Rationale for Correction

There is an inconsistency between the definition of SOP Instance in Part 4 and its practical use in Part 3 and implementations.

In Part 4, SOP Instance is defined as “a concrete occurrence of an Information Object and a communication context”. This may and is sometimes interpreted as if the SOP Instance only existed during the time of data transmission between SCU and SCP. On the other hand, the definition of Real-World Object just above refers to the SOP Instance as a representation of a persistent object: “Such a Real-World Object may be represented through a computer information metaphor called a SOP Instance.” Furthermore, throughout Part 3 SOP Instance UIDs are used as pointers to persistent objects, and in Part 7, DIMSE Services are defined as operations on SOP Instances (objects).

It is proposed to correct definitions of Service-Object Pair (SOP) Class and Instance in Part 4 to properly reflect their use in standard implementations.

Sections of documents affected
PS 3.4 Section 3.9

Correction Wording:

Amend Section 3.9 of PS 3.4:

3.9 DICOM SERVICE CLASS DEFINITIONS

The following definitions are commonly used in this Part of the DICOM Standard:

... 

Service Class: a collection of SOP Classes and/or Meta SOP Classes which are related in that they are described together to accomplish a single application.

Service-Object Pair (SOP) Class: the union of a specific set of DIMSE Services and one related Information Object Definition (as specified by a Service Class Definition) which completely defines a precise context for communication of operations on such an object or notifications about its state.

Service-Object Pair (SOP) Instance: a concrete occurrence of an Information Object that is managed by a DICOM Application Entity and may be operated upon in a communication context defined by a specific set of DIMSE Services (on a network or interchange media). A SOP Instance is persistent beyond the context of its communication.