

# **WEBX**

THIN CLIENT PACS FOR STORAGE, ARCHIVING, AND TELERADIOLOGY

# YOUR PACS, YOUR FREEDOM





# *iQ-WEBX - THE CAREFREE, ALL-INCLUSIVE PACS*

iQ-WEBX is a complete, easy-to-use, and affordable PACS for storing, viewing, and distributing medical imaging studies and reports.

As a complete solution, the iQ-WEBX PACS consists of several applications in one package:

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

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

Web Server for an unlimited number of users: This server allows the secure web-based distribution of any medical images and reports to an unlimited number of web users, combined with efficient user management, and strict authentication procedures.

#### Zero-footprint multimodality viewer:

**iQ-4VIEW** is a diagnostic thin client viewer for all browsers and operating systems and runs on virtually any device, e.g. iPhone®, tablet, computer. iQ-4VIEW uses Google Native Client technology (Google Chrome desktop browser) for workstation-like performance.

**iQ-3DVIEW** is a zero-footprint tool for web-based 3D visualization of CT and MRI series.

**iQ-X Diagnostic Web Viewer:** This is a powerful plug-in for browsing, reading, and processing DICOM images using Internet Explorer®. It provides an interactive diagnostic web viewer with all clinically required image processing features such as measurements, stack mode, cine mode, and study comparisons.

iQ-X, as well as iQ-4VIEW, allow additional series to be preloaded in the background while images are being viewed. The diagnostic image processing tools available are based on our leading DICOM viewer iQ-VIEW.

#### Zero-footprint Mobile Viewer:

iQ-WEB2GO is an iQ-WEBX module for basic web-based viewing of radiology images on any tablet or smartphone. Licensing: Depending on the user's needs, iQ-WEBX is available in a variety of configurations. It can be ordered with or without iQ-4VIEW, iQ-3DVIEW, and the iQ-X Web viewer. When ordered without the additional viewing options, it is labeled iQ-WEB. Options are available depending on the number of DICOM nodes that will be connected. Packages include 2, 5, 10, 20 or even an unlimited number of DICOM nodes (Application Entities).

#### Special iQ-WEBX Features:

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

**Web-Based Administration:** Configuration, modifications, and quality monitoring of the system can be handled via a web browser with no need to be directly in front of the server.

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

Highest level of Privacy: iQ-WEBX 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.

Patient Reconciliation: All stored studies can be verified with a DICOM WORKLIST and with optional HL7 messages. Study data can be automatically corrected in an IHE compatible protocol to ensure consistent image data is stored in the archive.

**Web-Based DICOM Print:** Images can be printed from the web client on a remote DICOM imager.

**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).

**Referring Physician Portal:** Imaging centers can offer referring physicians access to their own cases for viewing them anytime and anywhere without requiring additional software.

**WADO Interface:** iQ-WEB can be seamlessly integrated with virtually any medical information system using the appropriate optional iQ-WEBX WADO or iQ-WEBX WADO HL7 modules.

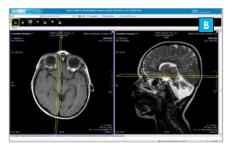
# THE SOLUTION CAN BE SO SIMPLE



# *iQ-WEBX SCREENSHOTS*



A iQ-WEBX can store and display virtually any type of grayscale and color image, as well as structured reports and encapsulated PDFs.



B The ActiveX viewer plug-in, iQ-X, is installed the first time images are viewed and offers viewing physicians easy-to-use, interactive image processing tools with diagnostic quality.



The iQ-WEBX EasyWEB page provides quick and easy access to all studies for reading, requesting, and referring physicians.



D Users may annotate images or studies with individual texts, keywords, or attached documents to create teaching cases within the PACS.



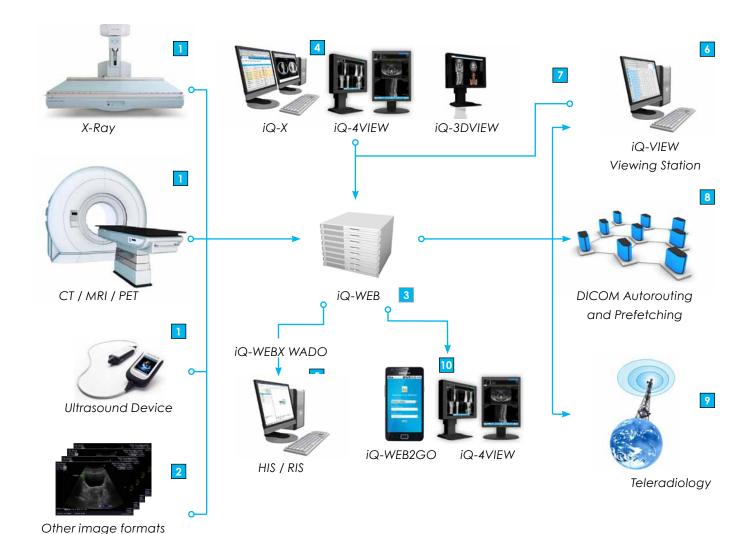
**E** iQ-WEBX logs system activities in compliance with HIPAA regulations.



F The optional iQ-X report manager provides the necessary tools for creating DICOM structured reports.



## iQ-WEBX WORKFLOW



- 1 iQ-WEB is typically connected to all DICOM modalities in an imaging network, such as X-Ray, PET/ CT/MRI, and Ultrasound.
- 2 iQ-WEB supports a wide variety of image formats which are specified in the respective DICOM Conformance Statement.
- 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 or HL7 messaging.
- 4 The built-in viewers iQ-4VIEW, iQ-X, and iQ-3DVIEW allow medical

images to be viewed in diagnostic quality.

- 5 iQ-4VIEW, iQ-X, and iQ-3DVIEW can be seamlessly integrated with virtually any medical information system using the appropriate optional iQ-WEBX WADO HL7 modules.
- 6 Reading stations, such as iQ-VIEW, can be connected directly to iQ-WEBX 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.
- Efficient teleradiology connections are achieved by built-in data compression algorithms, and the reporting option included in the iQ-X viewer.
- 10 The optional iQ-WEB2GO module facilitates radiology viewing via mobile devices for fast and easy access of medical images from anywhere.

iQ-4VIEW is a diagnostic zero-footprint viewer which runs on virtually any device (e.g. iPhone®, tablet, computer). No client software installation is required. iQ-4VIEW provides an avenue for location-, browser- and operating system-independent diagnostic\* reading, viewing, and reviewing of medical images. The world's first zero-footprint viewer uses a unique native application performance booster on suitable Google Chrome™ browsers.

The multi-modality iQ-4VIEW includes a web-based structured report editor for mobile reporting. In addition, iQ-4VIEW offers a cine mode option that displays up to 50 frames per second e.g. for cardiology studies.



B iQ-4VIEW offers easy-to-use measurement tools on mobile devices.



A Create structured reports with iQ-4VIEW while displaying images and diagnostic information simultaneously.



c iQ-4VIEW allows the display of scoutlines of cross-sectional images.

<sup>\*</sup> Diagnostic image visualization should only be performed on suitable devices, e.g. workstations, MED-TAB<sup>TM</sup>, etc.

iQ-WEB2GO is an iQ-WEB viewer for web-based viewing of radiology images, Encapsulated PDFs, and Structured Reports on iOS and Android based portable, handheld devices.

iQ-WEB2GO represents an easy-to -use and ultra-fast solution for clinical reference. Referring physicians can view images at their fingertips without being tied to a workstation. It is also ideal for remote and subspecialty consultation. Access to radiology images is quick, easy, and secure with no need to run an installer.

For users with iQ-WEBX10 or higher, iQ-WEB2GO is included by request.



- D The Studies overview page displays studies sorted by last name. Read studies are displayed in regular font, unread studies in bold.
- E The Images page displays an image in full screen mode, allowing zoom / pan.

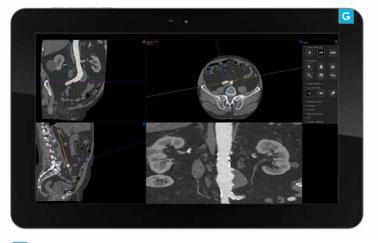


## iQ-3DVIEW

iQ-3DVIEW\* is an iQ-WEB viewer for web-based 3D visualization of radiology images on tablets and desktop computers. Enjoy zero-footprint 3D viewing from anywhere including double oblique MPR for trauma and oncology, and curved MPR for vessel and spine imaging.

In addition, iQ-3DVIEW allows volume rendering including cropping and a virtual endoscopic view.





G Curved MPR view with iQ-3DVIEW

F Virtual endoscopic view and volume rendering including cropping

\*for clinical reference only

#### *iQ-WEB FEATURES*

#### **SERVER**

- Server instance monitoring
- Statistics
- Automatic patient reconciliation via worklist or HL7
- Complete 64 bit architecture for high-performance scalability (NEW!)

#### **COMMUNICATION**

- DICOM PRINT and DICOM WORKLIST clients
- Rule-based auto-forwarding of data sets
- Emergency management with priority routing (NEW!)
- Restricted forwarding to user-selected AE titles
- Enhanced auto-routing due to advanced scheduling options
- HL7 interface (optional)
- WADO (web access to DICOM objects) (optional)
- Email notification when new study has arrived
- Breast tomosynthesis support (NEW!)
- Sends images as JPEG via email

#### **WEB**

- Unlimited number of users and concurrent users by default
- Access portal for referring physicians and patients\*
- Automatic browser detection in the EasyWEB page
- 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 (by request) (NEW!)
- Supported character sets (only one character set at a time):
  - GB18030 Simplified Chinese, ISO 2022 IR 149 (Korean), ISO 2022 IR 13 (Japanese JIS X 0201), ISO 2022 IR 87 (Japanese JIS X 0208), ISO 2022 IR 159 (Japanese JIS X 0212), ISO\_IR 192 (Unicode), ISO\_IR 100 (Latin Alphabet Part 1), ISO\_IR 101 (Latin Alphabet Part 2), ISO\_IR 109 (Latin Alphabet Part 3), ISO\_IR 110 (Latin Alphabet Part 4), ISO\_IR 144 (Russian), ISO\_IR 127 (Arab), ISO\_IR 126 (Greek), ISO\_IR 138 (Hebrew Logical Order), ISO\_IR 148 (Latin Alphabet Part 5)

#### **IMPORT/EXPORT**

- Web-based import of any DICOM media
- DICOM export function

#### **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\*\*





<sup>\*</sup>Subject to properly filled DICOM data

<sup>\*\*</sup> Depending on hardware and database system used

#### iQ-WEB FEATURES

# DATA AND USER MANAGEMENT & SECURITY

- 12 different privilege settings for each user/group
- User access control
- 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 (2 hours)

#### **LANGUAGE**

 English, German, Russian, Spanish (included by default), other languages upon request

#### CERTIFICATION

CE 0482 and FDA 510 (k), GOST, TGA, ANVISA and more

#### **LICENSING**

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

# *iQ-X / iQ-4VIEW FEATURES*

IN ADDITION TO iQ-WEB FEATURES

# iQ-4VIEW AND iQ-X WEB VIEWER

- View any kind of images, structured reports, and Encapsulated PDFs\*
- Thumbnail previews for easy selection of series via drag & drop
- Displays scoutlines of cross-sectional images
- Center/window, color remappings
- Stack mode/cine mode (iQ-4VIEW up to 50 fps) (NEW!)
- Measurements (distance, ROI, angle)
- Compare multiple studies
- Easy synchronization of series, e.g. for comparing CT scans
- Web-based creation of DICOM Structured Reports with Latin-1 support or UTF8 support (iQ-4VIEW, only)
- Web image generation on DICOM receive
- Background preload
- JPEG / JPEG LS / JPEG 2000 support (lossless/lossy)
- PNG (lossless) / JPEG 2000 (lossy) (iQ-4VIEW, only)

#### CERTIFICATION

CE 0482 and FDA 510 (k), GOST, TGA, ANVISA and more

#### LICENSING (iQ-4VIEW)

- Available for 2, 5, 10, 15, 20 or an unlimited number of concurrent users
- iQ-WEB2GO additionally recommended if using iQ-4VIEW on portable devices for the portable study browser
- Report editor is included

#### LICENSING (iQ-X WEB VIEWER)

- Unlimited number of web users by default
- Also available for 2, 5, 10, 15, 20 web users
- iQ-X is available with or without report editor

<sup>\*</sup> PDF reader is required

## iQ-3DVIEW

#### **3D WEB VIEWER**

- Zero-footprint web-based 3D visualization of suitable CT and MR studies
- Double oblique MPR, e.g. for trauma and oncology
- Curved MPR, e.g. for vessel and spine imaging
- Volume rendering including cropping
- Virtual endoscopic view

#### **LICENSING**

Available for 1-10 concurrent web users

# iQ-WEB2GO

#### **WEB VIEWER**

- Web-based visualization of medical images
- Displays Structured Reports and Encapsulated PDF documents
- Overview of multiple studies at thumbnail level
- Quick and easy selection of series via tapping on image
- Zoom/pan
- User-friendly search and navigation tools
- Optimized user privilege handling

#### **LICENSING**

- Unlimited number of users
- Included at no extra charge for iQ-WEBX10 and higher versions\*\*



<sup>\*\*</sup>Additional charge for iQ-WEBX 2 or 5. Service package fees apply for all licensing.

# iQ-WEBX WADO

The optional iQ-WEBX WADO module p	provides quick and easy access to imaging studies from any HIS, PMS, or EMR.
GENERAL	<ul> <li>Configuration embedded in the iQ-WEBX administration web interface</li> <li>Study/image evaluation via direct call into a viewer</li> </ul>
ACCESS	<ul> <li>Single log on using predefined login data for automatic authentication (no need to log in twice)</li> <li>Customizable duration of PACS access</li> </ul>
SUPPORTED CALLS	<ul> <li>Lists all studies/images depending on transmitted identifier: <ul> <li>Patient IDs</li> <li>Accession numbers</li> <li>Study instance UIDs</li> <li>Series instance UIDs</li> <li>Patient names</li> </ul> </li> <li>Access to patients' studies by BDT/GDT file</li> <li>New "viewer" option allows opening in either <ul> <li>iQ-X</li> <li>iQ-4VIEW</li> <li>iQ-VIEW*</li> <li>Simple web image view</li> <li>Browser-dependent opening of viewer</li> </ul> </li> <li>WADO links can be used on mobile devices (using iQ-WEB2GO) if viewer mode is set to "iQ-4VIEW" or "simple web image view" (NEW!)</li> </ul>
SECURITY	<ul> <li>Highly secure AES encryption</li> </ul>

# *iQ-WEBX REPORT CONVERTER*

Compliant with US and European data protection laws and regulations

Sends HL7 ACK messages to acknowledge the report has been received

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-WEBX.

GENERAL	<ul> <li>Compatible with virtually any HL7 compliant EMR, HIS, RIS, or practice management system</li> <li>Supports LATIN-1 ext. A character set</li> </ul>
INPUT	<ul> <li>Receives HL7 ORU^R01 messages (see HL7 conformance statement for iQ-WEBX REPORT CONVERTER)</li> <li>Queries for incoming DICOM Structured Report (see DICOM conformance statement)</li> <li>Supports one report per message</li> </ul>
OUTPUT	<ul> <li>Sends DICOM Structured Report to iQ-WEBX (PACS)</li> <li>Sends HL7 ORU^R01 to any HL7 compatible Information System (HIS / RIS /</li> </ul>

\* via iQ-VIEW Call

EMR)

HARDWARE & SOFTWARE REQUIREMENT SUMMARY*						
	iQ-4VIEW/iQ-3DVIEW	iQ-WEB2GO	iQ-X	iQ-WEB GUI		
OS (Desktop PC):	Windows® 7 Pro 32bit/64bit with SP1, Windows® 8(.1) Pro 32bit/64bit Windows® 10 Pro 32bit/64bit	-	Windows® 7 Pro 32bit/64bit with SP1, Windows® 8(.1) Pro 32bit/64bit Windows® 10 Pro 32bit/64bit	Windows® 7 Pro 32bit/64bit with SP1, Windows® 8(.1) Pro 32bit/64bit Windows® 10 Pro 32bit/64bit		
OS (Mobile Device):	Android ≥ 4.x or iOS ≥ 6.x device	Android ≥ 4.x or iOS ≥ 6.x device	-	-		
RAM:	≥ 2 GB	≥ 2 GB	≥ 2 GB	≥ 2 GB		
HDD:	-	-	100 MB free disk space for iQ-X installation files, additional space is needed for image data**	-		
Network:	≥ 128 Kbit/s - clinical reference ≥ 1 Mbit/s - diagnostic purposes (iQ-4VIEW only)	≥ 128 Kbit/s	≥ 128 Kbit/s - clinical reference ≥ 1 Mbit/s - diagnostic purposes	≥ 128 Kbit/s		
Graphics:	Resolution of ≥ 1024x768, 24 bit color / 8 bit gray output	-	Resolution of ≥ 1024x768, 24 bit color / 8 bit gray output	-		
Browser:	Current versions of all major browsers*** (Google Chrome™, Internet Explorer®, Microsoft Edge™, Mozilla Firefox®, Opera™, Safari®)	Current versions of all major browsers (Google Chrome™, Internet Explorer®, Microsoft Edge™, Mozilla Firefox®, Opera™, Safari®)	Internet Explorer® ≥ 11 (32 bit only)	Current versions of all major browsers (Google Chrome™, Internet Explorer®, Microsoft Edge™, Mozilla Firefox®, Opera™, Safari®)		

<sup>\*</sup>See the current IMAGE Hardware Purchasing Guide for server requirements

iQ-SYSTEM PACSFull featured, reliable, and affordable PACSiQ-RISSeamless radiology information systemMED-TABTMSuperior portable image analysis

Stamp of sales partner

IMAGE INFORMATION SYSTEMS LTD.

3RD FLOOR | 207 REGENT STREET | LONDON W1B 3HH | UNITED KINGDOM TEL. UK: +44 20 3289 1500

TEL. GER: +49 381 496 5820 | FAX GER: +49 381 496 582 99

TEL. US: +1 704 323 6663

INFO@IMAGE-SYSTEMS.BIZ | WWW.IMAGE-SYSTEMS.BIZ

 $<sup>\</sup>hbox{$^{**}$Required size depends on number of images to be temporarily stored on the client computer.}$ 

<sup>\*\*\*</sup>Best performance and compatibility when using Google Chrome  $^{\mathsf{TM}}$