Web Service. For an overview of supported transactions and resources see Table A.1-12 Non Patient Instance Service.

A.5.3.4.1 Supported Media Types

The supported Non-Patient Instance Storage SOP Classes are listed in the Table A.5-136 below. The supported transfer syntaxes are listed in Section A.1.1 of this document.

[Indicate which SOP classes are supported by your system. Remove the unsupported ones. See possible NPI SOP classes in PS 3.4 Table GG.3-1

- *In the URI User Agent / Origin Server columns use Y or N to indicate Support for the listed SOP Class.If SOP class is neither supported as User Agent nor Origin Server, remove row.*

Table A.5-136: Non-Patient Instance storage service classes

SOP class name	SOP class UID	User Agent	Origin server	Comments
Hanging Protocol Storage	*1.2.840.10008.5.1.4.38.1*			
Color Palette Storage	*1.2.840.10008.5.1.4.39.1*			
Generic Implant Template Storage	*1.2.840.10008.5.1.4.43.1*			
Implant Assembly Template Storage	*1.2.840.10008.5.1.4.44.1*			
Implant Template Group Storage	*1.2.840.10008.5.1.4.45.1*			
CT Defined Procedure Protocol Storage	*1.2.840.10008.5.1.4.1.1.200.1*			
Protocol Approval Storage	*1.2.840.10008.5.1.4.1.1.200.3*			

[Provide requirements for display and processing of instances received via Web services. This could either be done by referencing section A.5.2.5.2 if the same requirements apply, or by copying the Tables from Section A.5.2.5.2 and filling them appropriately, if requirements for Web services differ]

A.5.3.4.2 Retrieve Transaction

[If your system does not support Non-Patient Instance Web service Retrieve transaction, you can indicate that this section is not applicable and remove the subsections below]

A.5.3.4.2.1 User Agent

[If your system does not support the Non-Patient Instance Web service Retrieve transaction as a user agent, you can indicate that this section is not applicable and remove the Table and subsections]

The Non-Patient Instance (NPI) Retrieve transaction as user agent can request resources listed in Table A.5-137:

[provide implementation specific details in the comment column and indicate the supported {npi-name}. They can be:

- *color-palettes*
- *defined-procedure-protocols*
- *hanging-protocols*
- *implant-templates]*

Table A.5-137: Resources for the NPI Retreve transaction - User Agent

Resource	Comments
	See resource path in PS3.18 Table 12.4.1-1
Instance	/{npi-name}/{uid}

Table A.5-138 lists the Query parameters supported for the retrieve transaction of the NPI Web service user agent.

[List the supported parameters and their supported values. See possible parameters / values in PS3.18 Table 12.1.2-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-138: Query Parameters for Retrieve transaction - User Agent

Query Parameter	Supported Values	Comments

Table A.5-139 lists the Header Fields supported for the retrieve transaction of the NPI Web service user agent.

[List the supported Header fields and their supported values. See possible Header fields / values PS3.18 section 12.4.1.3. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-139: Header Fields for retrieve transaction - User Agent

Header Field	Supported Values	Comments

A.5.3.4.2.2 Origin Server

[If your system does not support the NPI Web service Retrieve transaction as origin server, you can indicate that this section is not applicable and remove the Table and subsections below]

The NPI Web service origin server supports resources listed in Table A.5-140 for the retrieve transaction:

[provide implementation specific details in the comment column and indicate the supported {npi-name}. They can be:

- *color-palettes*
- *defined-procedure-protocols*
- *hanging-protocols*
- *implant-templates]*

Table A.5-140: Resources for the NPI Retrieve transaction – Origin Server

Resource	Comments
	See resource path in PS3.18 Table 12.4.1-1
Instance	/{npi-name}/{uid}

Table A.5-141 lists the Query parameters supported for the retrieve transaction of the NPI Web service origin server.

[List the supported parameters and their supported values. See possible parameters / values in PS3.18 Table 12.1.2-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-141: Query Parameters for Retrieve transaction – Origin Server

Query Parameter	Supported Values	Comments

Table A.5-142 lists the Header Fields supported for the retrieve transaction of the NPI Web service Origin Server.

[List the supported Header fields and their supported values. See possible Header fields / values in the DICOM PS3.18 section 12.4.1.3 *and 12.4.3.2. Fill in information on your implementation in the Comments column when necessary]*

Table A.5-142: Header Fields for Retrieve transaction – Origin Server

Header Field	Supported Values	Comments

A.5.3.4.3 Store Transaction

[If your system does not support the Non-Patient Instance Web service Store transaction, you can indicate that this section is not applicable and remove the subsections below]

A.5.3.4.3.1 User Agent

[If your system does not support the Non-Patient Instance Web service Store transaction as a user agent, you can indicate that this section is not applicable and remove the Table and subsections below]

For details regarding the IODs created by the system, see Annex A.

The Store transaction user agent can request Resources listed in Table A.5-143:

[List the supported resources. Remove the non-supported resources rows.

Provide implementation specific details in the comment column and Indicate what are the supported {npi-name}. They can be:

- *color-palettes*
- *defined-procedure-protocols*
- *hanging-protocols*
- *implant-templates]*

Table A.5-143: Resources Store Transaction – User Agent

Resource	Comments
	See resource path in PS3. 18 Table: 12.5.1-1
All Instances	*/{npi-name}*
instance	*/{npi-name} {/uid}*

Table A.5-144 lists the Query parameters supported for the store transaction of the NPI Web service user agent.

[List the supported parameters and their supported values. See possible parameters / values in PS3.18 Table 12.1.2-1. Fill in information on your implementation in the Comments column when necessary]

Table A.5-144: Query Parameters for Store transaction - User Agent

Query Parameter	Supported Values	Comments

The Store transaction user agent supports Header Fields listed in Table A.5-145:

[List the supported Header fields and their supported values. See possible Header fields / values in PS3.18 section 12.5.1.3*. Fill in information on your implementation in the Comments column when necessary]*

Table A.5-145: Header Fields for Store Transaction - User Agent

Header Field	Supported values	Comments

A.5.3.4.3.2 Origin Server

[If your system does not support the Non-Patient Instance Web service Store transaction as origin server, you can indicate that this section is not applicable and remove the Table and subsections.]

The Store transaction origin server receives POST request to store or append to an existing resource on the server.

The user agent specifies the target resource as part of the URI and encapsulate the data in a multipart request body with a proper Content-Type (i.e. BINARY, XML or JSON).

The URI is composed by a base URI: See base URI for the origin server in chaper 6.4.4

The Store transaction origin server supports Resources listed in Table A.5-146:

[List the supported resources. Remove the non-supported resources rows.

Provide implementation specific details in the comment column and Indicate what are the supported {npi-name}. They can be:

- *color-palettes*
- *defined-procedure-protocols*
- *hanging-protocols*
- *implant-templates]*

Table A.5-146: Resources Store Transaction - Origin Server

Transaction	Resource	Comments
		See resource path in PS3.18 Table: 12.5.1-1
Store (a set of instances)	*All Instances*	
Store (a single instance)	*Instance*	

Table A.5-147 lists the Query parameters supported for the store transaction of the NPI Web service origin server:

[List the supported parameters and their supported values. See possible parameters / values in PS3.18 Table 12.1.2-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-147: Query Parameters for Store transaction – Origin Server

Query Parameter	Supported Values	Comments

The Store transaction origin server supports Header Fields listed in Table A.5-148:

[List the supported Header fields and their supported values. See possible Header fields / values in PS3.18 section 12.5.1.3*. Fill in information on your implementation in the Comments column when necessary]*

Table A.5-148: Header Fields for Store Transaction - Origin Server

Header Field	Supported values	Comments

A.5.3.4.4 Search Transaction

[If your system does not support the Non-Patient Instance Web service Search transaction, you can indicate that this section is not applicable and remove the subsections below]

A.5.3.4.4.1 User Agent

[If your system does not support the Non-Patient Instance Web service Search transaction as user agent, you can indicate that this section is not applicable and remove the Table.]

The Search transaction user agent can request resources listed in Table A.5-149:

[Provide implementation specific details in the comment column and Indicate what are the supported {npi-name}. They can be:

- *color-palettes*
- *defined-procedure-protocols*
- *hanging-protocols*
- *implant-templates]*

Table A.5-149: Resources Search Transaction - User Agent

Resource	Comments
	See resource path in PS3.18 Table: 12.6.1-1
All Instances	/{npi-name}

The Search transaction user agent supports query parameters listed in Table A.5-150:

[List the supported parameters and their supported values. See possible parameters / values in PS3.18 Section 12.1.2 *and* Table 8.3.4-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-150: Query Parameters for Search Transaction - User Agent

Query Parameter	Supported Values	Comments

Table A.5-151 lists the DICOM query attributes supported by the Search Transaction user agent:

[indicate which DICOM query attributes are supported and if they are supported as Matching and/or Return (include) key. See PS 3.18 Table 12.6.1-2 *]*

Table A.5-151: Supported Query Attributes User Agent

Attribute Name	Tag	Matching Key	Return Key	Comments

The Search transaction user agent supports Header Fields listed in Table A.5-152:

[List the supported Header fields and their supported values. See possible Header fields / values in PS3.18 section 12.6.1.3. Fill in information on your implementation in the Comments column when necessary]

Table A.5-152: Header Fields for Search Transaction - User Agent

Header Field	Supported values	Comments

A.5.3.4.4.2 Origin Server

[If your system does not support the Non-Patient Instance Web service Search transaction service as origin server, you can indicate that this section is not applicable and remove the Table and subsections below]

The Search transaction origin server receives GET request to search for studies, series or instances.

[Specify here if this is a native or a DIMSE proxy implementation]

The user agent specifies the target resource as part of the URI and the accepTable response Content-Type in the HTTP Header (i.e. dicom+xml or dicom+json).

The URI is composed by a base URI: See base URI for the origin server in chaper A.6.3.4.

The Search transaction origin server supports Resources listed in Table A.5-153:[Provide implementation specific details in the comment column and indicate the supported {npi-name}. They can be:

- *color-palettes*
- *defined-procedure-protocols*
- *hanging-protocols*
- *implant-templates]*

Table A.5-153: Resources Search Transaction - Origin Server

Resource	Comments
	See resource path in PS3.18 Table: 12.6.1-1
All Instances	/{npi-name}

The Search transaction origin server supports query parameters listed in Table A.5-154:

[List the supported parameters and their supported values. See possible parameters / values in PS3.18 Section 12.1.2 *and* Table 8.3.4-1. *Fill in information on your implementation in the Comments column when necessary]*

Table A.5-154: Query Parameters for Search Transaction - Origin Server

Query Parameter	Supported Values	Comments

The Search transaction origin server supports Header Fields listed in Table A.5-155:

[List the supported Header fields and their supported values. See possible Header fields / values in PS3.18 section 12.6.1.3 *and 12.6.3.2. Fill in information on your implementation in the Comments column when necessary]*

Table A.5-155: Header Fields for Search Transaction - Origin Server

Header Field	Supported values	Comments

Table A.5-156 lists the DICOM query / returned attributes supported by the Search transaction origin server:

[Indicate which DICOM query attributes are supported / returned in the response and if they are supported as Matching and/or Return (include) key. See PS3.18 Table 12.6.1-2]

Table A.5-156: Query / Return Key Search Transaction - Origin Server

Attribute Name	Tag	Matching Key	Return Key	Comments on the response

A.5.3.5 Notification Web Service

[If your system does not support the Notification Web service, you can indicate that this section is not applicable.

If your Web service supports notification, describe how WebSocket connections are opened. See details in PS3.18 section 8.10]

A.5.4 Media Service

A.5.4.1 File Set Creator (FSC)

<Product> supports creating the Basic Directory IOD as a File Set Creator as defined in Annex A.9.5.

For a list of supported Media Application Profiles, see Section A.1.4 in the Overview.

For a list of supported SOP Classes, see Section A.1.1 in the Overview.

[Describe, how the File Set Creator is selecting the Media Application Profiles used for creating the Media.]

A.5.4.2 File Set Reader (FSR)

*<Product>*supports the Media Application Profiles listed in Section A.1.4 in the Overview.

For a list of supported SOP Classes, see Section A.1.1 in the Overview.

[Provide requirements for display and processing of instances contained on the medium. This could either be done by referencing Section A.5.2.5.2 (as indicated below), if the the same requirements apply, or by copying the Tables from Section A.5.2.5.2 and filling them appropriately, if requirements for external media differ.]

To display or process DICOM instances contained on the Media, see Section A.5.2.5.2

A.5.4.3 File Set Updater (FSU)

<Product> supports creating the Basic Directory IOD as defined in Annex A.9.5.

For a list of supported Media Application Profiles, see Section A.1.4 in the Overview.

For a list of supported SOP Classes, see Section A.1.1 in the Overview.

A.5.5 Real Time Video Service

A.5.5.1 Service Consumer

Table A.5-157 lists restrictions that apply to the RTV instances supported by the Service Consumer

[List the restriction for the RTV Service Consumer in Table A.5-157 below]

Table A.5-157: DICOM-RTV Instances Specification Service Consumer

Category	Restrictions
Photometric interpretation	*RGB*
Bit depth (video)	*10*
Number of Waveform Channels	*2*
Bit depth (audio)	*16 (signed 16-bits linear)*
Sampling Frequency	*48 kHz*

Table A.5-158 lists the screen resolutions that are supported by the Service Provider.

[List all supported Screen resolutions in Table A.5-158 below]

Table A.5-158: DICOM-RTV Screen Resolutions Service Consumer

Rows	Columns	Frame rate	Video Type	Progressive or Interlaced
1080	*1920*	*25*	*25 Hz HD*	*P*

Rows	Columns	Frame rate	Video Type	Progressive or Interlaced
1080	*1920*	*29.97, 30*	*30 Hz HD*	*P*
1080	*1920*	*25*	*25 Hz HD*	*I*
1080	*1920*	*29.97, 30*	*30 Hz HD*	*I*
720	*1280*	*25*	*25 Hz HD*	*P*
720	*1280*	*29.97, 30*	*30 Hz HD*	*P*
720	*1280*	*50*	*50 Hz HD*	*P*
720	*1280*	*59.94, 60*	*60 Hz HD*	*P*

[Provide the connection policies including access to the URL to retrieve the SDP object and the number of simultaneous connections]

A.5.5.2 Service Provider

Table A.5-159 list restrictions that apply to the RTV instances supported by the Service Provider

[List the restriction for the RTV Service Consumer in Table A.5-159 below]

Table A.5-159: DICOM-RTV Instances Specification Service Provider

Category	Restrictions
Photometric interpretation	*RGB*
Bit depth (video)	*10*
Number of Waveform Channels	*2*
Bit depth (audio)	*16 (signed 16-bits linear)*
Sampling Frequency	*48 kHz*

Table A.5-160 list the screen resolutions that are supported by the Service Provider.

[List all supported Screen resolutions in Table A.5-160 below]

Table A.5-160: DICOM RTV Screen Resolution – Service Provider

Rows	Columns	Frame rate	Video Type	Progressive or Interlaced
1080	*1920*	*25*	*25 Hz HD*	*P*
1080	*1920*	*29.97, 30*	*30 Hz HD*	*P*
1080	*1920*	*25*	*25 Hz HD*	*I*
1080	*1920*	*29.97, 30*	*30 Hz HD*	*I*
720	*1280*	*25*	*25 Hz HD*	*P*
720	*1280*	*29.97, 30*	*30 Hz HD*	*P*
720	*1280*	*50*	*50 Hz HD*	*P*
720	*1280*	*59.94, 60*	*60 Hz HD*	*P*

[Provide the connection policies including the URL where the Service consumer can retrieve the SDP object and the number of simultaneous connections]

A.5.6 Cross Service Considerations

This section describes cross-service consideration, that are not defined by the DICOM standard and are not already addressed in the previously described services.

[Provide any additional cross service consideration that are not covered in the previous subsections.]

A.5.7 Specific Charactersets

In addition to the default character repertoire, the values for Specific Character Set (0008,0005) listed in Table A.5-161 are supported.

[List all supported Charactersets and the IANA name as well as a description in the Table below]

Table A.5-161:Supported Specific Character Sets

Defined Term	IANA	Character Set Description
Single-Byte Charactersets without Code Extensions		
ISO_IR_100	*ISO-8859-1*	*Latin Alphabet No.1 (West Europe)*
Single-Byte Charactersets with Code Extension		
ISO_2022_IR_100		*Latin Alphabet No. 1 (West Europe)*
Multi-Byte Charactersets without Code Extensions		
GB18030	*GB18030*	*GB18030-2000 (P.R China Norm GB18030)*
Multi-Byte Charactersets without Code Extensions		
ISO_2022_IR_87	ISO-2022-*JP*	*Japanese*

[If your product supports mapping/conversion of the non-default Character Sets, fill in the Table below, otherwise remove Table.]

<*Product*>supports mapping/conversion of the supported, non-standard Specific Character Sets as listed in Table A.5-162.

The Mapping Scenario Column describes the situation in which mapping occurs. The following values are used:

- MWL_TO_INSTANCE: The conversion occurs when mapping from the Modality Worklist to the instances stored
- DISPLAY: The conversion happens when displaying the instances.

[Describe the Mapping/Conversion of Specific Character sets and the Scenarios the Mapping occurs. For the mapping scenario use any of the scenarios defined above or add your specific scenario]

Table A.5-162: Conversion/Mapping of Non-Standard Specific Charactersets

Incoming Speficic Character Sets			Converted/mapped Specific Character Set			Mapping Scenario
Defined Term	IANA	Character Set Description	Defined Term	IANA	Character Set Description	

ISO_2022_IR_187	*ISO-2022-JP*	*Japanese*	*ISO_IR_192*	*UTF-8*	*Unicode in UTF-8*	*MWL_TO_INSTANCE*

[Explain your product behavior in case it encounters unsupported character sets.]

[Describe the presentation of the characters to a user, i.e., capabilities, font limitations and/or substitutions of characters.]

2470 Generic configuration for Specific Character Sets is covered in Section A.6.1 General Configuration Parameters. Service specific configuration for Specific Character Sets is addressed in respective subsection of Section A.6.2 or Section A.6.3.

A.6 Configuration

[Briefly describe if there is a configuration interface (service tool, administration GUI, web interface, other) to configure the basic parameters.]

A.6.1 General Configuration Parameters

Table A.6-1 lists general configuration parameters applicable across all supported DICOM services.

Table A.6-1: General Configuration Parameters

Parameter	Configurable	Default Value	Comment
[Fill in general parameters related to DICOM® connections like various timeouts]	*[Y for YES N for NO]*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Time-out waiting for acceptance or rejection Response to an Association Open Request. (Application Level timeout)			
Time-out waiting for a response to an Association release request (Application Level Timeout)			
General DIMSE level time-out values			
Maximum number of simultaneous associations accepted			
Specific Character Set			*[If character set is configurable per service, add the specific character set configuration row in the relevant services]*
Other parameters			

A.6.2 Configuration of DIMSE Services

The Tables in the following subsections show the configuration parameters required for DIMSE Services.

In the Configurable column the following values can be used:

- USER: the parameter is configurable by the USER
- SERVICE: the parameter is configurable by SERVICE
- NO: the parameter is not configurable (it has a fixed value). The value is required for the configuration of the remote system.
- N/A: the parameter is not applicable for the local or the remote system

In order to identify whether <*product*> is a SCP and / or a SCU, the following applies:

- SCP: the (Secured) Local Called AET is different than N/A in the Configurable column
- SCU: the (Secured) Remote Called AET is different than N/A in the configurable column

A.6.2.1 Basic Worklist Management Service Configuration

If your system does not support the DICOM® Modality Worklist service, you can indicate that this section is not applicable and remove the Table.

Table A.6-2 lists Worklist Service configuration parameters:

Table A.6-2: Worklist Service Parameters

Local Worklist Service configuration parameters			
Parameter	**Configurable**	**Default Value**	**Comment**
[Fill in Parameters related to the Local Worklist service. At least the Calling AET / Called AET / Port number of the local system will be specified. The example below shows how it would look for a DICOM® modality]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Calling AET (SCU)	*SERVICE*	*WORKLIST_AE*	
Called AET (SCP)	*N/A*		
Port	*N/A*		
Secured Port	*N/A*		
Additional configurable local Worklist service parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system. See example below for a modality]			
Default Modality type	*USER*		*[Define the default modality type used to query the remote DMWL SCP. Possible choices are CR, DX, RF]*
Default Scheduled Station AET	*SERVICE*		*[Define the default Scheduled Station AET used to query the remote DMWL SCP.]*
<Specific worklist parameter>			
Remote Worklist service configuration parameters			
[Either document the number of supported remote host, e.g <Product> supports configuration of up to <X> remote hosts or state that there is no limitation other than the ones mandated by the operating system]			
Parameter	**Configurable**	**Default Value**	**Comment**
[List parameters related to the Remote Worklist service. At least the Calling AET / Called AET / Port number / Host (IP address) of the Remote system will be specified. The example below shows how it would look for a DICOM® modality]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Calling AET (SCU)	*N/A*		
Called AET (SCP)	*SERVICE*		*Can connect up to 3 RIS*
Port	*SERVICE*	*104*	
Secured Port	*YES*	*2762*	
Host	*YES*		
Additional configurable remote Worklist service parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the remote system. See example below:]			
<Specific worklist parameter>			

A.6.2.2 Modality Performed Procedure Service Configuration

If your system does not support the DICOM® MPPS service, you can indicate that this section is not applicable and remove the Table.

Table A.6-3 lists Modality Performed Procedure Step Service configuration parameters:

Table A.6-3: MPPS Service Parameters

Local MPPS service configuration parameters			
Parameter	**Configurable**	**Default Value**	**Comment**
[Fill in Parameters related to the Local MPPS service. At least the Calling AET / Called AET / Port number of the local system will be specified. The example below shows how it would look for a PACS]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Calling AET (SCU)	*SERVICE*	*STORE_AE*	*The system uses the same calling AET as for the Storage SCU service by default*
Called AET (SCP)	*SERVICE*	*STORE_AE*	*The system uses the same called AET as for the Storage SCP service by default*
Port	*NO*	*104*	
Secured Port	*NO*	*2762*	
Additional configurable local MPPS service parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system.]			
<Specific MPPS parameter>			
Remote MPPS service configuration parameters			
[Either document the number of supported remote host, e.g <Product> supports configuration of up to <X> remote hosts or state that there is no limitation other than the ones mandated by the operating system]			
Parameter	**Configurable**	**Default Value**	**Comment**
[Fill in Parameters related to the Remote MPPS service. At least the Calling AET / Called AET / Port number / Host (IP address) of the Remote system will be specified. The example below shows how it would look for a PACS]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter}*
Calling AET (SCU)	*SERVICE*		
Called AET (SCP)	*SERVICE*		
Port	*SERVICE*	*104*	
Secured Port	*SERVICE*	*2762*	
Host	*SERVICE*		
Additional configurable remote MPPS AE parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the remote system. See example below]			
Rely on MPPS complete sent by modality	*SERVICE*	*unchecked*	*If checked the PPS will be considered as completed when the remote system send the MPPS N-SET COMPLETED*
<Specific MPPS parameter>			

2505 **A.6.2.3 Unified Worklist and Procedure Step Service Configuration**

[If your system does not support the Unified Worklist and Procedure Step service (UPS), you can indicate that this section is not applicable and remove the Table.]

Table A.6-4 lists Unified Worklist and Procedure Step Service configuration parameters:

Table A.6-4: UPS Service Parameters

Local Unified Worklist and Procedure step service configuration parameters			
Parameter	**Configurable**	**Default Value**	**Comment**
[Fill in Parameters related to the Local UPS service. At least the Calling AET / Called AET / Port number of the local system will be specified. The example below shows how it would look for a DICOM® modality acting as a workitem Creator]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Calling AET (SCU)	*SERVICE*	*WORKLIST_AE*	
Called AET (SCP)	*N/A*		
Port	*N/A*		
Secured Port	*N/A*		
Additional configurable local UPS service parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system.]			
<Specific UPS parameter>			
Remote Unified Worklist and Procedure Step service configuration parameters			
[Either document the number of supported remote host, e.g <Product> supports configuration of up to <X> remote hosts or state that there is no limitation other than the ones mandated by the operating system]			
Parameter	**Configurable**	**Default Value**	**Comment**
[List parameters related to the Remote UPS service. At least the Calling AET / Called AET / Port number / Host (IP address) of the Remote system will be specified. The example below shows how it would look for a DICOM® modality]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Calling AET (SCU)	*N/A*		
Called AET (SCP)	*SERVICE*		
Port	*SERVICE*	*104*	
Secured Port	*SERVICE*	*2762*	
Host	*SERVICE*		
Additional configurable remote UPS service parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system.]			
<Specific UPS parameter>			

2510

A.6.2.4 Instance Availability Service Configuration

[If your system does not support the Instance Availability service (IAN), you can indicate that this section is not applicable and remove the Table.]

Table A.6-5 lists Instance Availabilty Service configuration parameters:

2515 **Table A.6-5: IAN Service Parameters**

Local Instance Availability Notification service configuration parameters			
Parameter	**Configurable**	**Default Value**	**Comment**
[Fill in Parameters related to the Local IAN service. At least the Calling AET / Called AET / Port number of the local system will be specified. The example below shows how it would look for a DICOM® PACS]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Calling AET (SCU)	*SERVICE*	*IAN_AE*	
Called AET (SCP)	*N/A*		
Port	*N/A*		
Secured Port	*N/A*		
Additional configurable local IAN service parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system.]			
<Specific UPS parameter>			
Remote Instance Availability Notification service configuration parameters			
[Either document the number of supported remote host, e.g <Product> supports configuration of up to <X> remote hosts or state that there is no limitation other than the ones mandated by the operating system.]			
Parameter	**Configurable**	**Default Value**	**Comment**
[List parameters related to the Remote IAN service. At least the Calling AET / Called AET / Port number / Host (IP address) of the Remote system will be specified. The example below shows how it would look for a PACS]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Calling AET (SCU)	*N/A*		
Called AET (SCP)	*SERVICE*		
Port	*SERVICE*	*104*	
Secured Port	*N/A*		Secured Connection is not supported
Host	*SERVICE*		
Additional configurable remote IAN service parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system.]			
<Specific UPS parameter>			

A.6.2.5 Storage Service Configuration

If your system does not support the DICOM® Storage service, you can indicate that this section is not applicable and remove the Table.

Table A.6-6 lists Storage Service configuration parameters:

Table A.6-6: Storage Service Parameters

Local Storage service configuration parameters			
Parameter	**Configurable**	**Default Value**	**Comment**
[List Parameters related to the Local Storage service. At least the Calling AET / Called AET / Port number of the local system will be specified. The example below shows how it would look for a PACS]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Calling AET (SCU)	*SERVICE*	*STORE_AE*	
Called AET (SCP)	*SERVICE*	*STORE_AE*	*List of AET can be configured depending on the usage (study to be verified or not; studies not to be archived; study to be displayed only…)*
Port	*NO*	*104*	*For studies to be displayed only (not imported in DB/cache, the default port is 110*
Secured Port	*NO*	*2762*	
Additional configurable local storage service parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system. See example below]			
Supported transfer syntax as SCP	*SERVICE*	*See Table xx*	*Can force to accept ILE only*
Supported storage sop class as SCP	*SERVICE*	*See Table yy*	*Can add or remove storage SOP Classes*
Outbound Issuer of patient ID default	*SERVICE*		*In case there are several PID/issuer for the study to send, the default PID/issuer can be selected to be sent as the primary Patient ID to the remote storage SCP*
<Specific Storage parameter>			
Remote Storage service configuration parameters			
[Either document the number of supported remote host, e.g <Product> supports configuration of up to <X> remote hosts or state that there is no limitation other than the ones mandated by the operating system.]			
Parameter	**Configurable**	**Default Value**	**Comment**
[Fill in Parameters related to the Remote Storage service. At least the Calling AET / Called AET / Port number / Host (IP address) of the Remote system will be specified.	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*

The example below shows how it would look for a PACS]			
Calling AET (SCU)	*SERVICE*		
Called AET (SCP)	*SERVICE*		
Port	*SERVICE*	*104*	
Secured Port	*N/A*		*Secured DICOM outbound connections are not supported*
Host	*SERVICE*		
Additional configurable remote storage service parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system.]			
Inbound PID / issuer to use	*SERVICE*		*In case the remote Storage SCU does not send an issuer of Patient ID, you Can define a default inbound Patient ID issuer.*
<Specific storage parameter>			

A.6.2.6 Storage Commitment Service Configuration

[If your system does not support the DICOM® Storage Commitment service, you can indicate that this section is not applicable and remove the Table.]

Table A.6-7 lists Storage Commitment Service configuration parameters:

Table A.6-7: Storage Commitment Service Parameters

Local Storage commitment service configuration parameters			
Parameter	**Configurable**	**Default Value**	**Comment**
[Fill in Parameters related to the Local Storage commitment service. At least the Calling AET / Called AET / Port number of the local system will be specified. The example below shows how it would look for a PACS]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Calling AET (SCU)	*SERVICE*	*Same as Storage AE*	
Called AET (SCP)	*SERVICE*	*Same as storage AE*	
Port	*SERVICE*	*104*	
Secured Port	*NO*	*2762*	
N-EVENT Report on same association	*NO*	*asynchronous*	
Additional configurable local storage commitment service parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system. See example below]			
Delay to send N-ACTION	*SERVICE*	*300*	
Delay to send N-EVENT-REPORT-RQ	*NO*	*immediately*	
<Specific Storage commit parameter>			

Remote Storage commitment service configuration parameters			
[Either document the number of supported remote host, e.g <Product> supports configuration of up to <X> remote hosts or state that there is no limitation other than the ones mandated by the operating system.]			
Parameter	**Configurable**	**Default Value**	**Comment**
[Fill in Parameters related to the Remote Storage service. At least the Calling AET / Called AET / Port number / Host (IP address) of Remote system will be specified. The example below shows how it would look for a PACS]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Calling AET (SCU)	*SERVICE*		
Called AET (SCP)	*SERVICE*		
port	*SERVICE*	*104*	
Secured Port	*SERVICE*	*2762*	
Host	*SERVICE*		
Additional configurable remote storage commitment service parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system.]			
<Specific storage commit parameter>			

A.6.2.7 Query/Retrieve Service Configuration

[If your system does not support the DICOM® Query/Retrieve service, you can indicate that this section is not applicable and remove the Table.]

Table A.6-8 lists Query/Retrieve Service configuration parameters:

Table A.6-8: Query/Retrieve Service Parameters

Local Query/Retrieve service configuration parameters			
Parameter	**Configurable**	**Default Value**	**Comment**
[Fill in Parameters related to the Local Query/Retrieve service. At least the Calling AET / Called AET / Port number of the local system for both Query and Retrieve will be specified. The example below shows how it would look for a PACS]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Calling AET – Query (C-FIND)	SERVICE	QUERY_AE	
Called AET – Query (C-FIND)	SERVICE	QUERY_AE	
Port - Query	NO	104	
Secured Port - Query	NO	2762	
Calling AET – Retrieve (C-MOVE)	SERVICE	MOVE_AE	
Called AET – Retrieve (C-MOVE)	SERVICE	MOVE_AE	
Port – Retrieve	NO	104	
Secured Port – Retrieve	NO	2762	
Additional configurable local Query/Retrieve service parameters *(Remove this line in the final document)*			
List additional configurable parameters for the local system. See example below			

Send C-MOVE RSPs with Pending Status to the C-MOVE SCU during the retrieve process	*NO*	*5 seconds*	
<Specific query retrieve parameter>			
Remote Query/Retrieve service configuration parameters			
[Either document the number of supported remote host, e.g <Product> supports configuration of up to <X> remote hosts or state that there is no limitation other than the ones mandated by the operating system.]			
Parameter	**Configurable**	**Default Value**	**Comment**
[Fill in Parameters related to the Remote Query/Retrieve service. At least the Calling AET / Called AET / Port number / Host (IP address) of the Remote system will be specified. The example below shows how it would look for a PACS]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Calling AET - Query	*SERVICE*		
Called AET - Query	*SERVICE*		
Port -Query	*SERVICE*		
Secured Port – Query	*SERVICE*		
Host – Query	*SERVICE*		
Calling AET – Retrieve	*SERVICE*		
Called AET – Retrieve	*SERVICE*		
Port – Retrieve	*SERVICE*		
Secured Port – Retrieve	*SERVICE*		
Host - Retrieve	*SERVICE*		
Additional configurable remote Query/Retrieve service parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system.]			
<Specific storage commit parameter>			

2535 **A.6.2.8 Print Management Service Configuration**

[If your system does not support the DICOM® print service, you can indicate that this section is not applicable and remove the Table.]

Table A.6-8 lists Print Management Service configuration parameters:

Table A.6-9: Print Service Parameters

Local Print AE configuration parameters			
Parameter	**Configurable**	**Default Value**	**Comment**
[Fill in Parameters related to the Local Print service. At least the Calling AET / Called AET / Port number of the local system will be specified. The example below shows how it would look for a modality]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Calling AET (SCU)	*NO*	*STORE_AE*	*Same as storage service*
Called AET (SCP)	*N/A*		

Port	*N/A*		
Secured Port	*N/A*		
Additional configurable local Print service parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system.]			
<Specific storage commit parameter>			
Remote Print service configuration parameters			
[Either document the number of supported remote host, e.g <Product> supports configuration of up to <X> remote hosts or state that there is no limitation other than the ones mandated by the operating system.]			
Parameter	**Configurable**	**Default Value**	**Comment**
[Fill in Parameters related to the Remote Print service. At least the Calling AET / Called AET / Port number / Host (IP address) of the Remote system will be specified. The example below shows how it would look for a Modality.]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank.]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Calling AET (SCU)	*N/A*		
Called AET (SCP)	*SERVICE*		
Port	*SERVICE*	*104*	
Secured Port	*N/A*		*Secured DICOM is not supported for printing*
Host	*SERVICE*		
Additional configurable remote Print service parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system.]			
printer template	*SERVICE*		*A pre-defined printer template can be selected in a drop down list. Select "generic" if the printer template does not exist*
Film sizes supported by the Print SCP	*SERVICE*	*All film sizes available*	*Select the film sizes which are relevant for the connected printer*
<Specific print parameter>			

A.6.3 Configuration of DICOM Web Services

A.6.3.1 URI Web Service Configuation

[If your system does not support the URI web service (WADO-URI), you can indicate that this section is not applicable and remove the Table.]

Table A.6-10 shows the configuration parameter required for URI Web Service.

In the Configurable column the following values can be used:

- USER: the parameter is configurable by the USER
- SERVICE: the parameter is configurable by SERVICE
- NO: the parameter is not configurable (it has a fixed value). The value is required for the configuration of the remote system.
- N/A: the parameter is not applicable for the local or the remote system

To identify whether *<product>* is an origin server and / or a User agent, the following applies:

- Origin Server: the (Secured) Local Retrieve Imaging Doc Set URL is different than N/A in the Configurable column
- User Agent: the (Secured) Remote Retrieve Imaging Doc Set URL is different than N/A in the configurable column

Table A.6-10 lists URI Web Service configuration parameters:

Table A.6-10: URI Web Service Parameters

Local URI web service configuration parameters			
Parameter	**Configurable**	**Default Value**	**Comment**
[Fill in Parameters related to the Local URI web service. At least the Retrieve Imaging Doc set of the local system will be specified. The example below shows how it would look for URI Origin server]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Local Retrieve Imaging Doc Set URL	*NO*	*http://<Localhost>:<port>/wado/*	
Port	*NO*	*8080*	
Secured Local Retrieve Imaging Doc Set URL	*NO*	*https://<Localhost>:<Securedport>/wado/*	
Secured Port	*NO*	*8081*	
Additional configurable local URI web service parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system.]			
<Specific URI web service parameter>			
Remote URI web service configuration parameters			
[Either document the number of supported remote host, e.g <Product> supports configuration of up to <X> remote hosts or state that there is no limitation other than the ones mandated by the operating system.].			
Parameter	**Configurable**	**Default**	**Comment**
[List parameters related to the Remote URI web service. At least the Retrieve Imaging Doc set URL and port of the remote system will be specified. The example below shows how it would look for a User agent system able to retrieve images using URI web service]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Remote Retrieve Imaging Doc Set URL	*SERVICE*		
Port	*SERVICE*		
Secured Remote Retrieve Imaging Doc Set URL	*SERVICE*		
Secured Port	*SERVICE*		
Additional configurable remote URI web service parameters *(Remove this line in the final document)*			

[List additional configurable parameters for the local system.]			
<Specific URI web service parameter>			

A.6.3.2 Studies Web Service Configuration

[If your system does not support the Studies Web Service, you can indicate that this section is not applicable and remove the sub-sections below.]

The following Tables show the configuration parameter required for Studies Web Service.

In the Configurable column the following values can be used:

- USER: the parameter is configurable by the USER
- SERVICE: the parameter is configurable by SERVICE
- NO: the parameter is not configurable (it has a fixed value). The value is required for the configuration of the remote system.
- N/A: the parameter is not applicable for the local or the remote system

To identify whether *<product>* is an origin server and / or a User agent, the following applies:

- Origin Server: the (Secured) Local Retrieve Imaging Doc Set URL is different than N/A in the Configurable column
- User Agent: the (Secured) Remote Retrieve Imaging Doc Set URL is different than N/A in the configurable column

A.6.3.2.1 Retrieve Transaction (WADO-RS) configuration

[If your system does not support the Retrieve Transaction service, you can indicate that this section is not applicable and remove the Table.]

The Retrieve Transaction service is also known as WADO-RS. Table A.6-11 lists configuration parameters for the Retrieve transaction of the Sudies Web service:

Table A.6-11: Retrieve Transaction Configuration Parameters

Local Retrieve Transaction Configuration Parameters			
Parameter	**Configurable**	**Default Value**	**Comment**
[Fill in Parameters related to the Local Retrieve transaction service. At least the Retrieve Imaging Doc set of the local system will be specified. The example below shows how it would look if your system is an Origin server]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Retrieve Imaging Doc Set URL	NO		
port	NO	8081	
Additional configurable local Retrieve transaction parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system.]			
<Specific Retrieve transaction parameter>			
Remote Retrieve transaction configuration parameters			

[Either document the number of supported remote host, e.g <Product> supports configuration of up to <X> remote hosts or state that there is no limitation other than the ones mandated by the operating system.]			
Parameter	**Configurable**	**Default Value**	**Comment**
[List parameters related to the Remote Retrieve transaction service. At least the Retrieve Imaging Doc set URL and port of the remote system will be specified. The example below shows how it would look if your system is an origin server]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Retrieve Imaging Doc Set URL	N/A		
Port	N/A		
Additional configurable remote Retrieve transaction parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system.]			
<Specific Retrieve transaction parameter>			

A.6.3.2.2 Store Transaction (STOW-RS) configuration

[If your system does not support the Store transaction service, you can indicate that this section is not applicable and remove the Table.]

The Store Transaction service is also known as STOW-RS. Table A.6-12 lists configuration parameters for the Store transaction of the Sudies Web service:

Table A.6-12: Store Transaction Parameters

Local Store Transaction Configuration Parameters			
Parameter	**Configurable**	**Default Value**	**Comment**
[Fill in Parameters related to the Local Store transaction service. At least the URL and port of the local system will be specified. The example below shows how it would look if your system is a user agent]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Store local origin server URL	N/A		
Port	N/A		
Additional configurable local Store transaction parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system.]			
<Specific Store transaction parameter>			
Remote Store transaction configuration parameters			
[Either document the number of supported remote host, e.g <Product> supports configuration of up to <X> remote hosts or state that there is no limitation other than the ones mandated by the operating system.]			
Parameter	**Configurable**	**Default Value**	**Comment**
[List parameters related to the Remote Store transaction service. At least the URL and port number of the remote system will be specified.	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the*

The example below shows how it would look if your system is a user agent]			*configuration/parameter]*
Store remote origin server URL	*USER*		
port	*USER*		
Additional configurable remote Store transaction parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system.]			
<Specific Store transaction parameter>			

A.6.3.2.3 Search Transaction (QIDO-RS) configuration

[If your system does not support the Search transaction service, you can indicate that this section is not applicable and remove the Table.]

2595 The search transaction service is also known as QIDO-RS. Table A.6-13 lists configuration parameters for the Search transaction of the Sudies Web service:

Table A.6-13: Search transaction Parameters

Local Search transaction configuration parameters			
Parameter	**Configurable**	**Default Value**	**Comment**
[Fill in Parameters related to the Local Search transaction service. At least the URL and port of the local system will be specified. The example below shows how it would look if your system is an Origin server.]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Search local origin server URL	NO	http://<hostname>:8081/qido	
Port	NO	8081	
Additional configurable local Search transaction parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system.]			
<Specific Search transaction parameter>			
Remote Search transaction configuration parameters			
[Either document the number of supported remote host, e.g <Product> supports configuration of up to <X> remote hosts or state that there is no limitation other than those mandated by the operating system.]			
Parameter	**Configurable**	**Default Value**	**Comment**
[List parameters related to the Remote Search transaction service. At least the URL and port of the remote system will be specified. The example below shows how it would look if your system is an origin server]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Search remote origin server URL	*N/A*		
Port	*N/A*		
Additional configurable remote Seach transaction parameters *(Remove this line in the final document)*			

[List additional configurable parameters for the local system.]			
<Specific Search transaction parameter>			

A.6.3.3 Worklist Web Service Configuarion

[If your system does not support the Worklist Web service, you can indicate that this section is not applicable and remove the Table.]

The Worklist Web service is also known as UPS-RS.

Table A.6-14 shows the configuration parameter required for Worklist Web Service.

In the Configurable column the following values can be used:

- USER: the parameter is configurable by the USER
- SERVICE: the parameter is configurable by SERVICE
- NO: the parameter is not configurable (it has a fixed value). The value is required for the configuration of the remote system.
- N/A: the parameter is not applicable for the local or the remote system

To identify whether *<product>* is an origin server and / or a User agent, the following applies:

- Origin Server: the (Secured) Local Retrieve Imaging Doc Set URL is different than N/A in the Configurable column
- User Agent: the (Secured) Remote Retrieve Imaging Doc Set URL is different than N/A in the Configurable column

Table A.6-14 lists configuration parameters for the Worklist Web service:

Table A.6-14: Worklist web service parameters

Local Worklist web service configuration parameters			
Parameter	**Configurable**	**Default Value**	**Comment**
[Fill in Parameters related to the Local Worklist web service. At least the URL and port of the local system will be specified. The example below shows how it would look if your system is an Origin server]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Worklist local origin server URL	*NO*	*http://<hostname>:8081/UPS*	
port	*NO*	*8081*	
Additional configurable local UPS-RS parameters *(Remove this line in the final document)*			
List additional configurable parameters for the local system.			
<Specific Worklist parameter>			
Remote Worklist web service configuration parameters			
[Either document the number of supported remote host, e.g <Product> supports configuration of up to <X> remote hosts or state that there is no limitation other than the ones mandated by the operating system.]			
Parameter	**Configurable**	**Default Value**	**Comment**
[List parameters related to the Remote Worklist Web service. At	*<<USER SERVICE*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment*

least the URL and port of the remote system will be specified. The example below shows how it would look if your system is an origin server]	*NO N/A>>*		*helping to understand the configuration/parameter]*
Worklist remote origin server URL	*N/A*		
port	*N/A*		
Additional configurable remote Worklist Web service parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system.]			
<Specific Worklist parameter>			

A.6.3.4 Non-Patient Instances (NPI) Web Service Configuration

[If your system does not support the NPI web service, you can indicate that this section is not applicable and remove the Table.]

Table A.6-15 shows the configuration parameter required for NPI Web Service.

In the Configurable column the following values can be used:

- USER: the parameter is configurable by the USER
- SERVICE: the parameter is configurable by SERVICE
- NO: the parameter is not configurable (it has a fixed value). The value is required for the configuration of the remote system.
- N/A: the parameter is not applicable for the local or the remote system

To identify whether *<product>* is an origin server and / or a User agent, the following applies:

- Origin Server: the (Secured) Local Retrieve Imaging Doc Set URL is different than N/A in the Configurable column
- User Agent: the (Secured) Remote Retrieve Imaging Doc Set URL is different than N/A in the configurable column

Table A.6-15 lists configuration parameters for the Non-Patient-Instance Web service:

Table A.6-15: NPI web Service Parameters

Local NPI web service configuration parameters			
Parameter	**Configurable**	**Default Value**	**Comment**
[Fill in Parameters related to the Local NPI web service. At least the URL and port of the local system will be specified. The example below shows how it would look if your system is an origin server]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
NPI local origin server URL	*SERVICE*	*http://<hostname>:8081/NPI*	
port	*NO*	*8081*	
Additional configurable local NPI web service parameters *(Remove this line in the final document)*			
List additional configurable parameters for the local system.			
<Specific NPI web service parameter>			

Remote NPI web service configuration parameters			
[Either document the number of supported remote host, e.g <Product> supports configuration of up to <X> remote hosts or state that there is no limitation other than the ones mandated by the operating system.]			
Parameter	**Configurable**	**Default Value**	**Comment**
[List parameters related to the Remote NPI web service parameter. At least the URL and port of the remote system will be specified. The example below shows how it would look if your system is an origin server]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
NPI-RS remote origin server URL	*N/A*		
port	*N/A*		
Additional configurable remote NPI web service parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system.]			
<Specific NPI web service parameter>			

2635

A.6.4 Configuarion of Media Storage Service

[If your system does not support the Media Storage service, you can indicate that this section is not applicable and remove the Table.]

Table A.6-16 lists configuration parameters for the Media Storage service:

2640 **Table A.6-16: Media Service Parameters**

Local Media Storage service configuration parameters			
Parameter	**Configurable**	**Default Value**	**Comment**
[Fill in Parameters related to the Local Media Storage service. If your system does not support the "Source Application Entity Title", leave it in the Table and put N/A in the configurable column. See example below]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Source Application Entity Title	*NO*	*MEDIA*	
Additional configurable local Media Storage service parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system.]			
<Specific Media Storage parameter x>			
Remote Media Storage service configuration parameters (N/A)			
Parameter	**Configurable**	**Default Value**	**Comment**

A.6.5 Configuration of Real Time Video

[If your system does not support the Media Storage service, you can indicate that this section is not applicable and remove the Table.]

Table A.6-17 lists configuration parameters for the Real Time Video service:

Table A.6-17: RTV Service Parameters

Local RTV service configuration parameters			
Parameter	**Configurable**	**Default Value**	**Comment**
[Fill in Parameters related to the Real Time Video service. See example below]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Additional configurable local RTV service parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system.]			
<Specific Real Time Video parameter x>			
Remote RTV service configuration parameters (N/A)			
Parameter	**Configurable**	**Default Value**	**Comment**

A.6.6 Configuration of Audit Trail - Syslog

[If your system does not support audit trail as Originator or collector, you can indicate that this section is not applicable and remove the Tables.]

[If your system is only Originator remove the Collector parameters Table].

[If your system is only collector remove the originator parameters Table.]

[If your system is both originator and collector, keep both Tables and indicate if it is a relay.]

Table A.6-18 shows the configuration parameter required for audit trail / Syslog configuration.

In the Configurable column the following values can be used:

- USER: the parameter is configurable by the USER
- SERVICE: the parameter is configurable by SERVICE
- NO: the parameter is not configurable (it has a fixed value). The value is required for the configuration of the remote system.
- N/A: the parameter is not applicable

Table A.6-18 list configuration parameters for the Audit Trail Originator:

Table A.6-18: Audit Trail Originator Parameters

Originator Audit Trail Message Transmission-SYSLOG parameters			
Parameter	**Configurable**	**Default Value**	**Comment**
[Fill in Parameters related to the originator Audit Trail Message Transmission-SYSLOG. See example below:]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Remote Port number	SERVICE	514	Can configure multiple remote syslog repository

Remote secured port number	SERVICE	6514	
Remote Host name/IP	SERVICE		
UDP Protocol	N/A		
TLS Protocol	NO	TLS	only TLS is supported
Maximum Size sent			
Additional configurable Originator Audit Trail Message Transmission-SYSLOG parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system.]	*[List additional configurable parameters for the local system.]*	*[List additional configurable parameters for the local system.]*	*[List additional configurable parameters for the local system.]*
<Specific Audit Trail Message Transmission-SYSLOG parameters>			

Table A.6-19 list configuration parameters for the Audit Trail Collector:

2665 **Table A.6-19: Audit Trail Collectors Parameters**

Collector Audit Trail Message Transmission-SYSLOG parameters			
Parameter	**Configurable**	**Default Value**	**Comment**
[Fill in Parameters related to the Collector Audit Trail Message Transmission-SYSLOG. See example below]	*<<USER SERVICE NO N/A>>*	*[Fill in default value. If there is no default value, leave it blank]*	*[Optionally put a comment helping to understand the configuration/parameter]*
Local Listening Port Number	*SERVICE*	*514*	
Local Listening Secured port number	*NO*	*6514*	
Local Host Name/IP	*SERVICE*		
UDP Protocol	*N/A*		*UDP not supported*
TLS Protocol	*NO*	*TLS*	*only TLS is supported*
Maximum Size Received			
Additional configurable Collector Audit Trail Message Transmission-SYSLOG-TLS parameters *(Remove this line in the final document)*			
[List additional configurable parameters for the local system.]			
<Specific Audit Trail Message Transmission-SYSLOG parameter>			

A.7 Network and Media Communication Details

A.7.1 General

The Cross interaction between the AEs is depicted in the diagrams below.

[Shown below are some examples of cross AE interactions. Modify them to match your product implementation]

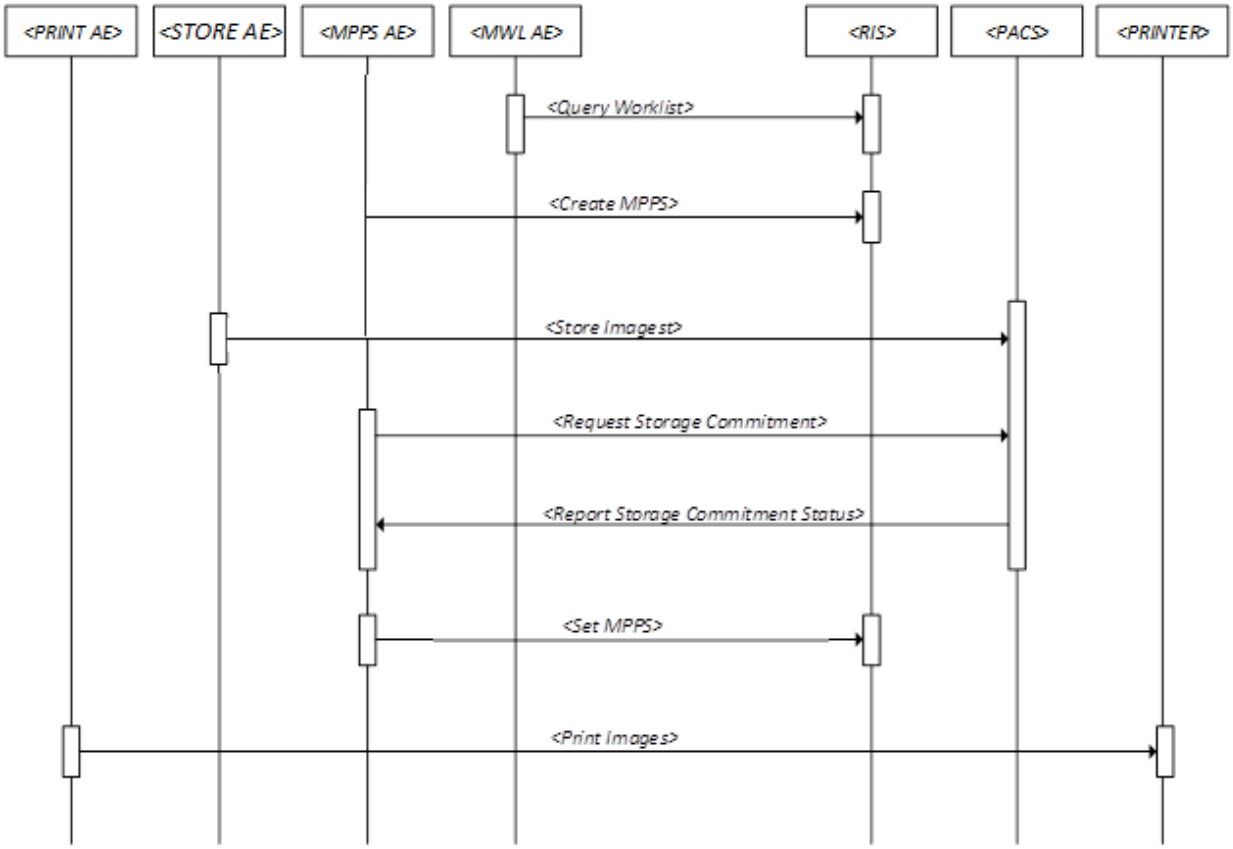


Figure A.7-1: ***Real world activity and Cross AE interaction***

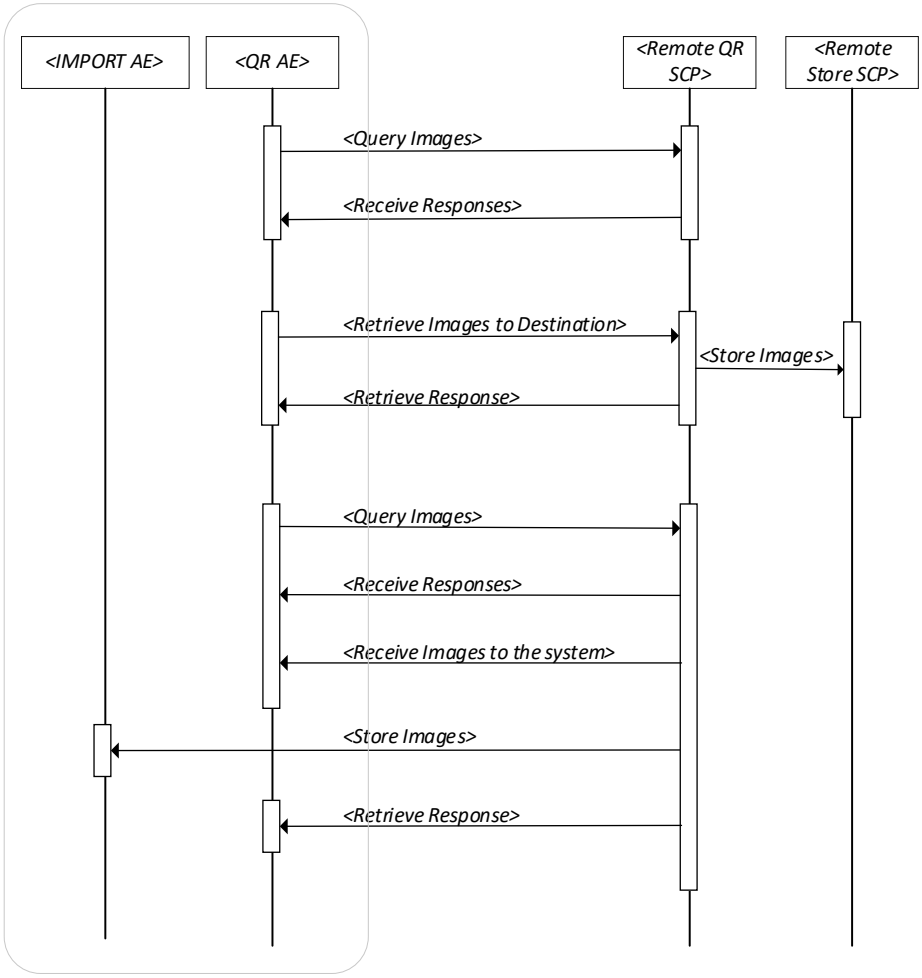


Figure A.7-2: *Real world activity and Cross AE interaction – Query Retrieve*

A.7.1.1 General Association Parameters

2680 Table A.7-1 lists association parameters applicable to all AEs on the system

[If the association parameters for your system are the same across all AEs, fill in the Table below and mark the respective sections for AE specific association parameters as N/A. If your system uses different association parameters for each AE replace the content of this section with N/A.]

Table A.7-1: General Association Parameters

	Name	Value
Networking Services	Application Context Name	1.2.840.100008.3.1.1.1
	Implementation Class UID	
	Implementation Version Name	
	Maximum PDU Length	*Default: 4096*
	ARTIM Timeout	*Default: 30s*
	Maximum number of simultaneous Associations as association initiator	

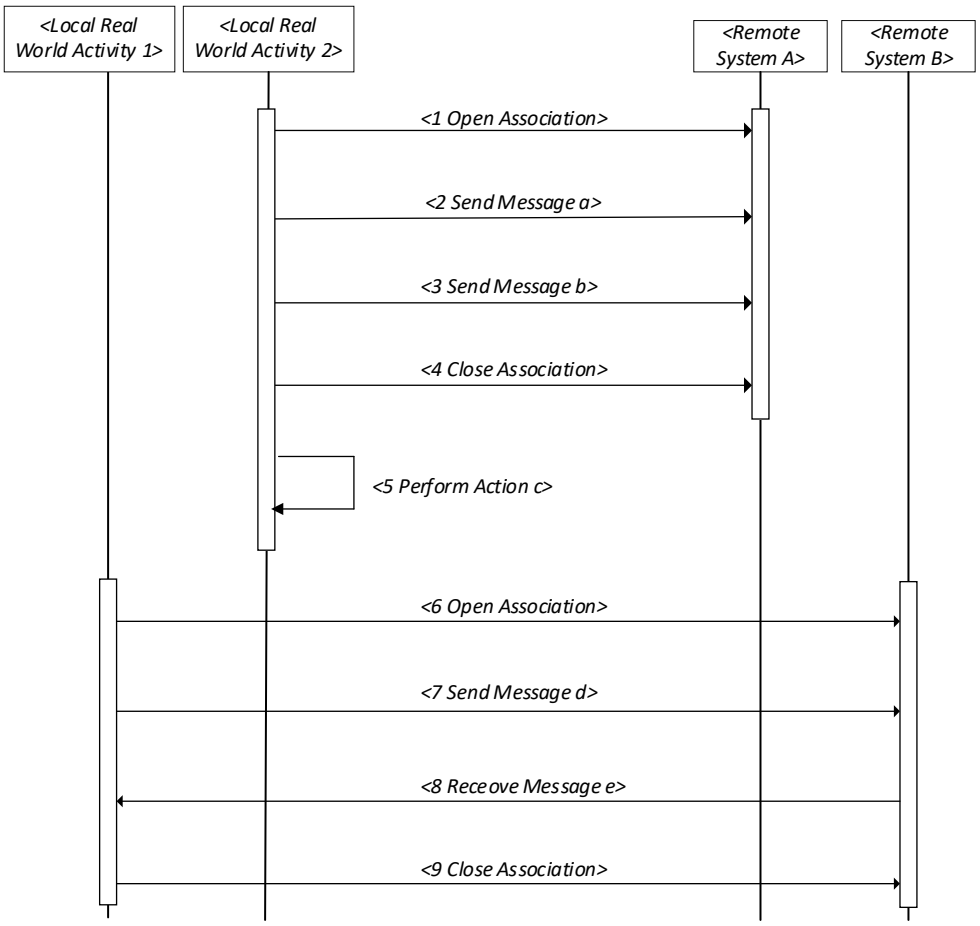
	Maximum number of simultaneous Associations as association acceptor	
	Maximum number of outstanding asynchronous transactions	
Media Services	File Meta Information Version	
	Implementation Class UID	
	Implementation Version Name	
Web Services	Maximum number of connections supported as Server	
<Service Category>	*<Parameter>*	*<Parameter Value>*

2685

A.7.2 Specifications

A.7.2.1 *<AE1>* Application Entity

A.7.2.1.1Sequencing of Real-World Activities for <AE1>



2690

Figure A.7-3: Sequencing of Real-World Activities for *<AE1>*

[Change this! Local Real-World Activity <2> first open an association, triggers Message <a> and Message <b> on this association before closing it. Action <c> is then performed on the system before Local Real-World Activity <1> can be launched to send message <d> on a new association and receives Message <e> on the same association]

[Also include its use of DICOM Web Services, including any proxy functionality between a Web Service and the equivalent DIMSE Service here.

Note: This diagram may be split into multiple diagrams to represent each service separately.]

[Below are examples for a Query Retrieve AE and a Web AE. Modify as applicable for your product implementtation]

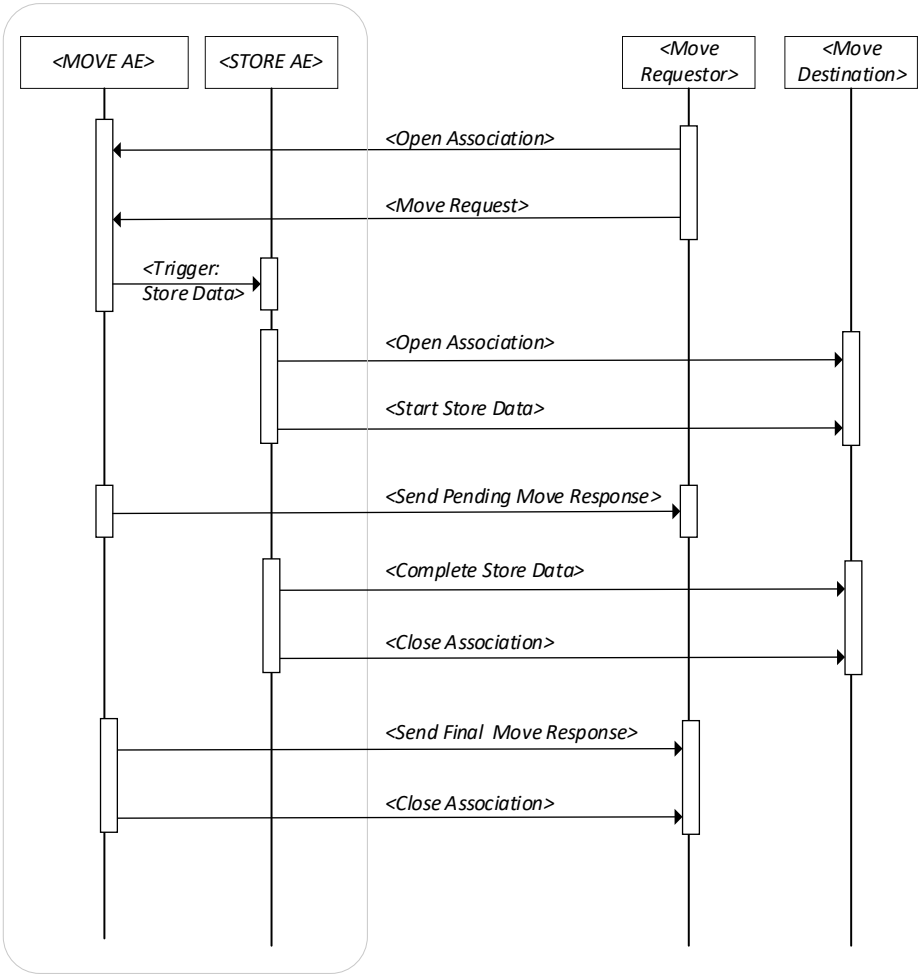


Figure A.7-4: Sequencing of Real-World Activities for <*QueryRetrieve AE*>

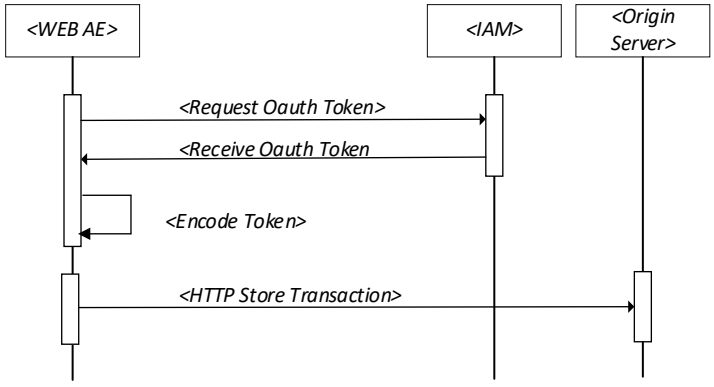


Figure A.7-5: Sequencing of Real-World Activities for *<Web AE>*

A.7.2.1.2Association Parameters of <AE1>

Table A.7-2 lists association parameters applicable to *<AE1>*

[If your system uses different association parameters for each AE fill in the Table below for each AE and mark the A.7.1.1 as N/A]

Table A.7-2: Association Parameters for *<AE1>*

	Name	Value
Networking Services	Application Context Name	1.2.840.100008.3.1.1.1
	Implementation Class UID	
	Implementation Version Name	
	Maximum PDU Length	*Default: 4096*
	ARTIM Timeout	*Default: 30s*
	Maximum number of simultaneous Associations as association initiator	
	Maximum number of simultaneous Associations as association acceptor	
	Maximum number of outstanding asynchronous transactions	
Media Services	File Meta Information Version	
	Implementation Class UID	
	Implementation Version Name	
Web Services	Maximum number of connections supported as Server	
<Service Category>	*<Parmeter Name>*	*<Parameter Value>*

A.7.2.1.3Association Initiation

This section details the association policies of the Application Entity when it is initiating an association.

[For each Real Worldactivity of AE1 provide subsections A.7.2.1.3.x]

A.7.2.1.3.1Real World Activity <Activity1>

[Describe the policies for creating associations. Also consider different scenarios that the transfer could be performed in:

Asscociation initiated automatically initiated, e.g when a study is started, during the acquisition of the images, after a study is closed, based on a timer, …

- *Transfer manually initiated by the user*
- *Transfer triggered by a retrieve request (c-move or c-get request*
- *…)]*

[For storage, specify whether all instances are sent on the same association or whether a new association request is initiated for each instance.]

[Describe the actions and behavior that cause the product to issue N-ACTION requests and how it relates to the previous storage request, e.g, is the storage commitment initiated right after a successful C-STORE, or is the storage commitment issued after all instance in the study have been successfully stored, …]

[Describe the association initiation behavior of your product with regards to the N-EVENT-REPORT request, e.g., whether N-EVENT-REPORT request are sent on the same association or whether it is initiated on a different association.]

[Describe your system behavior, if your product cannot establish an association with the SCU, e.g is there a retry mechanism, is that configurable, …]

Extended Negotiation

The extended negotiation parameters for all services that are requested by the Application Entity for the Real-World Activity <*Activity 1*> are described in Table A.7-3 .

[Describe below all the extended negotiation that the Application Entity requests for the <Activity 1> during association. An 'X' indicates that this is supported. A ''<blank> indicates that this is not supported, and a default value is sent in the association field. Describe any behavior pertaining to handling extended behavior during association initiation under this section.]

[Modify the Table below to reflect the services participating in <Activity 1>.]

Table A.7-3: Extended Negotiation for <*Activity1*> of <*AE1*> - Association Initiation

SOP Class	Extended Negotiation	Supported?	Requested Value
Modality Worklist			
Modality Worklist Information Model – FIND	Fuzzy semantic matching of person names		*<0,1>*
	Timezone query adjustment		*<0,1>*
Storage			
Applicable to all storage SOP Classes listed under section 5.	Level of support		*<3>*
	Level of Digital Signature support		*<(0),1,2,3>*
	Element Coercion		*<0,1,(2) >*
Query			
Applicable to all Query Retrieve – FIND SOP Classes mentioned under section 5.	Relational queries		*<0,1>*
	Date-time matching		*<0,1>*
	Fuzzy semantic matching of person names		*<0,1>*
	Timezone query adjustment		*<0,1>*
	Enhanced Multi-Frame Image Conversion		*<0,1>*
Retrieve			
Applicable to all Query Retrieve – MOVE SOP Classes mentioned under section 5.	Relational retrieval		*<0,1>*
	Enhanced Multi-Frame Image Conversion		*<0,1>*
	Timezone query adjustment		*1*
Unified Worklist and Procedure Step			
Unified Worklist and Procedure Step	Fuzzy semantic matching of person names		*<0,1>*
	Timezone query adjustment		*<0,1>*

Role Negotiation

Describe if the AE supports Role Negotiation in case of Storage commitment happening synchronously ie. Is the N-ACTION and the N-EVENT-REPORT are performed in the same association.

A.7.2.1.4 Association Acceptance

This section details the association policies of the Application Entity when it is acceptor for an association.

[For each Real World activity of AE1 provide a subsections A.7.2.1.4.x]

A.7.2.1.4.1 Real World Activity <Activity2>

[Describe the service specific association acceptance behavior of your product, e.g

- *For storage commitment describe whether N-EVENT-REPORT request are expected on the same association or whether it is expected on a different association.]*

Extended Negotiation

The extended negotiation parameters for all services that are requested by the Application Entity for the Real-World Activity <*Activity 2*> are described in Table A.7-4.

[Describe below all the extended negotiation that the Application Entity supports for <Activity2> during association negotiation. Describe any behavior pertaining to handling extended behavior during association acceptance under this section.]

[Modify the Table below to reflect the services participating in <Activity 2>.]

Table A.7-4: Extended Negotiation for <*Activity 2*> of <*AE1*> - Association Acceptance

SOP Class	Extended Negotiation	Supported?	Requested Value
Modality Worklist			
Modality Worklist Information Model – FIND (1.2.840.10008.5.1.4.31)	Fuzzy semantic matching of person names		*<0,1>*
	Timezone query adjustment		*<0,1>*
Storage			
Applicable to all storage SOP Classes listed under section 5.	Level of support		*<0,1,2,(3) >*
	Level of Digital Signature support		*<(0),1,2,3>*
	Element Coercion		*<0,1,(2) >*
Query			
Applicable to all Query Retrieve – FIND SOP Classes mentioned under section 5.	Relational queries		*<0,1>*
	Date-time matching		*<0,1>*
	Fuzzy semantic matching of person names		*<0,1>*
	Timezone query adjustment		*<0,1>*
	Enhanced Multi-Frame Image Conversion		*<0,1>*
Retrieve			
	Relational retrieval		*<0,1>*

Applicable to all Query Retrieve – MOVE SOP Classes mentioned under section 5.	Enhanced Multi-Frame Image Conversion		*<0,1>*
	Timezone query adjustment		*<1>*
Unified Worklist and Procedure Step			
Unified Worklist and Procedure Step	Fuzzy semantic matching of person names		*<0,1>*
	Timezone query adjustment		*<0,1>*

Transfer Syntax Selection Policies

This section describes the transfer syntax preference for Real World Activity <*Activity 2*> of <*AE1*> of the system. The preference for transfer syntax selection is based on the type of data ie. Image SOP Classes, Video SOP Classes or non-image/*video SOP Classes.*

[Edit the Tables below to indicate the tranfer selection polices applicable to the documented activity.

If there are exceptions to the standard preference SOP Classes, this will be mentioned in the Comment column. If the preference rules are based on some other category or has one generic category, it will be listed appropriately.]

Table A.7-5: Transfer Syntax Selection Preference Order - Image SOP Classes for *<AE1>*

Preference Order	Transfer Syntax	UID	Comment
1	*JPEG Lossless, Hierarchical, First-Order Prediction Transfer Syntax*	*1.2.840.10008.1.2.4.70*	
2	*RLE Lossless*	*1.2.840.10008.1.2.5*	
3	*Explicit Little-Endian Transfer Syntax*	*1.2.840.10008.1.2.1*	
4	*Implicit Little-Endian Transfer Syntax*	*1.2.840.10008.1.2*	
5	*Explicit Big-Endian Transfer Syntax*	*1.2.840.10008.1.2.2*	

Table A.7-6: Transfer Syntax Selection Preference Order - Video SOP Classes for *<AE1>*

Preference Order	Transfer Syntax		Comment
1	*MPEG2 Main Profile / Main Level*	*1.2.840.10008.1.2.4.100*	
2	*MPEG-4 AVC/H.264 Stereo High Profile / Level 4.2*	*1.2.840.10008.1.2.4.106*	
3	*Explicit Little-Endian Transfer Syntax*	*1.2.840.10008.1.2.1*	
4	*Implicit Little-Endian Transfer Syntax*	*1.2.840.10008.1.2*	
5	*Explicit Big-Endian Transfer Syntax*	*1.2.840.10008.1.2.2*	

Table A.7-7: Transfer Syntax Selection Preference Order – Non-Image SOP Classes for *<AE1>*

Preference Order	Transfer Syntax		Comment
1	*Explicit Little-Endian Transfer Syntax*	*1.2.840.10008.1.2.1*	

2	*Implicit Little-Endian Transfer Syntax*	*1.2.840.10008.1.2*	
3	*Explicit Big-Endian Transfer Syntax*	*1.2.840.10008.1.2.2*	

A.7.3 Status Codes

The following sections describe the Status Codes supported by the system for each implemented service as well as the reason for issuing specific Status codes respectively the associated behavior when receiving it.

A.7.3.1 General AE Communication and Failure Behavior and Handling

A.7.3.1.1Communication Failure Behavior

Table A.7-8 describes the DICOM Communication Failure Behavior:

[Describe below the behavior of the Application Entity when a failure occurs during the communication layer. Eg: Timeout, Network disconnect ABORT etc.>]

Table A.7-8:DICOM Communication Failure Behavior

Exception	Behavior
Timeout	*[Describe what the Application does when a service timeout occurs]*
Association aborted	*[Describe on what circumstances an Application Abort occurs]*
Network Disconnect	*[Describe what an Application Entity does when it received a DICOM connection, and the network gets disconnected]*

A.7.3.1.2 Communication Failure Handling

Table A.7-8 describes the DICOM Communication Failure Handling:

[Describe how the Application Entity handles a failure occurs during the communication layer. Eg: Timeout, Network disconnect ABORT etc.]

Table A.7-9: DICOM Communication Failure Handling

Exception	Behavior
Association aborted	*Describe the Application behavior when an ABORT is received during the association*

A.7.3.2 DIMSE Services

A.7.3.2.1 Basic Worklist Management Service

A.7.3.2.1.1 SCU of the Modality Worklist Information Model Find SOP Class - C-FIND

Table A.7-10 lists the status codes that the SCU of the Modality Worklist Information Model Find SOP Class supports for the C-FIND message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe below the behavior of the application when it receives various status codes in the C-FIND-RSP for the Modality Worklist Service. For instance, displaying and logging the error code or retrying the request.]

Table A.7-10: Status Codes for C-FIND of the Modality Worklist information Model SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Matching is complete - No final identifier is supplied	0000H	
Failure	Refused: Out of resources	A700H	
	SOP Class Not Supported	0122H	
	Error: Identifier does not match SOP Class	A900H	
	Error: Unable to process	C000-CFFFH	
Cancel	Matching terminated due to cancel	FE00H	
Pending	Matches are continuing - Current Match is supplied and any Optional Keys were supported in the same manner as Required Keys.	FF00H	
	Matches are continuing - Warning that one or more Optional Keys were not supported for existence for this Identifier	FF01H	
*	Any other status codes.	*	

A.7.3.2.1.2 SCP of the Modality Worklist Information Model Find SOP Class - C-FIND

Table A.7-11 lists the status codes that the SCP of the Modality Worklist Information Model Find SOP Class supports for the C-FIND message and defines conditions, in which any of the listed Status Codes are sent.

[Describe below the condition in which the application sends the specific status codes in the C-FIND-RSP to the SCU.]

Table A.7-11: Status Codes for C-FIND of the Modality Worklist information Model SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Matching is complete - No final identifier is supplied	0000H	
Failure	Refused: Out of resources	A700H	
	SOP Class Not Supported	0122H	
	Error: Identifier does not match SOP Class	A900H	
	Error: Unable to process	C000H	
Cancel	Matching terminated due to cancel	FE00H	
Pending	Matches are continuing - Current Match is supplied and any Optional Keys were supported in the same manner as Required Keys.	FF00H	
	Matches are continuing - Warning that one or more Optional Keys were not supported for existence for this Identifier	FF01H	

A.7.3.2.2 Modality Performed Procedure Step Service

A.7.3.2.2.1 SCU of the Modality Performed Procedure Step SOP Class – N-CREATE

Table A.7-12 lists the status codes that the SCU of the Modality Performed Procedure Step SOP Class supports for the N-CREATE message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe below the behavior of the application when it receives various status codes in the N-CREATE-RSP for the Modality Performed Procedure Step Service. For instance, displaying and logging the error code or retrying the request]

Table A.7-12: Status Codes for N-CREATE of the Modality Performed Procedure Step SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000	
Warning	Attribute Value Out of Range	0116H	
	Attribute List Error	0107	
Failure	No Such Attribute	0105	
	Invalid Attribute Value	0106	
	Processing Failure	0110	
	Duplicate SOP Instance	0111	
	Attribute Value Out of Range	0116	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Missing Attribute	0120	
	Missing Attribute Value	0121	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	
-	<Any other codes>	<xxxx>	

A.7.3.2.2.2 SCU of the Modality Performed Procedure Step SOP Class – N-SET

Table A.7-13 lists the status codes that the SCU of the Modality Performed Procedure Step SOP Class supports for the N-SET message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe below the behavior of the application when it receives various status codes in the N-SET-RSP for the Modality Performed Procedure Step Service. For instance, displaying and logging the error code or retrying the request.]

Table A.7-13: Status Codes for N-SET of the Modality Performed Procedure Step SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000	
Warning	Attribute Value Out of Range	0116H	

Status Class	Further Meaning	Status Code	Behavior
	Attribute List Error	0107	
Failure	No Such Attribute	0105	
	Invalid Attribute Value	0106	
	Processing Failure - Performed Procedure Step Object may no longer be updated	0110	
	Processing Failure	0110	
	Attribute Value Out of Range	0116	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class-Instance Conflict	0119	
	Missing Attribute Value	0121	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	
-	<Any other codes>	<xxxx>	

A.7.3.2.2.3 SCP of the Modality Performed Procedure Step SOP Class – N-CREATE

Table A.7-14 lists the status codes that the SCP of the Modality Performed Procedure Step SOP Class supports for the N-CREATE message and defines conditions, in which any of the listed Status Codes are sent.

[Described below under what circumstances does the application send the various status codes in the N-CREATE-RSP to the SCU.]

Table A.7-14: Status Codes for N-CREATE of the Modality Performed Procedure Step SOP Class - SCP

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000	
Warning	Attribute Value Out of Range	0116H	
	Attribute List Error	0107	
Failure	Duplicate Invocation	0210	
	Duplicate SOP Instance	0111	
	Invalid Attribute Value	0106	
	Attribute Value Out of Range	0116	
	Invalid Object Instance	0117	
	Missing Attribute	0120	
	Missing Attribute Value	0121	
	Mistyped Argument	0212	
	No Such Attribute	0105	

Status Class	Further Meaning	Status Code	Behavior
	No Such SOP Class	0118	
	Processing Failure	0110	
	Resource Limitation	0213	
	Unrecognized Operation	0211	
	Refused: Not Authorized	0124	
-	<Any other codes>	<xxxx>	

A.7.3.2.2.4 SCP of the Modality Performed Procedure Step SOP Class – N-SET

Table A.7-15 lists the status codes that the SCP of the Modality Performed Procedure Step SOP Class supports for
2835 the N-SET message and defines conditions, in which any of the listed Status Codes are sent.

[Describe below under what circumstances does the application send the various status codes in the N-SET-RSP to the SCU.]

Table A.7-15: Status Codes for N-SET of the Modality Performed Procedure Step SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Success	0000	
Warning	Attribute Value Out of Range	0116H	
	Attribute List Error	0107	
Failure	No Such Attribute	0105	
	Invalid Attribute Value	0106	
	Processing Failure - Performed Procedure Step Object may no longer be updated	0110	
	Processing Failure	0110	
	Attribute Value Out of Range	0116	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class-Instance Conflict	0119	
	Missing Attribute Value	0121	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	
-	<Any other codes>	<xxxx>	

A.7.3.2.3 Unified Worklist und Procedure Step Service

[Describe below the behavior of the application when it receives various status codes in the C-FIND-RSP for the UPS Service. For instance, displaying and logging the error code or retrying the request.]

A.7.3.2.3.1 SCU of the UPS Push SOP Class

SCU of the UPS Push SOP Class – N-CREATE

Table A.7-16 lists the status codes that the SCU of the UPS Push SOP Class supports for the N-CREATE message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe below the behavior of the application when it receives various status codes in the N-CREATE-RSP for the UPS Push SOP Class.]

Table A.7-16: Status Codes for N-CREATE of the UPS Push SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	The UPS was created as requested	0000H	
Warning	The UPS was created with modifications	B300H	
	Attribute Value Out of Range	0116H	
	Attribute List Error	0107H	
Failure	Duplicate invocation	0210H	
	No such Attribute	0105H	
	Invalid Attribute Value	0106H	
	Attribute List Error	0107H	
	Processing failure	0110H	
	Duplicate SOP Instance	0111H	
	Invalid Object Instance	0117H	
	No such SOP Class	0118H	
	Missing Attribute	0120H	
	Missing attribute value	0121H	
	Refused: Not Authorized	0124H	
	Unrecognized operation	0211H	
	Mistyped argument	0212H	
	Resource limitation	0213H	
	Failed: The provided value of UPS State was not "SCHEDULED".	C309H	
*	Any other status codes.	*	

SCU of Request UPS Cancel on UPS Push SOP Class - N-ACTION

Table A.7-16 lists the status codes that the SCU of the Request UPS Cancel on UPS Push SOP Class supports for the N-ACTION message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe below the behavior of the application when it receives various status codes in the N-ACTION-RSP for the UPS Push SOP Class.]

Table A.7-17: Status Codes for N-Action of the UPS Push SOP Class - SCU

Status Classs	Further Meaning	Status Code	Behavior
Success	The cancel request is acknowledged	0000H	
Warning	The UPS is already in the requested state of CANCELED	B304H	
Failure	Class-instance conflict	0119H	
	Duplicate invocation	0210H	
	Invalid argument value	0115H	
	Invalid Object instance	0117H	
	Mistyped argument	0212H	
	No such action	0123H	
	No such argument	0114H	
	No such SOP Class	0118H	
	No such SOP Instance	0112H	
	Processing failure	0110H	
	Resource limitation	0213H	
	Unrecognized operation	0211H	
	Refused: Not Authorized	0124H	
	Failed: The UPS is already COMPLETED	C311H	
	Failed: Performer chooses not to cancel	C313H	
	Specified SOP Instance UID does not exist or is not a UPS Instance managed by this SCP	C307H	
	Failed: The performer cannot be contacted	C312H	
*	Any other status code	*	

SCU of the UPS Push SOP Class – N-GET

Table A.7-16 lists the status codes that the SCU of the UPS Push SOP Class supports for the N-GET message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe below the behavior of the application when it receives various status codes in the N-GET-RSP for the UPS Push SOP Class.]

Table A.7-18: Status Codes for N-GET of the UPS Push SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000H	
Warning	Requested optional Attributes are not supported.	0001H	

Status Class	Further Meaning	Status Code	Behavior
Failure	Class-instance conflict	0119H	
	Attribute List error	0107H	
	Duplicate invocation	0210H	
	Mistyped argument	0212H	
	Invalid Object instance	0117H	
	No such SOP Class	0118H	
	No such SOP Instance	0112H	
	Processing failure	0110H	
	Resource limitation	0213H	
	Unrecognized operation	0211H	
	Refused: Not Authorized	0124H	
	Failed: Specified SOP Instance UID does not exist or is not a UPS Instance managed by this SCP	C307H	
*	Any other status code	*	

A.7.3.2.3.2SCU of the UPS Pull SOP Class

SCU of the UPS Pull SOP Class – C-FIND

Table A.7-19 lists the status codes that the SCU of the UPS PULL SOP Class supports for the C-FIND message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe below the behavior of the application when it receives various status codes in the N-FIND-RSP for the UPS Pull SOP Class.]

Table A.7-19: Status Codes for C-FIND of the UPS Pull SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Matching is complete - No final identifier is supplied	0000H	
Failure	Refused: Out of resources	A700H	
	Error: Identifier does not match SOP Class	A900H	
	Failed: Unable to process	C000-CFFFH	
	Failed: SOP Class Not Supported	0122H	
Cancel	Matching terminated due to cancel	FE00H	
Pending	Matches are continuing - Current Match is supplied and any Optional Keys were supported in the same manner as Required Keys.	FF00H	

Status Class	Further Meaning	Status Code	Behavior
	Matches are continuing - Warning that one or more Optional Keys were not supported for existence for this Identifier	FF01H	
*	Any other status codes.	*	

SCU of the UPS Pull SOP Class - N-GET

Table A.7-20 lists the status codes that the SCU of the UPS PULL SOP Class supports for the N-GET message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe below the behavior of the application when it receives various status codes in the N-GET-RSP for the UPS Pull SOP Class.]

Table A.7-20: Status Codes for N-GET of the UPS Pull SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000H	
Warning	Requested optional Attributes are not supported.	0001H	
Failure	Class-instance conflict	0119H	
	Attribute List error	0107H	
	Duplicate invocation	0210H	
	Mistyped argument	0212H	
	Invalid Object instance	0117H	
	No such SOP Class	0118H	
	No such SOP Instance	0112H	
	Processing failure	0110H	
	Resource limitation	0213H	
	Unrecognized operation	0211H	
	Refused: Not Authorized	0124H	
	Failed: Specified SOP Instance UID does not exist or is not a UPS Instance managed by this SCP	C307H	
*	Any other status code	*	

SCU of the UPS Pull SOP Class – N-SET

Table A.7-21 lists the status codes that the SCU of the UPS PULL SOP Class supports for the N-SET message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe below the behavior of the application when it receives various status codes in the N-SET-RSP for the UPS Pull SOP Class.]

Table A.7-21: Status Codes for N-SET of the UPS Pull SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000H	
Warning	Requested optional Attributes are not supported.	0001H	
	Coerced invalid values to valid values	B305H	
	Attribute Value Out of Range	0116H	
	Attribute List error	0107H	
Failure	Class-instance conflict	0119H	
	Duplicate invocation	0210H	
	Invalid Attribute value	0106H	
	Mistyped argument	0212H	
	Missing attribute value	0121H	
	No such Attribute	0105H	
	Attribute List error	0107H	
	No such SOP Class	0118H	
	No such SOP Instance	0112H	
	Processing failure	0110H	
	Resource limitation	0213H	
	Unrecognized operation	0211H	
	Refused: Not Authorized	0124H	
	Failed: The UPS is not in the "IN PROGRESS" state	C310H	
	Failed: The correct Transaction UID was not provided	C301H	
	Failed: The UPS may no longer be updated	C300H	
	Failed: Specified SOP Instance UID does not exist or is not a UPS Instance managed by this SCP	C307H	
*	Any other status code	*	

SCU of the Change UPS State of UPS Pull SOP Class – N-ACTION

2890 Table A.7-22 lists the status codes that the SCU of the Change UPS State of UPS Pull SOP Class supports for the N-ACTION message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe below the behavior of the application when it receives various status codes in the N-ACTION-RSP for the UPS Pull SOP Class.]

Table A.7-22: Status Codes for N-ACTION of the UPS Pull SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	The requested state change was performed	0000H	
Warning	The UPS is already in the requested state of CANCELED	B304H	
	The UPS is already in the requested state of COMPLETED	B306H	
Failure	Class-instance conflict	0119H	
	Duplicate invocation	0210H	
	Invalid argument value	0115H	
	Invalid Object instance	0117H	
	Mistyped argument	0212H	
	No such action	0123H	
	No such argument	0114H	
	No such SOP Class	0118H	
	No such SOP Instance	0112H	
	Processing failure	0110H	
	Resource limitation	0213H	
	Unrecognized operation	0211H	
	Refused: Not Authorized	0124H	
	Failed: The UPS may no longer be updated	C300H	
	Failed: The correct Transaction UID was not provided	C301H	
	Failed: The UPS is already IN PROGRESS	C302H	
	Failed: The UPS may only become SCHEDULED via N-CREATE, not N-SET or N-ACTION	C303H	
	Failed: The UPS has not met final state requirements for the requested state change	C304H	
	Specified SOP Instance UID does not exist or is not a UPS Instance managed by this SCP	C307H	
	Failed: The UPS is not yet in the "IN PROGRESS" state	C310H	
*	Any other status code	*	

2895

A.7.3.2.3.3 SCU of the UPS Watch SOP Class

SCU of the Un/Subscribe on UPS Watch SOP Class - N-ACTION

Table A.7-23 lists the status codes that the SCU of the Un/Subscrieb of the UPS Watch SOP Class supports for the N-ACTION message and defines the application behavior, when encountering any of the listed Status Codes.

Describe below the behavior of the application when it receives various status codes in the N-ACTION-RSP for the UPS Watch SOP Class.]

Table A.7-23: Status Codes for N-ACTION (subscribe/unsubscribe) of the UPS Watch SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	The requested change of subscription state was performed	0000H	
Warning	Deletion Lock not granted.	B301h	
Failure	Class-instance conflict	0119H	
	Duplicate invocation	0210H	
	Invalid argument value	0115H	
	Invalid Object instance	0117H	
	Mistyped argument	0212H	
	No such action	0123H	
	No such argument	0114H	
	No such SOP Class	0118H	
	No such SOP Instance	0112H	
	Processing failure	0110H	
	Resource limitation	0213H	
	Unrecognized operation	0211H	
	Refused: Not Authorized	0124H	
	Failed: Specified SOP Instance UID does not exist or is not a UPS Instance managed by this SCP	C307H	
	Failed: Receiving AE-TITLE is Unknown to this SCP	C308H	
	Failed: Specified action not appropriate for specified instance	C314H	
	Failed: SCP does not support Event Reports	C315H	
*	Any other status code	*	

SCU of the UPS Watch SOP Class - N-GET

Table A.7-24 lists the status codes that the SCU of the UPS Watch SOP Class supports for the N-GET message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe below the behavior of the application when it receives various status codes in the N-GET-RSP for the UPS Watch SOP Class.]

Table A.7-24: Status Codes for N-GET of the UPS Watch SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000H	
Warning	Requested optional Attributes are not supported.	0001H	
Failure	Class-instance conflict	0119H	
	Attribute List error	0107H	
	Duplicate invocation	0210H	
	Mistyped argument	0212H	
	Invalid Object instance	0117H	
	No such SOP Class	0118H	
	No such SOP Instance	0112H	
	Processing failure	0110H	
	Resource limitation	0213H	
	Unrecognized operation	0211H	
	Refused: Not Authorized	0124H	
	Failed: Specified SOP Instance UID does not exist or is not a UPS Instance managed by this SCP	C307H	
*	Any other status code	*	

SCU of the UPS Watch SOP Class – C-FIND

Table A.7-25 lists the status codes that the SCU of the UPS Watch SOP Class supports for the C-FIND message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe below the behavior of the application when it receives various status codes in the C-FIND-RSP for the UPS Watch SOP Class.]

Table A.7-25: Status Codes for C-FIND of the UPS Watch SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Matching is complete - No final identifier is supplied	0000H	
Failure	Refused: Out of resources	A700H	
	Error: Identifier does not match SOP Class	A900H	
	Failed: Unable to process	C000-CFFFH	
	Failed: SOP Class Not Supported	0122H	
Cancel	Matching terminated due to cancel	FE00H	

Status Class	Further Meaning	Status Code	Behavior
Pending	Matches are continuing - Current Match is supplied and any Optional Keys were supported in the same manner as Required Keys.	FF00H	
	Matches are continuing - Warning that one or more Optional Keys were not supported for existence for this Identifier	FF01H	
*	Any other status codes.	*	

SCU of the Request UPS Cancelation on UPS Watch SOP Class - N-ACTION

Table A.7-26 lists the status codes that the SCU of the Request UPS Cancelation on UPS Watch SOP Class supports for the C-ACTION message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe below the behavior of the application when it receives various status codes in the N-ACTION-RSP for the UPS Watch SOP Class – Cancel request]

Table A.7-26: Status Codes for N-ACTION (request cancel) of the UPS Watch SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	The cancel request is acknowledged	0000H	
Warning	The UPS is already in the requested state of CANCELED	B304H	
Failure	Class-instance conflict	0119H	
	Duplicate invocation	0210H	
	Invalid argument value	0115H	
	Invalid Object instance	0117H	
	Mistyped argument	0212H	
	No such action	0123H	
	No such argument	0114H	
	No such SOP Class	0118H	
	No such SOP Instance	0112H	
	Processing failure	0110H	
	Resource limitation	0213H	
	Unrecognized operation	0211H	
	Refused: Not Authorized	0124H	

Status Class	Further Meaning	Status Code	Behavior
	Failed: The UPS is already COMPLETED	C311H	
	Failed: Performer chooses not to cancel	C313H	
	Specified SOP Instance UID does not exist or is not a UPS Instance managed by this SCP	C307H	
	Failed: The performer cannot be contacted	C312H	
*	Any other status code	*	

A.7.3.2.3.4 SCU of the UPS Event SOP Class

SCU of the UPS Event SOP Class - N-EVENT-REPORT

Table A.7-27 lists the status codes that the SCU of the UPS EVENT SOP Class supports for the N-EVENT-REPORT message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe below the behavior of the application when it receives various status codes in the N-EVENT-REPORT-RSP for the UPS Event SOP Class.]

Table A.7-27: Status Codes for the N-EVENT-REPORT of the UPS Event SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success		0000H	
Failure	Class-instance conflict	0119H	
	Duplicate invocation	0210H	
	Invalid argument value	0115H	
	Invalid Object Instance	0117H	
	Mistyped argument	0212H	
	No such event type	0113H	
	No such argument	0114H	
	No such SOP Class	0118H	
	No such SOP Instance	0112H	
	Processing failure	0110H	
	Resource limitation	0213H	
	Unrecognized operation	0211H	

A.7.3.2.3.5 SCP of the UPS Push SOP Class

SCP of the UPS Push SOP Class – N-CREATE

Table A.7-28 lists the status codes that the SCP of the UPS Push SOP Class supports for the N-CREATE message and defines conditions, in which any of the listed Status Codes are sent.

[Describe below under what circumstances does the application send the various status codes in the N-CREATE-RSP for UPS Push SOP class.]

Table A.7-28: Status Codes N-CREATE of the UPS Push SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	The UPS was created as requested	0000H	
Warning	The UPS was created with modifications	B300H	
	Attribute Value out of Range	0116H	
	Attribute List Error	0107H	
Failure	Duplicate invocation	0210H	
	Duplicate SOP Instance	0111H	
	Invalid Attribute Value	0106H	
	Invalid Object Instance	0117H	
	Missing Attribute	0120H	
	Missing attribute value	0121H	
	Mistyped argument	0212H	
	No such Attribute	0105H	
	No such SOP Class	0118H	
	Processing failure	0110H	
	Resource limitation	0213H	
	Unrecognized operation	0211H	
	Refused: Not Authorized	0124H	
	Failed: The provided value of UPS State was not "SCHEDULED".	C309H	

SCP of Request UPS Cancel on UPS Push SOP Class - N-ACTION

Table A.7-29 lists the status codes that the SCP of the UPS Push SOP Class supports for the N-ACTION message and defines conditions, in which any of the listed Status Codes are sent.

[Describe below under what circumstances does the application send the various status codes in the N-ACTION-RSP for UPS Push SOP class.]

Table A.7-29: Status Codes N-ACTION (request cancel) of the UPS Push SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	The cancel request is acknowledged	0000H	
Warning	The UPS is already in the requested state of CANCELED	B304H	
Failure	Class-instance conflict	0119H	
	Duplicate invocation	0210H	
	Invalid argument value	0115H	
	Invalid Object instance	0117H	
	Mistyped argument	0212H	
	No such action	0123H	
	No such argument	0114H	
	No such SOP Class	0118H	
	No such SOP Instance	0112H	
	Processing failure	0110H	
	Resource limitation	0213H	
	Unrecognized operation	0211H	
	Refused: Not Authorized	0124H	
	Failed: The UPS is already COMPLETED	C311H	
	Failed: Performer chooses not to cancel	C313H	
	Specified SOP Instance UID does not exist or is not a UPS Instance managed by this SCP	C307H	
	Failed: The performer cannot be contacted	C312H	

SCP of the UPS Push SOP Class – N-GET

Table A.7-30 lists the status codes that the SCP of the UPS Push SOP Class supports for the N-GET message and defines conditions, in which any of the listed Status Codes are sent.

[Describe below under what circumstances does the application send the various status codes in the N-GET-RSP for UPS Push SOP class]

Table A.7-30: Status Codes N-GET of the UPS Push SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Success	0000H	

Status Class	Further Meaning	Status Code	Condition
Warning	Requested optional Attributes are not supported.	0001H	
	Attribute List error	0107H	
Failure	Class-instance conflict	0119H	
	Duplicate invocation	0210H	
	Mistyped argument	0212H	
	Invalid Object instance	0117H	
	No such SOP Class	0118H	
	No such SOP Instance	0112H	
	Processing failure	0110H	
	Resource limitation	0213H	
	Unrecognized operation	0211H	
	Refused: Not Authorized	0124H	
	Failed: Specified SOP Instance UID does not exist or is not a UPS Instance managed by this SCP	C307H	

A.7.3.2.3.6 SCP of the UPS Pull SOP Class

SCP of the UPS Pull SOP Class – C-FIND

2960 Table A.7-31 lists the status codes that the SCP of the UPS Pull SOP Class supports for the C-FIND message and defines conditions, in which any of the listed Status Codes are sent.

[Describe below under what circumstances does the application send the various status codes in the C-FIND-RSP for UPS Pull SOP class.]

Table A.7-31: Status Codes C-FIND of the UPS Pull SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Matching is complete - No final identifier is supplied	0000H	
Cancel	Matching terminated due to cancel	FE00H	
Failure	Refused: Out of resources	A700H	
	Error: Identifier does not match SOP Class	A900H	
	Failed: Unable to process	C000-CFFFH	
	Failed: SOP Class Not Supported	0122H	

Status Class	Further Meaning	Status Code	Condition
Pending	Matches are continuing - Current Match is supplied and any Optional Keys were supported in the same manner as Required Keys.	FF00H	
	Matches are continuing - Warning that one or more Optional Keys were not supported for existence for this Identifier	FF01H	

SCP of the UPS Pull SOP Class - N-GET

Table A.7-32 lists the status codes that the SCP of the UPS Pull SOP Class supports for the N-GET message and defines conditions, in which any of the listed Status Codes are sent.

[Describe below under what circumstances does the application send the various status codes in the N-GET-RSP for UPS Pull SOP class]

Table A.7-32: Status Codes N-GET of the UPS Pull SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Success	0000H	
Warning	Requested optional Attributes are not supported.	0001H	
	Attribute List error	0107H	
Failure	Class-instance conflict	0119H	
	Duplicate invocation	0210H	
	Mistyped argument	0212H	
	Invalid Object instance	0117H	
	No such SOP Class	0118H	
	No such SOP Instance	0112H	
	Processing failure	0110H	
	Resource limitation	0213H	
	Unrecognized operation	0211H	
	Refused: Not Authorized	0124H	
	Failed: Specified SOP Instance UID does not exist or is not a UPS Instance managed by this SCP	C307H	

SCP of the UPS Pull SOP Class – N-SET

Table A.7-33 lists the status codes that the SCP of the UPS Pull SOP Class supports for the N-SET message and defines conditions, in which any of the listed Status Codes are sent.

[Describe below under what circumstances does the application send the various status codes in the N-SET-RSP for UPS Pull SOP class]

Table A.7-33: Status Codes N-SET of the UPS Pull SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Success	0000H	
Warning	Requested optional Attributes are not supported.	0001H	
	Attribute Value Out of Range	0116H	
	Attribute List error	0107H	
	Coerced invalid values to valid values	B305H	
Failure	Class-instance conflict	0119H	
	Duplicate invocation	0210H	
	Invalid Attribute value	0106H	
	Mistyped argument	0212H	
	Invalid Object instance	0117H	
	Missing attribute value	0121H	
	No such Attribute	0105H	
	No such SOP Class	0118H	
	No such SOP Instance	0112H	
	Processing failure	0110H	
	Resource limitation	0213H	
	Unrecognized operation	0211H	
	Refused: Not Authorized	0124H	
	Failed: The UPS is not in the "IN PROGRESS" state	C310H	
	Failed: The correct Transaction UID was not provided	C301H	
	Failed: The UPS may no longer be updated	C300H	
	Failed: Specified SOP Instance UID does not exist or is not a UPS Instance managed by this SCP	C307H	

SCP of the Change UPS State of UPS Pull SOP Class – N-ACTION

Table A.7-34 lists the status codes that the SCP of the Change UPS State of the UPS Pull SOP Class supports for the N-ACTION message and defines conditions, in which any of the listed Status Codes are sent.

[Describe below under what circumstances does the application send the various status codes in the N-ACTION-RSP for UPS Pull SOP class]

Table A.7-34: Status Codes N-ACTION (change state) of the UPS Pull SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	The requested state change was performed	0000H	
Warning	The UPS is already in the requested state of CANCELED	B304H	
	The UPS is already in the requested state of COMPLETED	B306H	
Failure	Class-instance conflict	0119H	
	Duplicate invocation	0210H	
	Invalid argument value	0115H	
	Invalid Object instance	0117H	
	Mistyped argument	0212H	
	No such action	0123H	
	No such argument	0114H	
	No such SOP Class	0118H	
	No such SOP Instance	0112H	
	Processing failure	0110H	
	Resource limitation	0213H	
	Unrecognized operation	0211H	
	Refused: Not Authorized	0124H	
	Failed: The UPS may no longer be updated	C300H	
	Failed: The correct Transaction UID was not provided	C301H	
	Failed: The UPS is already IN PROGRESS	C302H	
	Failed: The UPS may only become SCHEDULED via N-CREATE, not N-SET or N-ACTION	C303H	
	Failed: The UPS has not met final state requirements for the requested state change	C304H	

Status Class	Further Meaning	Status Code	Condition
	Specified SOP Instance UID does not exist or is not a UPS Instance managed by this SCP	C307H	
	Failed: The UPS is not yet in the "IN PROGRESS" state	C310H	

A.7.3.2.3.7SCP of the UPS Watch SOP Class

SCP of the Un/Subscribe on UPS Watch SOP Class - N-ACTION

2990 Table A.7-34 lists the status codes that the SCP of the Un/Subscribe on the UPS Watch SOP Class supports for the N-ACTION message and defines conditions, in which any of the listed Status Codes are sent.

[Describe below under what circumstances does the application send the various status codes in the N-ACTION-RSP for UPS Watch SOP class.]

Table A.7-35: Status Codes N-ACTION (Un/subscribe)) of the UPS Watch SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	The requested change of subscription state was performed	0000H	
Warning	Deletion Lock not granted.	B301h	
Failure	Class-instance conflict	0119H	
	Duplicate invocation	0210H	
	Invalid argument value	0115H	
	Invalid Object instance	0117H	
	Mistyped argument	0212H	
	No such action	0123H	
	No such argument	0114H	
	No such SOP Class	0118H	
	No such SOP Instance	0112H	
	Processing failure	0110H	
	Resource limitation	0213H	
	Unrecognized operation	0211H	
	Refused: Not Authorized	0124H	
	Failed: Specified SOP Instance UID does not exist or is not a UPS Instance managed by this SCP	C307H	
	Failed: Receiving AE-TITLE is Unknown to this SCP	C308H	

Status Class	Further Meaning	Status Code	Condition
	Failed: Specified action not appropriate for specified instance	C314H	
	Failed: SCP does not support Event Reports	C315H	

SCP of the UPS Watch SOP Class - N-GET

Table A.7-36 lists the status codes that the SCP of the UPS Watch SOP Class supports for the N-GET message and defines conditions, in which any of the listed Status Codes are sent.

[Describe below under what circumstances does the application send the various status codes in the N-GET-RSP for UPS Watch SOP class.]

Table A.7-36: Status Codes N-GET of the UPS Watch SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Success	0000H	
Warning	Requested optional Attributes are not supported.	0001H	
	Attribute List error	0107H	
Failure	Class-instance conflict	0119H	
	Duplicate invocation	0210H	
	Mistyped argument	0212H	
	Invalid Object instance	0117H	
	No such SOP Class	0118H	
	No such SOP Instance	0112H	
	Processing failure	0110H	
	Resource limitation	0213H	
	Unrecognized operation	0211H	
	Refused: Not Authorized	0124H	
	Failed: Specified SOP Instance UID does not exist or is not a UPS Instance managed by this SCP	C307H	

SCP of the UPS Watch SOP Class – C-FIND

Table A.7-37 lists the status codes that the SCP of the UPS Watch SOP Class supports for the C-FIND message and defines conditions, in which any of the listed Status Codes are sent.

[Describe below under what circumstances does the application send the various status codes in the C-FIND-RSP for UPS Watch SOP class.]

Table A.7-37: Status Codes C-FIND of the UPS Watch SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Matching is complete - No final identifier is supplied	0000H	
Failure	Refused: Out of resources	A700H	
	Error: Identifier does not match SOP Class	A900H	
	Failed: Unable to process	C000-CFFFH	
	Failed: SOP Class Not Supported	0122H	
Cancel	Matching terminated due to cancel	FE00H	
Pending	Matches are continuing - Current Match is supplied and any Optional Keys were supported in the same manner as Required Keys.	FF00H	
	Matches are continuing - Warning that one or more Optional Keys were not supported for existence for this Identifier	FF01H	

3010 **SCP of the Request UPS Cancelation on UPS Watch SOP Class - N-ACTION**

Table A.7-38 lists the status codes that the SCP of the Request UPS Cancelation on UPS Watch SOP Class supports for the N-ACTION message and defines conditions, in which any of the listed Status Codes are sent.

Describe below under what circumstances does the application send the various status codes in the N-ACTION-RSP for UPS Watch SOP class.]

3015 **Table A.7-38: Status Codes N-ACTION (cancel request) of the UPS Watch SOP Class - SCP**

Status Class	Further Meaning	Status Code	Condition
Success	The cancel request is acknowledged	0000H	
Warning	The UPS is already in the requested state of CANCELED	B304H	
Failure	Class-instance conflict	0119H	
	Duplicate invocation	0210H	
	Invalid argument value	0115H	
	Invalid Object instance	0117H	
	Mistyped argument	0212H	
	No such action	0123H	
	No such argument	0114H	
	No such SOP Class	0118H	

Status Class	Further Meaning	Status Code	Condition
	No such SOP Instance	0112H	
	Processing failure	0110H	
	Resource limitation	0213H	
	Unrecognized operation	0211H	
	Refused: Not Authorized	0124H	
	Failed: The UPS is already COMPLETED	C311H	
	Failed: Performer chooses not to cancel	C313H	
	Specified SOP Instance UID does not exist or is not a UPS Instance managed by this SCP	C307H	
	Failed: The performer cannot be contacted	C312H	

A.7.3.2.3.8SCP of the UPS Event SOP Class

SCP of the UPS Event SOP Class - N-EVENT-REPORT

Table A.7-39 lists the status codes that the SCP of the UPS Event SOP Class supports for the N-EVENT-REPORT message and defines conditions, in which any of the listed Status Codes are sent.

[Describe below under what circumstances does the application send the various status codes in the N-EVENT-REPORT-RSP for UPS Event SOP class.]

Table A.7-39: Status Codes N-EVENT-REPORT of the UPS Event SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success		0000H	
Warning	Attribute Value Out of Range	0116H	
	Attribute List Error	0107H	
Failure	Class-instance conflict	0119H	
	Duplicate invocation	0210H	
	Invalid argument value	0115H	
	Invalid Object Instance	0117H	
	Mistyped argument	0212H	
	No such event type	0113H	
	No such argument	0114H	
	No such SOP Class	0118H	
	No such SOP Instance	0112H	
	Processing failure	0110H	
	Resource limitation	0213H	
	Unrecognized operation	0211H	

Status Class	Further Meaning	Status Code	Condition
*	Any other status codes.	*	

A.7.3.2.4 Instance Availability Notification Service

A.7.3.2.4.1 SCU of the Instance Availability Notification SOP Class – N-CREATE

Table A.7-25 lists the status codes that the SCU of the Instance Availability Notification SOP Class supports for the N-CREATE message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe the behavior of the application when it receives various status codes in the N-CREATE-RSP for the IAN Service. For instance, displaying and logging the error code or retrying the request.]

Table A.7-40: Status Codes N-CREATE for the Instance Availability Notification SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000H	
Failure	No such Attribute	0105H	
	Invalid Attribute Value	0106H	
	Attribute List Error	0107H	
	Processing failure	0110H	
	Duplicate SOP Instance	0111H	
	Attribute Value Out of Range	0116H	
	Invalid Object Instance	0117H	
	No such SOP Class	0118H	
	Missing Attribute	0120H	
	Missing attribute value	0121H	
	Refused: Not Authorized	0124H	
	Duplicate invocation	0210H	
	Unrecognized operation	0211H	
	Mistyped argument	0212H	
	Resource limitation	0213H	
*	Any other status codes.	*	

A.7.3.2.4.2 SCP of the Instance Availability Notification SOP Class – N-CREATE

Table A.7-41 lists the status codes that the SCP of the Instance Availability Notification SOP Class supports for the N-CREATE message and defines conditions, in which any of the listed Status Codes are sent.

[Describe the condition, which causes the application to send the specific status codes in the N-CREATE-RSP to the SCU.]

Table A.7-41: Status Codes N-CREATE for the Instance Availability Notification SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Success	0000H	

Status Class	Further Meaning	Status Code	Condition
Failure	Class-instance conflict	0119H	
	Duplicate invocation	0210H	
	Duplicate SOP Instance	0111H	
	Invalid Attribute value	0106H	
	Invalid Object instance	0117H	
	Missing Attribute	0120H	
	Missing attribute value	0121H	
	Mistyped argument	0212H	
	No such Attribute	0105H	
	No such SOP Class	0118H	
	No such SOP Instance	0112H	
	Processing failure	0110H	
	Resource limitation	0213H	
	Unrecognized operation	0211H	

3040 **A.7.3.2.5 Storage Service**

A.7.3.2.5.1 SCU of the Storage SOP Classes – C-STORE

Table A.7-42 lists the status codes that the SCU of the Storage SOP Class supports for the C-STORE message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe the behavior of the application when it receives various status codes in the C-STORE-RSP for the Storage
3045 *Service. For instance, displaying and logging the error code or retrying the request].*

Table A.7-42: Status Codes C-STORE for the Storage SOP Classes - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000	
Warning	Coercion of Data Elements	B000	
	Data Set does not match SOP Class	B007	
	Elements Discarded	B006	
Failure	SOP Class not supported	0112	
	Invalid Object Instance	0117	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Not authorised	0214	
	Out of Resources	A700-A7FF	

Status Class	Further Meaning	Status Code	Behavior
	Data Set does not match SOP Class	A900-A9FF	
	Cannot Understand	C000-CFFF	
*	*	Any other status code	

A.7.3.2.5.2SCP of the Storage SOP Classes – C-STORE

Table A.7-43 lists the status codes that the SCP of the Storage SOP Class supports for the C-STORE message and defines conditions, in which any of the listed Status Codes are sent.

[Describe the condition which causes the application to send the specific status codes in the C-STORE-RSP to the SCU.]

[Mention the attributes that are used to further detail the status codes. Mention NA if there are not related fields used.]

[Mention in the condition column the reason why the application sends this status code and the comments concerning the 'Related fields' used in the responses.]

Table A.7-43: Status Codes C-STORE for the Storage SOP Classes - SCP

Status Class	Further Meaning	Status Codes	Related Fields	Condition (and Comments on Related fields)
Success	Success	0000		
Warning	Coercion of Data Elements	B000		
	Data Set does not match SOP Class	B007		
	Elements Discarded	B006		
Refused	Refused: Out of Resources	A700		
Failure	Error: Data Set does not match SOP Class	A901		
	Error: Cannot understand	C000		

A.7.3.2.6Storage Commitment Service

A.7.3.2.6.1SCU of the Storage Commitment Push Model SOP Class – N-ACTION

Table A.7-44 lists the status codes that the SCU of the Storage Commitment Push Model SOP Class supports for the N-ACTION message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe the behavior of the application when it receives various status codes in the N-ACTION -RSP for the Storage commitment Service. For instance, displaying and logging the error code or retrying the request.]

Table A.7-44: Status Codes N-ACTION of the Storage Commitment Push Model SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success		0000H	
Failure	Processing failure	0110H	
	No such SOP Instance	0112H	
	No such argument	0114H	
	Invalid argument value	0115H	
	Invalid Object instance	0117H	
	No such SOP Class	0118H	
	Class-instance conflict	0119H	
	No such action	0123H	
	Refused: Not Authorized	0124H	
	Duplicate invocation	0210H	
	Unrecognized operation	0211H	
	Mistyped argument	0212H	
	Resource limitation	0213H	
*	Any other status codes.	*	

A.7.3.2.6.2SCU of the Storage Commitment Push Model SOP Class – N-EVENT-REPORT

Table A.7-45 lists the status codes that the SCU of the Storage Commitment Push Model SOP Class supports for the N-EVENT-REPORT message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe the behavior of the application when it receives various status codes in the N-EVENT-REPORT-RSP for the Storage Commitment Service. For instance, displaying and logging the error code or retrying the request.]

Table A.7-45: Status Codes N-EVENT-REPORT of the Storage Commitment Push Model SOP Class - SCU

Status Class	Further Meaning	Status Code	Behviour
Success		0000H	
Failure	Processing failure	0110H	
	No such SOP Instance	0112H	
	No such argument	0114H	
	Invalid argument value	0115H	
	Invalid Object instance	0117H	
	No such SOP Class	0118H	
	Class-instance conflict	0119H	
	No such action	0123H	

Status Class	Further Meaning	Status Code	Behviour
	Refused: Not Authorized	0124H	
	Duplicate invocation	0210H	
	Unrecognized operation	0211H	
	Mistyped argument	0212H	

A.7.3.2.6.3SCP of the Storage Commitment Push Model SOP Class – N-ACTION

Table A.7-46 lists the status codes that the SCP of the Storage Commitment Push Model SOP Class supports for the N-ACTION message and defines conditions, in which any of the listed Status Codes are sent.

[Describe the condition which causes the application to send the specific status codes in the N-ACTION-RSP to the SCU.]

Table A.7-46: Status Codes N-ACTION of the Storage Commitment Push Model SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success		0000H	
Failure	Processing failure	0110H	
	No such SOP Instance	0112H	
	No such argument	0114H	
	Invalid argument value	0115H	
	Invalid Object instance	0117H	
	No such SOP Class	0118H	
	Class-instance conflict	0119H	
	No such action	0123H	
	Refused: Not Authorized	0124H	
	Duplicate invocation	0210H	
	Unrecognized operation	0211H	
	Mistyped argument	0212H	
	Resource limitation	0213H	

A.7.3.2.6.4 SCP of the Storage Commitment Push Model SOP Class – N-EVENT-REPORT

Table A.7-47 lists the status codes that the SCP of the Storage Commitment Push Model SOP Class supports for the N-EVENT-REPORT message and defines conditions, in which any of the listed Status Codes are sent.

[Describe the condition which causes the application to send the specific status codes in the N-EVENT-REPORT-RSP to the SCU.]

Table A.7-47: Status Codes N-EVENT-REPORT of the Storage Commitment Push Model SOP Class – SCP

Status Class	Further Meaning	Status Code	Condition
Success		0000H	
Failure	Processing failure	0110H	

Status Class	Further Meaning	Status Code	Condition
	No such SOP Instance	0112H	
	No such event type	0113H	
	No such argument	0114H	
	Invalid argument value	0115H	
	Invalid Object Instance	0117H	
	No such SOP Class	0118H	
	Class-instance conflict	0119H	
	Duplicate invocation	0210H	
	Unrecognized operation	0211H	
	Mistyped argument	0212H	
	Resource limitation	0213H	
*	Any other status codes.	*	

A.7.3.2.7 Query/Retrieve Service

3090 **A.7.3.2.7.1 SCU of the Query/Retrieve FIND SOP Classes – C-FIND**

Table A.7-48 lists the status codes that the SCU of any of the Query/Retrieve FIND SOP Class supports for the C-FIND message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe the behavior of the application when it receives various status codes in the C-FIND-RSP for the Query-FIND Service. For instance, displaying and logging the error code or retrying the request.]

3095 **Table A.7-48: Status Codes -C-FIND for Query/Retrieve FIND SOP Classes - SCU**

Status Class	Further Meaning	Status Code	Behavior
Success	Matching is complete - No final identifier is supplied	0000H	
Failure	Refused: Out of resources	A700H	
	Error: Identifier does not match SOP Class	A900H	
	Error: Unable to process	C000-CFFFH	
	SOP Class Not Supported	0122H	
Cancel	Matching terminated due to cancel	FE00H	
Pending	Matches are continuing - Current Match is supplied and any Optional Keys were supported in the same manner as Required Keys.	FF00H	
	Matches are continuing - Warning that one or more Optional Keys were not supported for existence for this Identifier	FF01H	
*	Any other status codes.	*	

A.7.3.2.7.2 SCU of the Query/Retrieve MOVE SOP Classes – C-MOVE

Table A.7-49 lists the status codes that the SCU of any of the Query/Retrieve MOVE SOP Class supports for the C-MOVE message and defines the application behavior, when encountering any of the listed Status Codes.

3100 *[Describe the behavior of the application when it receives various status codes in the C-MOVE-RSP Query Retrieve-MOVE Service. For instance, displaying and logging the error code or retrying the request.]*

Table A.7-49: Status Codes -C-MOVE for Query/Retrieve MOVE SOP Classes - SCU

Status Class	Further Meaning	Status Codes	Related Fields	Behaviour
Success	Sub-operations Complete - No Failures	0000	(0000,1020) (0000,1021) (0000,1022) (0000,1023)	
Warning	Sub-operations Complete - One or more Failures	B000	(0000,1020) (0000,1022) (0000,1023)	
Failed	Out of Resources - Unable to calculate number of matches	A701	(0000,0902)	
	Out of Resources - Unable to perform sub-operations	A702	(0000,1020) (0000,1021) (0000,1022) (0000,1023)	
	Move Destination unknown	A801	(0000,0902)	
	Identifier does not match SOP Class	A900	(0000,0901) (0000,0902)	
	Unable to process	Cxxx	(0000,0901) (0000,0902)	
Cancel	Sub-operations terminated due to Cancel Indication	FE00	(0000,1020) (0000,1021) (0000,1022) (0000,1023)	
Pending	Sub-operations are continuing	FF00	(0000,1020) (0000,1021) (0000,1022) (0000,1023)	

A.7.3.2.7.3 SCP of the Query/Retrieve FIND SOP Classes – C-FIND

3105 Table A.7-50 lists the status codes that the SCP of any of the Query/Retrieve FIND SOP Classes supports for the C-FIND message and defines conditions, in which any of the listed Status Codes are sent.

[Describe the condition which causes the application to send the specific status codes in the C-FIND-RSP to the SCU.]

Table A.7-50: Status Codes -C-FIND for Query/Retrieve FIND SOP Classes - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Matching is complete - No final identifier is supplied	0000H	
Failure	Refused: Out of resources	A700H	
	Error: Identifier does not match SOP Class	A900H	
	Error: Unable to process	C000H	
	SOP Class Not Supported	0122H	
Cancel	Matching terminated due to cancel	FE00H	
Pending	Matches are continuing - Current Match is supplied and any Optional Keys were supported in the same manner as Required Keys.	FF00H	
	Matches are continuing - Warning that one or more Optional Keys were not supported for existence for this Identifier	FF01H	

3110

A.7.3.2.7.4SCP of the Query/Retrieve MOVE SOP Classes – C-MOVE

Table A.7-51 lists the status codes that the SCP of any of the Query/Retrieve MOVE SOP Classes supports for the C-MOVE message and defines conditions, in which any of the listed Status Codes are sent.

[Describe the condition which causes the application to send the specific status codes in the C-MOVE-RSP to the
3115 *SCU.]*

[Describe the action on the storage sub operation e due to above mentioned conditions. – Mention what happens to the store sub-operation when the specific condition occurs.]

Table A.7-51: Status Codes -C-MOVE for Query/Retrieve MOVE SOP Classes - SCP

Status Class	Further Meaning	Status Codes	Related Fields sent in the response	Condition	Action on the Store due the condition.
Success	Sub-operations Complete - No Failures	0000	(0000,1020) (0000,1021) (0000,1022) (0000,1023)		
Warning	Sub-operations Complete - One or more Failures	B000	(0000,1020) (0000,1022) (0000,1023)		
Failed	Out of Resources - Unable to calculate number of matches	A701	(0000,0902)		
	Out of Resources - Unable to perform sub-operations	A702	(0000,1020) (0000,1021) (0000,1022) (0000,1023)		

Status Class	Further Meaning	Status Codes	Related Fields sent in the response	Condition	Action on the Store due the condition.
	Move Destination unknown	A801	(0000,0902)		
	Identifier does not match SOP Class	A900	(0000,0901) (0000,0902)		
	Unable to process	Cxxx	(0000,0901) (0000,0902)		
Cancel	Sub-operations terminated due to Cancel Indication	FE00	(0000,1020) (0000,1021) (0000,1022) (0000,1023)		
Pending	Sub-operations are continuing	FF00	(0000,1020) (0000,1021) (0000,1022) (0000,1023)		

3120 **A.7.3.2.8 Print Management Service**

A.7.3.2.8.1 SCU of the Basic Film Session SOP Class

SCU of the Basic Film Session SOP Class – N-CREATE

Table A.7-52 lists the status codes that the SCU of the Basic Film Session SOP Class supports for the N-CREATE message and defines the application behavior, when encountering any of the listed Status Codes.

3125 *[Describe the behavior of the application when it receives various status codes in the N-CREATE-RSP on Basic Film Session SOP Class for the Print Service. For instance, displaying and logging the error code or retrying the request.]*

Table A.7-52: Status CodesN-CREATE of the Basic Film Session SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000	
Warning	Attribute List Error	0107	
	Attribute Value Out of Range	0116	
	Memory allocation not supported	B600	
Failure	No Such Attribute	0105	
	Invalid Attribute Value	0106	
	Processing Failure	0110	
	Duplicate SOP Instance	0111	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Missing Attribute	0120	
	Missing Attribute Value	0121	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	

	Mistyped Argument	0212	
	Resource Limitation	0213	

SCU of the Basic Film Session SOP Class – N-SET

Table A.7-53 lists the status codes that the SCU of the Basic Film Session SOP Class supports for the N-SET message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe the behavior of the application when it receives various status codes in the N-SET-RSP on Basic Film Session SOP Class for the Print Service. For instance, displaying and logging the error code or retrying the request]

Table A.7-53: Status CodesN-SET of the Basic Film Session SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000	
Warning	Attribute List Error	0107	
	Attribute Value Out of Range	0116	
	Memory allocation not supported	B600	
Failure	No Such Attribute	0105	
	Invalid Attribute Value	0106	
	Processing Failure	0110	
	Duplicate SOP Instance	0111	
	No such SOP Instance	0112	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class Instance Conflict	0119	
	Missing Attribute	0120	
	Missing Attribute Value	0121	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	

SCU of the Basic Film Session SOP Class – N-DELETE

Table A.7-54 lists the status codes that the SCU of the Basic Film Session SOP Class supports for the N-DELETE message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe the behavior of the application when it receives various status codes in the N-DELETE-RSP on Basic Film Session SOP Class for the Print Service. For instance, displaying and logging the error code or retrying the request.]

Table A.7-54: Status Codes N-DELETE of the Basic Film Session SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000	
Failure	Processing Failure	0110	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class Instance Conflict	0119	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	

SCU of the Basic Film Session SOP Class – N-ACTION

Table A.7-55 lists the status codes that the SCU of the Basic Film Session SOP Class supports for the N-ACTION message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe the behavior of the application when it receives various status codes in the N-ACTION-RSP on Basic Film Session SOP Class for the Print Service. For instance, displaying and logging the error code or retrying the request.]

Table A.7-55: Status Codes N-Action of the Basic Film Session SOP Class - SCU

Status Class	Further Meaning	Status Code	Behaviour
Success	Film belonging to the film session are accepted for printing; if supported, the Print Job SOP Instance is created	0000	
Warning	Film session printing (collation) is not supported	B601	
	Film Session SOP Instance hierarchy does not contain Image Box SOP Instances (empty page)	B602	
	Image size is larger than image box size, the image has been demagnified.	B604	
	Image size is larger than the Image Box size. The Image has been cropped to fit.	B609	
	Image size or Combined Print Image size is larger than the Image Box size. Image or Combined Print Image has been decimated to fit.	B60A	
Failure	Processing failure	0110	
	No such SOP Instance	0112	
	No Such Argument	0114	
	Invalid argument Value	0115	
	Invalid Object Instance	0117	

Status Class	Further Meaning	Status Code	Behaviour
	No Such SOP Class	0118	
	Class-Instance Conflict	0119	
	No Such Action	0123	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	
	Failed: Film Session SOP Instance hierarchy does not contain Film Box SOP Instances	C600	
	Failed: Unable to create Print Job SOP Instance; print queue is full	C601	
	Failed: Image size is larger than image box size	C603	
	Failed: Combined Print Image size is larger than the Image Box size	C613	

A.7.3.2.8.2SCU of the Basic Box Session SOP Class

SCU of the Basic Box Session SOP Class – N-CREATE

Table A.7-52 lists the status codes that the SCU of the Basic Film Box SOP Class supports for the N-CREATE message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe the behavior of the application when it receives various status codes in the N-CREATE-RSP on Film Box SOP Class for the Print Service. For instance, displaying and logging the error code or retrying the request.]

Table A.7-56: Status CodesN-CREATE of the Basic Film Box SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000	
Warning	Attribute List Error	0107	
	Attribute Value Out of Range	0116	
	Requested Min Density or Max Density outside of printer's operating range	B605	
Failure	No Such Attribute	0105	
	Invalid Attribute Value	0106	
	Processing Failure	0110	
	Duplicate SOP Instance	0111	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Missing Attribute	0120	
	Missing Attribute Value	0121	
	Refused: Not Authorized	0124	

Status Class	Further Meaning	Status Code	Behavior
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	
	There is an existing Film Box that has not been printed and N-ACTION at the Film Session level is not supported. A new Film Box will not be created when a previous Film Box has not been printed	C616	
*	*	Any other status codes.	

SCU of the Basic Box Session SOP Class – N-SET

Table A.7-57 lists the status codes that the SCU of the Basic Film Box SOP Class supports for the N-SET message
3160 and defines the application behavior, when encountering any of the listed Status Codes.

[Describe the behavior of the application when it receives various status codes in the N-CREATE-RSP on Film Box SOP Class for the Print Service. For instance, displaying and logging the error code or retrying the request.]

Table A.7-57: Status CodesN-SET of the Basic Film Box SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000	
Warning	Attribute List Error	0107	
	Attribute Value Out of Range	0116	
	Requested Min Density or Max Density outside of printer's operating range	B605	
Failure	No Such Attribute	0105	
	Invalid Attribute Value	0106	
	Processing Failure	0110	
	Duplicate SOP Instance	0111	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class Instance Conflict	0119	
	Missing Attribute	0120	
	Missing Attribute Value	0121	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	

Status Class	Further Meaning	Status Code	Behavior
	There is an existing Film Box that has not been printed and N-ACTION at the Film Session level is not supported. A new Film Box will not be created when a previous Film Box has not been printed	C616	
*	*	Any other status codes.	

SCU of the Basic Box Session SOP Class – N-DELETE

Table A.7-58 lists the status codes that the SCU of the Basic Film Box SOP Class supports for the N-DELETE message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe the behavior of the application when it receives various status codes in the N-DELETE-RSP on Basic Film Box SOP Class for the Print Service. For instance, displaying and logging the error code or retrying the request.]

Table A.7-58: Status CodesN-DELETE of the Basic Film Box SOP Class - SCU

Status class	Further Meaning	Status Code	Behavior
Success	Success	0000	
Failure	Processing Failure	0110	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class Instance Conflict	0119	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	

SCU of the Basic Box Session SOP Class – N-ACTION

Table A.7-59 lists the status codes that the SCU of the Basic Film Box SOP Class supports for the N-ACTION message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe the behavior of the application when it receives various status codes in the N-ACTION-RSP on Basic Film Box SOP Class for the Print Service. For instance, displaying and logging the error code or retrying the request.]

Table A.7-59: Status Codes N-ACTION of the Basic Film Box SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000	

Status Class	Further Meaning	Status Code	Behavior
Warning	Film Box SOP Instance hierarchy does not contain Image Box SOP Instances (empty page)	B603H	
	Image size is larger than Image Box size. The image has been demagnified.	B604H	
	Image size is larger than Image Box size. The image has been cropped to fit.	B609H	
	Image size or Combined Print Image Size is larger than Image Box size. The image or combined Print Image has been decimated to fit.	B60AH	
Failure	Processing failure	0110	
	No such SOP Instance	0112	
	No Such Argument	0114	
	Invalid argument Value	0115	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class-Instance Conflict	0119	
	No Such Action	0123	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	
	Unable to create Print Job SOP Instance; print queue is full.	C602	
	Image size is larger than Image Box size.	C603	
	Combined Print Image Size is larger than Image Box size.	C613	
*	*	Any other status codes.	

A.7.3.2.8.3 SCU of the Basic Grayscale Image Box SOP Class -N-SET

3180 Table A.7-59 lists the status codes that the SCU of the Basic Grayscale Image Box SOP Class supports for the N-SET message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe the behavior of the application when it receives various status codes in the N-SET-RSP on Grayscale Image Box SOP Class for the Print Service. For instance, displaying and logging the error code or retrying the request.]

3185 **Table A.7-60: Status Codes N-SET of the Grayscale Image Box SOP Class - SCU**

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000	
Warning	Image size is larger than Image Box size. The image has been demagnified.	B604H	
	Requested Min Density or Max Density outside of printer's operating range.	B605H	
	Image size is larger than Image Box size. The image has been cropped to fit.	B609H	
	Image size or Combined Print Image Size is larger than Image Box size. The image or combined Print Image has been decimated to fit.	B60AH	
Failure	No Such Attribute	0105	
	Invalid Attribute Value	0106	
	Processing Failure	0110	
	Duplicate SOP Instance	0111	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class Instance Conflict	0119	
	Missing Attribute	0120	
	Missing Attribute Value	0121	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	
	Image size is larger than Image Box size.	C603	
	Insufficient memory in printer to store the image.	C605	
	Combined Print Image Size is larger than Image Box size.	C613	
*	*	Any other status codes.	

A.7.3.2.8.4 SCU of the Basic Color Image Box SOP Class - N-SET

Table A.7-61 lists the status codes that the SCU of the Basic Color Image Box SOP Class supports for the N-SET message and defines the application behavior, when encountering any of the listed Status Codes.

3190 *[Describe the behavior of the application when it receives various status codes in the N-SET-RSP on the Basic Color Image Box SOP Class for the Print Service. For instance, displaying and logging the error code or retrying the request.]*

Table A.7-61: Status Codes N-SET of the Color Image Box SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000	
Warning	Image size is larger than Image Box size. The image has been demagnified.	B604H	
	Image size is larger than Image Box size. The image has been cropped to fit.	B609H	
	Image size or Combined Print Image Size is larger than Image Box size. The image or combined Print Image has been decimated to fit.	B60AH	
Failure	No Such Attribute	0105	
	Invalid Attribute Value	0106	
	Processing Failure	0110	
	Duplicate SOP Instance	0111	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class Instance Conflict	0119	
	Missing Attribute	0120	
	Missing Attribute Value	0121	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	
	Image size is larger than Image Box size.	C603	
	Insufficient memory in printer to store the image.	C605	
	Combined Print Image Size is larger than Image Box size.	C613	
*	*	Any other status codes.	

3195 **A.7.3.2.8.5SCU of the Printer SOP Class**

SCU of the Printer SOP Class – N-EVENT-REPORT

Table A.7-62 lists the status codes that the SCU of Printer SOP Class supports for the N-EVENT-REPORT message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe the behavior of the application when it receives various status codes in the N-EVENT-REPORT-RSP on
3200 *Printer SOP Class for the Print Service. For instance, displaying and logging the error code or retrying the request.]*

Table A.7-62: Status Codes N-EVENT-REPORT of the Printer SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000	
Failure	Processing Failure	0110	
	No Such SOP Instance	0112	
	No Such Event Type	0113	
	No Such Argument	0114	
	Invalid Argument Value	0115	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class-Instance Conflict	0119	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	

SCU of the Printer SOP Class – N-GET

Table A.7-63 lists the status codes that the SCU of the Printer SOP Class supports for the N-GET message and
3205 defines the application behavior, when encountering any of the listed Status Codes.

[Describe the behavior of the application when it receives various status codes in the N-GET-RSP on Printer SOP Class for the Print Service. For instance, displaying and logging the error code or retrying the request.]

Table A.7-63: Status Codes N-GET of the Printer SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000	
Warning	Attribute List Error	0107	
Failure	Processing Failure	0110	
	No Such SOP Instance	0112	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class-Instance Conflict	0119	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	
*	*	Any other status codes.	

A.7.3.2.8.6SCU the Basic Annotation Box SOP Class - N-SET

Table A.7-64 lists the status codes that the SCU of the Basic Annotation Box SOP Class supports for the N-SET message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe the behavior of the application when it receives various status codes in the N-SET-RSP on Basic Annotation Box SOP Class for the Print Service. For instance, displaying and logging the error code or retrying the request.]

Table A.7-64: Status Codes N-SET of the Basic Annotation Box SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000	
Failure	No Such Attribute	0105	
	Invalid Attribute Value	0106	
	Processing Failure	0110	
	Duplicate SOP Instance	0111	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class Instance Conflict	0119	
	Missing Attribute	0120	
	Missing Attribute Value	0121	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	
*	*	Any other status codes.	

A.7.3.2.8.7SCU of the Print Job SOP Class

SCU of the Print Job SOP Class – N-EVENT-REPORT

Table A.7-65 lists the status codes that the SCU of the Print Job SOP Class supports for the N-EVENT-REPORT message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe the behavior of the application when it receives various status codes in the N-EVENT-REPORT-RSP on Print Job SOP Class for the Print Service. For instance, displaying and logging the error code or retrying the request.]

Table A.7-65: Status Codes N-EVENT-REPORT of the Print Job SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000	
Failure	Processing Failure	0110	
	No Such SOP Instance	0112	
	No Such Event Type	0113	

Status Class	Further Meaning	Status Code	Behavior
	No Such Argument	0114	
	Invalid Argument Value	0115	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class-Instance Conflict	0119	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	

SCU of the Print Job SOP Class – N-GET

Table A.7-66 lists the status codes that the SCU of Print Job SOP Class supports for the N-GET message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe the behavior of the application when it receives various status codes in the N-GET-RSP on Print Job SOP Class for the Print Service. For instance, displaying and logging the error code or retrying the request.]

Table A.7-66: Status Codes N-GET of the Print Job SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000	
Warning	Attribute List Error	0107	
Failure	Processing Failure	0110	
	No Such SOP Instance	0112	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class-Instance Conflict	0119	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	
*	*	Any other status codes.	

A.7.3.2.8.8SCU of the Presentation LUT SOP Class

SCU of the Presentation LUT SOP Class – N-CREATE

Table A.7-67 lists the status codes that the SCU of the Presentation LUT SOP Class supports for the N-CREATE message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe the behavior of the application when it receives various status codes in the N-CREATE-RSP on Presentation LUT SOP Class for the Print Service. For instance, displaying and logging the error code or retrying the request.]

Table A.7-67: Status Codes N-CREATE of the Presentation LUTSOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000	
Warning	Attribute List Error	0107	
	Attribute Value Out of Range	0116	
	Requested Min Density or Max Density outside of printer's operating range	B605	
Failure	No Such Attribute	0105	
	Invalid Attribute Value	0106	
	Processing Failure	0110	
	Duplicate SOP Instance	0111	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Missing Attribute	0120	
	Missing Attribute Value	0121	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	
*	*	Any other status codes.	

SCU of the Presentation LUT SOP Class – N-DELETE

Table A.7-68 lists the status codes that the SCU of the Presentation LUT SOP Class supports for the N-DELETE message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe the behavior of the application when it receives various status codes in the N-DELETE-RSP on Presentation LUT SOP Class for the Print Service. For instance, displaying and logging the error code or retrying the request.]

Table A.7-68: Status Codes N-DELETE of the Presentation LUT SOP Class - SCU

Status class	Further Meaning	Status Code	Behavior
Success	Success	0000	
Failure	Processing Failure	0110	
	Invalid Object Instance	0117	

	No Such SOP Class	0118	
	Class Instance Conflict	0119	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	

A.7.3.2.8.9SCU of the Printer Configuration Retrieval SOP Class – N-GET

Table A.7-69 lists the status codes that the SCU of the Printer Configuration SOP Class supports for the N-GET message and defines the application behavior, when encountering any of the listed Status Codes.

[Describe the behavior of the application when it receives various status codes in the N-GET-RSP on Printer Configuration Retrieval SOP Class for the Print Service. For instance, displaying and logging the error code or retrying the request]

Table A.7-69: Status Codes N-GET of the Printer Configuration Retrieval SOP Class - SCU

Status Class	Further Meaning	Status Code	Behavior
Success	Success	0000	
Warning	Attribute List Error	0107	
Failure	Processing Failure	0110	
	No Such SOP Instance	0112	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class-Instance Conflict	0119	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	
*	*	Any other status codes.	

A.7.3.2.8.10SCP of the Basic Film Session SOP Class

SCP of the Basic Film Session SOP Class – N-CREATE

Table A.7-70 lists the status codes that the SCP of the Basic Film Session SOP Class supports for the N-CREATE message and defines conditions, in which any of the listed Status Codes are sent.

[Describe the condition which causes the application to send the specific status codes in the N-CREATE-RSP on Basic Film Session SOP Class for the Print Service.]

Table A.7-70: Status Codes N-CREATE of the Basic Film Session SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition

Success	Success	0000	
Warning	Memory allocation not supported	B600	
	Attribute Value Out of Range	0116	
	Attribute List Error	0107	
Failure	No Such Attribute	0105	
	Invalid Attribute Value	0106	
	Processing Failure	0110	
	Duplicate SOP Instance	0111	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Missing Attribute	0120	
	Missing Attribute Value	0121	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	

SCP of the Basic Film Session SOP Class – N-SET

Table A.7-71 lists the status codes that the SCP of the Basic Film Session SOP Class supports for the N-SET message and defines conditions, in which any of the listed Status Codes are sent.

[Describe the condition which causes the application to send the specific status codes in the N-SET-RSP on Basic Film Session SOP Class for the Print Service.]

Table A.7-71: Status Codes N-SET of the Basic Film Session SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Success	0000	
Warning	Attribute Value Out of Range	0116	
	Attribute List Error	0107	
Failure	No Such Attribute	0105	
	Invalid Attribute Value	0106	
	Processing Failure	0110	
	Duplicate SOP Instance	0111	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Missing Attribute	0120	
	Missing Attribute Value	0121	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	

	Mistyped Argument	0212	
	Resource Limitation	0213	

SCP of the Basic Film Session SOP Class – N-DELETE

Table A.7-72 lists the status codes that the SCP of the Basic Film Session SOP Class supports for the N-DELETE message and defines conditions, in which any of the listed Status Codes are sent.

[Describe the condition which causes the application to send the specific status codes in the N-DELETE-RSP on Basic Film Session SOP Class for the Print Service.]

Table A.7-72: Status Codes N-DELETE of the Basic Film Session SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Success	0000	
Failure	Processing Failure	0110	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class Instance Conflict	0119	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	

SCP of the Basic Film Session SOP Class – N-ACTION

Table A.7-73 lists the status codes that the SCP of the Basic Film Session SOP Class supports for the N-ACTION message and defines conditions, in which any of the listed Status Codes are sent.

[Describe the condition which causes the application to send the specific status codes in the N-ACTION-RSP on Basic Film Session SOP Class for the Print Service].

Table A.7-73: Status Codes N-ACTION of the Basic Film Session SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Film belonging to the film session are accepted for printing; if supported, the Print Job SOP Instance is created	0000	
Warning	Film session printing (collation) is not supported	B601	
	Film Session SOP Instance hierarchy does not contain Image Box SOP Instances (empty page)	B602	
	Image size is larger than image box size, the image has been demagnified.	B604	

Status Class	Further Meaning	Status Code	Condition
	Image size is larger than the Image Box size. The Image has been cropped to fit.	B609	
	Image size or Combined Print Image size is larger than the Image Box size. Image or Combined Print Image has been decimated to fit.	B60A	
Failure	Failed: Film Session SOP Instance hierarchy does not contain Film Box SOP Instances	C600	
	Failed: Unable to create Print Job SOP Instance; print queue is full	C601	
	Failed: Image size is larger than image box size	C603	
	Failed: Combined Print Image size is larger than the Image Box size	C613	

A.7.3.2.8.11 SCP of the Basic Film Box SOP Class

SCP of the Basic Film Box SOP Class – N-CREATE

Table A.7-74 lists the status codes that the SCP of the Basic Film Box SOP Class supports for the N-CREATE message and defines conditions, in which any of the listed Status Codes are sent.

[Describe the condition which causes the application to send the specific status codes in the N-CREATE-RSP on Film Box SOP Class for the Print Service.]

Table A.7-74: Status Codes N-CREATE of the Basic Film Box SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Success	0000	
Warning	Attribute List Error	0107	
	Attribute Value Out of Range	0116	
	Requested Min Density or Max Density outside of printer's operating range	B605	
Failure	No Such Attribute	0105	
	Invalid Attribute Value	0106	
	Processing Failure	0110	
	Duplicate SOP Instance	0111	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Missing Attribute	0120	
	Missing Attribute Value	0121	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	

	Mistyped Argument	0212	
	Resource Limitation	0213	
	There is an existing Film Box that has not been printed and N-ACTION at the Film Session level is not supported. A new Film Box will not be created when a previous Film Box has not been printed	C616	
*	*	Any other status codes.	

SCP of the Basic Film Box SOP Class – N-SET

Table A.7-75 lists the status codes that the SCP of the Basic Film Box SOP Class supports for the N-SET message and defines conditions, in which any of the listed Status Codes are sent.

[Describe the condition which causes the application to send the specific status codes in the N-GET-RSP on Printer SOP Class for the Print Service.]

Table A.7-75: Status Codes N-SET of the Basic Film Box SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Success	0000	
Warning	Attribute List Error	0107	
	Attribute Value Out of Range	0116	
	Requested Min Density or Max Density outside of printer's operating range	B605	
Failure	No Such Attribute	0105	
	Invalid Attribute Value	0106	
	Processing Failure	0110	
	Duplicate SOP Instance	0111	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class Instance Conflict	0119	
	Missing Attribute	0120	
	Missing Attribute Value	0121	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	
	There is an existing Film Box that has not been printed and N-ACTION at the Film Session level is not supported. A new Film Box will not be created when a previous Film Box has not been printed	C616	

Status Class	Further Meaning	Status Code	Condition
*	*	Any other status codes.	

SCP of the Basic Film Box SOP Class – N-DELETE

Table A.7-76 lists the status codes that the SCP of the Basic Film Box SOP Class supports for the N-DELETE message and defines conditions, in which any of the listed Status Codes are sent.

3305 *[Describe the condition which causes the application to send the specific status codes in the N-GET-RSP on Printer SOP Class for the Print Service.]*

Table A.7-76: Status Codes N-DELETE of the Basic Film Box SOP Class - SCP

Status class	Further Meaning	Status Code	Condition
Success	Success	0000	
Failure	Processing Failure	0110	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class Instance Conflict	0119	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	

SCP of the Basic Film Box SOP Class – N-ACTION

3310 Table A.7-77 lists the status codes that the SCP of the Basic Film Box SOP Class supports for the N-ACTION message and defines conditions, in which any of the listed Status Codes are sent.

[Describe the condition which causes the application to send the specific status codes in the N-GET-RSP on Printer SOP Class for the Print Service.]

Table A.7-77: Status Codes N-ACTION of the Basic Film Box SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Success	0000	
Warning	Film Box SOP Instance hierarchy does not contain Image Box SOP Instances (empty page)	B603H	
	Image size is larger than Image Box size. The image has been demagnified.	B604H	

Status Class	Further Meaning	Status Code	Condition
	Image size is larger than Image Box size. The image has been cropped to fit.	B609H	
	Image size or Combined Print Image Size is larger than Image Box size. The image or combined Print Image has been decimated to fit.	B60AH	
Failure	Processing failure	0110	
	No such SOP Instance	0112	
	No Such Argument	0114	
	Invalid argument Value	0115	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class-Instance Conflict	0119	
	No Such Action	0123	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	
	Unable to create Print Job SOP Instance; print queue is full.	C602	
	Image size is larger than Image Box size.	C603	
	Combined Print Image Size is larger than Image Box size.	C613	
*	*	Any other status codes.	

3315

A.7.3.2.8.12 SCP of the Basic Grayscale Image Box SOP Class - N-SET

Table A.7-78 lists the status codes that the SCP of the Basic Grayscale Image Box SOP Class supports for the N-SET message and defines conditions, in which any of the listed Status Codes are sent.

3320 *[Describe the condition which causes the application to send the specific status codes in the N-GET-RSP on Printer SOP Class for the Print Service.]*

Table A.7-78: Status Codes N-SET of the Basic Grayscale Image Box SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Success	0000	
Warning	Image size is larger than Image Box size. The image has been demagnified.	B604H	

Status Class	Further Meaning	Status Code	Condition
	Requested Min Density or Max Density outside of printer's operating range.	B605H	
	Image size is larger than Image Box size. The image has been cropped to fit.	B609H	
	Image size or Combined Print Image Size is larger than Image Box size. The image or combined Print Image has been decimated to fit.	B60AH	
Failure	No Such Attribute	0105	
	Invalid Attribute Value	0106	
	Processing Failure	0110	
	Duplicate SOP Instance	0111	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class Instance Conflict	0119	
	Missing Attribute	0120	
	Missing Attribute Value	0121	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	
	Image size is larger than Image Box size.	C603	
	Insufficient memory in printer to store the image.	C605	
	Combined Print Image Size is larger than Image Box size.	C613	
*	*	Any other status codes.	

A.7.3.2.8.13 SCP of the Basic Color Image Box SOP Class - N-SET

3325 Table A.7-79 lists the status codes that the SCP of the Basic Color Image Box SOP Class supports for the N-SET message and defines conditions, in which any of the listed Status Codes are sent.

[Describe the condition which causes the application to send the specific status codes in the N-GET-RSP on Printer SOP Class for the Print Service.]

Table A.7-79: Status Codes N-SET of the Basic Color Image Box SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Success	0000	
Warning	Image size is larger than Image Box size. The image has been demagnified.	B604H	

Status Class	Further Meaning	Status Code	Condition
	Requested Min Density or Max Density outside of printer's operating range.	B605H	
	Image size is larger than Image Box size. The image has been cropped to fit.	B609H	
	Image size or Combined Print Image Size is larger than Image Box size. The image or combined Print Image has been decimated to fit.	B60AH	
Failure	No Such Attribute	0105	
	Invalid Attribute Value	0106	
	Processing Failure	0110	
	Duplicate SOP Instance	0111	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class Instance Conflict	0119	
	Missing Attribute	0120	
	Missing Attribute Value	0121	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	
	Image size is larger than Image Box size.	C603	
	Insufficient memory in printer to store the image.	C605	
	Combined Print Image Size is larger than Image Box size.	C613	
*	*	Any other status codes.	

A.7.3.2.8.14 SCP of the Printer SOP Class

SCP of the Printer SOP Class – N-EVENT-REPORT

Table A.7-80 lists the status codes that the SCP of the Printer SOP Class supports for the N-EVENT-REPORT message and defines conditions, in which any of the listed Status Codes are sent.

[Describe the condition which causes the application to send the specific status codes in the N-GET-RSP on Printer SOP Class for the Print Service].

Table A.7-80: Status Codes N-EVENT-REPORT of the Printer SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Success	0000	

Status Class	Further Meaning	Status Code	Condition
Failure	Processing Failure	0110	
	No Such SOP Instance	0112	
	No Such Event Type	0113	
	No Such Argument	0114	
	Invalid Argument Value	0115	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class-Instance Conflict	0119	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	

SCP of the Printer SOP Class – N-GET

Table A.7-81 lists the status codes that the SCP of the Printer SOP Class supports for the N-GET message and defines conditions, in which any of the listed Status Codes are sent.

[Describe the condition which causes the application to send the specific status codes in the N-GET-RSP on Printer SOP Class for the Print Service.]

Table A.7-81: Status Codes N-GET of the Printer SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Success	0000	
Warning	Attribute List Error	0107	
Failure *	Processing Failure	0110	
	No Such SOP Instance	0112	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class-Instance Conflict	0119	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	
	*	Any other status codes.	

A.7.3.2.8.15 SCP the Basic Annotation Box SOP Class - N-SET

Table A.7-82 lists the status codes that the SCP of the Basic Annotation Box SOP Class supports for the N-SET message and defines conditions, in which any of the listed Status Codes are sent.

[Describe the condition which causes the application to send the specific status codes in the N-EVENT-REPORT-RSP on Printer SOP Class for the Print Service.]

Table A.7-82: Status Codes N-SET of the Basic Annotation BoxSOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Success	0000	
Failure	No Such Attribute	0105	
	Invalid Attribute Value	0106	
	Processing Failure	0110	
	Duplicate SOP Instance	0111	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class Instance Conflict	0119	
	Missing Attribute	0120	
	Missing Attribute Value	0121	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	
*	*	Any other status codes.	

A.7.3.2.8.16SCP of the Print Job SOP Class

SCP of the Print Job SOP Class – N-EVENT-REPORT

Table A.7-83 lists the status codes that the SCP of the Print Job SOP Class supports for the N-EVENT-REPORT message and defines conditions, in which any of the listed Status Codes are sent.

[Describe the condition which causes the application to send the specific status codes in the N-CREATE-RSP on Film Session SOP Class for the Print Service.]

Table A.7-83: Status Codes N-EVENT-REPORT of the Print Job SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Success	0000	
Failure	Processing Failure	0110	
	No Such SOP Instance	0112	
	No Such Event Type	0113	

Status Class	Further Meaning	Status Code	Condition
	No Such Argument	0114	
	Invalid Argument Value	0115	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class-Instance Conflict	0119	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	

SCP of the Print Job SOP Class – N-GET

Table A.7-84 lists the status codes that the SCP of the Print Job SOP Class supports for the N-GET message and defines conditions, in which any of the listed Status Codes are sent.

[Describe the condition which causes the application to send the specific status codes in the N-DELETE-RSP on Printer SOP Class for the Print Service.]

Table A.7-84: Status Codes N-GET of the Print Job SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Success	0000	
Warning	Attribute List Error	0107	
Failure	Processing Failure	0110	
	No Such SOP Instance	0112	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class-Instance Conflict	0119	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	
*	*	Any other status codes.	

A.7.3.2.8.17SCP of the Presentation LUT SOP Class

SCP of the Presentation LUT SOP Class – N-CREATE

Table A.7-85 lists the status codes that the SCP of the Presentation LUT SOP Class supports for the N-CREATE message and defines conditions, in which any of the listed Status Codes are sent.

[Describe the condition which causes the application to send the specific status codes in the N-ACTION-RSP on Film Box SOP Class for the Print Service.]

Table A.7-85: Status Codes N-CREATE of the Presentation LUT SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Success	0000	
Warning	Attribute List Error	0107	
	Attribute Value Out of Range	0116	
	Requested Min Density or Max Density outside of printer's operating range	B605	
Failure	No Such Attribute	0105	
	Invalid Attribute Value	0106	
	Processing Failure	0110	
	Duplicate SOP Instance	0111	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Missing Attribute	0120	
	Missing Attribute Value	0121	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	
*	*	Any other status codes.	

SCP of the Presentation LUT SOP Class – N-DELETE

Table A.7-86 lists the status codes that the SCP of the Presentation LUT SOP Class supports for the N-DELETE message and defines conditions, in which any of the listed Status Codes are sent.

[Describe the condition which causes the application to send the specific status codes in the N-SET-RSP on Grayscale Image Box SOP Class for the Print Service.]

Table A.7-86: Status Codes N-DELETE of the Presentation LUT SOP Class - SCP

Status class	Further Meaning	Status Code	Condition
Success	Success	0000	
Failure	Processing Failure	0110	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	

	Class Instance Conflict	0119	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	

A.7.3.2.8.18SCP of the Printer Configuration Retrieval SOP Class – N-GET

Table A.7-87 lists the status codes that the SCP of the Printer Configuration SOP Class supports for the N-GET message and defines conditions, in which any of the listed Status Codes are sent.

[Describe the condition which causes the application to send the specific status codes in the N-SET-RSP on Color Image Box SOP Class for the Print Service.]

Table A.7-87: Status Codes N-GET of the Printer Configuartion Retrieval SOP Class - SCP

Status Class	Further Meaning	Status Code	Condition
Success	Success	0000	
Warning	Attribute List Error	0107	
Failure	Processing Failure	0110	
	No Such SOP Instance	0112	
	Invalid Object Instance	0117	
	No Such SOP Class	0118	
	Class-Instance Conflict	0119	
	Refused: Not Authorized	0124	
	Duplicate Invocation	0210	
	Unrecognized Operation	0211	
	Mistyped Argument	0212	
	Resource Limitation	0213	
*	*	Any other status codes.	

A.7.3.3 DÍCOM Web Services

A.7.3.3.1 General Status Codes

This section describes the common status code behavior and handling all the supported transaction.

A.7.3.3.1.1 Common Transaction as Origin Server

Table A.7-88 lists the status codes that an Origin Server supports for all transactions and the condition in which any of the listed status codes is sent:

[Describe below the condition in which the application sends these status codes for any transaction as Origin Server.]

Table A.7-88: Status Codes of Origin Server for all transactions **Status Class**	**Code**	**Condition**
Success	200 (Success)	
	201 (Created)	
	202 (Accepted)	
	203 (Non-Authoritative Information)	
	204 (No-Content)	
	205 (Reset Content)	
	206 (Partial Content)	
Redirection	301 (Moved Permanently)	
	303 (See Other)	
	304 (Not Modified)	
Client Error	400 (Bad Request)	
	401 (Unauthorized)	
	403 (Forbidden)	
	404 (Not Found)	
	405 (Method Not Allowed)	
	406 (Not AccepTable)	
	409 (Conflict)	
	410 (Gone)	
	411 (Length Required)	
	413 (Payload Too Large)	
	414 (URI Too Long)	
	415 (Unsupported Media Type)	
Server Error	500 (Internal Server Error)	
	501 (Not Implemented)	
	503 (Service Unavailable)	
	505 (HTTP Version Not Supported)	

A.7.3.3.1.2 Common Transaction as User Agent

Table A.7-89 lists the status codes that a User Agent supports for all transactions and the defines the application behavior, when encountering any of the listed Status Codes:

[Describe below the behavior of the application when it receives various status codes in any supported transaction by the User Agent.]

Table A.7-89: Status Codes of User Agent for all transactions

Status Class	Code	Behavior
Success	200 (Success)	
	201 (Created)	
	202 (Accepted)	
	203 (Non-Authoritative Information)	
	204 (No-Content)	
	205 (Reset Content)	
	206 (Partial Content)	
Redirection	301 (Moved Permanently)	
	303 (See Other)	
	304 (Not Modified)	
Client Error	400 (Bad Request)	
	401 (Unauthorized)	
	403 (Forbidden)	
	404 (Not Found)	
	405 (Method Not Allowed)	
	406 (Not AccepTable)	
	409 (Conflict)	
	410 (Gone)	
	411 (Length Required)	
	413 (Payload Too Large)	
	414 (URI Too Long)	
	415 (Unsupported Media Type)	
Server Error	500 (Internal Server Error)	
	501(Not Implemented)	
	503 (Service Unavailable)	
	505 (HTTP Version Not Supported)	

A.7.3.3.2 URI Web Service

A.7.3.3.2.1 URI Web Service as Origin Server

Table A.7-90 lists the status codes that an Origin Server supports for the URI Web Service and the condition in which any of the listed status codes is sent:

[Describe below the condition in which the application sends the specific status codes in the URI Service response as Origin Server.]

Table A.7-90: Status Codes of Origin Server for URI Service

Status Class	Code	Condition
Success	200 (OK)	
Failure	400 (Bad)	
	404 (Not Found)	
	410 (Gone)	

A.7.3.3.2.2 URI Web Service as User Agent

TableA.7-91 lists the status codes that a User Agent supports for the URI Web Service and the defines the application behavior, when encountering any of the listed Status Codes:

[Describe below the behavior of the application when it receives various status codes in the URI Service response; like logging the error code or retrying the request.]

TableA.7-91: Status Codes of User Agent for URI Service

Status	Code	Behaviour
Success	200 (OK)	
Failure	400 (Bad)	
	404 (Not Found)	
	410 (Gone)	
*	Any other code	

A.7.3.3.3 Studies Web Service

A.7.3.3.3.1 Retrieve Transaction as Origin Server

Table A.7-92 lists the status codes that an Origin Server supports for the Retrieve Transaction of the Studies Web Service and the condition in which any of the listed status codes is sent:

[Describe below the condition in which the application sends the specific status codes in the Retrieve Transaction response as Origin Server.]

Table A.7-92: Status Codes of Origin Server for Retrieve Transaction

Status	Code	Condition
Success	200 (OK)	
	206 (Partial Content)	
Failure	400 (Bad Request)	
	404 (Not Found)	
	406 (Not AccepTable)	
	410 (Gone)	
	413 (Payload Too Large)	

A.7.3.3.3.2 Retrieve Transaction as User Agent

Table A.7-93 lists the status codes that a User Agent supports for the Retrieve Transaction of the Studies Web Service and the defines the application behavior, when encountering any of the listed Status Codes:

[Describe below the behavior of the application when it receives various status codes in the Retrieve Transaction response]

Table A.7-93: Status Codes of User Agent for Retrieve Transaction

Status	Code	Behavior
Success	200 (OK)	
	206 (Partial Content)	
Failure	400 (Bad Request)	
	404 (Not Found)	
	406 (Not AccepTable)	
	410 (Gone)	
	413 (Payload Too Large)	
*	Any other code	

A.7.3.3.3.3 Store Transaction as Origin Server

Table A.7-94 lists the status codes that an Origin Server supports for the Sore Transaction of the Studies Web Service and the condition in which any of the listed status codes is sent:

[Describe below the condition in which the application sends the specific status codes in the Store Transaction response as Origin Server.]

Table A.7-94: Status Codes of Origin Server for Store Transaction

Status	Code	Condition
Success	200 (OK)	
	202 (Accepted)	
Failure	400 (Bad Request)	
	409 (Conflict)	
	415 (Unsupported Media Type)	

A.7.3.3.3.4 Store Transaction as User Agent

Table A.7-95 lists the status codes that a User Agent supports for the Store Transaction of the Studies Web Service and the defines the application behavior, when encountering any of the listed Status Codes:

[Describe below the behavior of the application when it receives various status codes in the Retrieve Transaction response]

Table A.7-95: Status Codes of User Agent for Store Transaction

Status	Code	Behaviour
Success	200 (OK)	
	202 (Accepted)	

Status	Code	Behaviour
Failure	400 (Bad Request)	
	409 (Conflict)	
	415 (Unsupported Media Type)	
*	Any other code	

A.7.3.3.3.5 Search Transaction as Origin Server

Table A.7-96 lists the status codes that an Origin Server supports for the Search Transaction of the Studies Web Service and the condition in which any of the listed status codes is sent:

[Describe below the condition in which the application sends the specific status codes in the Search Transaction response as Origin Server.]

Table A.7-96: Status Codes of Origin Server for Search Transaction

Status	Code	Condition
Success	200 (OK)	
	204 (No Content)	
Failure	400 (Bad Request)	
	413 (Payload Too Large)	

A.7.3.3.3.6 Search Transaction as User Agent

Table A.7-97 lists the status codes that a User Agent supports for the Search Transaction of the Studies Web Service and the defines the application behavior, when encountering any of the listed Status Codes:

[Describe below the behavior of the application when it receives various status codes in the Retrieve Transaction response]

Table A.7-97: Status Codes of User Agent for Search Transaction

Status	Code	Behavior
Success	200 (OK)	
	204 (No Content)	
Failure	400 (Bad Request)	
	413 (Payload Too Large)	
*	Any other code	

A.7.3.3.4 Worklist Web Service

A.7.3.3.4.1 Create Transaction as Origin Server

Table A.7-98 lists the status codes that an Origin Server supports for the Create Transaction of the Worklist Web Service and the condition in which any of the listed status codes is sent:

[Describe below the condition in which the application sends the specific status codes in the Create Transaction response as Origin Server.]

Table A.7-98: Status Codes of Origin Server for Create Transaction

Status	Code	Condition
Success	201 (Created)	
Failure	400 (Bad Request)	
	409 (Conflict)	

A.7.3.3.4.2 Create Transaction as User Agent

Table A.7-99 lists the status codes that a User Agent supports for the Create Transaction of the Worklist Web Service and the defines the application behavior, when encountering any of the listed Status Codes:

[Describe below the behavior of the application when it receives various status codes in the Create Transaction response]

Table A.7-99: Status Codes of User Agent for Create Transaction

Status	Code	Behavior
Success	201 (Created)	
Failure	400 (Bad Request)	
	409 (Conflict)	
*	Any other code	

A.7.3.3.4.3 Retrieve Workitem Transaction as Origin Server

Table A.7-100 lists the status codes that an Origin Server supports for the Retrieve Workitem Transaction of the Worklist Web Service and the condition in which any of the listed status codes is sent:

[Describe below the condition in which the application sends the specific status codes in the Retrieve Worklist Transaction response as Origin Server.]

Table A.7-100: Status Codes of Origin Server for Retrieve Workitem Transaction

Status	Code	Condition
Success	200 (OK)	
Failure	400 (Bad Request)	
	404 (Not Found)	
	409 (Conflict)	
	410 (Gone)	

A.7.3.3.4.4 Retrieve Workitem Transaction as User Agent

Table A.7-101 lists the status codes that a User Agent supports for the Retrieve Workitem Transaction of the Worklist Web Service and the defines the application behavior, when encountering any of the listed Status Codes:

[Describe below the behavior of the application when it receives various status codes in the Retrieve Worklist Transaction response]

Table A.7-101: Status Codes of User Agent for Retrieve Workitem Transaction

Status	Code	Behavior
Success	200 (OK)	

Failure	400 (Bad Request)	
	404 (Not Found)	
	409 (Conflict)	
	410 (Gone)	
*	Any other code	

A.7.3.3.4.5 Update Workitem Transaction as Origin Server

Table A.7-102 lists the status codes that an Origin Server supports for the Update Workitem Transaction of the Worklist Web Service and the condition in which any of the listed status codes is sent:

[Describe below the condition in which the application sends the specific status codes in the Update Worklist Transaction response as Origin Server.]

Table A.7-102: Status Codes of Origin Server for Update Workitem Transaction

Status	Code	Condition
Success	200 (OK)	
Failure	400 (Bad Request)	
	404 (Not Found)	
	409 (Conflict)	
	410 (Gone)	

A.7.3.3.4.6 Update Workitem Transaction as User Agent

Table A.7-103 lists the status codes that a User Agent supports for the Update Workitem Transaction of the Worklist Web Service and the defines the application behavior, when encountering any of the listed Status Codes:

[Describe below the behavior of the application when it receives various status codes in the Update Worklist Transaction response]

Table A.7-103: Status Codes of User Agent for Update Workitem Transaction

Status	Code	Behavior
Success	200 (OK)	
Failure	400 (Bad Request)	
	404 (Not Found)	
	409 (Conflict)	
	410 (Gone)	
*	Any other code	

A.7.3.3.4.7 Change Workitem State Transaction as Origin Server

Table A.7-98 lists the status codes that an Origin Server supports for the Change Workitem State Transaction of the Worklist Web Service and the condition in which any of the listed status codes is sent:

[Describe below the condition in which the application sends the specific status codes in the Change Worklist State Transaction response as Origin Server.]

Table A.7-104: Status Codes of Origin Server for Change Workitem State Transaction

Status	Code	Condition
Success	200 (OK)	
Failure	400 (Bad Request)	
	404 (Not Found)	
	409 (Conflict)	
	410 (Gone)	

A.7.3.3.4.8 Change Workitem State Transaction as User Agent

Table A.7-105 lists the status codes that a User Agent supports for the Change Workitem Transaction of the Worklist Web Service and the defines the application behavior, when encountering any of the listed Status Codes:

[Describe below the behavior of the application when it receives various status codes in the Change Worklist State Transaction response]

Table A.7-105: Status Codes of User Agent for Change Workitem State Transaction

Status	Code	Behavior
Success	200 (OK)	
Failure	400 (Bad Request)	
	404 (Not Found)	
	409 (Conflict)	
	410 (Gone)	
*	Any other code	

A.7.3.3.4.9 Request Cancelation Transaction as Origin Server

Table A.7-106 lists the status codes that an Origin Server supports for the Request Cancelation of the Worklist Web Service and the condition in which any of the listed status codes is sent:

[Describe below the condition in which the application sends the specific status codes in the Request Cancellation Transaction response as Origin Server.]

Table A.7-106: Status Codes of Origin Server for Request Cancellation Transaction

Status	Code	Condition
Success	202 (Accepted)	
Failure	400 (Bad Request)	
	404 (Not Found)	
	409 (Conflict)	

A.7.3.3.4.10 Request Cancelation Transaction as User Agent

Table A.7-107 lists the status codes that a User Agent supports for the Request Cancelation Transaction of the Worklist Web Service and the defines the application behavior, when encountering any of the listed Status Codes:

[Describe below the behavior of the application when it receives various status codes in the Request Cancellation Transaction response]

Table A.7-107: Status Codes of User Agent for Request Cancellation Transaction

Status	Code	Behavior
Success	202 (Accepted)	
Failure	400 (Bad Request)	
	404 (Not Found)	
	409 (Conflict)	
*	Any other code	

A.7.3.3.4.11 SearchTransaction as Origin Server

Table A.7-108 lists the status codes that an Origin Server supports for the Search Transaction of the Worklist Web Service and the condition in which any of the listed status codes is sent:

[Describe below the condition in which the application sends the specific status codes in the Search Transaction response as Origin Server.]

Table A.7-108: Status Codes of Origin Server for Search Transaction

Status	Code	Condition
Success	200 (OK)	
	204 (No Content)	
	206 (Partial Content)	
Failure	400 (Bad Request)	
	413 (Payload Too Large)	

A.7.3.3.4.12Search Transaction as User Agent

Table A.7-109 lists the status codes that a User Agent supports for the Search Transaction of the Worklist Web Service and the defines the application behavior, when encountering any of the listed Status Codes:

[Describe below the behavior of the application when it receives various status codes in the Search Transaction response]

Table A.7-109: Status Codes of User Agent for Search Transaction

Status	Code	Behavior
Success	200 (OK)	
	204 (No Content)	
	206 (Partial Content)	
Failure	400 (Bad Request)	
	413 (Payload Too Large)	
*	Any other code	

A.7.3.3.4.13 Subscribe Transaction as Origin Server

Table A.7-98 lists the status codes that an Origin Server supports for the Subscribe Transaction of the Worklist Web Service and the condition in which any of the listed status codes is sent:

Describe below the condition in which the application sends the specific status codes in the Subscribe Transaction response as Origin Server.]

Table A.7-110: Status Codes of Origin Server for Subscribe Transaction

Status	Code	Condition
Success	201 (Created)	
Failure	400 (Bad Request)	
	403 (Forbidden)	
	404 (Not Found)	

A.7.3.3.4.14 Subscribe Transaction as User Agent

Table A.7-99 lists the status codes that a User Agent supports for the Subscribe Transaction of the Worklist Web Service and the defines the application behavior, when encountering any of the listed Status Codes:

[Describe below the behavior of the application when it receives various status codes in the Subscribe Transaction response]

Table A.7-111: Status Codes of User Agent for Subscribe Transaction

Status	Code	Behavior
Success	201 (Created)	
Failure	400 (Bad Request)	
	403 (Forbidden)	
	404 (Not Found)	
*	Any other code	

A.7.3.3.4.15 Unsubscribe Transaction as Origin Server

Table A.7-112 lists the status codes that an Origin Server supports for the Unsubscribe Transaction of the Worklist Web Service and the condition in which any of the listed status codes is sent:

[Describe below the condition in which the application sends the specific status codes in the Unsubscribe Transaction response as Origin Server.]

Table A.7-112: Status Codes of Origin Server for Unsubscribe Transaction

Status	Code	Condition
Success	200 (OK)	
Failure	400 (Bad Request)	
	404 (Not Found)	

A.7.3.3.4.16 Unsubscribe Transaction as User Agent

Table A.7-113 lists the status codes that a User Agent supports for the Unsubscribe Transaction of the Worklist Web Service and the defines the application behavior, when encountering any of the listed Status Codes:

[Describe below the behavior of the application when it receives various status codes in the Unsubscribe Transaction response]

Table A.7-113: Status Codes of User Agent for Unsubscribe Transaction

Status	Code	Behavior
Success	200 (OK)	
Failure	400 (Bad Request)	
	404 (Not Found)	
*	Any other code	

A.7.3.3.4.17 Suspend Global Subscription Transaction as Origin Server

Table A.7-114 lists the status codes that an Origin Server supports for the Suspend Global Subscription Transaction of the Worklist Web Service and the condition in which any of the listed status codes is sent:

[Describe below the condition in which the application sends the specific status codes in the Suspend Global Subscription Transaction response as Origin Server.]

Table A.7-114: Status Codes of Origin Server for Suspend Global Subscription Transaction

Status	Code	Condition
Success	200 (OK)	
Failure	400 (Bad Request)	
	404 (Not Found)	

A.7.3.3.4.18 Suspend Global Subscription Transaction as User Agent

Table A.7-115 lists the status codes that a User Agent supports for the Suspend Global Subscription Transaction of the Worklist Web Service and the defines the application behavior, when encountering any of the listed Status Codes:

[Describe below the behavior of the application when it receives various status codes in the Suspend Global Subscription Transaction response]

Table A.7-115: Status Codes of User Agent for Suspend Global Subscription Transaction

Status	Code	Behavior
Success	200 (OK)	
Failure	400 (Bad Request)	
	404 (Not Found)	
*	Any other code	

A.7.3.3.5 Non-Patient Instance Web Service

A.7.3.3.5.1 Retrieve Transaction as Origin Server

Table A.7-116 lists the status codes that an Origin Server supports for the Retrieve Transaction of the Non-Patient Instance Web Service and the condition in which any of the listed status codes is sent:

[Describe below the condition in which the application sends the specific status codes in the Retrieve Transaction response as Origin Server.]

Table A.7-116: Status Codes of Origin Server for Retrieve Transaction

Status	Code	Condition
Success	200 (OK)	
Failure Success	400 (Bad Request)	
	404 (Not Found)	
	406 (Unsupported Media Type)	

A.7.3.3.5.2 Retrieve Transaction as User Agent

Table A.7-117 lists the status codes that a User Agent supports for the Retrieve Transaction of the Non-Patient Instance Web Service and the defines the application behavior, when encountering any of the listed Status Codes:

[Describe below the behavior of the application when it receives various status codes in the Retrieve Transaction response]

Table A.7-117: Status Codes of User Agent for Retrieve Transaction

Status	Code	Behavior
Success	200 (OK)	
Failure	400 (Bad Request)	
	404 (Not Found)	
	406 (Unsupported Media Type)	
*	Any other code	

A.7.3.3.5.3 Store Transaction as Origin Server

Table A.7-118 lists the status codes that an Origin Server supports for the Store Transaction of the Non-Patient Instance Web Service and the condition in which any of the listed status codes is sent:

[Describe below the condition in which the application sends the specific status codes in the Store Transaction response as Origin Server.]

Table A.7-118: Status Codes of Origin Server for Search Transaction

Status	Code	Condition
Success	200 (OK)	
	202 (Accepted)	
Failure	400 (Bad Request)	
	404 (Not Found)	
	409 (Conflict)	
	415 (Unsupported Media Type)	

A.7.3.3.5.4 Store Transaction as User Agent

Table A.7-119 lists the status codes that a User Agent supports for the Store Transaction of the Non-Patient Instance Web Service and the defines the application behavior, when encountering any of the listed Status Codes:

[Describe below the behavior of the application when it receives various status codes in the Store Transaction response]

Table A.7-119: Status Codes of User Agent for Store Transaction

Status	Code	Behavior
Success	200 (OK)	
	202 (Accepted)	
Failure	400 (Bad Request)	
	404 (Not Found)	
	409 (Conflict)	
	415 (Unsupported Media Type)	
*	Any other code	

A.7.3.3.5.5 Search Transaction as Origin Server

Table A.7-120 lists the status codes that an Origin Server supports for the Search Transaction of the Non-Patient Instance Web Service and the condition in which any of the listed status codes is sent:

[Describe below the condition in which the application sends the specific status codes in the Search Transaction response as Origin Server.]

Table A.7-120: Status Codes of Origin Server for Search Transaction

Status	Code	Condition
Success	200 (OK)	
Failure	406 (Unsupported Media Type)	
	413 (Payload Too Large)	

A.7.3.3.5.6 Search Transaction as User Agent

Table A.7-121 lists the status codes that a User Agent supports for the Search Transaction of the Non-Patient Instance Web Service and the defines the application behavior, when encountering any of the listed Status Codes:

[Describe below the behavior of the application when it receives various status codes in the Search Transaction response]

Table A.7-121: Status Codes of User Agent for Search Transaction

Status	Code	Behavior
Success	200 (OK)	
Failure	406 (Unsupported Media Type)	
	413 (Payload Too Large)	
*	Any other code	

A.8 Security

A.8.1 Introduction

The security section describes security features implemented by this product. It includes description of non-DICOM network protocols, information to configure firewalls and application whitelists, list of supported DICOM security profiles as well as Web Security features. Additionally, secured media storage, VPN, etc are also specified in this security section.

A.8.2 External Network Requirements

[Based on which profiles are supported, the following sentence may have to be adapted.]

Table A.8-1 describes additional non-DICOM network protocols that are used by <Product> to set the current time for the implementation, to obtain the network addresses for the implementation, to obtain the descriptions, addresses and capabilities of other devices with which the implementation may communicate using the DICOM Protocol, etc.

[From this Table, delete any Profiles/Actors/Transactions that are not supported at all If the Profile is supported using secure mechanism use Y for yes in the Security Support Column, otherwise use N for No]

Table A.8-1: External Network Requirements

Profile	Actor	Transaction	Protocol Used	RFCs	Security support	Reference
Basic Time Synchronization	NTP Server	Maintain Time	NTP	RFC5905; *<<RFC5906 RFC8633>>*		A.11.1.1
		Find NTP Servers	NTP	RFC5905; *<<RFC5906 RFC8633>>*		A.11.1.1
	NTP Client	Maintain Time	NTP	RFC5905; *<<RFC5906 RFC8633>>*		A.11.1.1
		Find NTP Servers	NTP	RFC5905; *<<RFC5906 RFC8633>>*		A.11.1.1
	SNTP Client	Maintain Time	SNTP	RFC2030		A.11.1.1
	DHCP Server	Find NTP Servers	DHCP	RFC2131; RFC2132; RFC2563		A.11.1.1
	DHCP Client	Find NTP Servers	DHCP	RFC2131; RFC2132; RFC2563		A.11.1.1
Basic Network Address Management	DHCP Server	Configure DHCP Server	-	-		A.11.1.2
		Find and Use DHCP Server	DHCP	RFC2131; RFC2132;		A.11.1.2

				RFC2563		
		Maintain Lease	DHCP	RFC2131; RFC2132		A.11.1.2
		Resolve Hostname	DNS	RFC1035; RFC2181		A.11.1.2
		DDNS Coordination	DNS	RFC2136		A.11.1.2
	DHCP Client	Find and Use DHCP Server	DHCP	RFC2131; RFC2132; RFC2563		A.11.1.2
		Maintain Lease	DHCP	RFC2131; RFC2132		A.11.1.2
	DNS Server	DDNS Coordination	DNS	RFC2136; *<<RFC4033 RFC4034 RFC4035>>*		A.11.1.2
		Resolve Hostname	DNS	RFC1035; RFC2181; *<<RFC4033 RFC4034 RFC4035>>*		A.11.1.2
	DNS Client	Resolve Hostname	DNS	RFC1035; RFC2181; *<<RFC4033 RFC4034 RFC4035>>*		A.11.1.2
Application Configuration Management	LDAP Server	Query LDAP Server	LDAP	RFC2251		A.11.1.3
		Update LDAP Server	LDAP	RFC2251		A.11.1.3
		Maintain LDAP Server	LDAP	RFC2849		A.11.1.3
	LDAP Client	Find LDAP Server	LDAP	RFC2181; RFC2219; RFC2782		A.11.1.3
		Query LDAP Server	LDAP	RFC2251		A.11.1.3
		Update LDAP Server	LDAP	RFC2251		A.11.1.3
	DNS Server	Find LDAP Server	LDAP	RFC2181; RFC2219;		A.11.1.3

				RFC2782		
DNS Service Discovery	DNS Server	Find DICOM Service	DNS	RFC2136; RFC2181; RFC2219; RFC2782; RFC6762; RFC6763; RFC8553; *<<RFC4033 RFC4034 RFC4035>>*		A.11.1.4
	DNS Client	Find DICOM Service	DNS	RFC2136; RFC2181; RFC2219; RFC2782; RFC6762; RFC6763; RFC8553; *<<RFC4033 RFC4034 RFC4035>>*		A.11.1.4
[Any additional profile]						

A.8.3 TCP Port Configuration

See Section A.6 Configuration for information on DICOM and other protocol Ports usage. This section contains helpful information for product administrators to configure firewall, application white list, etc.

[It is advised to make sure enough information is provided to support security configuration. For example, for Firewall configuration, list all other non-DICOM ports and/or provide a reference to any other security document that may be useful for the reader.]

A.8.4 DICOM Security ProfilesSupport

A.8.4.1 Secure Use and User Identity Profiles

Table A.8-2 lists the Secure Use and User Identity Profles:

[In Table A.8-2 below, keep all Profiles in the Table and mark them with Y if supported or N if not. Do not remove rows that are not supported.]

Table A.8-2: Secure Use and User Identity Profiles

Profile	Creator/Sender	Consumer/Receiver	Reference
Online Electronic Storage Secure Use			A.11.2.1
Audit Trail Message Format			A.11.2.2

Audit Trail Message Transmission Profile - SYSLOG-TLS			A.11.2.3
Audit Trail Message Transmission Profile - SYSLOG-UDP			A.11.2.4
Basic User Identity Association			A.8.5
User Identity Plus Passcode Association			A.8.5
Kerberos Identity Negotiation Association			A.8.5
Generic SAML Assertion Identity Negotiation Association			A.8.5
[Any additional profile]			

3660

A.8.4.2 Secure Transport Connection Profiles

[In Table A.8-3 below, keep all Profiles in the Table and mark them as supported or not.]

Table A.8-3 describes the Secure Transport Connection Profiles supported by the product. Accepted cipher suites are described in the section listed in reference column.

3665 **Table A.8-3: Secure Transport Connection Profiles**

Profile	Sender	Receiver	Reference
BCP195 TLS Secure Transport Connection			A.11.2.5
Non-Downgrading BCP195 TLS Secure Transport Connection			A.11.2.5
Extended BCP195 TLS Secure Transport Connection			A.11.2.5
[Any additional or retired TLS Profile]			

A.8.4.3 Media Storage Security Profiles

See Section A.5.4 Media Service for information on supported secured Application Profiles and secured media.

Table A.8-4 details the encryption mechanisms that are supported when handling with Secure Media.

3670 *[In the following Table, keep all options and mark them with Y fif supported or N if not.]*

Table A.8-4: Content Encryption used for secured Media

Encryption	File Set Creator/File Set Updater	File Set Reader
AES		
Triple-DES		
[Other encryption]		

[In the following Table, keep all options and mark them with Y fif supported or N if not.]

Table A.8-5: Content types used for secured Media

Content types	File Set Creator/File Set Updater	File Set Reader
Signed-data		
Digested-data		
[Other content type]		

3675

[In the following Table, keep all options and mark them with Y fif supported or N if not.]

Table A.8-6: Digest algorithms used for secured Media

Digest algorithms	File Set Creator/File Set Updater	File Set Reader
SHA-1		
SHA256		
SHA384		
SHA512		
[Other digest algorithm]		

A.8.4.4 Attibute Confidentiality Profiles

3680 Table A.8-7 lists supported Attribute Confidentiality Profiles and options:

[In Table A.8-7, keep all options and mark them with Y fif supported or N if not and add any private option and/or private profiles. For each option, indicate whether the option is supported as de-identifier, as re-identifier and if some configurability can be performed in the way anonymization applies.]

Table A.8-7: Attribute Confidentiality Profiles

Profile	Option	De-identifier	Re-identifier	Configurable
Basic Application Level Confidentiality	Basic Profile			
	Clean Pixel Data			
	Clean Recognizable Visual Features			
	Clean Graphics			
	Clean Structured Content			
	Clean Descriptors			
	Retain Longitudinal Temporal Information with Full Dates			
	Retain Longitudinal Temporal Information with Modified Dates			
	Retain Patient Characteristics			
	Retain Device Identity			
	Retain Institution Identity			
	Retain UIDs			
	Retain Safe Private			

	[Additional option]			
[Any Additional confidentiality profiles]	*[Any option if applicable]*			

3685

[Describe here the general strategy that applies on the product for new attributes that could be defined later in the standard. Will they be kept, removed or can the behavior be configured?
If configurable, does the configuration applies to all new elements or will it be configurable on a data element per data element basis.]

3690 See section A.11.2.6 for implementation details.

A.8.4.5 Digital Signature Profiles

[List here any Digital Signature Profile that your product may support. Also document the details of the supported profiles in Section A.11.2.7. Mark this section as N/A if your product does not support any Digital Signature profile.]

A.8.4.6 Additional DICOM Security Profiles

3695 *[List here any additional DICOM Security Profile that your product may support. Mark this section as N/A if your product does not support any additional profile.]*

A.8.5 User Identity Negotiation Support

[If your product does not support any User Identity Negotiation, mark this section as N/A and delete sub-sections.]

A.8.5.1 Association Initiation

3700 Table A.8-8 list User Identity Negotiation support an Association Initiator:

Table A.8-8: User Identity Negotiation as Association Initiator

User Identity Negotiation	Supported	Requested Value
User-Identity-Type		*<<1* *2* *3* *4* *5>>*
Positive-response-requested		*<<0* *1>>*

[If your product implements User Identity Negotiation without supporting User Identity profile listed in Section A.8.5, describe here additional encryption, MAC and signature algorithms that your product supports beyond the minimal
3705 *requirements specified in RFC 7519 (e.g., for support of JSON Web Token (JWT) – User identity type=5).]*

A.8.5.2 Association Acceptance

Table A.8-9 list User Identity Negotiation support an Association Acceptor:

Table A.8-9: User Identity Negotiation as Association Acceptor

User Identity Negotiation	Supported	Supported Value
User identity type		*<<1* *2* *3* *4* *5>>*

[Describe here how your product supports User Identity negotiation to authenticate the user and rules applied to this authentication. If this information is provided in an external document, provide the reference to this document in this section instead.]

A.8.6 Web Services Security Features

[Describe in this section the security mechanisms utilized by the implementation. In particular (but not limited to), consider:

- *Audit control mechanism used*
- *Access authorizing policy*
- *Personal authentication mechanisms*
- *De-identification management*
- *Certification management tools and process*
- *Web server attack handling*

These descriptions may be just a reference to other section of the Conformance Statement if these mechanisms are common with DICOM networking services described before or may contain references to other relevant documentation.]

A.8.7 Other Security Features

[Describe in the following sub-sections any additional security features not covered in previous sections that your product may support.]

A.8.7.1 Media Storage Security

[Describe here any support of additional media storage security features such as encrypted media. Put "N/A" if none.]

A.8.7.2 Network Security

[Describe here any support additional network security features such as VPN, etc. Put "N/A" if none.]

A.8.7.3 Other Security Features

[Describe here any additional supported security features not described in previous sub-sections such as physical security features (access card, tokens, two factor authentications, OAuth, IHE IUA Profile etc.). If available, you can also provide a link to a MDS2 statement here. Put "N/A" if none.]

The following Appendices should be numbered A.A to A.D as indicated in the header text. (rather than A.9 to A.12) to indicate that these will be Appendices in Conformance Statement.

Appendices

A.9 A.A Information Object Definitions (IODs)

[Note that the appendices defined in the following subsections are a mandatory part of the DICOM Conformance Statement and must be filled for any product that creates DICOM objects.]

[For each IOD (including Real Time Video objects) that is created by the system (See overview Section 1.1.1) provide an appendix A.A.x.]

[Throughout all the Tables in this Annex, use the Tag order as defined in the DICOM standard in order to ease validation against the DICOM standard]

This section provides the detailed content of the IODs natively created by <*Product*>, e.g images created by an acquisition modality or evidence documents created on a review workstation (e.g. all IODs that are marked in the Created Column in Table A.1-1). Details on attribute coercion are defined in Section 7.3A.5.2.5.2.

Throughout the Tables listed in Annex A the following codes are used for the Source and Presence columns.

In the Source Column, the following values can be used:

- FIXED: the value is pre-defined and cannot be modified.
- GENERATED: the value is generated by the system.
- CONFIGURATION: the value is copied from system configuration.
- 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.
- SRC_INSTANCE: the value is copied from previously created instances.

The Presence columns reflect the usage of the module, functional group macro, attributes, or value in the <Product>Implementation and is not necessarily the same as defined in the DICOM standard. For the Presence column the following values can be used:

- ALWAYS: the module, functional group macro, attributes or value is always present
- CONDITIONAL: the presence of the the module, functional group macro, attributes or value is dependent on a condition. The condition must be listed in the Conditions column
- EMPTY: The attribute is present but without a value (zero length)

A.9.1 A.A.1 Information shared across multiple IODs

A.9.1.1 A.A.1.1 Shared Modules

All IODs generated by the system use the common modules listed in Table A.9-1 or a subset of them, as defined in the IOD specific subsections below.

[The Table lists the most common modules; additional modules can be appended at the end. Complete the following Table and provide information on all attributes that are populated in your IOD, add additional attribute, remove attributes not used and provide a description how the attributes are populated.]

[For the Source use one of the pre-defined terms above, also note that multiple values are allowed, however an explanation of the conditions under which one or the other value is used, must be provided.]

[If in the value columns multiple different values are supported, they can be defined in the shared values and code set subsection and a reference to the respective Table can be entered in the value column.]

[For the Presence column the values defined above can be used. Also note that multiple values are allowed, however an explanation of the conditions under which one or the other value is used, must be provided.]

Table A.9-1: Modules and attributes shared across IODs

Attribute Name	Tag	Source	Presence of Attribute	Presence of Value	Value	Conditions	Comment
Patient Module							
Patient's Name	(0010,0010)	*MWL/ USER*	*ALWAYS*	*CONDITIONAL*		*Value empty if unidentified Patient*	*See Annex D*
…							
General Study Module							
Study Instance UID	(0018,000D)	*MWL/ GENERATED*	*ALWAYS*	*ALWAYS*			
Study Date	(0008,0020)	*GENERATED*	*ALWAYS*	*ALWAYS*	*Current Date*		
Accession Number	(0008,0050)	*MWL/EMPTY*	*ALWAYS*				*See Annex D*
…							
General Series Module							
Modality	(0008,0060)	*FIXED*	*ALWAYS*	*ALWAYS*	*CT*		
Series Instance UID	(0020,000E)	*GENERATED*	*ALWAYS*	*ALWAYS*			
…							
Frame of Reference Module							
…							
General Equipment Module							
…							
Enhanced General Equipment Module							
General Image Module							
…							

Attribute Name	Tag	Source	Presence of Attribute	Presence of Value	Value	Conditions	Comment
Image Pixel Module							
Photometric Interpretation	(0028,0004)	*GENERATED*	*ALWAYS*		*See Section A.1.4*		
…							
Multiframe Functional Groups Module							
Shared Functional Groups Sequence	(5200,9229)						
> [*Include one or more Functional Group Macros documented in Section A.1.2 or in IOD specific subsections]*							
Per-Frame Functional Groups Sequence	(5200,9230)						
> *[Include one or more Functional Group Macros documented in Section A.1.2 or in IOD specific subsections]*							
…							
Mutliframe Dimension Module							
…							
Acquisition Context							
…							
SOP Common Module							
Specific Characterset	(0008,0005)	*CONFIGURATION*	*CONDITIONAL*	*ALWAYS*	*See Section 5.5*		
…							

Attribute Name	Tag	Source	Presence of Attribute	Presence of Value	Value	Conditions	Comment
Private Data Element Characteristics Sequence	*(0008,0300)*	*GENERATED*	*CONDITIONAL*	*CONDITIONAL*	*Only present in IODs that use private data elements*	*Used if IOD contains private Attributes*	
>>…							

[If your product uses other modules that are shared between multiple IODs created on your product, append them to the Table.]

A.9.1.2 A.A.1.2 Common Functional Group Macros

Table A.9-2 lists the Common Functional Group Macros that can either be used as part of the Shared Functional Groups Sequence (5200,9229) or as part of the Per-Frame Functional Groups Sequence (5200,9230) of enhanced image IODs.

[Modify the Tables below to meet your product implementation. For content of the columns, see the instructions in A.1.1 Shared Modules:

- *Add Macros that are not listed, but used in IODs generated by your product*
- *Remove Macros that are not used by any of your IODs*
- *Modify/Add the attributes as needed*

If you do not create any enhanced IODs mark this section as N/A and remove the Table below.]

Table A.9-2: Functional Group Macros and Attributes shared across IODs

Attribute Name	Tag	Source	Presence of Attribute	Presence of Value	Value	Conditions	Comment
Pixel Measures							
Pixel Measures Sequence	*(0028,9110)*						
>Pixel Spacing	*(0028,0030)*						
>Slice Thickness	*(0018,0050)*						
>Spacing Between Slices	*(0018,0088)*						
Frame Content							
Frame Content Sequence	*(0020,9111)*						
Plane Position Patient							
Plane Position Sequence	*(0020,9113)*						
Plane Orientation (Patient)							
Plane Orientation Sequence	*(0020,9116)*						

Attribute Name	Tag	Source	Presence of Attribute	Presence of Value	Value	Conditions	Comment
Referenced Image							
Referenced Image Sequence	*(0008,1140)*						
Frame Anatomy							
Frame Anatomy Sequence	*(0020,9071)*						
Irradiation Event Identification							
Irradiation Event Identification Sequence	*(0018,9477)*						

A.9.1.3 A.A.1.3 Shared Private Modules

Table A.9-3 list private attributes that are used in multiple IODs generated by the system. For documentation convenience and readability, they are organized in modules, although the concept of modules does not exist in the standard for private attributes.

[Populate the Table with all private attributes which are shared between different IODs. For each attribute list name, Tag, Value Representation, Value multiplicity, whether the value contains PHI. In the PHI column the following values can be used: SAFE, UNSAFE, MIXED. For details see the Private Data Element Characteristics Sequence (0008,0300) as defined in DICOM PS3.3.

For the other colums see instructions above. It is highy recommended to populate the Private Data Element Characteristics Sequence (0008,0300) if private attributes are being used.]

Table A.9-3: Private Modules and Attributes shared across IODs

Attribute Name	Tag	VR	VM	PHI	Source	Presence of Attribute	Presence of Value	Value	Conditions	Description
Private Module 1										
Private Creator	*(0009,00xx)*	*LO*	*1*				*ALWAYS*	*PRIVATEDATA1*		
Private Attribute 1	*(0009,xx01)*	*CS*	*1*				*ALWAYS*	*VALUE1*		
Private Attribute 2	*(0009,xx02)*	*IS*	*1-n*	*SAFE*			*CONDITIONAL*	*35/27/45*	*(0009,xx001) = VALUE1*	
Private Module 2										
Private Creator	*(0029,00xx)*	*LO*	*1*					*PRIVATEDATA2*		
Private Attribute 3	*(0029,xx01)*	*DT*	*1*							
Private Attribute 4	*(0029,xx02)*	*TM*	*1*							

Attribute Name	Tag	VR	VM	PHI	Source	Presence of Attribute	Presence of Value	Value	Conditions	Description

3810

A.9.1.4 A.A.1.4 Shared Values and Code Sets

Table A.9-4 lists Shared Values and Code Sets that are used in multiple IODs generated by the system.

[Specify attribute and value/code combinations and conditions for value usages in the following Table]

Table A.9-4: Values and Code Sets shared across IODs

Attribute Name	Tag	Value/Code	Condition	Comments
Photometric Interpretation	*(0028,0004)*	*MONOCHROME1*	*Grayscale Images*	
		YBR_FULL_422	*JPEG compressed Images*	
		RGB	*Uncompressed color images*	

3815

A.9.2 A.A.2 *<Image IOD 1 e.g. Computed Tomography Image IOD>*

Table A.9-5 defines the structure of *<Image IOD 1>*.

[Create one subsection A.x for each IOD generated by the system. One subsection for each IOD marked as Create in the Storage Section of the Overview (Section 1.2) must be present.]

3820 *[Provide a list of all modules, their presence, conditions in which they will be present and a reference to a Table with the detailed module description. Below is an example for a CT image listed.]*

Table A.9-5: *<Image IOD 1>*

Module Name	Presence (Module)	Condition	Reference
Patient Module	*ALWAYS*		*A.1.1*
General Study Module	*ALWAYS*		*A.1.1*
General Series Module	*ALWAYS*		*A.1.1*
Frame of Reference	*ALWAYS*		*A.1.1*
General Equipment Module	*ALWAYS*		*A.1.1*
General Image Module	*ALWAYS*		*A.1.1*
Image Plane Module	*ALWAYS*		*A.2.1 below*

Module Name	Presence (Module)	Condition	Reference
CT Image	*ALWAYS*		*A.2.1 below*
Image Pixel Module	*ALWAYS*		*A.1.1*
SOP Common Module	*ALWAYS*		*A.1.1*
Private Module 1	*CONDITIONAL*	*Present for Acquisition Protocol XXX*	*A.1.3*
Private Module 2	*ALWAYS*		*A.1.3*
Private Module 3	*ALWAYS*		*A.2.3 below*

A.9.2.1 A.A.2.1 <*Image IOD 1*> Specific Modules

Table A.9-6 lists modules and attributes specific for <*Image IOD 1*>*:*

[List all IOD specific modules, their attributes, values, usage, and conditions in the Table below. For instructions on the content of the columns see instructions in A.1.1 Shared Modules.]

Table A.9-6: Modules and attributes for <*Image IOD 1*>

Attribute Name	Tag	Source	Presence of Attribute	Presence of Value	Value	Conditions	Comment
Image Plane Module							
Pixel Spacing	*(0028,0030)*	*GENERATED*					
Image Orientation (Patient)	*(0020,0037)*	*GENERATED*					
Image Position (Patient)	*(0020,0032)*	*GENERATED*					
Slice Thickness	*(0018,005)*	*GENERATED*					
CT Image Module							
Image Type	*(0008,0008)*	*GENERATED*			*See section A.2.4*		
Samples Per Pixel	*(0028,0002)*	*GENERATED*			*1*		
Photometric Interpretation	*(0028,0004)*	*GENERATED*			*MONOCHROME2*		
Bits Allocated	*(0028,0100)*	*GENERATED*			*16*		
Bits Stored	*(0028,0101)*	*GENERATED*			*12*		
High Bit	*(0028,0102)*	*GENERATED*			*11*		
Rescale Intercept	*(0028,1052)*	*GENERATED*			*1024*		
Rescale Slope	*(0028,1053)*	*GENERATED*					
KVP	*(0018,0060)*	*GENERATED*					

Acquisition Number	*(0020,0012)*	*GENERATED*					
Exposure Time	*(0018,1150)*	*GENERATED*					
X-Ray Tube Current	*(0018,1151)*	*GENERATED*					
Exposure	*(0018,1152)*	*GENERATED*					

3830

A.9.2.2 A.A.2.2 <*Image IOD1*> Functional Group Macros

N/A

A.9.2.3 A.A.2.3 <*Image IOD 1* > Private Modules

Table A.9-7 lists private modules and attributes for <*Image IOD 1*>:

3835 *[List all private attributes added specifically for this SOP here. Mark this section as N/A if there are none. If the decription gets to long, you can add footnotes under the table]*

Table A.9-7: Private Modules and attributes for <*Image IOD 1*>

Attribute Name	Tag	VR	VM	Con-tains PHI	Presence of Attribute	Presence of Value	Value	Conditions	Description
Private Module 3									
Private Creator	*(0039,00xx)*	*LO*	*1*			*ALWAYS*	*PRIVATEDATA3*		
Private Attribute 5	*(0039,xx01)*	*CS*	*1*	*SAFE*	*ALWAYS*	*ALWAYS*	*VALUE1*		
…									

A.9.2.4 A.A.2.4 <*Image IOD 1*> Values and Code Sets

3840 Table A.9-8 lists Values and Code Sets for <*Image IOD 1*>*:*

[Specify in the following Table attribute and value/code combinations and conditions for value usages]

Table A.9-8: Values and Code Sets for <*Image IOD 1*>

Attribute Name	Tag	Value/Code	Condition	Comments
Image Type	*(0008,0008)*	*ORIGINAL* *PRIMARY* *AXIAL*	*Originally acquired image data*	

Attribute Name	Tag	Value/Code	Condition	Comments
		ORIGINAL *DERIVED* *AXIAL*	*Reconstructed image data*	
		ORIGINAL *PRIMARY* *AXIAL* *ELECTRON_DENSITY*	*Originally acquired multi-energy electron density image data*	

A.9.3 A.A.3 <Image IOD 2 e.g. Enhanced Computed Tomography Image IOD>

Table A.9-9 defines the structure of <*Image IOD 2*>.

[List all modules for IOD2, their optionality, Conditions when used and references into sub sections of this document where the module is further defined.]

Table A.9-9: *<Image IOD 2>*

Module Name	Presence (Module)	Condition	Reference
Patient Module	*ALWAYS*		*A.1.1*
General Study Module	*ALWAYS*		*A.1.1*
General Series Module	*ALWAYS*		*A.1.1*
CT Series Module	*ALWAYS*		*A.3.1 below*
Frame of Reference	*ALWAYS*		*A.1.1*
General Equipment Module	*ALWAYS*		*A.1.1*
Enhanced General Equipment	*ALWAYS*		*A.1.1*
Image Pixel	*ALWAYS*		*A.1.1*
Multiframe Functional Groups	*ALWAYS*		*A.1.1*
Multiframe Dimension	*ALWAYS*		*A.1.1*
Acquisition Context	*ALWAYS*		*A.1.1*
Enhanced CT Image	*ALWAYS*		*A.3.1 below*
SOP Common Module	*ALWAYS*		*A.1.1.*

Table A.9-10 lists the Functional group macros used in <Image IOD2>. The usage column defines whether a Macro is used as a shared macro, on a per Frame base or whether depending on the acquisition context can be used in both contexts. The following values are supported:

- PER_FRAME: The macro is used on a per frame basis, the attributes are included in the Shared Functional Group Sequence (5200,9229)

- SHARED: The macro is shared across all frames; the attributes are included in the Per-Frame Functional Group Sequence (5200,9230)
- CONTEXT_DEPENDENT: depending on the acquisition context the macro can either be used on a per frame basis or be shared across all frames.

[List all functional group macros for IOD, their optionality, conditions when used and references into sub sections where the macros are further defined.]

Table A.9-10: Functional Group Macros used in <*Image IOD 2*>

Functional Group Macro	Presence	Condition	Usage	Reference
Pixel Measures	*ALWAYS*		*PER_FRAME*	*A.1.2*
Frame Content	*ALWAYS*		*PER_FRAME*	*A.1.2*
Plane Position (Patient)	*ALWAYS*		*SHARED*	*A.1.2*
Frame Anatomy	*ALWAYS*		*CONTEXT_DEPENDENT*	*A.1.2*
Irradiaton Event Identification	*ALWAYS*		*PER_FRAME*	*A.1.2*
CT Image Frame Type	*ALWAYS*		*PER_FRAME*	
CT Acquisition Type	*CONDITIONAL*	*For images with Image Type (0008,0008) value 1 as ORIGINAL or MIXED*	*SHARED*	*A.3.2.*
CT Acquisition Details	*CONDITIONAL*	*For images with Image Type (0008,0008) value 1 as ORIGINAL or MIXED*	*SHARED*	*A.3.2.*
CT Table Dynamics	*CONDITIONAL*	*For images with Image Type (0008,0008) value 1 as ORIGINAL or MIXED*	*SHARED*	*A.3.2.*
CT Position	*CONDITIONAL*	*For images with Image Type (0008,0008) value 1 as ORIGINAL or MIXED*	*SHARED*	*A.3.2.*
CT Geometry	*CONDITIONAL*	*For images with Image Type (0008,0008) value 1 as ORIGINAL or MIXED*	*SHARED*	*A.3.2.*
CT Reconstruction	*CONDITIONAL*	*For images with Image Type (0008,0008) value 1 as ORIGINAL or MIXED*	*SHARED*	*A.3.2.*
CT Exposure	*CONDITIONAL*	*For images with Image Type (0008,0008) value 1 as ORIGINAL or MIXED*	*SHARED*	*A.3.2.*
CT X-Ray Details	*CONDITIONAL*	*For images with Image Type (0008,0008) value 1 as ORIGINAL or MIXED*	*SHARED*	*A.3.2.*
CT Pixel Value Transformation	*ALWAYS*		*SHARED*	*A.3.2.*

Functional Group Macro	Presence	Condition	Usage	Reference
CT Additional X-Ray Source	*CONDITIONAL*	*For systems with multiple X-Ray sources*	*SHARED*	*A.3.2.*
Multi Energy CT Positioning	*CONDITIONAL*	*For systems with multiple X-Ray sources*	*SHARED*	*A.3.2.*
..				

A.9.3.1 A.A.3.1 <*Image IOD 2*> SpecificModules

Table A.9-11 lists modules and attributes specific for <*Image IOD 2*>:

[List all Image IOD specific modules, their attributes, supported values, usage, and conditions in the Table below. For instructions on the content of the columns see instructions in A.1.1 Shared Modules.]

Table A.9-11: Modules and attributes for <*Image IOD 2*>

Attribute Name	Tag	Source	Presence of Attribute	Presence of Value	Value	Conditions	Comments
CT Series Module							
Enhanced CT Image Module							

A.9.3.2 A.A.3.2 <*Image IOD 2*> Functional Group Macros

Table A.9-12 lists functional group macros and attribute for <*Image IOD 2*>:

[For enhanced objects provide the list of IOD specific shared functional group macros and per-frame group.]

Table A.9-12: Functional Group Macros and Attributes for *<Image IOD 2>*

Attribute Name	Tag	Source	Presence of Attribute	Presence of Value	Value	Conditions	Comment
CT Image Frame Type							
CT Image Frame Type Sequence	*(0018,9329*						
…							
CT Acquisition Type							
CT Acquisition Type Sequence	*(0018,9301)*						
CT Acquisition Details							
CT Acquisition Details Sequence	*(0018,9304)*						
CT Table Dynamics							
CT Table Dynamics Sequence	*(0018,9308)*						
CT Position							
CT Position Sequence	*(0018,9326)*						
CT Geometry							
CT Geometry Sequence	*(0018,9312)*						
CT Reconstruction							
CT Reconstruction Sequence	*(0018,9314)*						
CT Exposure							
CT Exposure Sequence	*(0018,9321)*						
CT-X-Ray Details							
CT X-Ray Details Sequence	*(0018,9325)*						

CT Pixel Value Transformation							
Pixel Value Transformation Sequence	*(0028,9145)*						
CT Additional X-Ray Source							
CT Additional X-Ray Source Sequence	*(0018,9360)*						
CT Multi-Energy CT Characteristics							
Monoenergetic Energy Equivalent	*(0018,937C)*						

A.9.3.3 A.A.31.3 <*Image IOD 2*> Private Modules

[List all private attributes added specifically for this SOP here. Mark this section as N/A if there are none.]

A.9.3.4 A.A.3.4 <*Image IOD 2*> Values and Code Sets

Table A.9-13 lists values code sets for <*Image IOD 2*>:

[Specify in the following Table attribute and value/code combinations and conditions for value usages]

Table A.9-13: Values and Code Sets for <*Image IOD 2*>

Attribute Name	Tag	Value/Code	Condition	Comments

A.9.4 A.A.4. <*SR IOD 1 e.g. Comprehensive SR IOD*>

Table A.9-14 defines the structure of <*SR IOD 1*>.

Table A.9-14: <*SR IOD 1*>

Module Name	Presence (Module)	Condition	Reference
Patient Module	*ALWAYS*		*A.1.1*
General Study Module	*ALWAYS*		*A.1.1*
General Equipment Module	*ALWAYS*		*A.1.1*
SR Document Series Module	*ALWAYS*		*A.4.1 below*
SR Document General Module	*ALWAYS*		*A.4.1 below*

Module Name	Presence (Module)	Condition	Reference
SR Document Content	*ALWAYS*		*A.4.1 below*
SOP Common Module	*ALWAYS*		*A.1.1*

3885 **A.9.4.1 A.A.4.1 <*SR IOD 1*> Specific Modules**

Table A.9-15 lists modules and attributes used in <*SR IOD1*>:

Table A.9-15: Modules and Attributes used in *<SR IOD 1>*

Attribute Name	Tag	Source	Presence of Attribute	Presence of Value	Value	Conditions	Comment
SR Document Series Module							
Modality	(0008,0060)	*FIXED*		*ALWAYS*	*SR*		
Referenced Performed Procedure Step Sequence	(0008,1111)	*GENERATED*	*ATTRIBUTE_ALWAYS*	*CONDITIONAL*	*(see Appendix D for details)*	See Appendix D	
..							
SR Document General Module							
Completion Flag	(0040,A491)	*GENERATED*	*ATTRIBUTE_ALWAYS*	*ALWAYS*	*<PARTIAL or COMPLETE>*		
Verification Flag	(0040,A493)	*GENERATED*	*ATTRIBUTE_ALWAYS*	*ALWAYS*	*<UNVERIFIED or VERIFIED>*		
Content Date	(0008,0023)	*GENERATED*	*ATTRIBUTE_ALWAYS*	*ALWAYS*	*Current date*		
Content Time	(0008,0033)	*GENERATED*	*ATTRIBUTE_ALWAYS*	*ALWAYS*	*Current time*		
Referenced Request Sequence	(0040,A370)	*GENERATED*	*ATTRIBUTE_ALWAYS*	*VALUE_CONDITIONAL*	*See Appendix D*	See Appendix D	
…							
SR Document Content Module							
Value Type	(0040, A040)	*FIXED*	*ATTRIBUTE_ALWAYS*	*ALWAYS*	*CONTAINER*		
Continuity of Content	(0040, A050)	*FIXED*	*ATTRIBUTE_ALWAYS*	*ALWAYS*	*SEPARATE*		
Content Template Sequence	(0040, A504)	*GENERATED*	*ATTRIBUTE_ALWAYS*	*ALWAYS*	*See Appendix B for encoding on supported TIDs*		

3890 **A.9.4.2 A.A.4.2 <*SR IOD 1*> Functional Group Macros**

N/A

A.9.4.3 A.A.4.3 <*SR IOD 1*> Private Modules

[List all private attributes added specifically for this SOP here. Mark this section as N/A if there are none]

A.9.4.4 A.A.4.4 <*SR IOD 1*> Values and Code Sets

3895 Table A.9-16 lists values and code stes used in <*SR IOD1*>:

[Specify in the following Table attribute and value/code combinations and conditions for value usages]

Table A.9-16: Values and Codes Sets used in <*SR IOD 1*>

Attribute Name	Tag	Value/Code	Condition	Comments

A.9.5 A.A.5 Basic Directory IOD

3900 Table A.9-17 defines the structure of the Basic Directory IOD.

Table A.9-17: Basic Directory IOD

Attribute Name	Tag	Source	Presence of Attribute	Presence of Value	Value	Conditions	Comments
File Set Identification Module							
File-set ID	(0004,1130)	GENERATED					
Specific Character Set of File-set Descriptor File	(0004,1142)	GENERATED					
Directory Information Module							
Offset of the First Directory Record of the Root Directory Entity	(0004,1200)	GENERATED					
Offset of the Last Directory Record of the Root Directory Entity	(0004,1202)	GENERATED					
File-set Consistency Flag	(0004,1212)	GENERATED					
Directory Record Sequence	(0004,1220)	GENERATED					
>Offset of the Next Directory Record	(0004,1400)	GENERATED					
>Record In-use Flag	(0004,1410)	GENERATED					
>Offset of Referenced Lower-Level Directory Entity	(0004,1420)	GENERATED					
>Directory Record Type	(0004,1430)	GENERATED					

>Referenced File ID	(0004,1500)	GENERATED					
>Referenced SOP Class UID in File	(0004,1510)	COPY					
>Referenced SOP Instance UID in File	(0004,1511)	COPY					
>Referenced Transfer Syntax UID in File	(0004,1512)	COPY					
Patient Keys							
>Specific Character Set	(0008,0005)	GENERATED					
>Patient's Name	(0010,0010)	COPY					
>Patient ID	(0010,0020)	COPY					
…							
Study Keys							
>Study Date	(0008,0020)	COPY					
>Study Time	(0008,0030)	COPY					
>Study Description	(0008,1030)	COPY					
>Study Instance UID	(0020,000D)	COPY					
>Study ID	(0020,0010)	COPY					
>Accession Number	(0008,0050)	COPY					
…							
Series Keys							
>Specific Character Set	(0008,0005)	GENERATED					
>Modality	(0008,0060)	COPY					
>Series Instance UID	(0020,000E)	COPY					
>Series Number	(0020,0011)	COPY					

…							
Image Keys							
>Specific Character Set	(0008,0005)	GENERATED					
>Instance Number	(0020,0013)	COPY					
>Samples per Pixel	(0028,0002)	COPY					
>Photometric Interpretation	(0028,0004)	COPY					
>Rows	(0028,0010)	COPY					
>Columns	(0028,0011)	COPY					
>Bits Allocated	(0028,0100)	COPY					
>Bits Stored	(0028,0101)	COPY					
>High Bit	(0028,0102)	COPY					
>Pixel Representation	(0028,0103)	COPY					
…							
SR Document Keys							
>Specific Character Set	(0008,0005)	GENERATED					
>Instance Number	(0020,0013)	COPY					
>Completion Flag	(0040, A491)	COPY					
>Verification Flag	(0040, A493)	COPY					
>Content Date	(0008,0023)	COPY					
>Content Time	(0008,0033)	COPY					
Verification DateTime	(0040,A030)	COPY					
Concept Name Code Sequence	(0040,A043)	COPY					
>>Code Value	(0008,1000)						
>>Coding Scheme Designator	(0008,1002)						

>>Coding Scheme Version	(0008,1003)						
>>Code Meaning	(0008,1004)						

A.9.6 A.A.6 <*Private IOD 1*>

Table A.9-18 defines the structure of <*Private IOD 1*>.

3905 **Table A.9-18: <*Private IOD 1*>**

Module Name	Presence (Module)	Condition	Reference
Patient Module	*ALWAYS*		*A.1.1*
General Study Module	*ALWAYS*		*A.1.1*
General Series Module	*ALWAYS*		*A.1.1*
Frame of Reference	*ALWAYS*		*A.1.1*
General Equipment Module	*ALWAYS*		*A.1.1*
Private Module 1	*CONDITIONAL*		*A.1.3*
Private Module 2	*ALWAYS*		*A.1.3*
Private Module 4	*ALWAYSM*		*A6.1.3. below*
Private Module 5	*ALWAYS*		*A61.3 below*
SOP Common Module	*ALWAYS*		*A.1.1*

A.9.6.1 A.A.6.1 <*Private IOD 1*> Specific Modules

N/A

A.9.6.2 A.A.6.2 <*Private IOD 1* >Functional Group Macros

3910 *[List all functional group macros added specifically for this SOP here. Mark this section as N/A if there are none]*

A.9.6.3 A.A.6.3 <*Private IOD 1*> Private Modules

Table A.9-19 lists private modules and attributes specific for <*Private IOD 1*>:

Table A.9-19: Private Modules and Attributes for <*Private IOD 1*>

Attribute Name	Tag	VR	VM	Con-tains PHI	Presence of Attribute	Presence of Value	Value	Condition	Comment
Private Module 4									
Private Creator	*(0035,00xx)*	*LO*	*1*						

Attribute Name	Tag	VR	VM	Con-tains PHI	Presence of Attribute	Presence of Value	Value	Condition	Comment
Private Attribute 6	*(0035,xx01)*	*CS*	*1*	*SAFE*			*PRIVATECREATOR4*		
							TERM1		
Private Module 5									
Private Creator	*(0039,00yy)*	*LO*	*1*				*PRIVATECREATOR5*		
Private Attribute 7	*(0039,yy01)*	*CS*	*1*	*UN SAFE*			*See Table A.9-20 below*		
									1

3915

A.9.6.4 A.A.6.4 *<Private IOD 1>* Values and Code Sets

Table A.9-20 lists values and code sets for *<Private IOD 1>:*

[Specify in the following Table attribute and value/code combinations and conditions for value usages]

Table A.9-20: Values and Code Sets for *<Private IOD 1>*

Attribute Name	Tag	Value/Code	Condition	Comments
Private Attribute 7	*(0039,yy01)*	*TERM1*	*Color Image*	
		TERM2	*Grayscale Image*	

3920

A.10 A.B Structured Report Content Encoding

[Note that the appendices defined in the following subsections are a mandatory part of the DICOM Conformance Statement and must be filled in by any product, that creates DICOM objects/SRs.]

[For each SR TID that is created by the system (See overview Section A.1.1.1) provide an appendix B.x.]

A.10.1 A.B.1 Mammography CAD SR (TID 4000)

Table A.10-1shows the encoding of a content of a DICOM Mammography CAD SR (TID 4000)

[The following Table shows how to document TID 4000 as an example. Modify to match your product implementation, e.g. select supported concepts and values and add additional templates as needed.In the value column you can either list the coded values directly, reference a CID for DICOM PS3.15 if used unmodified or provide a Table in Section A.10.1.1 Code Sets.]

Table A.10-1: Mammography CAD SR (TID 4000)

NL	Rel with Parent	VT	Concept Name	Source	Values	TID
		CONTAINER	*(111036, DCM, "Mammography CAD Report)*			*4000*
>	*HAS CONCEPT MOD*	*CODE*	*(121049, DCM, "Language of Content Item and Descendants")*	*SYSTEM*	*(en, RFC3066, "English")*	*1204*
>>	*HAS CONCEPT MOD*	*CODE*	*(121046, DCM, "Country of Language")*	*SYSTEM*	*(US, ISO3166_1, "UNITED STATES")*	*1204*
>	*CONTAINS*	*CONTAINER*	*(111028, DCM, "Image Library")*			*4020*
>>	*CONTAINS*	*IMAGE*				*4020*
>>>	*HAS ACQ CONTEXT*	*CODE*	*(111027, DCM, "Image Laterality")*	*COPY*	*See CID 6023 "Side"*	*4020*
>>>	*HAS ACQ CONTEXT*	*CODE*	*(111031, DCM, "Image View")*	*COPY*	*See CID 4014 "View for Mammography"*	*4020*
>>>	*HAS ACQ CONTEXT*	*CODE*	*(111032, DCM, "Image View Modifier")*	*COPY*	*See Table A.10-2 below*	*4020*
>>>	*HAS ACQ CONTEXT*	*TEXT*	*(111044, DCM, "Patient Orientation Row")*	*COPY*		*4020*
>>>	*HAS ACQ CONTEXT*	*TEXT*	*(111043, DCM, "Patient Orientation Column")*	*COPY*		*4020*
>>>	*HAS ACQ CONTEXT*	*DATE*	*(111060, DCM, "Study Date")*	*COPY*		*4020*
>>>	*HAS ACQ CONTEXT*	*TIME*	*(111061, DCM, "Study Time")*	*COPY*		*4020*
>>>	*HAS ACQ CONTEXT*	*DATE*	*(111018, DCM, "Content Date")*	*COPY*		*4020*
>>>	*HAS ACQ CONTEXT*	*TIME*	*(111019, DCM, "Content Time")*	*COPY*		*4020*

NL	Rel with Parent	VT	Concept Name	Source	Values	TID
>>>	*HAS ACQ CONTEXT*	*NUM*	*(111026, DCM, "Horizontal Pixel Spacing")*	*COPY*		*4020*
>>>	*HAS ACQ CONTEXT*	*NUM*	*(111066, DCM, "Vertical Pixel Spacing")*	*COPY*		*4020*
>	*CONTAINS*	*CODE*	*(111017, DCM, "CAD Processing and Findings Summary")*	*SYSTEM*	*See CID 6047 "CAD and Processing Findings Summary"*	*4001*
>>	*HAS PROPERTIES*	*TEXT*	*(111033, DCM, "Impression Description")*	*SYSTEM*	*(Description, e.g. Breast density evaluation)*	*4002*
>>	*HAS PROPERTIES*	*TEXT*	*(111001, DCM, "Algorithm Name")*	*SYSTEM*	*(Algorithm Name, e.g. Breast Denstity Assesment)*	*4019*
>>	*HAS PROPERTIES*	*TEXT*	*(111003, DCM, "Algorithm Version")*	*SYSTEM*	*(Version, e.g. 1.1.1.1)*	*4019*
>>	*HAS PROPERTIES*	*NUM*	*See CID 6142 Calculated Value*	*SYSTEM*		*4002*
>>>	*HAS CONCEPT MOD*	*CODE*	*(272741003, SCT, "Laterality")*	*SYSTEM*	*See CID 6023 "Side"*	*4002*
>>>	*HAS CONCEPT MOD*	*CODE*	*(121401, DCM, "Derivation")*	*SYSTEM*	*See CID 6140 "Calculation Mehtod"*	*4002*
>>	*INFERRED FROM*	*CONTAINER*	*(111034, DCM, "Individual Impression/ Recommendation")*	*SYSTEM*		*4003*
>>>	*HAS CONCEPT MOD*	*CODE*	*(111056, DCM, "Rendering Intent")*	*SYSTEM*	*See CID 6034 "Intended Use of CAD Output"*	*4003*
>>>	*CONTAINS*	*CODE*	*(111059, DCM, "Single Image Finding")*	*SYSTEM*	*See* CTTable *A.10-3 below*	*4006*
>>>>	*HAS CONCEPT MOD*	*CODE*	*(111056, DCM, "Rendering Intent")*	*SYSTEM*	*(See CID 6034 "Intended Use of CAD Output"*	*4006*
>>>>	*HAS PROPERTIES*	*TEXT*	*(111001, DCM, "Algorithm Name"*	*SYSTEM*		*4019*
>>>>	*HAS PROPERTIES*	*TEXT*	*(111003, DCM, "Algorithm Version")*	*SYSTEM*		*4019*
>>>>	*HAS PROPERTIES*	*SCOORD*	*(111010, DCM, "Center")*	*SYSTEM*		*4021*
>>>>>	*R-SELECTED*	*IMAGE*		*SYSTEM*		*4021*
>>>>	*HAS PROPERTIES*	*SCOORD*	*(11041, DCM, "Outline ")*	*SYSTEM*		*4021*
>>>>>	*R-SELECTED*	*IMAGE*		*SYSTEM*		*4021*
>>>	*CONTAINS*	*CODE*	*(111059, DCM, "Single Image Finding")*	*SYSTEM*	*(SCT, 129715009, "Breast Composition")*	*4006*

NL	Rel with Parent	VT	Concept Name	Source	Values	TID
>>>>	*HAS CONCEPT MOD*	*CODE*	*(111056, DCM, "Rendering Intent")*	*SYSTEM*	*See CID 6034 "Intended Use of CAD Output"*	*4006*
>>>	*HAS PROPERTIES*	*CODE*	*(SCT, 129715009, "Breast Composition")*	*SYSTEM*	*See DCID 6000, "Overall Breast Commposition"*	*4007*
>	*CONTAINS*	*CODE*	*(111064, DCM, "Summary of Detections")*	*SYSTEM*		*4000*
>>	*INFERRED FROM*	*CONTAINER*	*(111063, DCM, "Successful Detections")*	*SYSTEM*		*4015*
>>>	*CONTAINS*	*CODE*	*(111022, DCM, "Detection Performed")*		*See CTTable A.10-3 below*	*4017*
>>>>	*HAS PROPERTIES*	*TEXT*	*(111001, DCM, Algorithm Name)*	*SYSTEM*		*4019*
>>>>	*HAS PROPERTIES*	*TEXT*	*(111003, DCM, Algorithm Version)*	*SYSTEM*		*4019*
>>>>>	*R-SELECTED*	*IMAGE*		*SYSTEM*		*4021*
>	*CONTAINS*	*CODE*	*(111065, DCM, "Summary of Analysis")*	*SYSTEM*	*See DICID 6042, "Status of Results"*	*4000*
>>	*INFERRED FROM*	*CONTAINER*	*(111062, DCM, "Successful Analysis")*	*SYSTEM*		*4015*
>>>	*CONTAINS*	*CODE*	*(111004, DCM, "Analysis Performed")*		*See CID 604, "Types of Mammography CAD Analysis"*	*4017*
>>>>	*HAS PROPERTIES*	*TEXT*	*(111001, DCM, "Algorithm Name")*	*SYSTEM*		*4019*
>>>>	*HAS PROPERTIES*	*TEXT*	*(111003, DCM, " Algorithm Version")*	*SYSTEM*		*4019*
>>>>>	*R-SELECTED*	*IMAGE*		*SYSTEM*		*4021*

A.10.1.1 A.B.1.1. Code Sets

The following Tables list specific codes sets referenced from the Mammography CAD SR (TID 4000)

Table A.10-2: Mammography CAD SR -Image View Modifier Codes

Coding Scheme Designator	Code Value	Code Meaning
SCT	*399161006*	*Cleavage*
SCT	*399011000*	*Axillary Tail*
SCT	*399197002*	*Rolled Lateral*
SCT	*399226006*	*Rolled Medial*
SCT	*414493004*	*Rolled Inferior*
SCT	*415670009*	*Rolled Superior*

CTTable A.10-3: Mammography CAD SR - Singe Image Findings

Coding Scheme Designator	Code Value	Code Meaning
SCT	*129793001*	*Mammography breast density*
SCT	*129770007*	*Individual Calcification*
SCT	*129769006*	*Calcification Cluster*

3940

A.10.2 A.B.2 Echocardiography Procedure Result SR (TID 5200)

Table A.10-4 shows the encoding of a content of the DICOM Echocardiography Procedure Report (TID 5200).

[The following Table shows how to document TID 5200 as an example. Modify to match your product implementation, e.g. select supported concepts and values, and add additional templates as needed.]

3945 **Table A.10-4: Adult Echocardiography Procedure Result SR (TID 5200)**

NL	Rel with Parent	VT	Concept Name	Source	Values	TID
		CONTAINER	*EV (125200, DCM, "Adult Echocardiography Procedure Report")*			*5200*
>	*HAS CONCEPT MOD*	*CODE*	*(121049, DCM, "Language of Content Item and Descendants")*	*SYSTEM*	*(en, RFC3066, "English")*	*1204*
>>	*HAS CONCEPT MOD*	*CODE*	*(121046, DCM, "Country of Language")*	*SYSTEM*	*(US, ISO3166_1, "UNITED STATES")*	*1204*
>	*HAS OBS CONTEXT*	*CODE*	*(121005, DCM, "Observer Type")*	*SYSTEM*	*(121006, DCM, "Person")*	*1002*
>>	*HAS OBS CONTEXT*	*PNAME*	*EV (121008, DCM, "Person Observer Name")*	*SYSTEM*		*1003*
>	*CONTAINS*	*CONTAINER*	*EV (121118, DCM, "Patient Characteristics"*	*SYSTEM*		*5201*
>>	*CONTAINS*	*NUM*	*(121118, DCM, "Subject Age")*	*SYSTEM*		*5201*

NL	Rel with Parent	VT	Concept Name	Source	Values	TID
>>	CONTAINS	CODE	EV (121032, DCM, "Subject Sex")	SYSTEM	See CID 7455 “Sex”	5201
>>	CONTAINS	NUM	(8277-6, LN, "Body Surface Area")	SYSTEM		5201
>>>	INFERED FROM	CODE	(8278-4, LN, "Body Surface Area Formula")	SYSTEM	See CID 3663 “Body Surface Area Equations”	5201
>	CONTAINS	CONTAINER	(121070, DCM, "Findings")	SYSTEM		5202
The following rows are supported for all Findings Sites listed in the subsequent subsections. Values for supported concepts are listed in the Modifier column of the Tables below						
>>	HAS CONCEPT MOD	CODE	(G-C0E3, SRT “Finding Site“	SYSTEM	See TID 5200 for supported Finding Sites	5202
>>	CONTAINS	CONTAINER	(125007, DCM, “Measurement Group			5202
>>>	CONTAINS	NUM	See Table XXX for measurements and supported Modifiers			300
>>>>	HAS CONCEPT MOD	CODE	(G-C036, SRT, "Measurement Method")	SYSTEM	See CID 12227 “Echocardiography Measurement Method”	300
>>>>	HAS CONCEPT MOD	CODE	(G-C0E3, SRT, "Finding Site")	SYSTEM	See CID 12236 “Echo Anatoic Sites"	300
>>>>	HAS CONCEPT MOD	CODE	(G-C048, SRT, “Flow Direxxtion”)	SYSTEM	See CID 12221 “Flow Direction”!	5203
>>>>	HAS CONCEPT MOD	CODE	(R-40899, SRT, "Respiratory Cycle Point")	SYSTEM	See CID 12234 “Respiration State”	5203
>>>>	HAS CONCEPT MOD	CODE	(R-4089A, SRT, "Cardiac Cycle Point")	SYSTEM	See CID 12233 “Cardiac Phase”	5203
>>>>	HAS CONCEPT MOD	CODE	(G-0373, SRT, "Image Mode")	SYSTEM	See CID 12224 “Ultrasound Image Modes”	5203
>>>>	HAS CONCEPT MOD	CODE	(111031, DCM, "Image View”)	SYSTEM	See CID 12002 “Ultrasound Protocol Stage Types”	5203

[Since the lists of measurements can be fairly extensive, they can either be provided in a separate execel sheet minimally providing columns for

- *Label*
- *The encoding of the measurement using Coding Sheme Designator, Code Value and Code Meaning*
- *One colume for each supported modifier (Image Mode, Image View, Measurement Method, Cardiac Cycle Point, …]*
- *The unit code for the measurement using Coding Sheme Designator, Code Value and Code Meaning.]*

[If you use an externanl document, state the following:]

Details about the supported measurements can be found at <*link to external document*>.

[If measuremetns are documented in this document, add for each supported Finding Site a subsection with all supported Measurements and their modifiers below]

A.10.2.1 A.B.2.1. Left Ventricle

Table A.10-5 list the measurements supported by <product>. The first column lists the label that is used on <*products reporting screen*> to select the respective measurements.

[Document all measurement supported on the product with the relevant measurements. Modify to match your product implementation, e.g., select supported concepts and values, and add additional templates as needed. If private codes are used, indicate them through a 99_VENDOR_X Coding Scheme Designator, where VENDOR_X needs to be replaced with a vendor specific value.]

[In the modifier column list all supported modifiers by using the concept name code from Table X in Section B.2 and add code for each modifier value.]

Table A.10-5: Left Ventricle Measurements

Label	Measurement	Modifier		Unit
Echo Section (TID 5202) – Left Ventricle				
Left Ventricle	*Container: (DCM, 121070, "Findings")*	*(SRT, G-C0E3, "Finding Site"): (SRT, T-32600, " Left Ventricle")*		
LV CI A2C MOD	*(SCT, 54993008, " Cardiac Index")*	*(SCT, 399264008, "Image Mode")*	*(SCT, 399064001, "2D mode")*	*(UCUM, l/min/m2, "l/min/m2")*
		(DCM, 111031, "Image View")	*(SCT, 399232001, "Apical two chamber")*	
		(SCT, 370129005, "Measurement Method")	*(DCM, 125208, "Method of Disks, Single Plane")*	
LVID d PSAX A-P	*(99VENDOR_X, LVID_AP, "Left Ventricle Internal Dimension A-P")*	*(SCT, 272518008, R-4089A, "Cardiac Cycle Point")*	*(SCT, 90892000, "Diastole")*	*(UCUM, cm2/m2, "cm2/m2")*
		(DCM, 111031, "Image View")	*(SCT, 399271003, "Parasternal short axis at the Papillary Muscle level")*	
		(SCT, 399264008, "Image Mode")	*(SCT, 399064001, "2D mode")*	

Label	Measurement	Modifier	Unit
…			

A.10.2.2 A.B.2.2. Right Ventricle

Table A.10-6 list the measurements supported by <product>. The first column lists the label that is used on <*products reporting screen*> to select the respective measurements.

Table A.10-6: Right Ventricle Measurements)

Label	Measurement	Modifier		Unit
Echo Section (TID 5202) – Right Ventricle				
Right Ventricle	*Container: (DCM, 121070, "Findings")*	*(SRT, G-C0E3, "Finding Site"): (SRT, T-32500, "Right Ventricle")*		
RV Area s A4C	*(SRT, G-A166, "Area")*	*(SCT, 272518008, R-4089A, "Cardiac Cycle Point")*	*(SCT, 111973004, "Systole")*	*(UCUM, cm2/m2, "cm2/m2")*
		(DCM, 111031, "Image View")	*(SRT, G-A19C, "Apical four chamber")*	
		(SCT, 399264008, "Image Mode")	*(SCT, 399064001, "2D mode")*	
		(SCT, 370129005, "Measurement Method")	*(DCM, 125208, "Method of Disks, Single Plane")*	
…				

A.10.2.3 A.B.2.3. Left Atrium

A.11 A.C Security Details

This section provides additional details about security features that are formally described in Section A.8

A.11.1 A.C.1 External Network Requirement Details

A.11.1.1 A.C.1.1 Basic Time Synchronization

[If your product is following entirely RFC 8633, mention it here, otherwise describe what was implemented such as:

- *If your product is also able to perform Find NTP Servers transaction using DHCP when no servers have been found through use of NTP, then describe it here.*
- *State here what to do if no NTP Servers are available at all or reference adequate manual describing what to do in such case.]*

A.11.1.2 A.C.1.2 Basic Network Address Management

[If this application supports Basic Network Address Management profile as DHCP Client, specify here how the DHCP Server is discovered.

If DNSSEC is supported (RFCs 4033, 4034, 4035) for the interactions defined in Basic Network Address Management profile, describe here the options supported or provide a reference to the document describing them.]

A.11.1.3 A.C.1.3 Application Configuration Management

Table A.11-1 defines the security patterns supported*:*

[Specify here which security pattern(s) your LDAP Client and/or LDAP Server implementation supports. Remove any actor not supported.]

Table A.11-1: LDAP Security Patterns

Actor	LDAP Security Pattern	Supported	Comments
LDAP Server	TLS		
	TLS-Manual		
	Basic		
	Basic-Manual		
	Anonymous		
	Anonymous-Manual		
	[Additional pattern]		
LDAP Client	TLS		
	TLS-Manual		
	Basic		
	Basic-Manual		
	Anonymous		
	Anonymous-Manual		
	[Additional pattern]		

A.11.1.4 A.C.1.4 DNS Service Discovery

[If DNSSEC is supported (RFCs 4033, 4034, 4035) for the interactions to achieve DNS Service Discovery, describe here the options supported or provide a reference to the document describing them]

A.11.2 A.C.2 DICOM Security Profile Details

A.11.2.1 A.C.2.1 Online Electronic Storage Secure Use

[Indicate here how the product restricts remote access (User Access, Access per Patient, Access per Doctor). If this information is described in a separate document, provide the reference here instead.]

A.11.2.2 A.C.2.2 Audit Trail Messages

Table A.11-2 specifies the DICOM Audit Messages that <*Product*> can detect and report. It defines the list of triggers that will cause audit message to be generated if these triggers can be configured or not. It also specifies if the content of the Audit message can be configured or not.

[Indicate with Y (yes) or N (no) in the Used column to specify if your product supports the Audit Message, then describe in the Supported Triggers column the list of triggers that makes your product generating such Audit Message and indicate with Y or N in the Configurable Triggers or Configurable Message columns whether these features are supported by your product]

Table A.11-2: DICOM Specific Audit Messages

Audit Message	Used	Supported Triggers	Configurable Triggers	Configurable Message	Comments
Application Activity					
Audit Log Used					
Begin Transferring DICOM Instances					
Data Export					
Data Import					
DICOM Instance Accessed					
DICOM Instance Transferred					
DICOM Study Deleted					
Network Entry					
Query					
Security Alert					
User Authentication					
Order Record					
Patient Record					
Procedure Record					
[Other message]					

[The following part of this section can be either defined in the DCS or defined as a reference to a Service/Security Manual instead. In any case, all private messages will be described in addition to standard defined messages. As an example, the following Table format can be used to describe these messages in this document.]

Table A.11-3 specifies the implementation detail of each audit message supported by this product.

Table A.11-3: Audit Message Details

Real World Entities	*Field Name*	*Supported*	*Value Constraints*
Application Activity Message			
Event	*EventID*		*EV (110100, DCM, "Application Activity")*
	EventActionCode		
	EventDateTime		
	EventOutcomeIndicator		
	EventTypeCode		
Active Participant: *Application started (1)*	*UserID*		
	AlternativeUserID		
	UserName		
	…		
…	…	…	…
[Any extension]	…	…	…
Audit Log Used Message			
…	…	…	…
…			
[Other message]			

A.11.2.3 A.C.2.3 Audit Trail Message Transmission Profile – SYSLOG – TLS

See Section A.6.6 Audit Trail Syslog Configuration for information about Syslog-TLS parameters

A.11.2.4 A.C.2.4 Audit Trail Message Transmission Profile – SYSLOG – UDP

See Section A.6.6 Audit Trail Syslog Configuration for information about Syslog-UDP parameters

A.11.2.5 A.C.2.5 Secure Transport Connection Details

Table A.11-4 lists the secure transport connection profiles and cipher suites supported:

[Describe here the mechanisms and tools that are supported by the implementation for Certificate distribution, Certificate validation and Key Management.]

[In the Table below, remove any Profile / Cipher suite not supported by the product and add any additional profile / Cipher Suite that your product may support and that is claimed in Section A.8.4.2 Secure Transport Connection Profiles

Table A.11-4: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_DHE_RSA_WITH_AES_128_GCM_SHA256*	
	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256	
	TLS_DHE_RSA_WITH_AES_256_GCM_SHA384	
	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384	
	[Other Cipher Suites]	
Non-Downgrading BCP195 TLS Secure Transport Connection	TLS_DHE_RSA_WITH_AES_128_GCM_SHA256	
	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256	
	TLS_DHE_RSA_WITH_AES_256_GCM_SHA384	
	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384	
	[Other Cipher Suites]	
Extended BCP195 TLS Secure Transport Connection	TLS_DHE_RSA_WITH_AES_128_GCM_SHA256	
	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256	
	TLS_DHE_RSA_WITH_AES_256_GCM_SHA384	
	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384	
	TLS_DHE_RSA_WITH_CAMELLIA_256_GCM_SHA384 (0xC0, 0x7D)	
	TLS_DHE_RSA_WITH_CAMELLIA_128_GCM_SHA256 (0xC0,0x7C)	
	TLS_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384 (0xC0,0x2C)	
	TLS_ECDHE_ECDSA_WITH_CAMELLIA_256_GCM_SHA384 (0xC0,0x87)	
	TLS_ECDHE_RSA_WITH_CAMELLIA_256_GCM_SHA384 (0xC0,0x8B)	
	TLS_ECDHE_ECDSA_WITH_AES_128_GCM_SHA256 (0xC0,0x2B)	
	TLS_ECDHE_ECDSA_WITH_CAMELLIA_128_GCM_SHA256 (0xC0,0x86)	
	TLS_ECDHE_RSA_WITH_CAMELLIA_128_GCM_SHA256 (0xC0,0x8A)	
[Any additional or retired TLS Profile]	*[Any Cypher suite]*	

4035

Table A.11-5 describes the Secure Transport Connection configuration parameters supported by this product:

[Indicated in the Configurable column whether the parameters are configurable (Y) or not (N)]

Table A.11-5: Secure Transport Connection Configuration Parameters

Local Secure Transport Connection configuration parameters			
Parameter	**Configurable**	**Default Value**	**Comment**
Common Secure Transport Connection parameters			
Port	See Section A.6 Configuration		
A-P-ABORT provider reason in case of integrity check fails			
…	…		
BCP195 TLS Secure Transport Connection parameters			
[List specific configurable parameters for the local system]			
Non-Downgrading BCP195 TLS Secure Transport Connection parameters			
[List specific configurable parameters for the local system]			
Extended BCP195 TLS Secure Transport Connection parameters			
[List specific configurable parameters for the local system]			
Other Profile Secure Transport Connection parameters			
Remote Secure Transport Connection configuration parameters			
Parameter	**Configurable**	**Default Value**	**Comment**
Common Secure Transport Connection parameters			
Port	See Section A.6 Configuration		
A-P-ABORT provider reason in case of integrity check fails			
…	…		
BCP195 TLS Secure Transport Connection parameters			
[List specific configurable parameters for the local system]			
Non-Downgrading BCP195 TLS Secure Transport Connection parameters			
[List specific configurable parameters for the local system]			

Extended BCP195 TLS Secure Transport Connection parameters			
[List specific configurable parameters for the local system]			
<Other Profile> Secure Transport Connection parameters			

A.11.2.6 A.C.2.6 Attribute Confidentiality Details

Table A.11-6 provides the list of attributes and the action when de-identifying instances. Supported Action Codes are defined in PS 3.15 Section E.1.

[For every element listed in the Table below, describe the Action the application may take using one of the actions codes defined below:]

- *D: replace with a non-zero length value that may be a dummy value and consistent with the VR*
- *Z: replace with a zero-length value, or a non-zero length value that may be a dummy value and consistent with the VR*
- *X: remove*
- *K: keep (unchanged for non-sequence attributes, cleaned for sequences)*
- *C: clean, that is replace with values of similar meaning known not to contain identifying information and consistent with the VR*
- *U: replace with a non-zero length UID that is internally consistent within a set of Instances*
- *Z/D: Z unless D is required to maintain IOD conformance (Type 2 versus Type 1)*
- *X/Z: X unless Z is required to maintain IOD conformance (Type 3 versus Type 2)*
- *X/D: X unless D is required to maintain IOD conformance (Type 3 versus Type 1)*
- *X/Z/D: X unless Z or D is required to maintain IOD conformance (Type 3 versus Type 2 versus Type 1)*
- *X/Z/U*: X unless Z or replacement of contained instance UIDs (U) is required to maintain IOD conformance (Type 3 versus Type 2 versus Type 1 sequences containing UID references)*

[Indicated in the Encrypted Column, whether encryption is supported. Y for yes, N for No.]

Table A.11-6: De-identified Elements and Actions

Attribute Name	Tag	Action	Encrypted	Comments
Basic Profile Option				
<Element name>	*<(xxxx,yyyy)>*			*[In case of dummy value, describe here the algorithm that produces the value]*
[Additional Private Option]				

[Explain here the scope across which the application can ensure referential integrity of replacement values for references such as SOP Instance UID, Frame of Reference UID, etc. if multiple SOP instances are de-identified (e.g., across multiple Studies, consistent replacement if the same Study processed more than once, etc.)

Also mention if Encrypted Attributes Data Set is to be used and which Transfer Syntaxes are supported for encoding/decoding Encrypted Attributes Data Set

Finally, list here any additional restrictions (e.g. key sizes for public keys).]

A.11.2.7 A.C.2.7 Digital Signature Details

[Describe here the details of any Digital Signature Profile that your product may support. Put "N/A" if none.]

A.11.2.8 A.C.2.8 Additional DICOM Security Profile Details

[Describe here the details of any additional DICOM® Security Profile that your product may support. Put "N/A" if none.]

A.12 A.D Mapping of Attributes

Table A.12-1 describes the mapping of attributes between Modality Worklist, Instances and MPPS messages.

In the Scenarios column the following values are used:

[List the different scenarios which your product supports for mapping attributes and use those values in the Table below in the scenario column. The list below represents an example that is derived from the IHE Technical Framework; however, you can define your own scenarios or modify the list below. All entries in the list need to occur as permanent text in your DICOM Conformance Statement

- *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 used:

- 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 contains either ROOT, if the attribute is added to the root of the instance, or 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.

[Update the Table to match your product implementation. The entries below are meant as an example.]

Table A.12-1: Mapping of Attributes from Modality Worklist to Image and MPPS

Attribute Name	Tag	Scenario	Image		MPPS		Comments
			Value Source	Destination	Value Source	Destination	
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)*	
		GROUP	*SYSTEM*	*ROOT*	*SRC_INSTANCE*	*(0040,0270)*	*[(a)]One item per SPS in (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)*	
		GROUP	*MWL/EMPTY [(a)]*	*ROOT*	*MWL [(b)]*	*(0040,0270)*	*[(a)]If same accession Number for all requested procedures, use that in the Accession number of the Instances. If different keep empty.* *[(b)]Copy Accession Number for each Requested Procedure into the item of the appropriate SPS*
Requested Procedure ID	*(0040,1001)*	*SCHEDULED*	*MWL*	*(0040,0275)[(a)]* *(0040,A370)[(b)]*	*SRC_INSTANCE*	*(0040,0270)*	*[(a)]for use in Image IODs)* *[(b)] for use in Evidence Documents*
		UNSCHEDULED	*N/A*	*N/A*	*EMPTY*	*(0040,0270)*	
		APPEND	*SRC_INSTANCE*	*(0040,0275)[(a)]* *(0040,A370)[(b)]*	*SRC_INSTANCE*	*(0040,0270)*	*[(a)]for use in Image IODs)* *[(b)] for use in Evidence Documents*

		GROUP					
Study ID	*(0020,0010)*	*SCHEDULED*	*GENERATED*	*ROOT*	*SRC_INSTANCE*	*ROOT*	*Copied from Requested Procedure ID (0040,1001)*
		UNSCHEDULED	*GENERATED*	*ROOT*	*SRC_INSTANCE*	*ROOT*	*Copied from Requested Procedure ID (0040,1001)*
		APPEND	*GENERATED*	*ROOT*	*SRC_INSTANCE*	*ROOT*	*Copied from Requested Procedure ID (0040,1001)*

4100

Retire Annex B to M