



WEB

PACS FOR ARCHIVING, TELERADIOLOGY
AND IMAGE SHARING

SHARING IS CARING



VERSION 6.7.3



THE PACS ALLROUNDER

Why not have it all for a change? iQ-WEB is a complete, easy-to-use and affordable PACS solution for storing, distributing, viewing and sharing medical imaging studies and reports. It consists of several applications all in one package:

DICOM Server:

This application enables communication between the imaging modalities and the archive server. It is essential for study storage, query/retrieve, forwarding, printing, as well as importing and exporting any kind of DICOM object.

Web Server for an unlimited number of users:

This server allows the secure web-based distribution of any medical image and report to an unlimited number of web users, combined with efficient user management and strict authentication procedures.

Vendor Neutral Archive (VNA):

iQ-WEB can store up to **500 million images or objects** in a single database and includes hierarchical archive support for short-term and long-term archives. When used in combination with iQ-ROUTER PRO, the archive is even more flexible and customizable. A second iQ-WEB server can automatically be synchronized to ensure up-to-date disaster recovery options.

Native VNA included:

iQ-WEB stores **any file format**, e.g. endoscopy, microscopy, pathology, pdf and more.

SPECIAL iQ-WEB FEATURES



Easy Search Features:

Thanks to the innovative EasyWEB feature, physicians maintain an overview of all studies. They can conveniently search and filter the database to quickly find desired studies. Images and documents (PDF or Structured Reports) can be attached to a study and shared with referring physicians or colleagues.



Web-Based DICOM Print:

Images can be printed from the web client to a local or remote DICOM imager.



Highest Level of Privacy:

iQ-WEB is a HIPAA compliant system. Referring physicians may log in to review only their own cases while the chief radiologist can be granted access to the entire patient database. Imaging data can also be shared among physicians, while staying compliant with strict privacy regulations. Governmental authorities of several countries continuously check iQ-WEB to keep the system cyber secure.



Web-Based Administration:

Configuration, maintenance tasks and quality monitoring of the system can be performed via web browser with no need to be directly in front of the server.



Patient Reconciliation:

All stored studies can be verified with a DICOM WORKLIST. Study data can be automatically corrected in an IHE compatible protocol to ensure that consistent image data is stored in the archive.



Email Alert Notification:

Once a new study or report is ready for viewing, the referring physician can automatically be alerted via email or text message which includes a link to the image. (This feature uses a 3rd party mail2SMS gateway service with possible additional costs).

iQ-WEB ADD-ONS AND OPTIONS



There are several **add-ons and options** available for iQ-WEB which serve different medical image viewing or interfacing needs.*



iQ-4VIEW - diagnostic zero-footprint reading at high speed for virtually any browser, operating system and device (desktop computer, tablet, smartphone)



iQ-WEB SR2PDF Report Converter -

tool to automatically copy the content of DICOM Structured Reports (DICOM SR) to institutional letterheads, insert signature(s) of reading physician(s) and attach it as PDF for printing, downloading or forwarding.



iQ-X - diagnostic web viewer for reading and processing of DICOM images using Internet Explorer®



iQ-WEBX Report Converter - this optional add-on uses a state-of-the-art algorithm to automatically convert and transmit DICOM Structured Reports and HL7 text reports between information systems and iQ-WEB.



iQ-3DVIEW - zero-footprint viewer for web-based 3D visualization of CT and MRI series



iQ-FUSION - diagnostic zero-footprint viewer for web-based PET/CT image fusion



Web-Based Reporting:

With iQ-4VIEW's integrated report editor or the optional iQ-X reporting module, physicians can create DICOM Structured Reports online from anywhere in the world.



WADO HL7:

This optional interface can seamlessly integrate iQ-WEB with virtually any medical information system in order to provide quick and easy access to imaging studies and reports from a HIS, EMR or practice management system - without the need to login. (see details on page 10-11)



iQ-WEB2GO - mobile viewer for basic web-based viewing of radiology images on any tablet or smartphone



WADO:

This optional interface allows to share medical results, imaging studies and reports with patients, referring or external reading physicians e.g. via QR code, WhatsApp or email. (see details on page 10-11)



Referring Physician Portal:

Imaging centers can offer referring physicians access to their own cases so that they can view them anytime and anywhere without requiring additional software.

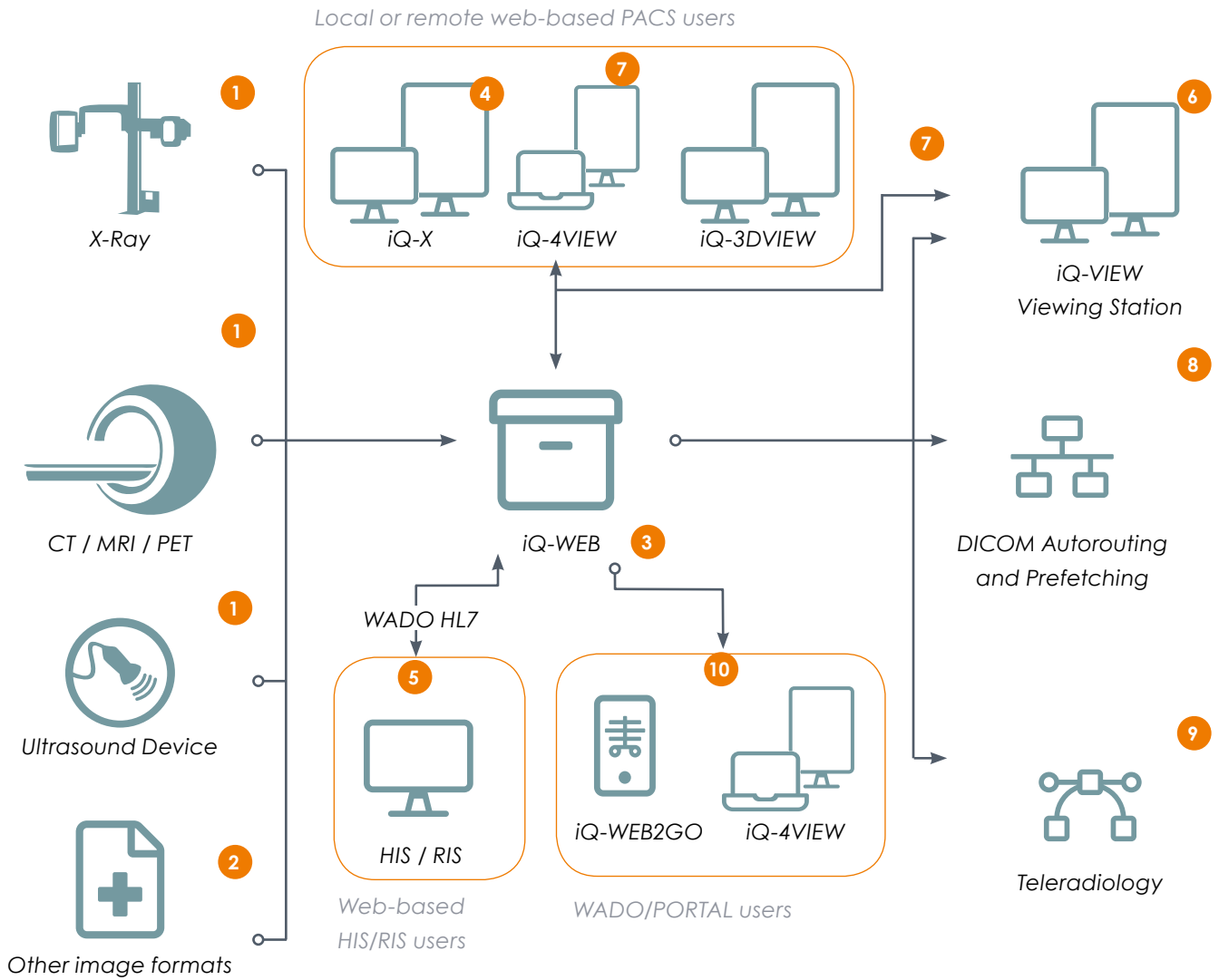


iQ-DASHBOARD:

Business intelligence solution which provides system administrators and radiology directors with iQ-WEB PACS statistics at a glance.

* Detailed information on the individual iQ-WEB add-ons and options (iQ-4VIEW, iQ-X, iQ-3DVIEW, iQ-FUSION, iQ-WEBX Report Converter, iQ-WEB2GO, iQ-WEB PORTAL, iQ-DASHBOARD) is available on our website for download (Download Center).

iQ-WEB WORKFLOW



- 1 iQ-WEB is typically connected to all DICOM modalities in an imaging network, such as X-Ray, CT/ MRI/PET and Ultrasound.
- 2 iQ-WEB supports storage of virtually any kind of imaging format (see the DICOM Conformance Statement for details).
- 3 As a vendor neutral archiving system, iQ-WEB serves as the core of an imaging network, offering advanced features such as automatic patient reconciliation when paired with any hospital information system via a worklist.
- 4 Optional viewers, e.g. iQ-4VIEW, iQ-X or iQ-3DVIEW, allow web-based local or remote PACS users to view medical images in diagnostic quality.
- 5 iQ-4VIEW, iQ-X and iQ-3DVIEW can be seamlessly integrated with virtually any medical information system using the optional WADO function ensuring direct image access from e.g. HIS or RIS.
- 6 Reading stations, such as iQ-VIEW, can be connected directly to iQ-WEB using DICOM communication.
- 7 Structured Reports can be created using iQ-VIEW or the integrated iQ-4VIEW and iQ-X viewers. Reports obtained from hospital information systems can be received via the optional iQ-WEBX REPORT CONVERTER module.
- 8 The intelligent autorouting feature forwards studies based on predefined criteria to any DICOM compliant station. Even prefetching previous studies for the same patient can be included, if desired.
- 9 Efficient teleradiology connections are achieved by built-in data compression algorithms, allowing iQ-4VIEW and iQ-X users fast access to images and return of reports.
- 10 WADO and iQ-WEB PORTAL users can enjoy radiology viewing via mobile devices for fast and easy access to medical images from anywhere - with the optional iQ-WEB2GO module and the diagnostic viewer iQ-4VIEW.

| PATIENT ID | PATIENT NAME | SEX | DATE OF BIRTH | AGE | INSTITUTION NAME | STUDY ID | DATE/TIME | RECEIVED ON | MODALITY |
|---------------------------|--------------------|-----|-----------------|-----|--------------------------------|-------------------|---------------------|---------------------|----------|
| GEN013[SERVER-0128110435] | MacKenzie, Matthew | M | 1995-12-03 [24] | 17 | IMAGE Information Systems Ltd. | 9346#13108195_01 | 2013-06-07 12:33:50 | 2020-01-28 11:04:35 | CT |
| Demo411 | Breast, Cancer | F | 1938-07-05 [82] | 72 | IMAGE Information Systems Ltd. | 188710.2011103272 | 2011-03-27 20:48:30 | 2020-01-28 11:10:11 | CT, SR |
| GEN003MINI | Culare, Navi | M | 2006-06-22 [14] | 21 | IMAGE Information Systems | CT20051212072823 | 2005-12-12 07:30:30 | 2020-01-28 11:39:26 | CT |
| GEN013 Search | McKenzie, Matthew | M | 1995-12-03 [24] | 17 | IMAGE Information Systems Ltd. | 9346#12262503_01 | 2012-11-29 09:56:27 | 2020-01-28 11:44:59 | CT |
| GEN011 | Lung, Abscess | M | 1950-01-01 [70] | 55 | IMAGE Information Systems | 30329.2008062412 | 2008-06-26 09:26:07 | 2020-01-28 11:47:30 | CT |

The EasyWEB page provides a customizable and filterable overview of all data.

Two-factor Authentication

A verification code has been sent to your email address.

Verification code:

Optional two-factor authentication ensures HIPAA/GDPR compliant data sharing.

| USERNAME | FIRST NAME | LAST NAME | MIDDLE NAME | EMAIL | VIEW | MODIFY | FORWARD | QUERY | MOVE | DOWNLOAD |
|-----------------------|------------|-----------|-------------|---------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Administrator (LDAP) | | | | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| DefaultAccount (LDAP) | | | | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Guest (LDAP) | | | | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| kritgk (LDAP) | | | | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Lara Local | Lara | Local | | Lara@IIS.de | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| LDAPRead (LDAP) | LDAPRead | | | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Max Miller (LDAP) | Max | Miller | | miller@IIS.de | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Test User (LDAP) | Test | User | | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

User rights can be automatically and periodically synchronized from an active directory for Single Sign-on.

WADO link copied to clipboard.
ATTENTION: This link has no expiry date!
 The copied link grants access to confidential patient data without a need for account verification. It should be shared carefully and only to intended recipients.

Create a secure WADO link for data sharing on a study or patient level using only 3 mouse clicks.

| DATE | TIME | USER | INSTITUTION | STUDY |
|------------|----------|------|--------------------|-------|
| 08.08.2020 | 11:12:17 | root | NADCO Bnk creation | Study |
| 08.08.2020 | 11:11:15 | root | NADCO Bnk creation | Study |
| 08.08.2020 | 11:09:21 | root | NADCO email sent | Study |
| 08.08.2020 | 11:08:12 | root | NADCO Bnk creation | Study |
| 08.08.2020 | 11:08:11 | root | NADCO Bnk creation | Study |
| 08.08.2020 | 11:07:09 | root | NADCO email sent | Study |
| 08.08.2020 | 11:06:53 | root | NADCO Bnk creation | Study |
| 08.08.2020 | 11:06:53 | root | NADCO Bnk creation | Study |

The HIPAA-compliant WADO email log gives information about which kind of studies were shared by whom and when.

Card character explanation: The wild-card character "*" stands for a random number of characters, the "?" character stand for only one character.

iQ-WEB offers patient identification via the institutional and the national ID simultaneously (USP).

Instance 1

iQ-WEB includes a zero-footprint video viewer e.g. for endoscopy.

- SERVER**
 - Server instance monitoring
 - Enhanced server statistics (e.g. studies received from DICOM nodes or institutions per period)
 - Automatic patient reconciliation via worklist
 - Complete 64 bit architecture for high-performance scalability

- DATABASE**
 - 64 bit MySQL
 - Automatic synchronization with other DICOM servers
 - Configurable overflow management (high water/low water, study date, custom settings)
 - Stores up to 500 million images**

- COMMUNICATION**
 - DICOM PRINT and DICOM WORKLIST clients
 - Rule-based auto-forwarding of data sets
 - Emergency management with priority routing
 - Restricted forwarding to user-selected AE titles
 - Enhanced auto-routing due to advanced scheduling options
 - WADO (web access to DICOM objects) (optional)
 - Email notification when new study has arrived

- WEB**
 - Unlimited number of web users and concurrent users by default
 - Optional access portal for referring physicians
 - Can open studies in iQ-VIEW from EasyWEB page
 - Displays all color/grayscale images and structured reports
 - Web-based query of external DICOM archives
 - Web-based transfer of images to DICOM destinations
 - Attach files and notes to images or studies
 - Web-based DICOM MPEG video management
 - Additional coercion rule trigger by defined DICOM tags (e.g. institution name, involved physician, modality)
 - Character sets supported (only one character set at a time), see DICOM Conformance Statement for details
 - Use, browse and filter local and global Patient ID (e.g. national Patient ID) in different columns (USP, NEW!)

- DATA AND USER MANAGEMENT & SECURITY**
 - User login credential synchronization from active directory via LDAP (periodical synchronization, query of multiple organizational units (OUs), simultaneous WADO and LDAP users)(NEW!)
 - One login for multiple applications (NEW!)
 - 23 different privilege settings for each user/group
 - User access control (UAC)
 - Two-factor authentication to meet FDA cyber security and GDPR requirements
 - Flexible login by using either username or email address
 - Enhanced user rights management (e.g. multiple user access filter, user assignment based on AE title)
 - Definition of password complexity rules
 - User blocking after more than 5 failed login attempts (default: 2 hours)
 - Group admin rights e.g. to manage users of certain institutions

* Detailed information on iQ-WEB's system requirements is available in the iQ-WEB Administration Guide or the Hardware Purchasing Guide.

** Depending on hardware and database system used

- CYBER SECURITY**
 - Effective protection against cyber attacks by
 - Enhanced email functionality (transmission via SSL/TLS protocol)
 - Up-to-date web server components
 - Support of MySQL 5.7

- IMPORT/EXPORT**
 - Web-based import of any DICOM media
 - Web-based burning of patient CDs/DVDs when using optional iQ-LITE viewer
 - DICOM export function

- LANGUAGE**
 - English, German, Spanish, French, Russian, Polish, Ukranian, Albanian, Chinese (included by default), other languages upon request
 - DICOM export function

- LICENSING**
 - Available for 2, 5, 10, 15, 20 or an unlimited number of DICOM nodes

- COMPATIBILITY**
 - iQ-WEB 6.7.3 is compatible and available in one setup with
 - iQ-4VIEW 2.2
 - iQ-X 2.2
 - iQ-WEB2GO 1.2

- CERTIFICATION**
 - CE 0482 and FDA 510 (k)*

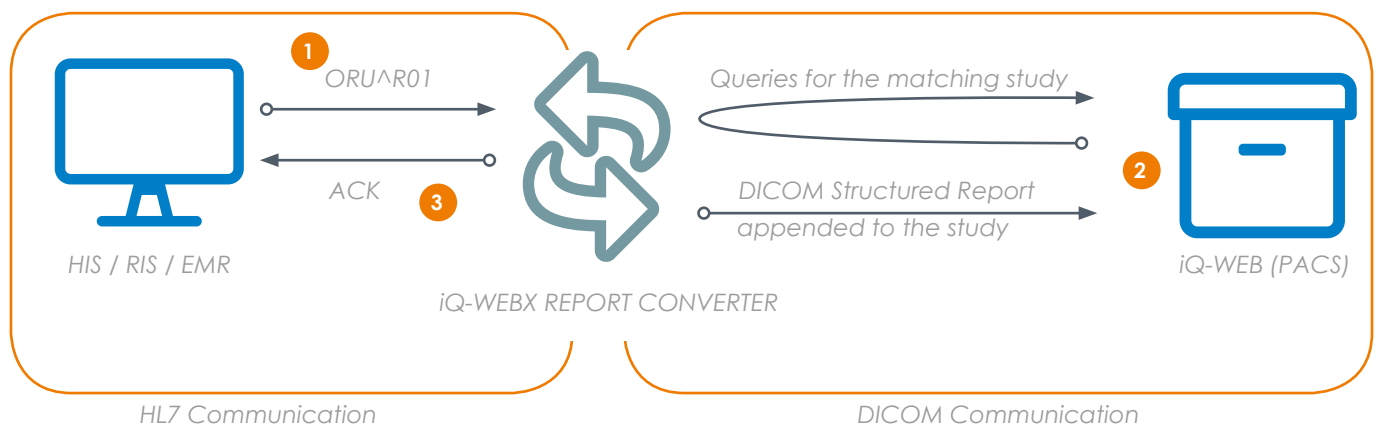
* iQ-WEB 6.7.3 is a component of iQ-SYSTEM PACS 1.6 (FDA UDI B403IQ160).

iQ-WEBX REPORT CONVERTER

(OPTIONAL)

The optional iQ-WEBX REPORT CONVERTER module uses a state-of-the-art algorithm to automatically convert and transmit DICOM Structured Reports and HL7 text reports between information systems and iQ-WEB.

- GENERAL**
 - Compatible with virtually any HL7 compliant EMR, HIS, RIS or practice management system
 - Supports Latin-1 ext. A character set
- INPUT**
 - Receives HL7 ORU^R01 messages (see HL7 conformance statement for iQ-WEBX REPORT CONVERTER)
 - Queries for incoming DICOM Structured Report (see DICOM conformance statement)
 - Supports one report per message
- OUTPUT**
 - Sends DICOM Structured Report to iQ-WEB (PACS)
 - Sends HL7 ORU^R01 to any HL7 compatible Information System
 - Sends HL7 ACK messages to acknowledge the report has been received



1 A medical report is created using an Information System (HIS / RIS / EMR). This report is sent to the iQ-WEBX REPORT CONVERTER.

2 iQ-WEBX REPORT CONVERTER finds the corresponding study in the iQ-WEBX (PACS), converts the received report into a DICOM Structured Report, and attaches the report in the new format to the study.

3 iQ-WEBX REPORT CONVERTER returns a confirmation message to acknowledge that the report was received.

ACCESS AND SHARE YOUR MEDICAL RECORDS

Do you want to share medical results, imaging studies and reports with your patients, referring or external reading physicians in diagnostic quality? iQ-WEB PORTAL offers easy and secure data sharing via email, WhatsApp or Cloud.



Share medical results, imaging studies and reports online with your patients, referring or external reading physicians without burning CD/DVDs or printing films



Access studies in full diagnostic quality via QR code, direct login or via crypto web links



Portal Access can be shared e.g. via WhatsApp or paper-based QR codes or direct integration with HIS/RIS/EMR



No client installation or registration required



Fully compliant with HIPAA and GDPR requirements for patient data sharing

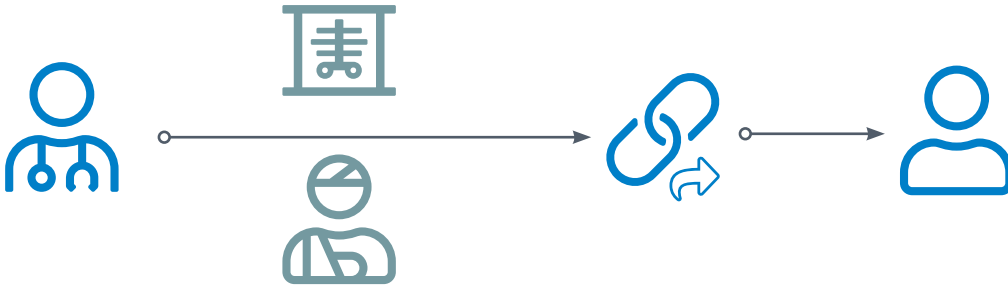


Runs on virtually any browser or device (smartphone, tablet or computer)



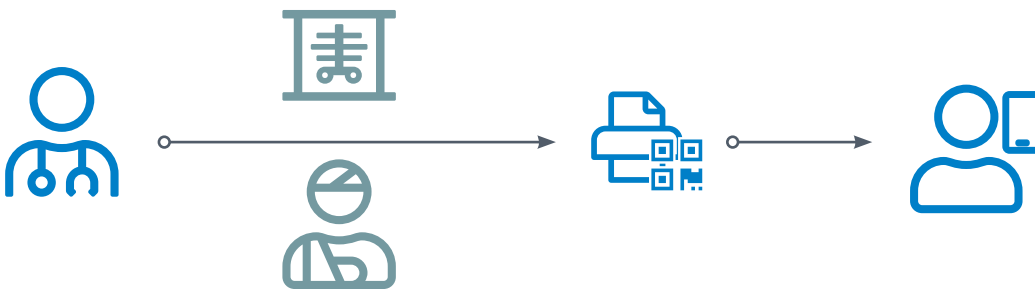
*For detailed information, please refer to our brochure on iQ-WEB PORTAL.

WEB ACCESS TO DICOM OBJECTS (WADO)



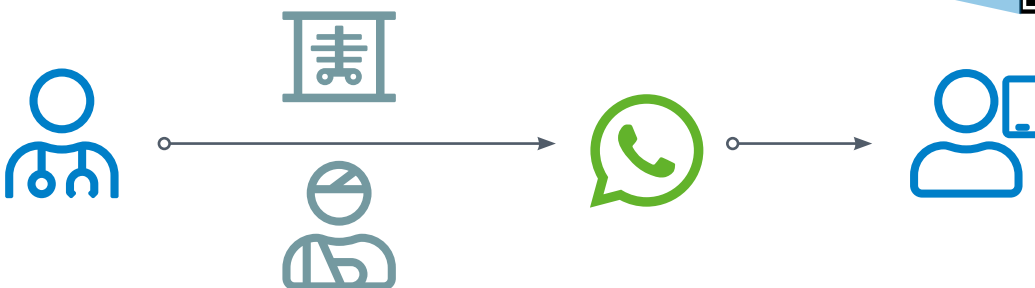
Email based WADO

1. User selects studies or patient data to share.
2. User creates WADO link(s) and forwards it/them to the recipient e.g. via email.
3. Recipient enters date of birth (DOB) to access the studies.



QR code based WADO

1. Web user selects studies or patient and prints QR code.
2. Typically, the QR code is given to the patient.
3. The patient can decide with whom to share imaging and results via any tablet, smartphone or QR code scanner.



WhatsApp based WADO

1. User selects studies or patient and copies the created WADO link(s) to WhatsApp.
2. Recipient clicks on link to open the studies securely.

WADO FEATURES

(OPTIONAL)

- GENERAL**
 - Configuration embedded in the iQ-WEB administration web interface
 - Study/image evaluation via direct call into a viewer
 - Temporary or permanent external diagnostic access to selected studies via WADO links
 - Integrate any HIS/EMR via HL7 ORU or MDM message (WADO HL7)
 - Integrate any German/Austrian/Swiss practice management system via WADO GDT

- ACCESS**
 - Single Sign On using predefined login data for automatic authentication (no need to log in twice)
 - Customizable duration of link validity, e.g. to limit PACS access to 4 weeks
 - Creation of WADO links as QR codes to provide fast access to diagnostic-quality studies and reports to referring physicians/colleagues **and patients** via smartphone or QR code reader (NEW!)
 - **Share WADO links directly from WEB GUI via Email (NEW!)**

- SUPPORTED CALLS**
 - Lists all studies/images depending on transmitted identifier:
 - Patient IDs / **Global Patient IDs (NEW!)**
 - Accession numbers
 - Study instance UIDs
 - Series instance UIDs
 - Patient names
 - Date of birth
 - Access to patients' studies by BDT/GDT file
 - "Viewer" option allows opening in either:
 - iQ-X
 - iQ-4VIEW
 - iQ-VIEW**
 - Simple web image view in JPEG quality
 - Browser-dependent opening of viewer (when using IE, iQ-X viewer is opened; all other browsers open iQ-4VIEW by default)
 - WADO links can be used on mobile devices (using iQ-WEB2GO) if viewer mode is set to "iQ-4VIEW" or "simple web image view"
 - HL7 support on request
 - Inbound ORM message orders
 - Outbound ORU messages (typically with embedded WADO URL)

- SECURITY**
 - High security by optional AES encrypted WADO IDs
 - Compliant with US and European data protection laws and regulations
 - **HIPAA/GDPR compliant log information of shared WADO links (user, recipient, patient(s), studies, date/time) (NEW!)**
 - **Dual authentication (suggested for email based sharing of WADO links) (NEW!)**

OUR COMPANY AT A GLANCE

IMAGE Information Systems is an international company group with offices in Germany, USA and India, which offers complete, user friendly and cost-effective medical imaging solutions.

More than 10,000 satisfied clients all over the world benefit from our state-of-the-art products for PACS, RIS, X-ray solutions, 3D processing and tele-radiology.

We have pioneered several innovations in the market:

- We have introduced MED-TAB, the first DICOM-calibrated portable display for medical image analysis
- Our iQ-ROUTER supports virtually all DICOM image formats and transfer syntaxes in data transmission
- DICOMReader has the highest available read-in rate of patient media, ensuring compatibility with almost all available imaging modalities and vendors

IMAGE Information Systems provides the second largest digital imaging user forum on earth, enabling users to share knowledge and best practice.

To learn more about us and our products, please visit our website.

www.image-systems.biz

OUR PRODUCTS FOR YOUR IMAGING NEEDS

iQ-SYSTEM PACS
iQ-RIS
MED-TAB™

Full featured, reliable and affordable PACS
Smooth radiology information system
Superior portable image analysis



Stamp of sales partner



IMAGE INFORMATION SYSTEMS EUROPE GMBH
LANGE STR. 16 | 18055 ROSTOCK | GERMANY
TEL. GER: +49 381 496 5820 | FAX GER: +49 381 496 582 99
TEL. US: +1 470 300 44 80
WWW.IMAGE-SYSTEMS.BIZ | INFO@IMAGE-SYSTEMS.BIZ