



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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**Health informatics - Messages and communication - Web
access to DICOM persistent objects**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1. Structure and Drafting Rules of Standardization Documents"

Drafting.

This document is equivalent to ISO 17432.2004 "Network Access to DICOM Persistent

Objects of Health Informatics Messages and Communications".

Introduction

The Digital Imaging and Communications in Medicine (DICOM) standard has been established in medicine.

The imaging field has been widely used. The field of medical imaging includes radiology, cardiology, pathology, radiotherapy, and the use of visible light.

The professional field of image equipment (such as endoscopes, microscopes).

Requesters of medical imaging examinations and providers of healthcare services require fast and reliable access to reports and images. At the computer

In the environment, more and more accesses to DICOM persistent objects are realized through network technology, but the data objects do not need to be copied.

Clinicians need to access raw data stored in the native DICOM format, which allows dedicated software to use detailed DI-

COM metadata performs various operations, or converts it into a common format (such as JPEG, PDF) that can be presented by existing applications.

This document specifies a request to access DICOM persistent objects as HTTPURL/URI (see IETF RFC2396)

Method of request. The HTTP URL/URI request includes an instance unique identifier (UniqueIdentifier, UID)

Specify the pointer of the DICOM persistent object, and also specify the format of the result to be returned in the request response. Examples are as follows.

- a) (MIME) content-type (such as application/dicom or image/jpeg for images, application/DICOM, application/rtf or xml);
- b) content-encoding;
- c) As the first level report of HL7/CDA.

The query URL parameters defined in this document enable the HTTP server to act as a DICOM service class user (ServiceClass

User, SCU), and use the baseline DICOM function defined by DICOMPS3.4 and DICOMPS3.7 from the appropriate DICOM server

Retrieve the requested object from the service class provider (ServiceClassProvider, SCP).

In the future, other DICOM persistent objects and format requirements for server response will be formulated according to requirements.

Health Informatics News and Communication

Network access to DICOM persistent objects

1 Scope

This document specifies a web service for accessing and displaying DICOM persistent objects (such as images and medical imaging reports).

The purpose of this document is to provide the results and images to healthcare professionals. This document gives a simple rule that can be passed

HTTP/HTTPS protocol, use DICOMUID to access DICOM persistent objects in HTML web pages or XML documents. data

It can be retrieved according to the display format specified by the requesting party (such as JPEG or GIF format) or in the local DICOM format.

This document does not support network search for DICOM images. This document is only related to DICOM persistent objects (not other DICOM

Object or non-DICOM object) related. Access control beyond the general security mechanism of network applications is outside the scope of this document.

Note. The system that claims to comply with this document is functionally consistent with all the clauses in this document.

2 Normative references

The content of the following documents constitutes an indispensable clause of this document through normative references in the text. Among them, dated quotations

Only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

This document.

GB/T 17235.2-1998 Information Technology Digital Compression and Coding of Continuous Tone Still Images Part 2.Conformance Test

(idtISO /IEC 10918-2.1995)

DICOMPS3.3 Medical Digital Imaging and Communication Information Object Definition (DigitalImagingandCommunicationsin

Medicine,InformationObjectDefinitions)

DICOMPS3.4 Medical Digital Imaging and Communication Service Specification (Digital Imaging and Communications

Medicine,ServiceClassSpecifications)

DICOMPS3.5 Medical Digital Imaging and Communication Data Structure and Coding
(Digital Imaging and Communications

Medicine,DataStructuresandEncoding)

DICOMPS3.6 Medical Digital Imaging and Communication Data Dictionary
(DigitalImagingandCommunicationsinMedi-
cine,DataDictionary)

DICOMPS3.10 Media storage and file format for medical digital imaging and
communication data exchange (DigitalImagingand

CommunicationsinMedicine, MediaStorageandFileFormatforDataInterchange)

DICOMPS3.11 Medical Digital Imaging and Communication Media Storage Application
Framework (DigitalImagingand

CommunicationsinMedicine, MediaStorageApplicationProfiles)

DICOMPS3.14 Medical Digital Imaging and Communication Gray Standard Display
Function (DigitalImagingand

CommunicationsinMedicine, GrayscaleStandardDisplayFunction)

DICOMPS3.15 Medical Digital Imaging and Communication Security Framework (Digital
Imaging and Communications in Med-

icine,SecurityProfiles)

HL7CDA HL7 clinical document structure
[HealthLevelSeven,ClinicalDocumentArchitecture(CDA)]

IETFRFC2045 and subsequent parts of the MIME Multipurpose Internet Mail Extension
(MIMEMultipurposeInternetMail

Extension)

IETFRFC2396 Uniform Resource Identifier (URI). Generic Syntax
[UniformResourceIdentifiers(URI). Generic