



## VA Puget Sound Health Care System Seattle, Washington, USA

### Implementation of transactions in Scheduled Workflow

In late 1999, the Division of Radiology at the VA Puget Sound Health Care System (Seattle/Tacoma), headed by Dr. John Harley, M.D. was interested in acquiring new ultrasound systems. At about the same time the Department of Veteran's Affairs published the "Vista Modality Interface DICOM Conformance Requirements" the main requirements of which are "...organized around the Actor Role definitions set forth by the IHE for the acquisition devices..." Prospective vendors were told their ultrasound equipment should conform to this requirements document. This was also about the time of the first Integrating the Healthcare Enterprise (IHE) 'Connectathon' in which Siemens successfully participated in the "Scheduled Workflow" integration profile with their SONOLINE Elegra ultrasound system.

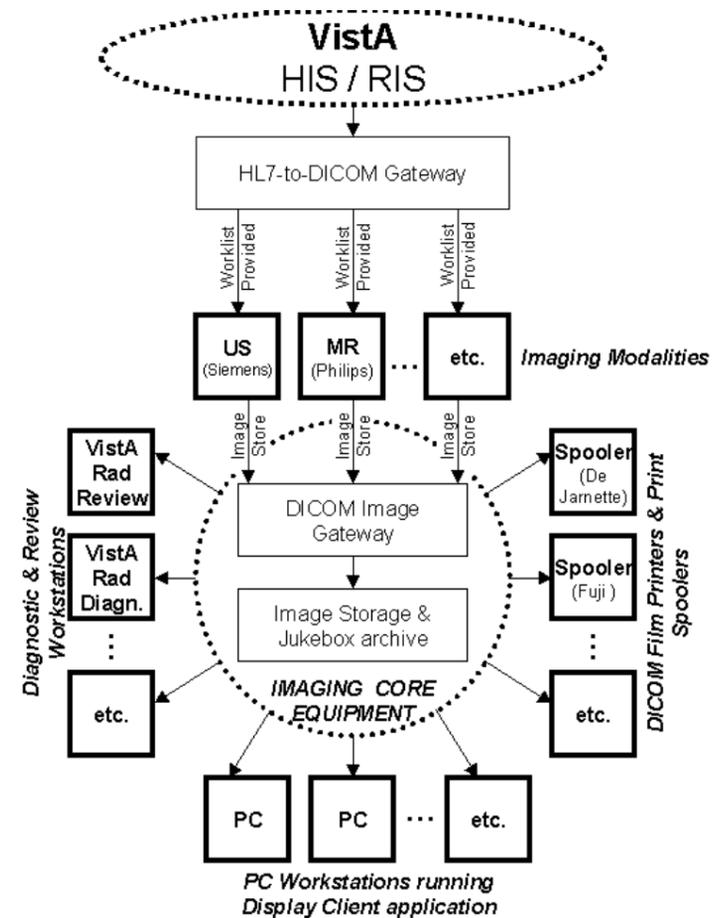
#### DATA FLOW

The veteran patient is registered for an exam at any hospital computer.

The study data is sent to the DICOM text gateway where HL7 to DICOM translation occurs, creating a DICOM Modality worklist.

The imaging modality queries the worklist server where a registered DICOM study is selected and retrieved. (IHE Transaction: Modality Worklist Provided)

The ultrasound procedure is performed. Images are sent to the imaging storage servers and archived. (IHE Transaction: Modality Image Stored)



Images are immediately available to all clinical staff at any PC in the facility. Imaging studies are also immediately available to interpreting radiologists at high-resolution diagnostic workstations.

The IHE Technical framework provided much of the context and language for the VA Modality Interface Requirements document used to qualify / pre-screen potential ultrasound equipment. To quote from the VA VistA Modality Interface DICOM Conformance Requirements document, "...The support of the largest government-owned healthcare network (the VA), adds further momentum to the IHE project and signals the willingness of purchasers, vendors, and

government software developers to work together toward interoperability."

#### SUMMARY

The VA Puget Sound VistA Imaging system represents the successful integration of and cooperation from more than a dozen vendors, manufacturers, and governmental departments.

The VA Puget Sound became the first VA to complete a full DICOM PACS integration of a Siemens Elegra Ultrasound System with the VA-developed VistA Imaging PACS system.

"...The support of the largest government-owned healthcare network (the VA), adds further momentum to the IHE project and signals the willingness of purchasers, vendors, and government software developers to work together toward interoperability..."

(from the VA VistA Modality Interface DICOM Conformance Requirements document)

#### IHE Integration Profiles, Actors and Transactions Implemented

Integration Profile	System/vendor	IHE Actor(s)	IHE Transactions	New or upgrade?
Scheduled Workflow (without MPPS)	HIS-RIS/VistaA	Order Filler	Modality Worklist Provided	Upgrade
	PACS/VistaA	Image Archive, Image Manager	Modality Image Stored	Upgrade
Ultrasound/Siemens SONOLINE Elegra V5.0		Acquisition Modality	Modality Worklist Provided	New