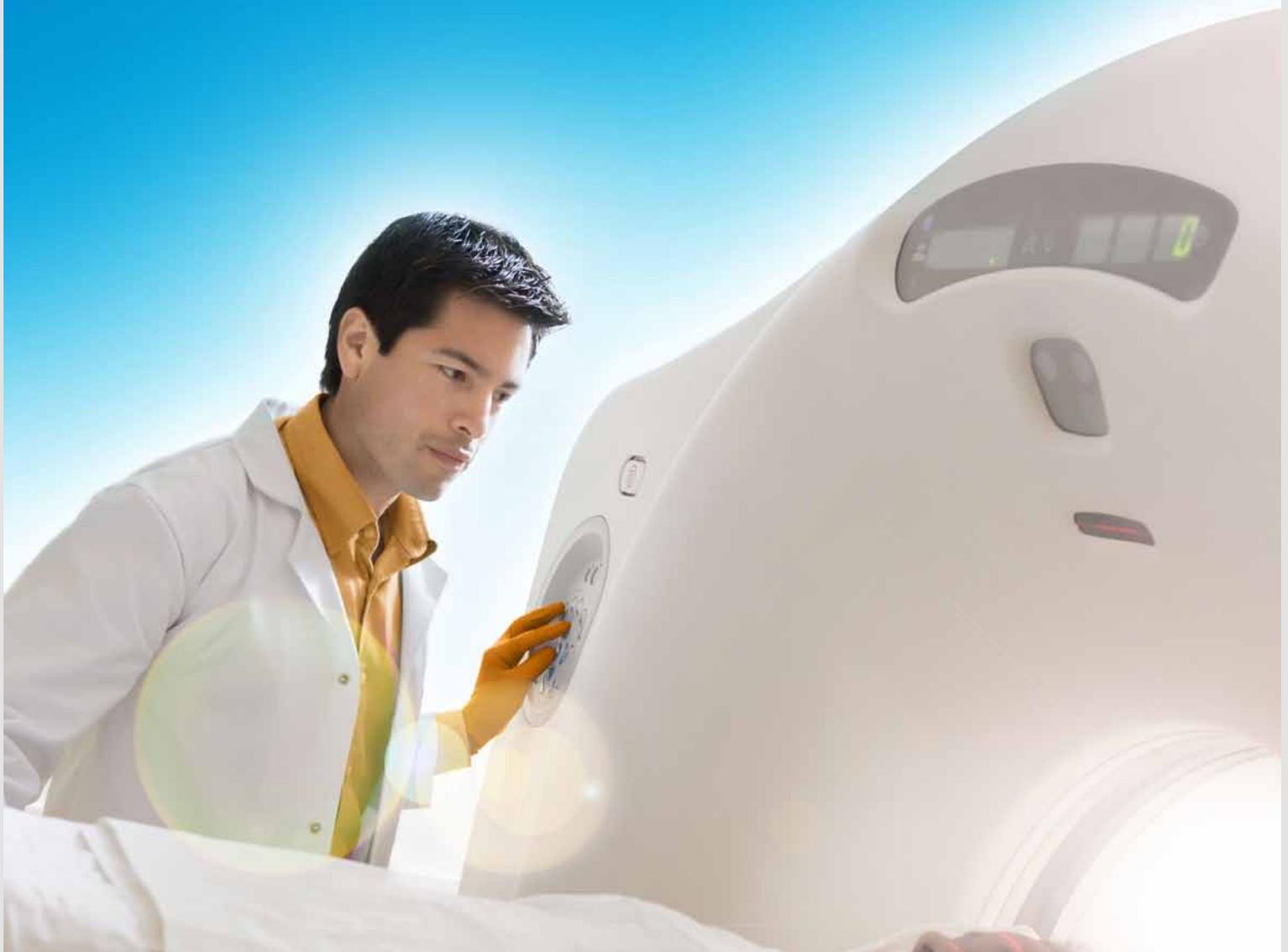




# HOSPITALS

RIS AND PACS SOLUTIONS FOR HOSPITALS

*LET YOUR WORK  
FLOW*





# ***GET READY FOR A WHOLE WORLD OF ADVANTAGES***

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You have the dream: Any medical image or record, anytime, anywhere.  
We have the solution: All digital patient data within seconds - worldwide!

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## **Why go digital?**

The answer is simple,  
IT'S FASTER, BETTER AND EASIER!

## **Does going digital meet our standards?**

Our iQ-product family is especially designed to assist your multi-modality workflow. The whole product line has easy-to-use interfaces designed by radiologists, for radiologists.

Showing 800 images of an MRI within milliseconds, displaying high contrast mammography or even sorting individual protocols (hanging protocols) are only a few of the many helpful features included.

Add-on modules for 3D post-processing, nuclear medicine, orthopedic templating and image stitching are also available, helping you to significantly improve your workflow.

## **How can our department be integrated in the hospital network?**

iQ-products can be smoothly integrated with almost any medical information system (MIS) worldwide, facilitating communication without boundaries.

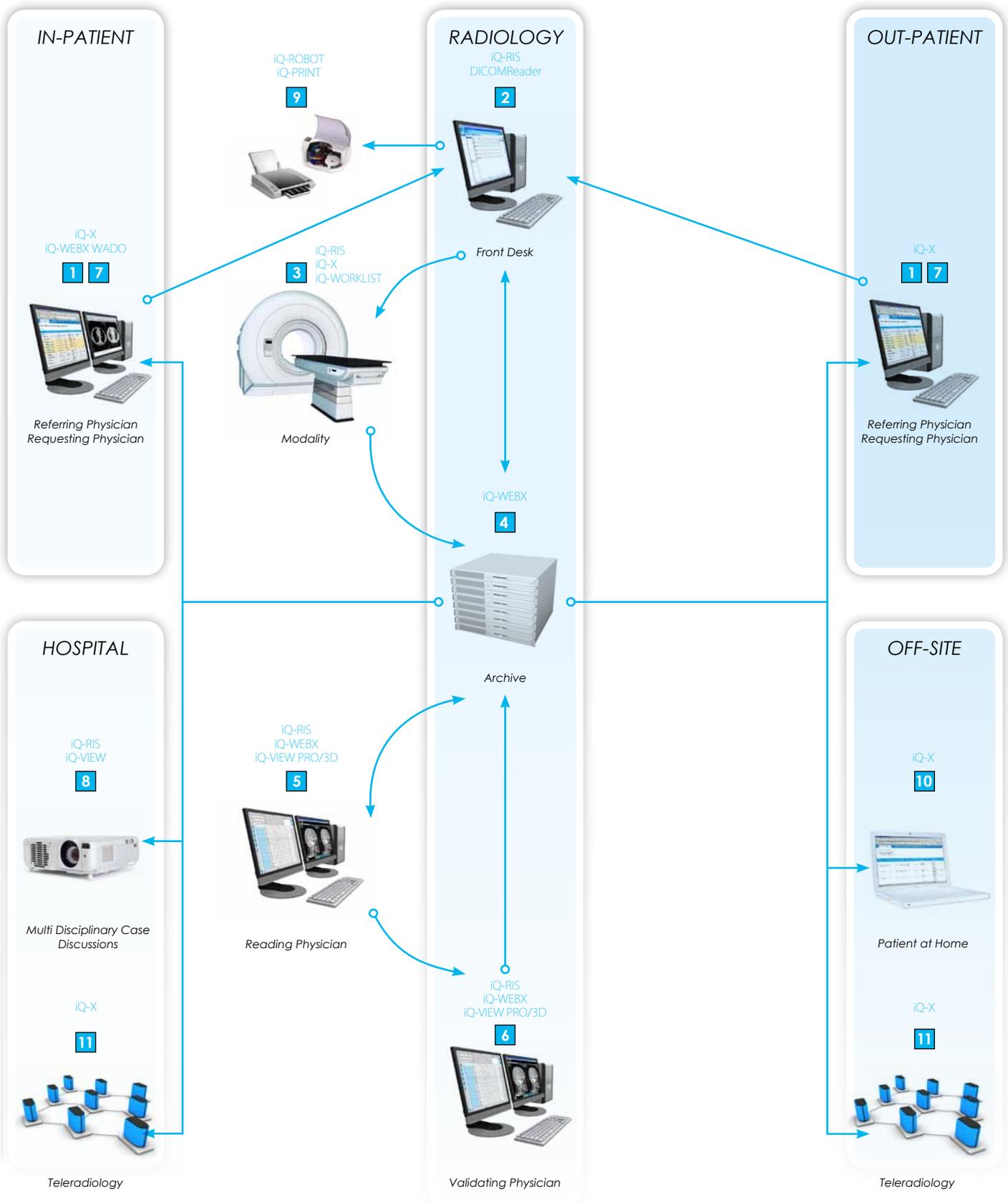
An unlimited number of referring physicians are able to access their own referrals at any time, even from a different location or from home, representing a convenient and

quick tool to share images without giving away the originals. Reading physicians no longer have to be in the same location as the patients to tend to their cases.

## **What about preparing for case demonstrations?**

With just a few mouse clicks, you can prepare your regular interdepartmental conferences within your normal reporting routine. This can be done easily by forwarding presentation states (personal image manipulations and annotations) of your images directly to the conference room.

# AN INTEGRATED DIGITAL IMAGING WORKFLOW



# AN INTEGRATED DIGITAL IMAGING WORKFLOW

- 1 Referral Out-Patient (a.) or In-Patient (b.)**
  - a. Referring physician (e.g. orthopedist, cardiologist) sends patient with letter of referral to the front desk, where the information is entered into iQ-RIS to schedule the study.
  - b. Hospital staff (e.g. in ward, ICU or ER) enters the radiology referral into the hospital information system (HIS); radiology department receives the information digitally in iQ-RIS and schedules an appointment.
- 2 Patient arrives at radiology department**
  - a. Patient and study information is updated in iQ-RIS.
  - b. External image data is read-in using the DICOMReader.
  - c. iQ-WORKLIST sends scheduling data to modality.
- 3 Patient examination**
  - a. iQ-RIS displays information about previous exams and opens previous studies, e.g. in iQ-X.
  - b. Image data is acquired, e.g. CT, MRI, CR or DR.
- 4 Image data storage**

iQ-WEBX consistently stores image and patient data.
- 5 Image data transmission to reading physicians/radiologists**
  - a. iQ-WEBX forwards images rule-based to reading stations, e.g. iQ-VIEW PRO, the customizable reading station.
  - b. IMAGE DISPLAYS offer superior quality for reading.
  - c. iQ-VIEW PRO sends images back to archive for documentation.
  - d. iQ-3D provides reading station-integrated tools for postprocessing volumetric data, e.g. for thin slice CTs or volumetric MRI scans.
  - e. Report is dictated into iQ-RIS.
  - f. Key images are stored in PACS as presentation states.
- 6 Report validation**

Physician validates report in iQ-RIS.
- 7 Access for referring or requesting physicians**

Access to images and reports may be integrated into the HIS using iQ-X and/or iQ-WEBX WADO.
- 8 Case demonstrations**

Easy case discussions using iQ-RIS and iQ-VIEW with prepared views (presentation states) of existing cases.
- 9 Patient receives study data at front desk**
  - a. iQ-ROBOT burns images and reports onto CD.
  - b. iQ-PRINT cost-efficiently prints studies on regular paper.
- 10 Patient accesses data from home**

Patient may access personal study data for a set period of time via the Internet with iQ-X.
- 11 Images can be sent to other physicians (e.g. teleradiology)**

iQ-X provides web-based access to images and reports.

# MAIN ADVANTAGES OF GOING DIGITAL

## **INTEGRATE** Does your hospital have an existing hospital information system (HIS)?

Our specialists can efficiently integrate both iQ-SYSTEM PACS and iQ-RIS with most HIS or EMR available on the market, even if the HIS is not HL7 compliant. The interface needed can be easily created between the HIS, all your modalities and all users in your department.

A full HIS-RIS-PACS integration offers data consistency, prevents typing mistakes and optimizes your information workflow.

## **SCHEDULE** iQ-RIS can receive requests for imaging studies from the HIS. Using this program, you can smoothly manage your appointments and keep your patient records permanently up-to-date.

iQ-WORKLIST, our DICOM worklist broker, transmits all relevant patient data to any imaging device, ensuring data consistency and accelerating the imaging workflow.

## **ACQUIRE** Digital imaging does not need chemistry, dark-rooms, waste disposals or ventilation systems. Hence, you can finally get rid of toxic developing procedures.

Acquiring the images digitally is significantly faster than the old-fashioned procedure, enabling you to make the most of your modalities and to maximize your patient flow.

## **READ** IMAGE DISPLAYS are high resolution diagnostic monitors, displaying the whole range of gray shades in 12-bit as acquired on most modalities.

iQ-VIEW PRO includes a handy, customizable Hanging Protocol tool for automatically displaying imaging studies in an optimized view. Using those sequences, you can switch between different views to display the same study (hanging protocol sequences). iQ-SYSTEM PACS can manage virtually all modalities in just one system; e.g. all radiology devices including nuclear medicine and even microscopic, endoscopic or other clinical images.

## **POSTPROCESS** A configurable toolbar in the viewer allows commonly used tools needed for processing or filtering images to be easily selected. Workstation integrated postprocessing, such as for 3D reconstructions or nuclear analysis, presents more independence and flexibility to reading physicians.



# MAIN ADVANTAGES OF GOING DIGITAL

**ACCESS** By using DICOMReader PRO, it is easy to read-in digital image data from virtually any external imaging center into iQ-SYSTEM PACS (or any other vendor) and to match it with internal patient folders.

**PREPARE** As one of the few reading stations worldwide, our iQ-VIEW offers presentation states. A presentation state is the DICOM compliant way to save image annotations or other processing views as a layer on the original image data. This way, your specific reading views may become available in the PACS, for example as a preparation for case discussions.

**COPY** iQ-ROBOT is a simple and affordable solution to automatically create CDs/DVDs containing medical studies and reports from the local network.

Another option is to print directly from a modality on regular paper in high quality using iQ-PRINT.

**SHARE** iQ-WEBX provides access to all medical data (e.g. images and reports) to an unlimited number of referring or requesting physicians from any computer within your hospital, or even from outside via secured web, if desired.

Additionally, the imaging studies can be sent to referring physicians via email (iQ-MAIL).

By implementing teleradiology systems (e.g. with iQ-WEBX), you can read images from imaging centers located anywhere in the world, and you may even receive studies on your laptop. This saves time and resources that are normally needed for transporting images to other specialists or colleagues. Furthermore, up-to-date healthcare for remote regions is ensured and sub-specializations can be outsourced.



## What are PACS and DICOM?

Computers and networks dedicated to the storage, retrieval, distribution and presentation of medical images are known as picture archiving and communication systems (PACS) in the medical field. In order to ensure proper communication between the PACS and the modalities, standardized formats for Digital Imaging and Communications in Medicine (DICOM) were necessary. To address this need, DICOM was created as a continuously developed set of imaging standards that allow different medical devices to interface smoothly.

## How safe is digital data?

In order to prevent data loss, iQ-SYSTEM PACS offers a series of reliable and secure business continuity planning models.

The system is compliant to IHE profiles, HIPAA and local data safety regulations.

Data being stored can be completely and immediately accessed using alternative channels in case of a hardware failure. To learn more about medical data safety, please review our PACS Continuity Planning brochure.

## Can we do our billing digitally?

As a unique feature, iQ-RIS can manage the billing codes of most countries or export billing codes to your HIS or billing provider.

## What about legal requirements?

All our products have received the required certificates for using them worldwide, including:

- FDA
- CE



## TO THE POINT

RADIOLOGY YESTERDAY	RADIOLOGY TODAY
Conventional radiographies	Digital files
Light boxes in dark rooms	High-quality displays (12-bit) under nearly daylight conditions, e.g. IMAGE DISPLAYS
Average image-quality	High-quality digital images
High space requirements for storing images	Minor space requirements for workstations and servers
Fixed image on film	Flexible image postprocessing, e.g. iQ-VIEW, iQ-VIEW 3D
Manual "post-processing" with ruler and protractor	Automatic post-processing with specialized add-on modules, e.g. iQ-NUC, Orthoview, iQ-VIEW 3D, iQ-STITCH
Use of toxic chemicals	Environmentally friendly
Slow image transfer to colleagues	Fast electronic image transfer
Missing paper files or documents	Electronic medical records, scheduling and billing process always online, e.g. iQ-RIS
Typing mistakes on different modalities	Consistent imaging data, e.g. iQ-WORKLIST
Patients received no copies	Patients can receive a CD or USB stick with their images, e.g. iQ-ROBOT
Limited access to images	Any image, anytime, anywhere, e.g. iQ-WEBX



# OUR COMPANY AT A GLANCE

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

Thousands of satisfied clients all over the world benefit from our state-of-the-art products for PACS, RIS, nuclear medicine, medical displays, X-ray solutions, 3D processing and teleradiology.

We have pioneered several innovations in the market:

- We have introduced MED-TAB, the first DICOM-calibrated medical tablet worldwide to provide superior portable 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 CD-ROMs, 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](http://www.image-systems.biz)

## OUR SOLUTIONS FOR YOUR IMAGING NEEDS

**Radiologists**

**Hospitals**

**Veterinarians**

**Orthopedics**

**Mammography**

**RIS/PACS Integration**

**PACS Continuity Planning**

**Teleradiology**

RIS and PACS for radiologists

RIS and PACS for hospitals

Tailored veterinary RIS and PACS

Orthopedic PACS and workflow tools

RIS and PACS for breast care units

How to integrate iQ-SYSTEM PACS with any existing Medical Information System

How to ensure permanent access to your PACS

Available technologies in remote diagnostics

