



# IHE – Integrating the Healthcare Enterprise

Our contribution to connectivity in healthcare

[www.siemens.com/IHE](http://www.siemens.com/IHE)

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medical



## What is IHE?

Integrating the Healthcare Enterprise (IHE) is an international organization founded in 1997 by the RSNA<sup>1</sup> and HIMSS<sup>2</sup> to improve data exchange in hospitals.

## Why is IHE needed?

High-quality patient care and optimal clinical workflow require efficient access to all relevant clinical data across the continuum of care. Exchange of information between modalities and clinical IT systems from a variety of manufacturers is essential to achieve this goal. In spite of integration solutions available from many manufacturers, connecting systems from multiple vendors is a real challenge. IHE provides a common framework for building effective solutions to overcome interoperability problems.

## What challenges do hospitals currently face?

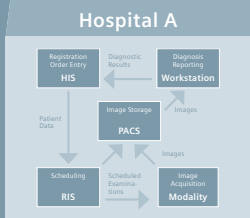
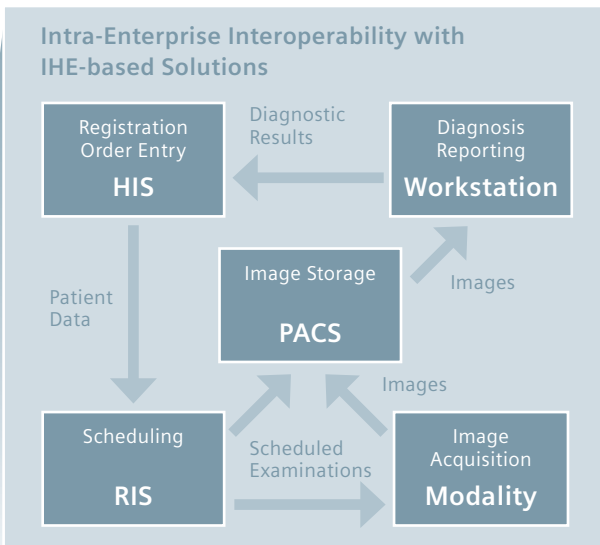
- Inadequate access to comprehensive medical information
- Lack of consistency in medical data between departments and institutions
- Errors in transferring medical data between systems from different suppliers
- Risky investments in proprietary solutions instead of expandable open systems
- Workflow cannot be optimized

<sup>1</sup> RSNA: Radiological Society of North America

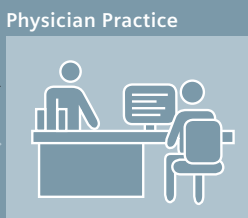
<sup>2</sup> HIMSS: Healthcare Information and Management Systems Society

## What is the goal of IHE?

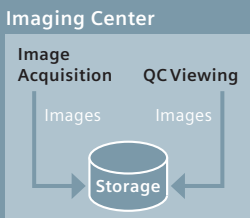
IHE is working to refine the standards required to improve the exchange of data within hospitals and across a community of care.



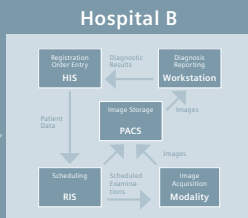
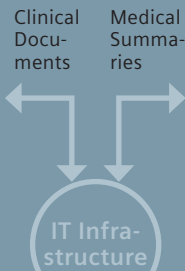
Intra-Enterprise Interoperability with IHE-based Solutions



Access to patient information and other healthcare providers based on IHE Solutions



IHE-enabled Systems



Intra-Enterprise Interoperability with IHE-based Solutions

## How will IHE achieve its goal?

IHE promotes the coordinated use of established communication standards, such as DICOM and HL7, by clearly defining how existing standards can be implemented.

The following table shows what standards are used to enable communications between various healthcare technologies:

	HIS	RIS	PACS	Modality
HIS	HL7	HL7	–	–
RIS	HL7	HL7	HL7/DICOM	DICOM
PACS	–	HL7/DICOM	DICOM	DICOM
Modality	–	DICOM	DICOM	DICOM

## What benefits does IHE provide?

- Efficient data exchange
- Easier system implementations
- Optimized workflow
- Open access to patient information
- Improved quality of patient care
- Reduced costs

## Who supports the IHE initiative?

Clinical users, administrators, IT specialists, standards development organizations and the medical equipment industry – including Siemens Medical Solutions – all contribute to IHE.



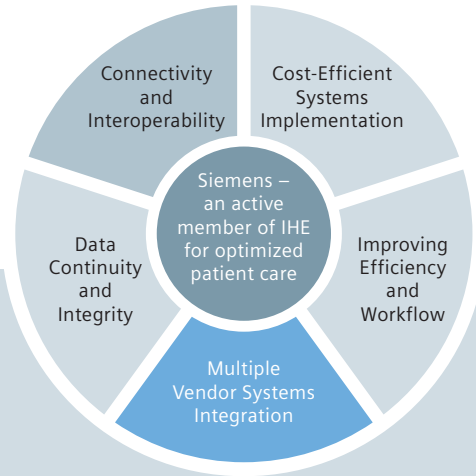
## Regional IHE initiatives

Many countries have already joined the IHE initiative to promote the deployment of its global integration framework in clinical practice. Among them: USA, Canada, Germany, France, Italy, Great Britain, Scandinavia, Japan, and many others.

## Siemens – a driving force behind IHE

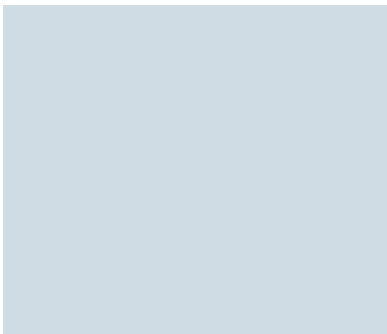
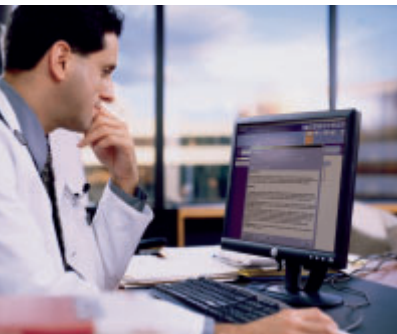
Siemens Medical Solutions has co-founded IHE and actively promotes increasing interoperability of modalities, imaging and information systems. Siemens plays a key role in developing and advancing IHE and the relevant healthcare standards.

IHE concepts developed for radiology were soon followed and adapted to other disciplines such as: cardiology, laboratory, radiation oncology, healthcare IT systems, and other clinical disciplines.



A project team of dedicated experts from every Siemens product group is focused on developing current and future IHE concepts.

With a wide range of products and solutions, Siemens Medical Solutions is helping to make IHE a reality in hospitals worldwide.



## **syngo and Soarian – two brands, one mission**

Our IT solutions *syngo*® and *Soarian*® Clinicals drive process efficiency in healthcare organizations. With our solutions we provide the foundation for seamless integration of patient information and image data.

- *syngo* implements proven standards as specified in the IHE framework; and enables full interoperability of your hospital systems with IHE implementations.
- *Soarian* integrates clinical, financial, diagnostic and administrative processes to support patient-centered care, bringing together images and data seamlessly from a variety of medical modalities in one location.

## **IHE interoperability in practice**

Solutions from Siemens with IHE functionality have proven to be successful in daily clinical routine. Users are increasingly becoming aware of the benefits of IHE, and are making purchasing decisions accordingly. The best evidence can be found in the IHE user success stories.

## **IHE user success stories**

Users around the world have presented in detail how they benefit from a smooth integration using products and systems from Siemens Medical Solutions based on IHE.

### **USA**

- IHC McKay-Dee Hospital, Ogden, UT
- VA Puget Sound Health Care System, Seattle, WA
- Cleveland Clinic Foundation, Cleveland, OH

- Bethesda Healthcare Systems, Boynton Beach, FL
- Warren Hospital, Phillipsburg, NJ
- St. Vincent Hospital, Indianapolis, IN
- Mayo Clinic Jacksonville, FL

#### Germany

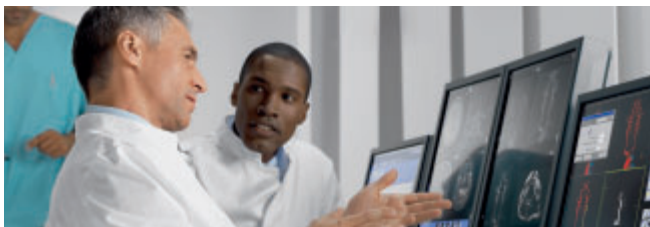
- Klinikum Nürnberg-Nord, Nürnberg
- Klinikum der Johannes Gutenberg-Universität, Mainz
- Städtisches Klinikum, Görlitz

#### France

- Centre d'Imagerie Médicale de l'Ouest Parisien, Val d'Or
- Centre Hospitalier d'Arras

#### Italy

- University of Pisa, Pisa



#### **IHE information on the internet**

Find out more about IHE, user success stories and Siemens Medical Solutions at:  
**[www.siemens.com/IHE](http://www.siemens.com/IHE)**

IHE contact at Siemens Medical Solutions:  
[med.ihe@siemens.com](mailto:med.ihe@siemens.com)

Visit the web sites of the IHE initiatives:

**IHE** ([www.ihe.net](http://www.ihe.net))

**IHE Europe** ([www.IHE-Europe.org](http://www.IHE-Europe.org))

#### **Live demonstrations of IHE**

You can experience IHE first-hand at the trade shows and annual meetings of the RSNA, HIMSS, ECR, ACC or the ESC, where Siemens Medical Solutions provides hands-on information and demonstrations of IHE. For up-to-date information on these events, check the above links.

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