

# **SoliPACS Server**

## **DICOM Conformance Statement**

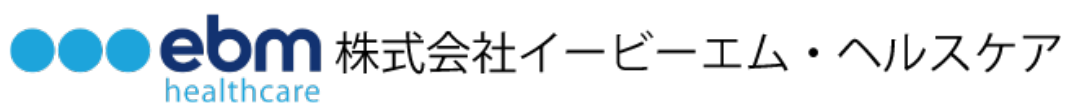
### **Volume 4**

#### **<DICOM Print Option>**

Revision 1.0  
Software Version 11.1 and after

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Prepared for



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## 1. CONFORMANCE STATEMENT OVERVIEW

This document is DICOM Conformance Statement of SoliPACS Server that implements the necessary DICOM services to print images to networked hardcopy devices.

**Table 1-1**  
**SUPPORTED NETWORKING DICOM SERVICE (SOP) CLASSES**

<b>Networking Service Class</b>	<b>Initiator or User of Service</b>	<b>Provider of Service</b>
<b>Print Management</b>		
Basic Grayscale Print Management	Yes	No
Presentation LUT	Yes	No

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### 3. Introduction

#### 3.1 Revision History

Document Revision	Date	Author	Description
1.0	January 15, 2008	M. Kobayashi	Initial

#### 3.2 Audience

This document is intended for hospital staff, health system integrators, software designers or implementers. It is assumed that the reader has a working understanding of DICOM.

#### 3.3 Remarks

DICOM, by itself, does not guarantee interoperability. However, the Conformance Statement facilitates a first-level validation for interoperability between different applications supporting the same DICOM functionality.

This Conformance Statement is not intended to replace validation with other DICOM equipment to ensure proper exchange of information intended.

The scope of this Conformance Statement is to facilitate communication between the SoliPACS Server and other DICOM systems. The Conformance Statement should be read and understood in conjunction with the DICOM Standard [DICOM]. However, by itself it is not guaranteed to ensure the desired interoperability and a successful interconnectivity.

The user should be aware of the following important issues:

- The comparison of different Conformance Statements is the first step towards assessing interconnectivity between SoliPACS Server and other DICOM conformant equipment.
- Test procedures should be defined to validate the desired level of connectivity.
- The DICOM standard will evolve to meet the users' future requirements. SoliPACS Server is actively involved in developing the standard further and therefore reserves the right to make changes to its products or to discontinue its delivery.

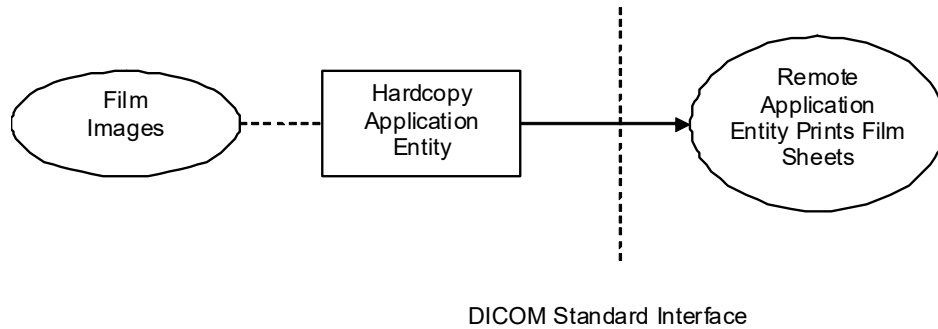
### 3.4 Abbreviations and Acronyms:

AE	Application Entity
CR	Computerized radiography
CT	Computerized Tomography
DICOM	Digital Imaging and Communications in Medicine
IE	Information Entity
IOD	Information Object Definition
ISO	International Standards Organization
MR	Magnetic Resonance
PDF	Portable Document Format
PDU	Protocol Data Unit
SC	Secondary Capture
SCP	Service Class Provider
SCU	Service Class User
SOP	Service-Object Pair
SR	Structured Reporting
TCP/IP	Transmission Control Protocol/Internet Protocol
UID	Unique Identifier
US	Ultrasound
VM	Value Multiplicity
VL	Visible Light
VR	Value Representation

## 4. NETWORKING

### 4.1 Implementation Model

#### 4.1.1 Application Data Flow



**FIGURE 4.1-1**  
**DATA FLOW DIAGRAM**

The Hardcopy Application Entity prints images on a remote AE (Printer). It is associated with the local real-world activity "Film Images". "Film Images" creates a print-job within the print queue containing one or more virtual film sheets composed from images selected by the user.

#### 4.1.2 Functional Definition of AEs

##### 4.1.2.1 Functional Definition of Hardcopy Application Entity

The existence of a print-job in the print queue will activate the Hardcopy AE. An association is established with the printer and the printer's status determined. If the printer is operating normally, the film sheets described within the print-job will be printed. Changes in printer status will be detected (e.g. out of film) and reported to the user. If the printer is not operating normally, the print-job will set to an error state and can be restarted by the user via the job control interface.



### 4.1.3 Sequencing of Real World Activities



**Figure 4.1-2**  
**SEQUENCING CONSTRAINTS**

Under normal circumstances the sequencing depicted above applies:

1. Print Images.

## 4.2 AE Specifications

### 4.2.1 Hardcopy Application Entity Specification

#### 4.2.1.1 SOP Classes

SOLIPACS SERVER provides Standard Conformance to the following SOP Classes:

**Table 4.2-1**  
**SOP CLASSES FOR AE HARDCOPY**

SOP Class Name	SOP Class UID	SCU	SCP
Basic Grayscale Print Management Meta	1.2.840.10008.5.1.1.9	Yes	No
Presentation LUT	1.2.840.10008.5.1.1.23	Yes	No

#### 4.2.1.2 Association Policies

##### 4.2.1.2.1 General

The DICOM standard application context name for DICOM 3.0 is always proposed:

**Table 4.2-2**  
**DICOM APPLICATION CONTEXT FOR AE HARDCOPY**

Application Context Name	1.2.840.10008.3.1.1.1
--------------------------	-----------------------

#### 4.2.1.2.2 Number of Associations

SoliPACS Server initiates one Association at a time for each configured hardcopy device. Multiple hardcopy devices can be configured.

**Table 4.2-3**

**NUMBER OF ASSOCIATIONS INITIATED FOR AE HARDCOPY**

Maximum number of simultaneous Associations	1
---	---

#### 4.2.1.2.3 Asynchronous Nature

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

**Table 4.2-4**

**ASYNCHRONOUS NATURE AS A SCU FOR AE HARDCOPY**

Maximum number of outstanding asynchronous transactions	1
---	---

#### 4.2.1.2.4 Implementation Identifying Information

The implementation information for this Application Entity is:

**Table 4.2-5**

**DICOM IMPLEMENTATION CLASS AND VERSION FOR AE HARDCOPY**

Implementation Class UID	1.2.840.113820.81.40
Implementation Version Name	EBM_DICOM_81_40

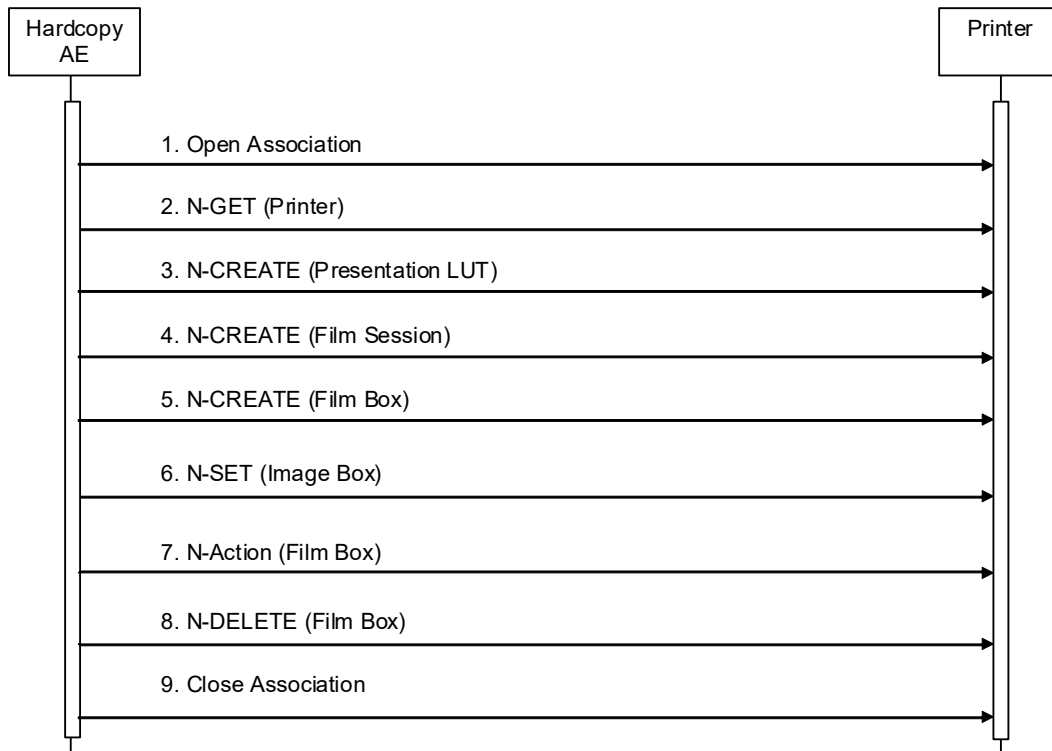
#### 4.2.1.3 Association Initiation Policy

##### 4.2.1.3.1 Activity – Film Images

##### 4.2.1.3.1.1 Description and Sequencing of Activities

A user composes images onto film sheets and requests them to be sent to a specific hardcopy device. The user can select the desired film format and number of copies. Each print-job is forwarded to the job queue and processed individually.

The Hardcopy AE is invoked by the job control interface that is responsible for processing network tasks. The job consists of data describing the images and graphics to be printed as well as the requested layout and other parameters. The film sheet is internally processed, converted to a STANDARD/1,1 page and then the page image is sent. If no association to the printer can be established, the print-job is switched to a failed state and the user informed.



**Figure 4.2-1**  
**SEQUENCING OF ACTIVITY – FILM IMAGES**

A typical sequence of DIMSE messages sent over an association between Hardcopy AE and a Printer is illustrated in Figure 4.2-1:

1. Hardcopy AE opens an association with the Printer
2. N-GET on the Printer SOP Class is used to obtain current printer status information. If the Printer reports a status of FAILURE, the print-job is switched to a failed state and the user is informed.
3. N-CREATE on the Presentation LUT SOP Class creates a Presentation LUT (if supported by the printer).
4. N-CREATE on the Film Session SOP Class creates a Film Session.
5. N-CREATE on the Film Box SOP Class creates a Film Box linked to the Film Session. A single Image Box will be created as the result of this operation (Hardcopy AE only uses the format STANDARD\1,1)

6. N-SET on the Image Box SOP Class transfers the contents of the film sheet to the printer. If the printer does not support the Presentation LUT SOP Class, the image data will be passed through a printer-specific correction LUT before being sent.
7. N-ACTION on the Film Box SOP Class instructs the printer to print the Film Box
8. N-DELETE on the Film Box SOP Class deletes the complete Film Box SOP Instance hierarchy.
9. Hardcopy AE closes the association with the Printer

Status of the print-job is reported through the job control interface. Only one job will be active at a time for each separate hardcopy device. If any Response from the remote Application contains a status other than Success or Warning, the Association is aborted and the related Job is switched to a failed state. It can be restarted any time by user interaction or, if configured, by automated retry.

#### 4.2.1.3.1.2 Proposed Presentation Contexts

SOLIPACS Server is capable of proposing the Presentation Contexts shown in the Table below:

**Table 4.2-6**  
**PROPOSED PRESENTATION CONTEXTS FOR ACTIVITY FILM IMAGES**

Presentation Context Table					
Abstract Syntax		Transfer Syntax		Role	Ext. Neg.
Name	UID	Name List	UID List		
Basic Grayscale Print Management Meta	1.2.840.10008.5.1.1.9	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None
Presentation LUT	1.2.840.10008.5.1.1.23	Implicit VR Little Endian	1.2.840.10008.1.2	SCU	None

#### 4.2.1.3.1.3 Common SOP Specific Conformance for all Print SOP Classes

The general behavior of Hardcopy AE during communication failure is summarized in the Table below. This behavior is common for all SOP Classes supported by Hardcopy AE.

**Table 4.2-7**

**HARDCOPY COMMUNICATION FAILURE BEHAVIOR**

<b>Exception</b>	<b>Behavior</b>
Timeout	The Association is aborted using A-ABORT and the print-job is marked as failed. The reason is logged and the job failure is reported to the user via the job control application.
Association aborted by the SCP or network layers	The print-job is marked as failed. The reason is logged and the job failure is reported to the user via the job control application.

**4.2.1.3.1.4 SOP Specific Conformance for the Printer SOP Class**

Hardcopy AE supports the following DIMSE operation for the Printer SOP Class:

- N-GET

Details of the supported attributes and status handling behavior are described in the following subsections.

**4.2.1.3.1.4.1 Printer SOP Class Operations (N-GET)**

Hardcopy AE uses the Printer SOP Class N-GET operation to obtain information about the current printer status. The attributes obtained via N-GET are listed in the Table below:

**Table 4.2-8**

**PRINTER SOP CLASS N-GET REQUEST ATTRIBUTES**

<b>Attribute Name</b>	<b>Tag</b>	<b>VR</b>	<b>Value</b>	<b>Presence of Value</b>	<b>Source</b>
Printer Status	(2110,0010)	CS	Provided by Printer	ALWAYS	Printer
Printer Status Info	(2110,0020)	CS	Provided by Printer	ALWAYS	Printer

The Printer Status information is evaluated as follows:

1. If Printer status (2110,0010) is NORMAL, the print-job continues to be printed.
2. If Printer status (2110,0010) is FAILURE, the print-job is marked as failed. The contents of Printer Status Info (2110,0020) is logged and reported to the user via the job control application.

- If Printer status (2110,0010) is WARNING, the print-job continues to be printed. The contents of Printer Status Info (2110,0020) is logged and reported to the user via the job control application.

The behavior of Hardcopy AE when encountering status codes in an N-GET response is summarized in the Table below:

**Table 4.2-9**

**PRINTER SOP CLASS N-GET RESPONSE STATUS HANDLING BEHAVIOR**

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	The request to get printer status information was success.
*	*	Any other status code.	The Association is aborted using A-ABORT and the print-job is marked as failed. The status meaning is logged and reported to the user.

#### 4.2.1.3.1.5 SOP Specific Conformance for the Film Session SOP Class

Hardcopy AE supports the following DIMSE operation for the Film Session SOP Class:

— N-CREATE

Details of the supported attributes and status handling behavior are described in the following subsections.

##### 4.2.1.3.1.5.1 Film Session SOP Class Operations (N-CREATE)

The attributes supplied in an N-CREATE Request are listed in the Table below:

**Table 4.2-10**

**FILM SESSION SOP CLASS N-CREATE REQUEST ATTRIBUTES**

Attribute Name	Tag	VR	Value	Presence of Value	Source
Number of Copies	(2000,0010)	IS	1 .. 20	ALWAYS	User
Medium Type	(2000,0030)	CS	BLUE FILM, CLEAR FILM, PAPER, MAMMO CLEAR FILM or MAMMO BLUE FILM	ALWAYS	User
Film Destination	(2000,0040)	CS	MAGAZINE, PROCESSOR, BIN_1, BIN_2, BIN_3 or BIN_4	ALWAYS	User

The behavior of Hardcopy AE when encountering status codes in an N-CREATE response is summarized in the Table below:

**Table 4.2-11**

**FILM SESSION SOP CLASS N-CREATE RESPONSE STATUS HANDLING BEHAVIOR**

<b>Service Status</b>	<b>Further Meaning</b>	<b>Error Code</b>	<b>Behavior</b>
Success	Success	0000	The SCP has completed the operation successfully.
Warning	Attribute Value Out of Range	0116H	The N-CREATE operation is considered successful but the status meaning is logged. Additional information in the Response identifying the attributes out of range will be logged (i.e. Elements in the Modification List/Attribute List)
Warning	Attribute List Error	0107H	The N-CREATE operation is considered successful but the status meaning is logged. Additional information in the Response identifying the attributes will be logged (i.e. Elements in the Attribute Identifier List)
*	*	Any other status code.	The Association is aborted using A-ABORT and the print-job is marked as failed. The status meaning is logged and reported to the user.

**4.2.1.3.1.6 SOP Specific Conformance for the Presentation LUT SOP Class**

Hardcopy AE supports the following DIMSE operations for the Presentation LUT SOP Class:

- N-CREATE

Details of the supported attributes and status handling behavior are described in the following subsections.

**4.2.3.3.1.6.1 Presentation LUT SOP Class Operations (N-CREATE)**

The attributes supplied in an N-CREATE Request are listed in the Table below:

**Table 4.2-12**

**PRESENTATION LUT SOP CLASS N-CREATE REQUEST ATTRIBUTES**

<b>Attribute Name</b>	<b>Tag</b>	<b>VR</b>	<b>Value</b>	<b>Presence of Value</b>	<b>Source</b>
Presentation LUT Shape	(2050,0020)	CS	IDENTITY	ALWAYS	Auto

The behavior of Hardcopy AE when encountering status codes in an N-CREATE response is summarized in the Table below:

**Table 4.2-13**

**PRESENTATION LUT SOP CLASS N-CREATE RESPONSE STATUS HANDLING BEHAVIOR**

<b>Service Status</b>	<b>Further Meaning</b>	<b>Error Code</b>	<b>Behavior</b>
Success	Success	0000	The SCP has completed the operation successfully.
Warning	Requested Min Density or Max Density outside of printer's operating range	B605H	The N-CREATE operation is considered successful but the status meaning is logged.
*	*	Any other status code.	The Association is aborted using A-ABORT and the print-job is marked as failed. The status meaning is logged and reported to the user.

**4.2.1.3.1.7 SOP Specific Conformance for the Film Box SOP Class**

Hardcopy AE supports the following DIMSE operations for the Presentation LUT SOP Class:

- N-CREATE
- N-ACTION
- N-DELETE

Details of the supported attributes and status handling behavior are described in the following subsections.

**4.2.1.3.1.7.1 Film Box SOP Class Operations (N-CREATE)**

The attributes supplied in an N-CREATE Request are listed in the Table below:

**Table 4.2-14**

**FILM BOX SOP CLASS N-CREATE REQUEST ATTRIBUTES**

<b>Attribute Name</b>	<b>Tag</b>	<b>VR</b>	<b>Value</b>	<b>Presence of Value</b>	<b>Source</b>
Image Display Format	(2010,0010)	CS	STANDARD¥1,1	ALWAYS	Auto
Referenced Film Session Sequence	(2010,0500)	SQ		ALWAYS	Auto
>Referenced SOP Class UID	(0008,1150)	UI	1.2.840.10008.5.1.1.1	ALWAYS	Auto
>Referenced SOP Instance UID	(0008,1155)	UI	From created Film Session SOP Instance	ALWAYS	Auto



Film Orientation	(2010,0040)	CS	PORTRAIT or LANDSCAPE	ALWAYS	User
Film Size ID	(2010,0050)	CS	8INX10IN, 8_5INX11IN, 10INX12IN, 10INX14IN, 11INX14IN, 11INX17IN, 14INX14IN, 14INX17IN, 24CMX24CM, 24CMX30CM, A4 or A3	ANAP	User
Magnification Type	(2010,0060)	CS	CUBIC or NONE	ANAP	User
Max Density	(2010,0130)	US	0 .. 500	ANAP	User
Min Density	(2010,0120)	US	0 .. 500	ANAP	User
Illumination	(2010,015E)	US	0 .. 5000	ANAP	User
Reflective Ambient Light	(2010,0160)	US	0 .. 100	ANAP	User
Referenced Presentation LUT Sequence	(2050,0500)	SQ	Only sent if Illumination and Reflective Ambient Light are defined by the user and if Presentation LUT SOP Class has been negotiated.	ANAP	Auto
>Referenced SOP Class UID	(0008,1150)	UI	1.2.840.10008.5.1.1.23	ALWAYS	Auto
>Referenced SOP Instance UID	(0008,1155)	UI	From created Presentation LUT SOP Instance	ALWAYS	Auto

The behavior of Hardcopy AE when encountering status codes in an N-CREATE response is summarized in the Table below:

**Table 4.2-15**

**FILM BOX SOP CLASS N-CREATE RESPONSE STATUS HANDLING BEHAVIOR**

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	The SCP has completed the operation successfully.
Warning	Requested Min Density or Max Density outside of printer's operating range	B605H	The N-CREATE operation is considered successful but the status meaning is logged.
*	*	Any other status code.	The Association is aborted using A-ABORT and the print-job is marked as failed. The status meaning is logged and reported to the user.

**4.2.1.3.1.7.2 Film Box SOP Class Operations (N-ACTION)**

An N-ACTION Request is issued to instruct the Print SCP to print the contents of the

Film Box. The Action Reply argument in an N-ACTION response is not evaluated. The behavior of Hardcopy AE when encountering status codes in an N-ACTION response is summarized in the Table below:

**Table 4.2-16**

**FILM BOX SOP CLASS N-ACTION RESPONSE STATUS HANDLING BEHAVIOR**

<b>Service Status</b>	<b>Further Meaning</b>	<b>Error Code</b>	<b>Behavior</b>
Success	Success	0000	The SCP has completed the operation successfully. The film has been accepted for printing.
Warning	Film Box SOP Instance hierarchy does not contain Image Box SOP Instances (empty page)	B603H	The Association is aborted using A-ABORT and the print-job is marked as failed. The status meaning is logged and reported to the user.
Warning	Image size is larger than Image Box size. The image has been demagnified.	B604H	The N-ACTION operation is considered successful but the status meaning is logged.
Warning	Image size is larger than Image Box size. The image has been cropped to fit.	B609H	The N-ACTION operation is considered successful but the status meaning is logged.
Warning	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	The N-ACTION operation is considered successful but the status meaning is logged.
Failure	Unable to create Print Job SOP Instance; print queue is full.	C602	The Association is aborted using A-ABORT and the print-job is marked as failed. The status meaning is logged and reported to the user.
Failure	Image size is larger than Image Box size.	C603	The Association is aborted using A-ABORT and the print-job is marked as failed. The status meaning is logged and reported to the user.
Failure	Combined Print Image Size is larger than Image Box size.	C613	The Association is aborted using A-ABORT and the print-job is marked as failed. The status meaning is logged and reported to the user.
*	*	Any other status code.	The Association is aborted using A-ABORT and the print-job is marked as failed. The status meaning is logged and reported to the user.

#### 4.2.1.3.1.7.3 Film Box SOP Class Operations (N-DELETE)

The behavior of Hardcopy AE when encountering status codes in an N-DELETE response is summarized in the Table below:

**Table 4.2-17**

**PRINTER SOP CLASS N-DELETE RESPONSE STATUS HANDLING BEHAVIOR**

Service Status	Further Meaning	Error Code	Behavior
Success	Success	0000	The SCP has completed the operation successfully.
*	*	Any other status code.	The Association is aborted using A-ABORT and the print-job is marked as failed. The status meaning is logged and reported to the user.

#### 4.2.1.3.1.8 SOP Specific Conformance for the Image Box SOP Class

Hardcopy AE supports the following DIMSE operations for the Image Box SOP Class:

- N-SET

Details of the supported attributes and status handling behavior are described in the following subsections.

##### 4.2.1.3.1.8.1 Image Box SOP Class Operations (N-SET)

The attributes supplied in an N-SET Request are listed in the Table below:

**Table 4.2-18**

**IMAGE BOX SOP CLASS N-SET REQUEST ATTRIBUTES**

Attribute Name	Tag	VR	Value	Presence of Value	Source
Image Position	(2020,0010)	US	1	ALWAYS	Auto
Requested Image Size	(2020,0030)	DS		ANAP	User
Basic Grayscale Image Sequence	(2020,0110)	SQ		ALWAYS	Auto
>Samples Per Pixel	(0028,0002)	US	1	ALWAYS	Auto
>Photometric Interpretation	(0028,0004)	CS	MONOCHROME2	ALWAYS	Auto
>Rows	(0028,0010)	US	Depends on film size, maximum 5120	ALWAYS	Auto
>Columns	(0028,0011)	US	Depends on film size Maximum 6144	ALWAYS	Auto

>Bits Allocated	(0028,0100)	US	16	ALWAYS	Auto
>Bits Stored	(0028,0101)	US	12	ALWAYS	Auto
>High Bit	(0028,0102)	US	11	ALWAYS	Auto
>Pixel Representation	(0028,0103)	US	0	ALWAYS	Auto
>Pixel Data	(7FE0,0010)	OB	Pixels of rendered film sheet	ALWAYS	Auto

The behavior of Hardcopy AE when encountering status codes in an N-SET response is summarized in the Table below:

**Table 4.2-19**

**IMAGE BOX SOP CLASS N-SET RESPONSE STATUS HANDLING BEHAVIOR**

<b>Service Status</b>	<b>Further Meaning</b>	<b>Error Code</b>	<b>Behavior</b>
Success	Success	0000	The SCP has completed the operation successfully. Image successfully stored in Image Box.
Warning	Image size is larger than Image Box size. The image has been demagnified.	B604H	The N-SET operation is considered successful but the status meaning is logged.
Warning	Requested Min Density or Max Density outside of printer's operating range.	B605H	The N-SET operation is considered successful but the status meaning is logged.
Warning	Image size is larger than Image Box size. The image has been cropped to fit.	B609H	The N-SET operation is considered successful but the status meaning is logged.
Warning	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	The N-SET operation is considered successful but the status meaning is logged.
Failure	Image size is larger than Image Box size.	C603	The Association is aborted using A-ABORT and the print-job is marked as failed. The status meaning is logged and reported to the user.
Failure	Insufficient memory in printer to store the image.	C605	The Association is aborted using A-ABORT and the print-job is marked as failed. The status meaning is logged and reported to the user.
Failure	Combined Print Image Size is larger than Image Box size.	C613	The Association is aborted using A-ABORT and the print-job is marked as failed. The status meaning is logged and reported to the user.

*	*	Any other status code.	The Association is aborted using A-ABORT and the print-job is marked as failed. The status meaning is logged and reported to the user.
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#### 4.2.1.4 Association Acceptance Policy

The Hardcopy Application Entity does not accept Associations.

### 4.3 Physical Network Interfaces

#### 4.3.1 Supported Communication Stacks

SoliPACS Server DICOM AEs provide DICOM 3.0 TCP/IP Network Communication Support as defined in Part 8 of the DICOM Standard.

##### 4.3.1.1 TCP/IP Stack

SoliPACS Server DICOM AEs inherit their TCP/IP stack from the Windows 2003 Operating System upon which they execute.

##### 4.3.2 Physical Media

The SoliPACS Server supports a single network interface. One of the following physical network interfaces will be available depending on installed hardware options:

**Table 4.3-1  
SUPPORTED PHYSICAL NETWORK INTERFACES**

Ethernet 1000baseT
Ethernet 100baseTX

##### 4.3.3 Additional Protocols

SoliPACS Server does not support additional protocols.

## 4.4 Configuration

### 4.4.1 AE Title/Presentation Address Mapping

The mapping from AE Title to TCP/IP addresses and ports is configurable and set at the time of installation by Installation Personnel.

#### 4.4.1.1 Local AE Titles

The mapping from AE Title to TCP/IP addresses and ports is configurable and set at the time of installation by Installation Personnel.

Table 4.4-1

AE TITLE CONFIGURATION TABLE

Application Entity	Default AE Title	Default TCP/IP Port
HARDCOPY-SCU	SolIPACS Server	None

#### 4.4.1.2 Remote AE Title/Presentation Address Mapping

The mapping of external AE Titles to TCP/IP addresses and ports is configurable and set at the time of installation by Installation Personnel.

### 4.4.2 Parameters

Table 4.4-2

CONFIGURATION PARAMETERS TABLE

Parameter	Configurable (Yes/No)	Default Value
<b>General Parameters</b>		
Max PDU Receive Size	No	8192 Bytes (8kB)
Max PDU Send Size (larger PDUs will never be sent, even if the receiver supports a larger Max PDU Receive Size. If the receiver supports a smaller Max PDU Receive Size then the Max PDU Send Size will be reduced accordingly for the duration of the Association. Max PDU Receive Size information is exchanged during DICOM Association Negotiation in the Maximum Length Sub-Item of the A-ASSOCIATION-RQ and A-ASSOCIATE-AC)	No	8192 Bytes (8kB)
Time-out waiting for a acceptance or rejection response to an Association Request (Application Level Timeout)	No	60 s
Time-out waiting for a response to an Association release request (Application Level Timeout)	Yes	60 s
Time-out waiting for completion of a TCP/IP connect request (Low-level timeout)	No	30 s

<b>Parameter</b>	<b>Configurable (Yes/No)</b>	<b>Default Value</b>
Time-out awaiting a Response to a DIMSE Request (Low-Level Timeout)	No	60 s
Time-out for waiting for data between TCP/IP-packets (Low Level Timeout)	No	60 s
<b>Print Parameters</b>		
Print SCU time-out waiting for a response to a N-CREATE-RQ	No	60 s
Print SCU time-out waiting for a response to a N-SET-RQ	No	60 s
Print SCU time-out waiting for a response to a N-ACTION-RQ	No	60 s
Delay between retrying failed print-jobs	Yes	60 s
Printer correction LUT (separately configurable for each remote printer)	Yes	Identity LUT