iQ
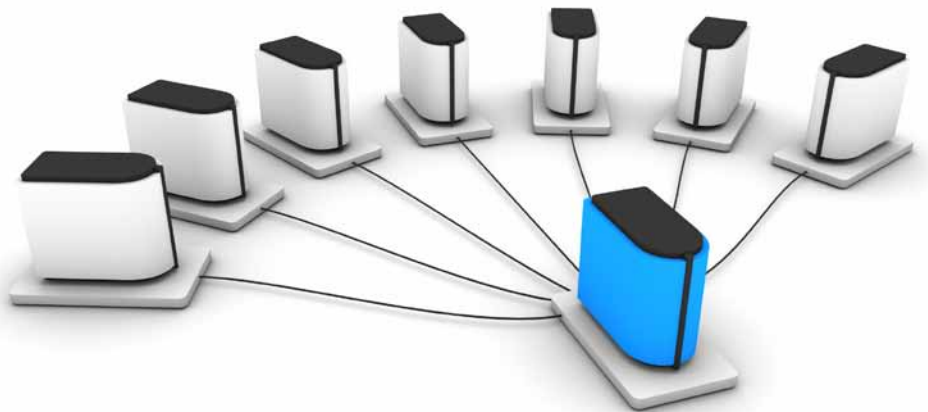
WEBX

THE DICOM SERVER FOR STORAGE, TELERADIOLOGY AND IMAGE DISTRIBUTION

YOUR PACS, YOUR WORLD

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 only 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. Hierarchical archive support for short and long term archives is included, and when used in combination with iQ-ROUTER PRO, it is even more flexible and customizable. A second iQ-WEBX server can be automatically synchronized in order to permanently ensure up-to-date backup data.

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.

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

iQ-X Diagnostic Web Viewer: This is a powerful plug-in for browsing, reading, and processing DICOM images through every network. 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 further allows additional series to be preloaded in the background while images are being viewed. The graphical user interface is based on the leading DICOM viewer iQ-VIEW.

Special iQ-WEBX Features:

Licensing: Depending on the user's needs, iQ-WEBX is available in different configurations. It can be ordered with or without the iQ-X Web Viewer; in the latter case, it is labeled iQ-WEB. There are several packages available depending on the DICOM nodes to be connected; it comes in packages supporting 2, 5, 10, 20 or even an unlimited number of DICOM nodes (Application Entities).

Web-Based Administration: Allows for proper configuration, adaptation and quality monitoring of the system, even without having access to the server machine.

Web-Based Reporting: With the optional iQ-X reporting module and Internet Explorer, 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 the system to review their own cases while the chief radiologist can be granted access to the entire patient database. It is possible to share imaging data among physicians, in compliance 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 is automatically alerted via email or text message including a link to the image (by using a 3rd party mail2SMS gateway service with additional costs).

Zero-footprint Mobile Viewer: iQ-WEB2GO is an iQ-WEBX module for web-based viewing of radiology images on any tablet or smart phone. It is free of charge for all iQ-WEBX licenses supporting 10 or more AE titles.

Referring Physician Portal: Imaging centers can offer referring physicians access to their own cases, so they can view them anytime and anywhere without requiring additional software.
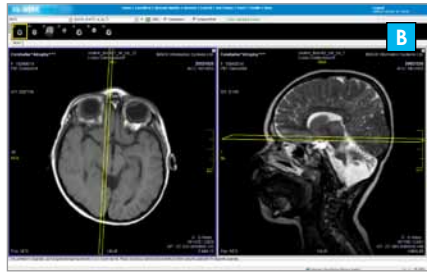
WADO Interface: iQ-WEB can be smoothly integrated with virtually any medical information system using the optional module iQ-WEBX WADO or iQ-WEBX WADO HL7, respectively.

THE SOLUTION CAN BE SO SIMPLE

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

B *The ActiveX viewing plug-in, iQ-X, is installed during the first call of images and offers viewing physicians easy-to-use interactive image processing tools with diagnostic quality.*
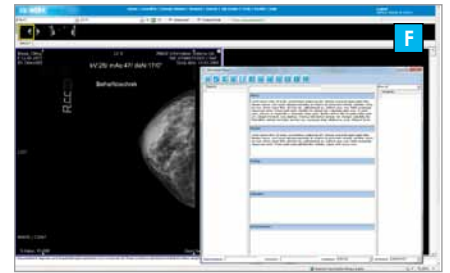
C *The iQ-WEBX EasyWEB page provides easy and fast access to all studies for reading, requesting and referring physicians.*

D *Users may annotate images or studies with individual texts, keywords or attached documents to create teaching cases within the PACS.*
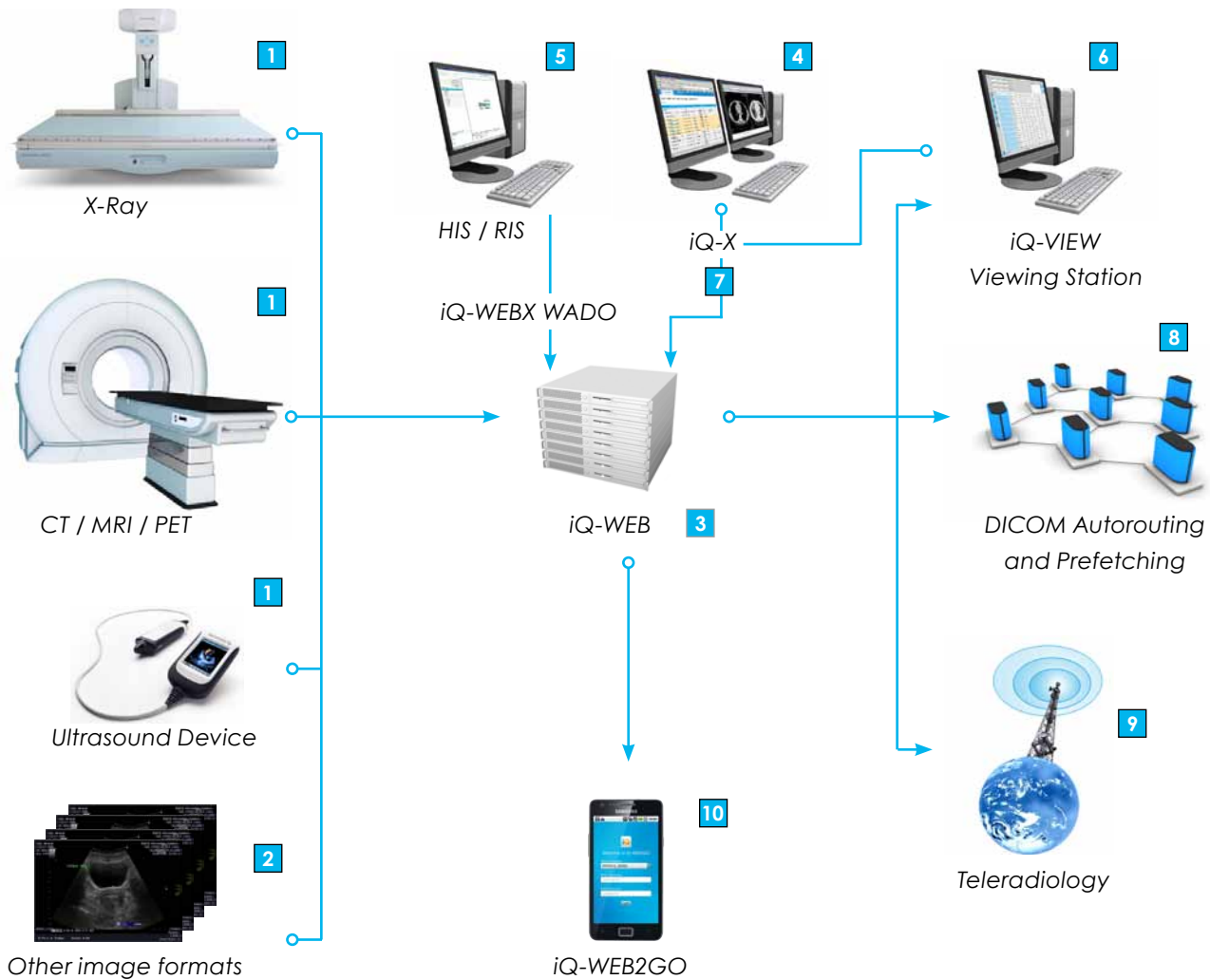
E *iQ-WEBX logs system activities in compliance with HIPAA regulations.*

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

iQ-WEBX WORKFLOW

X-Ray [1]

CT / MRI / PET [1]

Ultrasound Device [1]

Other image formats [2]

HIS / RIS [5]

iQ-WEBX WADO

iQ-X [4]

[7]

iQ-WEB [3]

iQ-WEB2GO [10]

iQ-VIEW Viewing Station [6]

DICOM Autorouting and Prefetching [8]

Teleradiology [9]

[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 vendor neutral archiving system, iQ-WEB represents the core of an imaging network offering advanced features like automatic patient reconciliation achieved with any hospital information system via worklist or HL7.

[4] The built-in viewer iQ-X allows viewing medical images in diagnostic quality by means of web technologies like ActiveX.

[5] iQ-X can be smoothly integrated with virtually any medical information system using the optional module iQ-WEBX WADO or iQ-WEBX WADO HL7, respectively.

[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-X viewer. 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 is handled by iQ-WEB, if required.

[9] 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-WEB2GO is an iQ-WEBX module for web-based viewing of radiology images, Encapsulated PDFs and Structured Reports on iOS and Android based portable, handheld devices.

iQ-WEB2GO represents an excellent solution for clinical reference for referring physicians who need to see 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 without the need to run an installer.

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

A *The Studies overview page displays the studies sorted by last name. Read studies are displayed in regular font, unread studies in bold.*

B *The Search page allows specifying criteria to find one or a list of studies in the database.*

A

B

C *The Series overview page provides easy access to selected images.*

D *The Images page displays an image in full screen mode, allowing zoom / pan.*

C

D

iQ-WEB FEATURES

SERVER
- Server instance monitoring
- Statistics
- Automatic patient reconciliation via worklist or HL7
- Post-receive image compression configurable for every source (for iQ-X usage)

COMMUNICATION
- DICOM Query/Retrieve
- DICOM PRINT client and DICOM WORKLIST client
- Rule-based auto-forwarding of data sets
- Restricted forwarding to user-selected AE titles
- Enhanced auto-routing due to advanced routing criteria logic (NEW!)
- HL7 interface (optional)
- WADO (web access to DICOM objects) (optional)
- Email notification when new study has arrived
- Sending images as JPEG via email

WEB
- Unlimited number of users and concurrent users by default
- Access portal for referring physicians and patients*
- User-friendly web interface optimized for easy administration and maintenance (NEW!)
- Automatic browser detection in the EasyWEB page
- Opening studies in iQ-VIEW from EasyWEB page
- Additional filter options in EasyWEB (e.g. Study Received Date/Time) and auto-refresh when new studies arrive (NEW!)
- Display of all color/grayscale images and structured reports
- Web-based query of external DICOM archives
- Web-based transfer of images to DICOM destinations
- File attachments and notes to images or studies
- 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
- Automatic synchronization with other DICOM servers
- Configurable overflow management (high water/low water, study date, custom settings)
- Stores up to 500 million images**

*Subject to properly filled DICOM data

** Depending on hardware and database system used

DATA AND USER MANAGEMENT & SECURITY

- 12 different privilege settings for each user/group
- User access control
- Customizable user rights management (e.g. user access filter, user assignment based on AE title) (NEW!)
- Definition of password complexity rules
- User blocking after more than 5 failed login attempts (2 hours) (NEW!)

LANGUAGE

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

CERTIFICATION

- CE 0482 and FDA 510 (k), GOST, TGA, JPAL

LICENSING

- Available for 2, 5 or 10 DICOM nodes

iQ-WEBX FEATURES
IN ADDITION TO iQ-WEB FEATURES

iQ-X WEB VIEWER (ACTIVEX)

- Viewing any kind of images, structured reports and Encapsulated PDFs*
- Thumbnail preview for easy selection of series via drag & drop
- Display of scoutlines of cross-sectional images
- Center/window, color remappings
- Stack mode/cine mode
- Measurements (distance, ROI, angle)
- Comparison of multiple studies
- Easy synchronization of series, e.g. for comparing CT scans
- Web-based creation of DICOM Structured Reports with Latin-1 support
- Background preload
- JPEG / JPEG LS / JPEG 2000 support (lossless/lossy)

LICENSING

- Unlimited number of WEB users
- Available for 2, 5, 10, 15, 20 or even for an unlimited number of DICOM nodes
- iQ-X is available with or without report manager

iQ-WEB2GO FEATURES

WEB VIEWER

- Web-based visualization of medical images
- Display of Structured Reports and Encapsulated PDF documents (NEW!)
- 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 (NEW!)

LICENSING

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

* PDF reader is required

**Additional charge for all other iQ-WEBX versions

SYSTEM RECOMMENDATIONS PACS SERVER (OVERVIEW)

Criteria for decision process: total number of studies to be stored/managed and maximum concurrent number of web users in the real world

Users = total number of connected DICOM workstations (not modalities) + maximum number of used (active) concurrent web users (not the number of purchased floating users)

STUDIES \ USERS	5	10	25	50
<50.000	S	S	M	L
<200.000	S	M	L	L
<1.000.000	M	M	L	L
>1.000.000	On request	On request	On request	On request

HARDWARE & SOFTWARE REQUIREMENTS

	SERVER SMALL	SERVER MEDIUM	SERVER LARGE
OS:	Windows® XP Pro 32bit with SP3, Windows® 7 Pro 32bit/64bit with SP1, Windows® 8(.1) Pro 32bit/64bit, Windows® Server 2008 R2, Windows® Server 2012 (R2)	Windows® Server 2008 R2, Windows® Server 2012 (R2)	Windows® Server 2008 R2, Windows® Server 2012 (R2)
CPU:	Intel Multi Core CPU > 1.5 GHz	Intel Multi Core CPU 2 GHz	Intel Multi Core CPU 2 GHz
RAM:	4 GB	16 GB	16 GB
HDD*:	1 GB free disk space for iQ-WEB installation files, additional space is needed for image data*	1 GB free disk space for iQ-WEB installation files, additional space is needed for image data*	1 GB free disk space for iQ-WEB installation files, additional space is needed for image data*
Network:	100 Mbit/s	1 Gbit/s	1 Gbit/s
Database:	MySQL 5.5.x 32bit /64bit**	MySQL 5.5.30 64bit	MySQL 5.5.30 64bit

*Required size depends on number of images to be stored in the PACS. To calculate your hard disk space requirements, please visit www.pacscalculator.com

**Systems with less than 100.000 studies can use 32 bit version of MySQL.

SYSTEM REQUIREMENTS

HARDWARE & SOFTWARE REQUIREMENTS

	CLIENT (MINIMUM)	CLIENT (RECOMMENDED)
OS:	Windows® XP Pro 32bit with SP3, Windows® 7 Pro 32bit/64bit with SP1, Windows® 8(.1) Pro 32bit/64bit	Windows® 7 Pro 32bit/64bit with SP1, Windows® 8(.1) Pro 32bit/64bit
CPU:	Intel Multi Core CPU >1 GHz	Intel Multi Core CPU >1.80 GHz
RAM:	2 GB	4 GB
HDD*:	100 MB free disk space for iQ-X installation files, additional space is needed for image data*	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	1 Gbit/s
Graphics:	Resolution of ≥ 1024x768, 24 bit color / 8 bit gray output, NVidia/ATI ≥ 256 MB VRAM	Resolution of ≥ 1280x1024, 24 bit color / 8 bit gray output, NVidia/ATI ≥ 1 GB VRAM
Browser:	Internet Explorer ≥ 8 (32 bit)	Internet Explorer ≥ 8 (32 bit)
iQ-WEB2GO:	Android 4.x or iOS ≥ 5.x device	Android 4.x or iOS ≥ 6.x device

*Required size depends on number of images to be temporarily stored on the client computer.

OUR PRODUCTS FOR YOUR IMAGING NEEDS

iQ-SYSTEM PACS	Full featured, reliable and affordable PACS
iQ-NUC	Complete package for nuclear image processing
iQ-RIS	Smooth radiology information system
IMAGE DISPLAYS	Medical diagnostic displays