

DICOM Conformance Statement
For
Kodak Carestream RIS
Version 10.X
With
Enterprise Connector

Revision History

| Revision | Date | Author | Reason for Change |
|----------|------------------|-----------------|--------------------------------|
| A | August 12, 2003 | Glenn Arsenaunt | Initial Version |
| B | October 12, 2006 | Glenn Arsenaunt | Update branding for version 10 |

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1 Introduction

1.1 Purpose of this Document

This document is a DICOM Conformance Statement for the software product *Kodak Enterprise Connector* – hereafter referred to as Enterprise Connector.

Enterprise Connector is a service class provider for DIMSE services relating to access to its Radiology Information System, and a service class user for DIMSE services needed for RIS to operate. Actual configurations of *Enterprise Connector* with various modalities and PACS systems may be subject to restrictions not noted in this conformance statement. For example, some configurations may support certain functions or attributes, while others do not.

A given instance of *Enterprise Connector* may be licensed to support all, or only a subset of the service classes documented here.

1.2 Sources for this Document

ACR-NEMA Digital Imaging and Communications in Medicine (DICOM) v3.0, Final Text, 2000.

1.3 Acronyms and Abbreviations

The following acronyms and abbreviations are used in this document.

- ACR American College of Radiology
 - AE Application Entity
 - ANSI American National Standards Institute
 - CDM Common Data Model
 - DICOM Digital Imaging and Communications in Medicine
 - DIMSE DICOM Message Service Element
 - NEMA National Electrical Manufacturers Association
 - PDU Protocol Data Unit
 - RIS Radiology Information System
 - SCP Service Class Provider
 - SCU Service Class User
 - SOP Service Object Pair
 - TCP/IP Transmission Control Protocol/Internet Protocol
 - UID Unique Identifier
-

1.4 Typographical Conventions

The following typographical conventions are used in this document.

Formatting convention

BLOCK CAPS

Italic type

Type of information

DIMSE Service

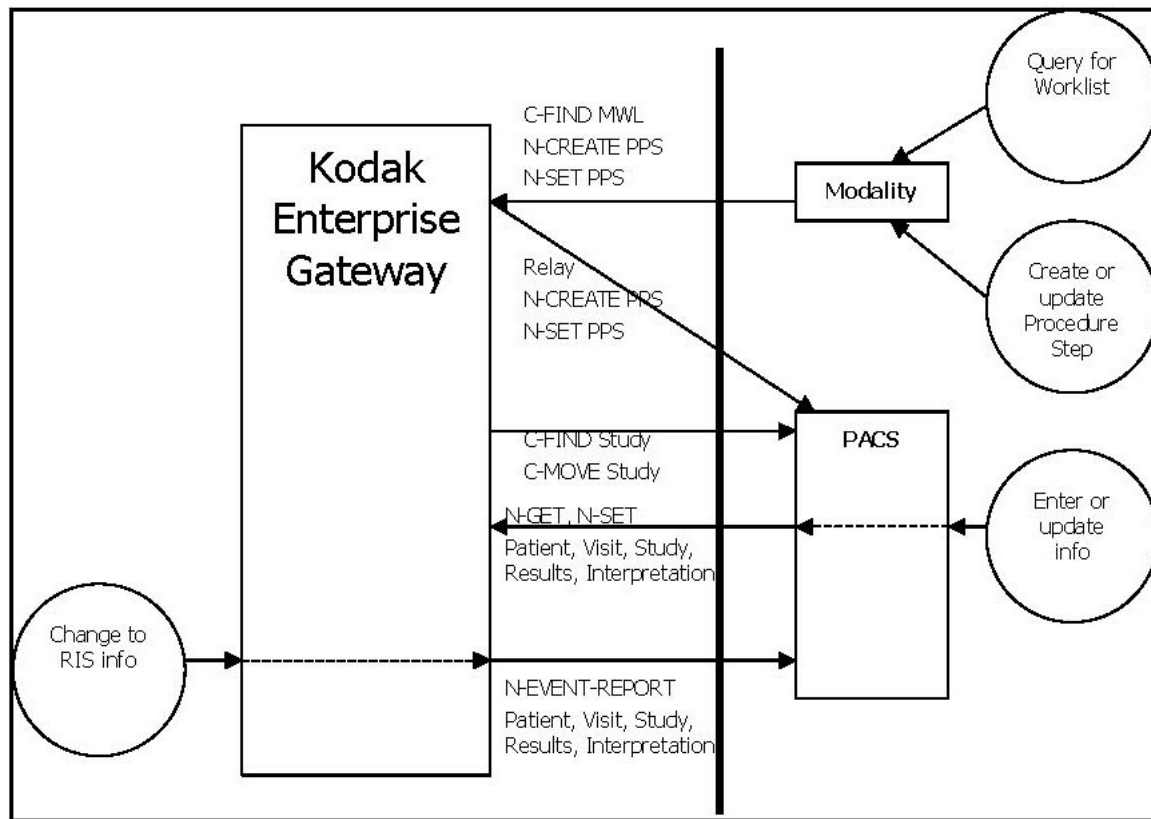
Application Entity

2 Implementation Model

Enterprise Connector includes the following subsystems:

DICOM service class providers and users for the service classes discussed below. *Enterprise Connector* both accepts and requests DICOM associations.

2.1 Application Data Flow Diagram



2.2 Functional Definitions of AEs

2.2.1 N-EVENT-REPORT

Enterprise Connector may be configured to receive HL7 or proprietary event notifications. Depending on configuration, *Enterprise Connector* may send matching DICOM-N-EVENT-REPORTs for Patient, Visit, Study, Results, and Interpretation to specified devices in the PACS. The distribution pattern for each class of event, and the time at which events are issued, are configurable via the *Enterprise Connector* GUI.

2.2.2 N-GET Requests

As an SCP, *Enterprise Connector* responds to N-GET requests for Patient, Visit, Study, Results, and Interpretation information.

2.2.3 N-SET Requests

As an SCP, *Enterprise Connector* responds to N-SET requests for Visit, Study, and Interpretation information.

2.2.4 N-CREATE and N-SET Modality Performed Procedure Step

Enterprise Connector will accept requests to N-CREATE and N-SET a Modality Performed Procedure Step (PPS). *Enterprise Connector* can be configured to forward N-CREATE and N-SET messages to interested parties when PPS's are created and updated.

2.2.5 C-FIND Modality Worklist

Enterprise Connector will accept requests to C-FIND a Modality Worklist (MWL).

2.2.6 C-FIND Study

Enterprise Connector can be configured to generate C-FIND requests to determine a list of prior studies that may be relevant to an upcoming scheduled study. Rule sets for defining and finding relevant prior Studies are defined through the *Enterprise Connector* GUI. C-FIND requests can query based on the following criteria:

- Patient Name
- Patient ID and Other Patient IDs
- Study Status ID
- Modality
- Specialty
- Date Range

Results returned by this query include the Study Instance UID, which can be used to retrieve Studies from a remote PACS device using C-MOVE.

2.2.7 C-MOVE Study

Enterprise Connector can be configured to automatically generate requests to a PACS to C-MOVE a study to itself or another AE when relevant prior Studies are found. See Section 2.2.6 for details of the C-FIND operation.

2.3 Sequencing of Real World Activities

2.3.1 Study Prefetch

When a Study is scheduled in RIS, *Enterprise Connector* will query a C-FIND SCP (typically a PACS) to find relevant prior Studies for prefetching. This is done in preparation for a C-Move request as described in Section 3.1.2.8. *Enterprise Connector* negotiates the Study Root query/ retrieve model only.

If the C-FIND operation returns results indicating that relevant priors do exist, then *Enterprise Connector* will issue a C-MOVE request to the same SCP in accordance with its configured prefetching rules.

2.3.2 Relaying of MPPS Messages

Enterprise Connector can be configured to relay incoming MPPS N-CREATE and N-SET operations to another MPPS SCP, such as a PACS device. When *Enterprise Connector* receives MPPS N-CREATE and N-SET operations as an SCP, it can act the role of an SCU to negotiate an association with the configured SCP and relay the incoming results.

3 AE Specifications

3.1 Enterprise Connector Specifications

Enterprise Connector provides Standard Conformance to the following DICOM V3.0 Verification SOP Class as an SCU and an SCP.

Table 1 Verification SOP Class

| SOP Class | SOP Class UID |
|--------------|-------------------|
| Verification | 1.2.840.10008.1.1 |

Enterprise Connector provides Standard Conformance to the following DICOM V3.0 Management SOP Classes as an SCP.

Table 2 Management SOP Classes

| SOP Class | SOP Class UID |
|------------------------------------|-------------------------|
| Detached Patient Management | 1.2.840.10008.3.1.2.1.1 |
| Detached Visit Management | 1.2.840.10008.3.1.2.2.1 |
| Detached Study Management | 1.2.840.10008.3.1.2.3.1 |
| Detached Results Management | 1.2.840.10008.3.1.2.5.1 |
| Detached Interpretation Management | 1.2.840.10008.3.1.2.6.1 |
| Study Component Management | 1.2.840.10008.3.1.2.3.2 |
| Modality Performed Procedure Step | 1.2.840.10008.3.1.2.3.3 |
| Modality Worklist Management | 1.2.840.10008.5.1.4.31 |

Enterprise Connector provides Standard Conformance to the following DICOM V3.0 Management SOP Classes as an SCU.

Table 3 Management SOP Classes

| SOP Class | SOP Class UID |
|-----------------------------------|-------------------------|
| Modality Performed Procedure Step | 1.2.840.10008.3.1.2.3.3 |
| Modality Worklist Management | 1.2.840.10008.5.1.4.31 |

Enterprise Connector provides Standard Conformance to the following DICOM V3.0 Query/Retrieve SOP Classes as an SCU only.

Table 4 Query/Retrieve SOP Classes

| SOP Class | SOP Class UID |
|---|-----------------------------|
| Study Root Query/Retrieve Information Model (IM) Find | 1.2.840.10008.5.1.4.1.2.2.1 |
| Study Root Query/Retrieve IM Move | 1.2.840.10008.5.1.4.1.2.2.2 |

3.1.1 Association Establishment Policies

3.1.1.1 General

The following Application Context Name will be proposed and recognized by *Enterprise Connector*:

- DICOM 3.0 Application Context 1.2.840.10008.4.1.1.1

Enterprise Connector contains no limitations for maximum PDU size. The default size is 100 000 bytes.

3.1.1.2 Number of Associations

The maximum number of simultaneous associations accepted by *Enterprise Connector* is configurable at run time. There is no inherent limit to the number of associations other than limits imposed by the computer operating system.

3.1.1.3 Asynchronous Nature

Enterprise Connector allows a single outstanding operation on any association. Therefore, *Enterprise Connector* does not support asynchronous operations window negotiation, other than the default as specified by the DICOM specification.

3.1.1.4 Implementation Identifying Information

Enterprise Connector will respond with the following implementation identifying parameters:

| | |
|-----------------------------|---------------------|
| Implementation Class UID | 1.2.124.113532.3320 |
| Implementation Version Name | BROKER992.0 |

3.1.1.5 Called/Calling Titles

The calling title that *Enterprise Connector* will use, when it acts as an SCU, is configurable for different SOP classes that it supports as an SCU.

Enterprise Connector validates the Calling Title of the requesting SCU during association negotiation. The calling title of the SCU requesting an association on a given port is compared against a list of valid device names listening on that port. The association is accepted only if a match is found. This behavior may be configured on a port-by-port basis, and is enabled by default.

This policy provides *Enterprise Connector* with a rudimentary level of security, by preventing unknown SCU processes from accessing hospital information.

3.1.2 Association Initiation by Real World Activity

Enterprise Connector attempts to issue a new association when an unsolicited event message needs to be sent to an SCU, or when a Query/Retrieve or Modality Performed Procedure Step is issued to an SCP.

3.1.2.1 Real World Activity - Detached Patient Management

3.1.2.1.1 Associated Real World Activity - Detached Patient Management

3.1.2.1.1.1 Activity as SCP

Enterprise Connector will send DIMSE N-EVENT-REPORTs to indicate that a change in the status of Patient information has occurred. The following events are supported:

- Patient Created – Patient has been added to the database
- Patient Deleted – Patient has been removed from the database
- Patient Updated – Patient information has changed
- Patient Merged – two Patient records have been merged

3.1.2.1.2 Presentation Context Table - Detached Patient Management

Enterprise Connector supports the transfer syntaxes listed in Table 5.

Table 5 Transfer Syntaxes

| Transfer Syntax | UID |
|---|-------------------|
| DICOM Implicit VR Little Endian Transfer Syntax | 1.2.840.10008.1.2 |

Table 6 Presentation Contexts

| Abstract Syntax | | Transfer Syntax | Role | Extended Negotiation |
|-----------------------------|-------------------------|------------------|------|----------------------|
| SOP Class | SOP Class UID | | | |
| Detached Patient Management | 1.2.840.10008.3.1.2.1.1 | all from Table 5 | SCP | None |

3.1.2.1.3 SOP Specific Conformance - Detached Patient Management

Enterprise Connector provides standard conformance to the DICOM Detached Patient Management Service Class.

Enterprise Connector supports the following elements for this SOP class:

Table 7 Detached Patient Management Object N-EVENT-REPORT Attributes

| Event Type Name | Attribute Name | Tag |
|-----------------|------------------------|-------------|
| Patient Created | Instance Creation Date | (0008,0012) |
| | Instance Creation Time | (0008,0013) |

| Event Type Name | Attribute Name | Tag |
|------------------------------------|--|-------------|
| | Instance Creator UID | (0008,0014) |
| Patient Deleted / Updated / Merged | Specific Character Set | (0008,0005) |
| | Patient Name | (0010,0010) |
| | Patient ID | (0010,0020) |
| | Issuer of Patient ID | (0010,0021) |
| | Other Patient Ids | (0010,1000) |
| | Other Patient Names | (0010,1001) |
| | Patient Telephone Numbers | (0010,2154) |
| | Patient Address | (0010,1040) |
| | Patient Birth Date | (0010,0030) |
| | Patient Sex | (0010,0040) |
| | Patient Weight | (0010,1030) |
| | Ethnic Group | (0010,2160) |
| | Patient Religious Preference | (0010,21F0) |
| | Patient Data Confidentiality Constraint Desc | (0040,3001) |
| | Patient State | (0038,0500) |
| | Pregnancy Status | (0010,21C0) |
| | Medical Alerts | (0010,2000) |
| | Contrast Allergies | (0010,2110) |
| | Special Needs | (0038,0050) |
| | Referenced Study Sequence | (0008,1110) |
| | >Referenced SOP Class UID | (0008,1150) |
| | >Referenced SOP Instance UID | (0008,1155) |
| | Referenced Visit Sequence | (0008,1125) |
| | >Referenced SOP Class UID | (0008,1150) |
| | >Referenced SOP Instance UID | (0008,1155) |
| | Referenced Patient Alias Sequence | (0038,0004) |
| | >Referenced SOP Class UID | (0008,1150) |
| | >Referenced SOP Instance UID | (0008,1155) |

3.1.2.2 Real World Activity - Detached Visit Management

3.1.2.2.1 Associated Real World Activity - Detached Visit Management

3.1.2.2.1.1 Activity as SCP

Enterprise Connector will send DIMSE N-EVENT-REPORTs to indicate that a change in the status of Visit information has occurred. The following events are supported:

- Visit Created – Visit object created in the database for a Patient

- Visit Updated – Visit has changed in database
- Visit Deleted – Visit has been deleted from database
- Visit Scheduled – Patient will be arriving at some time in the future
- Patient Admitted – Patient has been admitted into the facility
- Patient Transferred – Patient has moved to a new location
- Patient Discharged – Patient has been discharged from the facility

3.1.2.2.2 Presentation Context Table - Detached Visit Management

Enterprise Connector supports the transfer syntaxes listed in Table 8.

Table 8 Transfer Syntaxes

| Transfer Syntax | UID |
|---|-------------------|
| DICOM Implicit VR Little Endian Transfer Syntax | 1.2.840.10008.1.2 |

Table 9 Presentation Contexts

| Abstract Syntax | | Transfer Syntax | Role | Extended Negotiation |
|---------------------------|-------------------------|------------------|------|----------------------|
| SOP Class | SOP Class UID | | | |
| Detached Visit Management | 1.2.840.10008.3.1.2.2.1 | all from Table 8 | SCP | None |

3.1.2.2.3 SOP Specific Conformance - Detached Visit Management

Enterprise Connector provides standard conformance to the DICOM Detached Visit Management Service Class.

Enterprise Connector supports the following elements for this SOP class:

Table 10 Detached Visit Management Object N-EVENT-REPORT Attributes

| Event Type Name | Attribute Name | Tag |
|--|---------------------------------|-------------|
| Visit Created | Instance Creation Date | (0008,0012) |
| | Instance Creation Time | (0008,0013) |
| | Instance Creator UID | (0008,0014) |
| Visit Scheduled / Deleted / Updated, Patient Admitted / Transferred / Discharged | Specific Character Set | (0008,0005) |
| | Institution Name | (0008,0080) |
| | Institution Address | (0008,0081) |
| | Admission ID | (0038,0010) |
| | Issuer of Admission ID | (0038,0011) |
| | Visit Status ID | (0038,0008) |
| | Current Patient Location | (0038,0300) |
| | Patient's Institution Residence | (0038,0400) |

| Event Type Name | Attribute Name | Tag |
|-----------------|---|-------------|
| | Admitting Date | (0038,0020) |
| | Admitting Time | (0038,0021) |
| | Admitting Diagnosis Description | (0008,1080) |
| | Discharge Date | (0038,0030) |
| | Discharge Time | (0038,0032) |
| | Discharge Diagnosis Description | (0038,0040) |
| | Route of Admissions | (0038,0016) |
| | Referring Physician's Name | (0008,0090) |
| | Referring Physician's Address | (0008,0092) |
| | Scheduled Admission Date | (0038,001A) |
| | Scheduled Admission Time | (0038,001B) |
| | Scheduled Patient Institution Residence | (0038,001E) |
| | Scheduled Discharge Date | (0038,001C) |
| | Scheduled Discharge Time | (0038,001D) |
| | Referenced Patient Sequence | (0008,1120) |
| | >Referenced SOP Class UID | (0008,1150) |
| | >Referenced SOP Instance UID | (0008,1155) |
| | Referenced Study Sequence | (0008,1110) |
| | >Referenced SOP Class UID | (0008,1150) |
| | >Referenced SOP Instance UID | (0008,1155) |

3.1.2.3 Real World Activity - Detached Study Management

3.1.2.3.1 Associated Real World Activity - Detached Study Management

3.1.2.3.1.1 Activity as SCP

Enterprise Gateway will send DIMSE N-EVENT-REPORTs to indicate that a change in the status of study information has occurred. The following events are supported:

- Study Created – Study object has been created in the database
- Study Scheduled – Study has been scheduled to occur
- Patient Arrived – Patient has arrived for this Study
- Study Started – Study has begun
- Study Completed – Study has been completed
- Study Verified – Study was successful
- Study Read – Study has been reviewed
- Study Deleted – Study object has been deleted from the database
- Study Updated – Study information has changed
- Study Cancelled – Study has been cancelled

3.1.2.3.2 Presentation Context Table - Detached Study Management

Enterprise Connector supports the transfer syntaxes listed in Table 11.

Table 11 Transfer Syntaxes

| Transfer Syntax | UID |
|---|-------------------|
| DICOM Implicit VR Little Endian Transfer Syntax | 1.2.840.10008.1.2 |

Table 12 Presentation Contexts

| Abstract Syntax | | Transfer Syntax | Role | Extended Negotiation |
|---------------------------|-------------------------|-------------------|------|----------------------|
| SOP Class | SOP Class UID | | | |
| Detached Study Management | 1.2.840.10008.3.1.2.3.1 | all from Table 11 | SCP | None |

3.1.2.3.3 SOP Specific Conformance - Detached Study Management

Enterprise Connector provides standard conformance to the DICOM Detached Study Management Service Class.

Enterprise Connector supports the following elements for this SOP class:

Table 13 Detached Study Management Object N-EVENT-REPORT Attributes

| Event Type Name | Attribute Name | Tag |
|--|---|-------------|
| Study Created | Instance Creation Date | (0008,0012) |
| | Instance Creation Time | (0008,0013) |
| | Instance Creator UID | (0008,0014) |
| Study Updated / Deleted / Cancelled / Scheduled / Started / Completed / Verified / Read, Patient Arrived | Specific Character Set | (0008,0005) |
| | Study ID | (0020,0010) |
| | Study ID Issuer | (0032,0012) |
| | Accession Number | (0008,0050) |
| | Study Instance UID | (0020,000D) |
| | Study Status ID | (0032,000A) |
| | Study Priority ID | (0032,000C) |
| | Scheduled Study Start Date | (0032,1000) |
| | Scheduled Study Start Time | (0032,1001) |
| | Scheduled Study Location | (0032,1020) |
| | Scheduled Study Location Application Entity Title | (0032,1021) |
| | Requesting Service | (0032,1033) |
| | Requesting Physician | (0032,1032) |
| | Requested Procedure Description | (0032,1060) |

| Event Type Name | Attribute Name | Tag |
|-----------------|-------------------------------------|-------------|
| | Requested Procedure Code Sequence | (0032,1064) |
| | >Code Value | (0008,0100) |
| | >Coding Scheme Designator | (0008,0102) |
| | >Code Meaning | (0008,0104) |
| | Study Arrival Date | (0032,1040) |
| | Study Arrival Time | (0032,1041) |
| | Study Date | (0008,0020) |
| | Study Time | (0008,0030) |
| | Study Completed Date | (0032,1050) |
| | Study Completed Time | (0032,1051) |
| | Study Verified Date | (0032,0032) |
| | Study Verified Time | (0032,0033) |
| | Study Read Date | (0032,0034) |
| | Study Read Time | (0032,0035) |
| | Name of Physician(s) Reading Study | (0008,1060) |
| | Reason For Study | (0032,1030) |
| | Referenced Patient Sequence | (0008,1120) |
| | >Referenced SOP Class UID | (0008,1150) |
| | >Referenced SOP Instance UID | (0008,1155) |
| | Referenced Visit Sequence | (0008,1125) |
| | >Referenced SOP Class UID | (0008,1150) |
| | >Referenced SOP Instance UID | (0008,1155) |
| | Referenced Results Sequence | (0008,1100) |
| | >Referenced SOP Class UID | (0008,1150) |
| | >Referenced SOP Instance UID | (0008,1155) |
| | Referenced Study Component Sequence | (0008,1111) |
| | >Referenced SOP Class UID | (0008,1150) |
| | >Referenced SOP Instance UID | (0008,1155) |

3.1.2.4 Real World Activity - Detached Results Management

3.1.2.4.1 Associated Real World Activity - Detached Results Management

3.1.2.4.1.1 Activity as SCP

Enterprise Connector will send DIMSE N-EVENT-REPORTs to indicate that a change in the status of Results information has occurred. The following events are supported:

- Results Created – Results object has been created in the database
- Results Updated – Results information has changed
- Results Deleted – Results object has been removed from the database

3.1.2.4.2 Presentation Context Table - Detached Results Management

Enterprise Connector supports the transfer syntaxes listed in Table 14.

Table 14 Transfer Syntaxes

| Transfer Syntax | UID |
|---|-------------------|
| DICOM Implicit VR Little Endian Transfer Syntax | 1.2.840.10008.1.2 |

Table 15 Presentation Contexts

| Abstract Syntax | | Transfer Syntax | Role | Extended Negotiation |
|-----------------------------|-------------------------|-------------------|------|----------------------|
| SOP Class | SOP Class UID | | | |
| Detached Results Management | 1.2.840.10008.3.1.2.5.1 | all from Table 14 | SCP | None |

3.1.2.4.3 SOP Specific Conformance - Detached Results Management

Enterprise Connector provides standard conformance to the DICOM Detached Interpretation Management Service Class.

Enterprise Connector supports the following elements for this SOP class:

Table 16 Detached Results Management Object N-EVENT-REPORT Attributes

| Event Type Name | Attribute Name | Tag |
|---------------------------|------------------------------------|-------------|
| Results Created | Instance Creation Date | (0008,0012) |
| | Instance Creation Time | (0008,0013) |
| | Instance Creator UID | (0008,0014) |
| Results Updated / Deleted | Specific Character Set | (0008,0005) |
| | Results ID | (4008,0040) |
| | Results ID Issuer | (4008,0042) |
| | Impressions | (4008,0300) |
| | Referenced Study Sequence | (0008,1110) |
| | > Referenced SOP Class UID | (0008,1150) |
| | > Referenced SOP Instance UID | (0008,1155) |
| | Referenced Interpretation Sequence | (4008,0050) |
| | > Referenced SOP Class UID | (0008,1150) |
| | > Referenced SOP Instance UID | (0008,1155) |

3.1.2.5 Real World Activity - Detached Interpretation Management

3.1.2.5.1 Associated Real World Activity - Detached Interpretation Management

3.1.2.5.1.1 Activity as SCP

Enterprise Connector will send DIMSE N-EVENT-REPORTs to indicate that a change in the status of interpretation information has occurred. The following events are supported:

- Interpretation Created – Interpretation object has been created in the database

- Interpretation Recorded – Interpretation has been dictated and is ready for transcription
- Interpretation Transcribed – Interpretation has been transcribed and is ready for approval
- Interpretation Approved – Interpretation is complete and approved
- Interpretation Updated – Interpretation information has changed
- Interpretation Deleted – Interpretation object has been removed from the database

3.1.2.5.2 Presentation Context Table - Detached Interpretation Management

Enterprise Connector supports the transfer syntaxes listed in Table 17.

Table 17 Transfer Syntaxes

| Transfer Syntax | UID |
|---|-------------------|
| DICOM Implicit VR Little Endian Transfer Syntax | 1.2.840.10008.1.2 |

Table 18 Presentation Contexts

| Abstract Syntax | | Transfer Syntax | Role | Extended Negotiation |
|------------------------------------|-------------------------|-------------------|------|----------------------|
| SOP Class | SOP Class UID | | | |
| Detached Interpretation Management | 1.2.840.10008.3.1.2.6.1 | all from Table 17 | SCP | None |

3.1.2.5.3 SOP Specific Conformance - Detached Interpretation Management

Enterprise Connector provides standard conformance to the DICOM Detached Interpretation Management Service Class.

Enterprise Connector supports the following elements for this SOP class:

Table 19 Detached Interpretation Management Object N-EVENT-REPORT Attributes

| Event Type Name | Attribute Name | Tag |
|--|------------------------------|-------------|
| Interpretation Created | Instance Creation Date | (0008,0012) |
| | Instance Creation Time | (0008,0013) |
| | Instance Creator UID | (0008,0014) |
| Interpretation Updated / Deleted / Recorded / Transcribed / Approved | Specific Character Set | (0008,0005) |
| | Interpretation ID | (4008,0200) |
| | Interpretation ID Issuer | (4008,0202) |
| | Interpretation Type ID | (4008,0210) |
| | Interpretation Status ID | (4008,0212) |
| | Interpretation Recorded Date | (4008,0100) |
| | Interpretation Recorded Time | (4008,0101) |
| | Interpretation Recorder | (4008,0102) |
| Interpretation Transcription Date | (4008,0108) | |

| Event Type Name | Attribute Name | Tag |
|-----------------|---------------------------------------|-------------|
| | Interpretation Transcription Time | (4008,0109) |
| | Interpretation Transcriber | (4008,010A) |
| | Interpretation Author | (4008,010C) |
| | Interpretation Text | (4008,010B) |
| | Referenced Results Sequence | (0008,1100) |
| | > Referenced SOP Class UID | (0008,1150) |
| | > Referenced SOP Instance UID | (0008,1155) |
| | Interpretation Approver Sequence | (4008,0111) |
| | > Interpretation Approval Date | (4008,0112) |
| | > Interpretation Approval Time | (4008,0113) |
| | > Physicians Approving Interpretation | (4008,0114) |

3.1.2.6 Real World Activity - Modality Performed Procedure Step

3.1.2.6.1 Associated Real World Activity - Modality Performed Procedure Step

3.1.2.6.1.1 Activity as SCU

Enterprise Connector acts as an SCU only when it is configured to route DICOM N-CREATE or N-SET Modality Performed Procedure Step messages to one or more destinations in response to receiving N-CREATE or N-SET MPPS from an acquisition device. *Enterprise Connector* sends the attribute values as received from the originator of the Modality Performed Procedure Step.

3.1.2.6.2 Presentation Context Table - Modality Performed Procedure Step

Enterprise Connector supports the transfer syntaxes listed in Table 20

Table 20 Transfer Syntaxes

| Transfer Syntax | UID |
|---|-------------------|
| DICOM Implicit VR Little Endian Transfer Syntax | 1.2.840.10008.1.2 |

Table 21 Presentation Contexts

| Abstract Syntax | | Transfer Syntax | Role | Extended Negotiation |
|-----------------------------------|-----------------------|-------------------|---------|----------------------|
| SOP Class | SOP Class UID | | | |
| Modality Performed Procedure Step | 1.2.840.10008.5.1.4.3 | all from Table 20 | SCU/SCP | None |

3.1.2.6.3 SOP Specific Conformance - Modality Performed Procedure Step

Enterprise Connector supports the following N-CREATE Modality Performed Procedure Step attributes:

Table 22 Modality Performed Procedure Step SOP Class N-CREATE Attributes

| Module | Attribute Name | Tag |
|------------|------------------------|-------------|
| SOP Common | Specific Character Set | (0008,0005) |

| Module | Attribute Name | Tag |
|---------------------------------------|--|-------------|
| Performed Procedure Step Relationship | Scheduled Step Attribute Sequence | (0040,0270) |
| | >Study Instance UID | (0020,000D) |
| | >Reference Study Sequence | (0008,1110) |
| | >>Referenced SOP Class UID | (0008,1150) |
| | >>Referenced SOP Instance UID | (0008,1155) |
| | >Accession Number | (0008,0050) |
| | >Placer Order Number/Imaging Service Request | (0040,2006) |
| | >Filler Order Number/Imaging Service Request | (0040,2007) |
| | >Requested Procedure ID | (0040,1001) |
| | >Requested Procedure Description | (0032,1060) |
| | >Placer Order Number/Procedure | (0040,1006) |
| | >Filler Order Number/Procedure | (0040,1007) |
| | >Scheduled Procedure Step ID | (0040,0009) |
| | >Scheduled Procedure Step Description | (0040,0007) |
| | >Scheduled Action Item Code Seq. | (0040,0008) |
| | >>Code Value | (0008,0100) |
| | >>Coding Scheme Designator | (0008,0102) |
| | >>Code Meaning | (0008,0104) |
| | Patient Name | (0010,0010) |
| | Patient ID | (0010,0020) |
| | Patient's Birth Date | (0010,0032) |
| | Patient's Sex | (0010,0040) |
| | Referenced Patient Sequence | (0008,1120) |
| >Referenced SOP Class UID | (0008,1150) | |
| >Referenced Instance UID | (0008,1155) | |
| Performed Procedure Step Information | Performed Procedure Step ID | (0040,0253) |
| | Performed Station AE Title | (0040,0241) |
| | Performed Station Name | (0040,0242) |
| | Performed Location | (0040,0243) |
| | Performed Procedure Step Start Date | (0040,0244) |
| | Performed Procedure Step Start Time | (0040,0245) |
| | Performed Procedure Step Status | (0040,0252) |
| | Performed Procedure Step Description | (0040,0254) |
| | Performed Procedure Type Description | (0040,0255) |

| Module | Attribute Name | Tag |
|-------------------------------|--|-------------|
| | Procedure Code Sequence | (0008,1032) |
| | >Code Value | (0008,0100) |
| | >Coding Scheme Designator | (0008,0102) |
| | >Code Meaning | (0008,0104) |
| | Performed Procedure Step End Date | (0040,0250) |
| | Performed Procedure Step End Time | (0040,0251) |
| Image Acquisition Results | Modality | (0008,0060) |
| | Study ID | (0020,0010) |
| | Performed Action Item Code Sequence | (0040,0260) |
| | >Code Value | (0008,0100) |
| | >Coding Scheme Designator | (0008,0102) |
| | >Code Meaning | (0008,0104) |
| | Performed Series Sequence | (0040,0340) |
| | >Performing Physician's Name | (0008,1050) |
| | >Protocol Name | (0018,1030) |
| | >Operator's Name | (0008,1070) |
| | >Series Instance UID | (0020,000E) |
| | >Series Description | (0008,103E) |
| | >Retrieve AE Title | (0008,0054) |
| | >Referenced Image Sequence | (0008,1140) |
| | >>Referenced SOP Class UID | (0008,1150) |
| | >>Referenced SOP Instance UID | (0008,1155) |
| | >Referenced Standalone SOP Instance Sequence | (0040,0220) |
| >>Referenced SOP Class UID | (0008,1150) | |
| >>Referenced SOP Instance UID | (0008,1155) | |

Enterprise Connector supports the following elements for N-SET Modality Performed Procedure Step attributes:

Table 23 Modality Performed Procedure Step SOP Class N-SET Attributes

| Module | Attribute Name | Tag |
|--------------------------------------|--------------------------------------|-------------|
| Performed Procedure Step Information | Performed Procedure Step Status | (0040,0252) |
| | Performed Procedure Step Description | (0040,0254) |
| | Performed Procedure Type Description | (0040,0255) |
| | Procedure Code Sequence | (0008,1032) |
| | >Code Value | (0008,0100) |
| | >Coding Scheme Designator | (0008,0102) |

| Module | Attribute Name | Tag |
|---------------------------|--|-------------|
| | >Code Meaning | (0008,0104) |
| | Performed Procedure Step End Date | (0040,0250) |
| | Performed Procedure Step End Time | (0040,0251) |
| Image Acquisition Results | Performed Action Item Code Sequence | (0040,0260) |
| | >Code Value | (0008,0100) |
| | >Coding Scheme Designator | (0008,0102) |
| | >Code Meaning | (0008,0104) |
| | Performed Series Sequence | (0040,0340) |
| | >Performing Physician's Name | (0008,1050) |
| | >Protocol Name | (0018,1030) |
| | >Operator's Name | (0008,1070) |
| | >Series Instance UID | (0020,000E) |
| | >Series Description | (0008,103E) |
| | >Retrieve AE Title | (0008,0054) |
| | >Referenced Image Sequence | (0008,1140) |
| | >>Referenced SOP Class UID | (0008,1150) |
| | >>Referenced SOP Instance UID | (0008,1155) |
| | >Referenced Standalone SOP Instance Sequence | (0040,0220) |
| | >>Referenced SOP Class UID | (0008,1150) |
| | >>Referenced SOP Instance UID | (0008,1155) |

3.1.2.7 Real World Activity - Find

Enterprise Connector can act as a C-FIND SCU to query the SCP (typically a PACS) to get the Study UID associated with the accession number provided by the IS. This is described in Section 3.1.2.7.1

3.1.2.7.1 Associated Real World Activity - *Enterprise Connector*-initiated C- FIND

3.1.2.7.1.1 Activity as SCU

Enterprise Connector will query the SCP (typically a PACS) to find relevant prior Studies for prefetching. This is done in preparation for a C-Move request as described in Section 3.1.2.8. *Enterprise Connector* negotiates the Study Root query/ retrieve model only.

3.1.2.7.2 Presentation Context Table - Find

Enterprise Connector supports the transfer syntaxes listed in Table 24. *Enterprise Connector* will initiate any of the Presentation Contexts listed in Table 25 for Query.

Table 24 Transfer Syntaxes

| Transfer Syntax | UID |
|---|-------------------|
| DICOM Implicit VR Little Endian Transfer Syntax | 1.2.840.10008.1.2 |

Table 25 Presentation Contexts

| Abstract Syntax | | Transfer Syntax | Role | Extended Negotiation |
|-----------------------------------|-----------------------------|-------------------|------|----------------------|
| SOP Class | SOP Class UID | | | |
| Study Root Query/Retrieve IM Find | 1.2.840.10008.5.1.4.1.2.2.1 | all from Table 24 | SCU | None |

3.1.2.7.3 SOP Specific Conformance - Find

SOP classes of the Query/Retrieve Service Class are implemented via the DIMSE C- FIND and C-MOVE services as defined in Part 7 of the DICOM standard.

Enterprise Connector may include any of the following key attributes in its C-FIND request issued to the PACS:

Table 26 C-FIND Key Attributes

| Attribute Name | Tag | Match/Return |
|---|---|--------------|
| Study Instance UID | (0020,000D) | Return |
| Patient Name | (0010,0010) | Match |
| Patient Id | (0010,0020) | Match |
| Other Patient Ids | (0010,1000) | Match |
| Study Status Id | (0032,000A) | Match |
| Modality | (0008,0060) | Match |
| Study Date Range | (0008,0020) | Match |
| Specialty (Requested Procedure Code Sequence) | (0032,1064) >(0008,0100) >(0008,0104) | Match |

Enterprise Connector queries for the Study Instance UID attribute to be used for the ensuing C-MOVE request.

3.1.2.8 Real World Activity - Move

Enterprise Connector can act as a C-MOVE SCU to request the SCP (typically a PACS) to move the Study associated with the Study UID retrieved via a C-FIND to the destination AE which is determined based on the prefetching rules as described in Section 3.1.2.7.1

3.1.2.8.1 Associated Real World Activity - Move

3.1.2.8.1.1 Activity as SCU

Enterprise Connector will request the SCP (typically a PACS) move the study associated with the study UID provided by the C-FIND to the destination AE which is determined based on the 'IS-based prefetch event' received from the IS. *Enterprise Connector* negotiates the Study Root query/retrieve model only.

3.1.2.8.2 Presentation Context Table - Move

Enterprise Connector supports the transfer syntaxes listed in Table 27. *Enterprise Connector* will negotiate any of the Presentation Contexts list in Table 28 for Retrieval.

Table 27 Transfer Syntaxes

| Transfer Syntax | UID |
|---|-------------------|
| DICOM Implicit VR Little Endian Transfer Syntax | 1.2.840.10008.1.2 |

Table 28 Presentation Contexts

| Abstract Syntax | | Transfer Syntax | Role | Extended Negotiation |
|-----------------------------------|-----------------------------|-------------------|------|----------------------|
| SOP Class | SOP Class UID | | | |
| Study Root Query/Retrieve IM Move | 1.2.840.10008.5.1.4.1.2.2.2 | all from Table 27 | SCU | see Note 1 |

3.1.2.8.3 SOP Specific Conformance - Move

SOP classes of the Query/Retrieve Service Class are implemented via the DIMSE C- FIND and C-MOVE services as defined in Part 7 of the DICOM standard.

3.1.3 Association Acceptance Policies

3.1.3.1 Real World Activity - Verification

3.1.3.1.1 Associated Real World Activity - Verification

Enterprise Connector will respond to Verification requests to provide an SCU with the ability to determine if *Enterprise Connector* is receiving DICOM requests.

3.1.3.1.2 Presentation Context Table - Verification

Enterprise Connector supports the transfer syntaxes listed in Table 29. *Enterprise Connector* will accept any of the Presentation Contexts listed in Table 30 for Verification.

Table 29 Transfer Syntaxes

| Transfer Syntax | UID |
|---|-------------------|
| DICOM Implicit VR Little Endian Transfer Syntax | 1.2.840.10008.1.2 |

Table 30 Presentation Contexts

| Abstract Syntax | | Transfer Syntax | Role | Extended Negotiation |
|-----------------|-------------------|-------------------|------|----------------------|
| SOP Class | SOP Class UID | | | |
| Verification | 1.2.840.10008.1.1 | all from Table 29 | SCP | None |

3.1.3.1.3 SOP Specific Conformance - Verification

Enterprise Connector provides standard conformance to the DICOM Verification Service Class. *Enterprise Connector* returns one of the following status codes.

Table 31 Verification status codes

| Service Status | Further Meaning | Protocol Codes | Related Fields | Description |
|----------------|-----------------|----------------|----------------|-------------------------------|
| Success | Success | 0000 | | Operation performed properly. |

3.1.3.1.4 Presentation Context Acceptance Criterion - Verification

Enterprise Connector will always accept a Presentation Context for the Verification SOP Class with the default DICOM transfer syntax listed in Table 29.

3.1.3.1.5 Transfer Syntax Selection Policies - Verification

Since no DICOM data object is associated with a Verification command, only the default DICOM transfer syntax is required/supported.

3.1.3.2 Real World Activity - Detached Patient Management

3.1.3.2.1 Associated Real World Activity - Detached Patient Management

3.1.3.2.1.1 Activity as SCP

Enterprise Connector will respond to DIMSE N-GET requests to retrieve Patient information.

3.1.3.2.2 Presentation Context Table - Detached Patient Management

Enterprise Connector supports the transfer syntaxes listed in Table 32.

Table 32 Transfer Syntaxes

| Transfer Syntax | UID |
|---|-------------------|
| DICOM Implicit VR Little Endian Transfer Syntax | 1.2.840.10008.1.2 |

Table 33 Presentation Contexts

| Abstract Syntax | | Transfer Syntax | Role | Extended Negotiation |
|-----------------------------|-------------------------|-------------------|------|----------------------|
| SOP Class | SOP Class UID | | | |
| Detached Patient Management | 1.2.840.10008.3.1.2.1.1 | all from Table 32 | SCP | None |

3.1.3.2.3 SOP Specific Conformance - Detached Patient Management

Enterprise Connector provides standard conformance to the DICOM **Detached Patient Management** Service Class.

Enterprise Connector supports the following elements for this SOP class:

Table 34 Detached Patient Management Object N-GET Attributes

| Attribute Name | Tag |
|-------------------------------------|-----|
| All Patient attributes from Table 7 | |

Enterprise Connector returns one of the following status codes.

Table 35 Detached Patient Management status codes

| Service Status | Further Meaning | Protocol Codes | Related Fields | Description |
|----------------|-----------------|----------------|----------------|-----------------------------------|
| Error | Failed | 0110 | | The operation was not successful. |
| Success | Success | 0000 | | Operation performed properly. |

3.1.3.2.4 Presentation Context Acceptance Criterion - Detached Patient Management

Enterprise Connector will always accept a Presentation Context for the Detached Patient Management SOP Class.

3.1.3.2.5 Transfer Syntax Selection Policies - Detached Patient Management

Enterprise Connector supports only the Little Endian Implicit Transfer Syntax.

3.1.3.3 Real World Activity - Detached Visit Management

3.1.3.3.1 Associated Real World Activity - Detached Visit Management

3.1.3.3.1.1 Activity as SCP

Enterprise Connector will respond to DIMSE N-GET and N-SET requests to retrieve and update Visit information.

3.1.3.3.2 Presentation Context Table - Detached Visit Management

Enterprise Connector supports the transfer syntaxes listed in Table 36.

Table 36 Transfer Syntaxes

| Transfer Syntax | UID |
|---|-------------------|
| DICOM Implicit VR Little Endian Transfer Syntax | 1.2.840.10008.1.2 |

Table 37 Presentation Contexts

| Abstract Syntax | | Transfer Syntax | Role | Extended Negotiation |
|---------------------------|-------------------------|-------------------|------|----------------------|
| SOP Class | SOP Class UID | | | |
| Detached Visit Management | 1.2.840.10008.3.1.2.2.1 | all from Table 36 | SCP | None |

3.1.3.3.3 SOP Specific Conformance - Detached Visit Management

Enterprise Connector provides standard conformance to the DICOM **Detached Visit Management** Service Class.

Enterprise Connector supports the following elements for this SOP class:

Table 38 Detached Visit Management Object N-GET and N-SET Attributes

| Attribute Name | Tag |
|------------------------------------|-----|
| All Visit attributes from Table 10 | |

Enterprise Connector returns one of the following status codes.

Table 39 Detached Visit Management Status Codes

| Service Status | Further Meaning | Protocol Codes | Related Fields | Description |
|----------------|-----------------|----------------|----------------|-----------------------------------|
| Error | Failed | 0110 | | The operation was not successful. |
| Success | Success | 0000 | | Operation performed properly. |

3.1.3.3.4 Presentation Context Acceptance Criterion - Detached Visit Management

Enterprise Connector will always accept a Presentation Context for the Detached Visit Management SOP Class.

3.1.3.3.5 Transfer Syntax Selection Policies - Detached Visit Management

Enterprise Connector supports only the Little Endian Implicit Transfer Syntax.

3.1.3.4 Real World Activity - Detached Study Management

3.1.3.4.1 Associated Real World Activity - Detached Study Management

3.1.3.4.1.1 Activity as SCP

Enterprise Connector will respond to DIMSE N-GET and N-SET requests to retrieve and update Study information.

3.1.3.4.2 Presentation Context Table - Detached Study Management

Enterprise Connector supports the transfer syntaxes listed in Table 40.

Table 40 Transfer Syntaxes

| Transfer Syntax | UID |
|---|-------------------|
| DICOM Implicit VR Little Endian Transfer Syntax | 1.2.840.10008.1.2 |

Table 41 Presentation Contexts

| Abstract Syntax | | Transfer Syntax | Role | Extended Negotiation |
|---------------------------|-------------------------|-------------------|------|----------------------|
| SOP Class | SOP Class UID | | | |
| Detached Study Management | 1.2.840.10008.3.1.2.3.1 | All from Table 40 | SCP | None |

3.1.3.4.3 SOP Specific Conformance - Detached Study Management

Enterprise Connector provides standard conformance to the DICOM Detached Study Management Service Class.

Enterprise Connector supports the following elements for this SOP class:

Table 42 Detached Study Management Object N-GET and N-SET Attributes

| Attribute Name | Tag |
|------------------------------------|-----|
| All Study attributes from Table 13 | |

Enterprise Connector returns one of the following status codes.

Table 43 Detached Study Management Status Codes

| Service Status | Further Meaning | Protocol Codes | Related Fields | Description |
|----------------|-----------------|----------------|----------------|-----------------------------------|
| Error | Failed | 0110 | | The operation was not successful. |
| Success | Success | 0000 | | Operation performed properly. |

3.1.3.4.4 Presentation Context Acceptance Criterion - Detached Study Management

Enterprise Connector will always accept a Presentation Context for the Detached Study Management SOP Class.

3.1.3.4.5 Transfer Syntax Selection Policies - Detached Study Management

Enterprise Connector supports only the Little Endian Implicit Transfer Syntax.

3.1.3.5 Real World Activity - Detached Results Management

3.1.3.5.1 Associated Real World Activity - Detached Results Management

3.1.3.5.1.1 Activity as SCP

Enterprise Connector will respond to DIMSE N-GET requests to retrieve Results information.

3.1.3.5.2 Presentation Context Table - Detached Results Management

Enterprise Connector supports the transfer syntaxes listed in Table 44.

Table 44 Transfer Syntaxes

| Transfer Syntax | UID |
|---|-------------------|
| DICOM Implicit VR Little Endian Transfer Syntax | 1.2.840.10008.1.2 |

Table 45 Presentation Contexts

| Abstract Syntax | | Transfer Syntax | Role | Extended Negotiation |
|-----------------------------|-------------------------|-------------------|------|----------------------|
| SOP Class | SOP Class UID | | | |
| Detached Results Management | 1.2.840.10008.3.1.2.5.1 | all from Table 44 | SCP | None |

3.1.3.5.3 SOP Specific Conformance - Detached Results Management

Enterprise Connector provides standard conformance to the DICOM **Detached Results Management** Service Class.

Enterprise Connector supports the following elements for this SOP class:

Table 46 Detached Results Management Object N-GET Attributes

| Attribute Name | Tag |
|--------------------------------------|-----|
| All Results attributes from Table 16 | |

Enterprise Connector returns one of the following status codes.

Table 47 Detached Results Management Status Codes

| Service Status | Further Meaning | Protocol Codes | Related Fields | Description |
|----------------|-----------------|----------------|----------------|-----------------------------------|
| Error | Failed | 0110 | | The operation was not successful. |
| Success | Success | 0000 | | Operation performed properly. |

3.1.3.5.4 Presentation Context Acceptance Criterion - Detached Results Management

Enterprise Connector will always accept a Presentation Context for the Detached Results Management SOP Class.

3.1.3.5.5 Transfer Syntax Selection Policies - Detached Results Management

Enterprise Connector supports only the Little Endian Implicit Transfer Syntax.

3.1.3.6 Real World Activity - Detached Interpretation Management

3.1.3.6.1 Associated Real World Activity - Detached Interpretation Management

3.1.3.6.1.1 Activity as SCP

Enterprise Connector will respond to DIMSE N-GET and N-SET requests to retrieve and update Interpretation information.

3.1.3.6.2 Presentation Context Table - Detached Interpretation Management

Enterprise Connector supports the transfer syntaxes listed in Table 48.

Table 48 Transfer Syntaxes

| Transfer Syntax | UID |
|---|-------------------|
| DICOM Implicit VR Little Endian Transfer Syntax | 1.2.840.10008.1.2 |

Table 49 Presentation Contexts

| Abstract Syntax | | Transfer Syntax | Role | Extended Negotiation |
|-----------------------------|-------------------------|-------------------|------|----------------------|
| SOP Class | SOP Class UID | | | |
| Detached Patient Management | 1.2.840.10008.3.1.2.6.1 | all from Table 48 | SCP | None |

3.1.3.6.3 SOP Specific Conformance - Detached Interpretation Management

Enterprise Connector provides standard conformance to the DICOM **Detached Interpretation Management** Service Class.

Enterprise Connector supports the following elements for this SOP class:

Table 50 Detached Interpretation Management Object N-GET and N-SET Attributes

| Attribute Name | Tag |
|---|-----|
| All Interpretation attributes from Table 19 | |

Enterprise Connector returns one of the following status codes.

Table 51 Detached Interpretation Management Status Codes

| Service Status | Further Meaning | Protocol Codes | Related Fields | Description |
|----------------|-----------------|----------------|----------------|-----------------------------------|
| Error | Failed | 0110 | | The operation was not successful. |
| Success | Success | 0000 | | Operation performed properly. |

3.1.3.6.4 Presentation Context Acceptance Criterion – Detached Interpretation Management

Enterprise Connector will always accept a Presentation Context for the Detached Interpretation Management SOP Class.

3.1.3.6.5 Transfer Syntax Selection Policies - Detached Interpretation Management

Enterprise Connector supports only the Little Endian Implicit Transfer Syntax.

3.1.3.7 Real World Activity - Modality Performed Procedure Step

3.1.3.7.1 Associated Real World Activity - Modality Performed Procedure Step

3.1.3.7.1.1 Activity as SCP

Enterprise Connector acts as an SCP for the N-CREATE and N-SET Modality Performed Procedure Step (PPS) SOP Class, creating and updating the associated entries in the RIS database in response to these requests.

Enterprise Connector can be configured to forward the PPS messages to other devices.

3.1.3.7.2 Presentation Context Table - Modality Worklist Management

Enterprise Connector supports the transfer syntaxes listed in Table 52.

Table 52 Transfer Syntaxes

| Transfer Syntax | UID |
|---|-------------------|
| DICOM Implicit VR Little Endian Transfer Syntax | 1.2.840.10008.1.2 |

Table 53 Presentation Contexts

| Abstract Syntax | | Transfer Syntax | Role | Extended Negotiation |
|-----------------------------------|-----------------------|-------------------|------|----------------------|
| SOP Class | SOP Class UID | | | |
| Modality Performed Procedure Step | 1.2.840.10008.5.1.4.3 | all from Table 52 | SCP | None |

3.1.3.7.3 SOP Specific Conformance - Modality Performed Procedure Step

Enterprise Connector supports the N-CREATE Modality Performed Procedure Step attributes found in Table 22.

The attributes that may be updated by the SCU using the N-SET service are found in Table 23:

Enterprise Connector returns one of the following status codes in the N-SET response:

Table 54 Modality Performed Procedure Step Status Codes

| Status | Description | Comment |
|--------|-------------|-----------------------------------|
| 0000 | Success | Operation performed successfully. |

3.1.3.8 Real World Activity - Modality Worklist Management

3.1.3.8.1 Associated Real World Activity - Modality Worklist Management

3.1.3.8.1.1 Activity as SCP

Enterprise Connector can be configured to respond to DICOM C-FIND requests in response to an external device querying *Enterprise Connector* for Worklist.

3.1.3.8.2 Presentation Context Table - Modality Worklist Management

Enterprise Connector supports the transfer syntaxes listed in Table 55.

Table 55 Transfer Syntaxes

| Transfer Syntax | UID |
|---|-------------------|
| DICOM Implicit VR Little Endian Transfer Syntax | 1.2.840.10008.1.2 |

Table 56 Presentation Contexts

| Abstract Syntax | | Transfer Syntax | Role | Extended Negotiation |
|------------------------------------|------------------------|-------------------|------|----------------------|
| SOP Class | SOP Class UID | | | |
| Modality Worklist Info Model –FIND | 1.2.840.10008.5.1.4.31 | all from Table 55 | SCP | None |

3.1.3.8.3 SOP Specific Conformance - Modality Worklist Management

Enterprise Connector provides standard conformance to the DICOM Basic **Worklist Management** Service Class.

Enterprise Connector supports all required matching key types:

| Matching Key Types | |
|--------------------|---------------------|
| SV | single valued match |
| WC | wild card match |
| SQ | sequence match |
| DR | date range match |

Enterprise Connector supports all required return keys, with a 'NOT' operator (!) available for all attributes with a single valued match (SV) type.

Enterprise Connector supports the following elements for this SOP class:

Table 57 Modality Worklist Information Model Attributes

| Module | Attribute Name | Tag | Match | Return |
|--------------------------|--------------------------------------|-------------|-------|--------|
| SOP Common | Specific Character Set | (0008,0005) | | 1C |
| Scheduled Procedure Step | Scheduled Procedure Step Sequence | (0040,0100) | SQ | 1 |
| | >Scheduled Station AE Title | (0040,0001) | SV | 1 |
| | >Scheduled Procedure Step Start Date | (0040,0002) | DR | 1 |
| | >Scheduled Procedure Step Start Time | (0040,0003) | DR | 1 |
| | >Scheduled Procedure Stop End Date | (0040,0004) | DR | 1 |
| | >Scheduled Procedure Stop End Time | (0040,0005) | DR | 1 |
| | >Modality | (0008,0060) | SV | 1 |
| | >Scheduled Performing Physician | (0040,0006) | WC | 2 |
| | >Scheduled Procedure Step Desc. | (0040,0007) | WC | 1C |
| | >Scheduled Station Name | (0040,0010) | SV | 2 |
| | >Scheduled Procedure Step Location | (0040,0011) | WC | 2 |

| Module | Attribute Name | Tag | Match | Return | |
|------------------------------------|---|------------------------------|-------------|--------|---|
| Requested Procedure | >Scheduled Action Item Code Seq. | (0040,0008) | SQ | 1C | |
| | >>Code Value | (0008,0100) | WC | 1C | |
| | >>Coding Scheme Designator | (0008,0102) | WC | 1C | |
| | >Pre-Medication | (0040,0012) | WC | 2C | |
| | >Scheduled Procedure Step ID | (0040,0009) | WC | 1 | |
| | >Scheduled Procedure Step Status | (0040,0020) | SV | 3 | |
| | >Requested Contrast Agent | (0032,1070) | WC | 2C | |
| | >Comments on the Scheduled Procedure Step | (0040,0400) | WC | 3 | |
| | Requested Procedure ID | (0040,1001) | WC | 1 | |
| | Requested Procedure Description | (0032,1060) | WC | 1C | |
| | Reason for Requested Procedure | (0040,1002) | WC | 3 | |
| | Requested Procedure Code Sequence | (0032,1064) | SQ | 1C | |
| | >Code Value | (0008,0100) | WC | 1C | |
| | >Coding Scheme Designator | (0008,0102) | WC | 1C | |
| | >Code Meaning | (0008,0104) | WC | 3 | |
| | Study Instance UID | (0020,000D) | SV | 1 | |
| | Referenced Study Sequence | (0008,1110) | SQ | 2 | |
| | >Referenced SOP Class UID | (0008,1150) | | 1C | |
| | >Referenced SOP Instance UID | (0008,1155) | SV | 1C | |
| | Imaging Service Request | Requested Procedure Priority | (0040,1003) | WC | 2 |
| Patient Transport Arrangements | | (0040,1004) | WC | 2 | |
| Procedure Location | | (0040,1005) | WC | 3 | |
| Procedure Placer Order | | (0040,1006) | WC | 3 | |
| Procedure Filler Order | | (0040,1007) | WC | 3 | |
| Requested Procedure Comments | | (0040,1400) | WC | 3 | |
| Accession Number | | (0008,0050) | SV | 2 | |
| Requesting Physician | | (0032,1032) | WC | 2 | |
| Requesting Service | | (0032,1033) | WC | 3 | |
| Referring Physician Name | | (0008,0090) | WC | 2 | |
| Reason for Imaging Service Request | | (0040,2001) | WC | 3 | |
| Study Status ID | | (0032,000a) | SV | 3 | |
| Study Priority ID | | (0032,000c) | WC | 3 | |
| Visit Identification | | Admission ID | (0038,0010) | SV | 2 |
| Visit Status | | Current Patient Location | (0038,0300) | WC | 2 |
| Visit Relationship | | Referenced Patient Sequence | (0008,1120) | SQ | 2 |
| | | >Referenced SOP Class UID | (0008,1150) | | 2 |

| Module | Attribute Name | Tag | Match | Return |
|------------------------|------------------------------|-------------|-------|--------|
| Patient Identification | >Referenced SOP Instance UID | (0008,1155) | SV | 2 |
| | Patient Name | (0010,0010) | WC | 1 |
| | Patient ID | (0010,0020) | SV | 1 |
| | Other Patient ID | (0010,1000) | SV | 3 |
| | Other Patient Name | (0010,1001) | WC | 3 |
| | Patient Address | (0010,1040) | WC | 3 |
| Patient Demographic | Patient Telephone Numbers | (0010,2154) | WC | 3 |
| | Patient Birth Date | (0010,0030) | WC | 2 |
| | Patient Sex | (0010,0040) | WC | 2 |
| | Patient Weight | (0010,1030) | WC | 2 |
| Patient Medical | Confidentiality Constraint | (0040,3001) | WC | 2 |
| | Patient State | (0038,0500) | WC | 2 |
| | Pregnancy Status | (0010,21C0) | | 2 |
| | Medical Alerts | (0010,2000) | WC | 2 |
| | Contrast Allergies | (0010,2110) | WC | 2 |
| | Special Needs | (0038,0050) | WC | 2 |

4 Communications Profiles

Enterprise Connector provides DICOM V3.0 TCP/IP Network Communication Support as defined in Part 8 of the DICOM Standard.

4.1 TCP/IP Stack

Enterprise Connector inherits its TCP/IP stack from the computer system upon which it executes.

4.2 Physical Medium Supported

Enterprise Connector is indifferent to the physical medium over which TCP/IP executes; it inherits the medium from the computer system upon which it executes.

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