



Purchasing IHE Functionality

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How to select, negotiate, contract and implement healthcare information systems for an IHE environment

No single information system can
address all the needs in a modern
healthcare environment

Outline

- The Approach to IHE Acquisition
- Setting IHE Priorities
- Contracting for IHE Functionality
- IHE Steering Committee
- Enterprise-Wide IHE Agreement
- Implementation/IHE Test Environment

The Approach

- Needs assessment (present, follow-up & future)
- IHE Steering CMTE for maintaining integration at state-of-the-art
- Enterprise-Wide IHE Agreement
- IHE test environment
- Assure that every vendor understands and accepts their exact areas of responsibility
- **Make sure that your contracts are enforceable with financial consequences for non-performance**

Actor

- A system that performs a major function
- The IHE does not specify to which type of system an Actor belongs
 - ◆ Order placer
 - ◆ Order filler
 - ◆ Image manager
 - ◆ Image archive

Transaction

- Any exchange of data between actors
- IHE does not define or classify which actors or transactions belong to what type of system
- IHE is only concerned with transactions between systems
- System internal transaction exempt
- IHE is only concerned with data exchange between different systems

Key IHE Concepts

- Generalized Systems -> Actors
- Interactions between Actors -> Transactions
- Problem/Solution Scenarios -> Integration Profiles
- For each Integration Profile:
 - ◆ the context is described (which real-world problem)
 - ◆ the actors are defined (what systems are involved)
 - ◆ the transactions are defined (what must they do)

So how do I purchase the IHE?

Establish Your IHE Priorities

- Be realistic about what profiles you need immediately
- Determine which profiles you would like to implement along with the time frame
- Identify your enterprise wish list for IHE penetration in the coming years
- Consider future profiles and domains that are still gestating

Lawyers exist to either make order
out of chaos or turn order into chaos

The CONTRACT is the key
element of a purchase

The contract details along with the
terms & conditions can make the
difference between a great buy
and a disaster

IHE Contract Essentials

- First deal with what you want today
- Identify the IHE profiles to be initially implemented
- Look at each of your vendors and decide which Actor(s) that vendor will supply
- Make sure that in each profile, every Actor that you require is covered in your plan

Complete Vendor Statement of Work

- Identify the transactions/dataflow
 - ◆ Owners for every transaction
 - ◆ Utilize a matrix to define ownership for inbound, outbound, format
- Deal with known non-compliance
- Identify methodology for resolving unidentified issues
- Identify expected outcomes/results/workflow

Transaction Responsibility Matrix

Message	Type	Outbound	Inbound
ADT	HL7	<i>RIS vendor</i>	PACS Vendor
ADT	HL7	eMPI	PACS Vendor
ADT Query	HL7	PACS Vendor	eMPI
Orders	HL7	<i>RIS vendor</i>	PACS Vendor
Schedule	HL7	<i>RIS vendor</i>	PACS Vendor

IHE Integration Commitment

<i>Vendor</i>	<i>Product Name</i>	<i>Version</i>	<i>Pub. Date</i>
Vendor A	Great PACS	V1.0	18 Sept 2006
<i>Commitments:</i>			
<i>Integration Profiles</i>	<i>Actors</i>	<i>Transactions</i>	
Scheduled Workflow	Order Filler	PPS Inprogress	
<i>Link to vendor IHE page</i>			
		any.com/ihe	
<i>Links to Standards Conformance Statements of the Implementation</i>			
DICOM		any.com/dicom	
Expected Outcomes: Receive PPS from PPS Manager (Image Manager)		Complete autostart by putting RIS order into inprogress status. Transfer time, resource, tech to exam data.	



Look to the near future

- Decide which profiles you would like to implement in a second wave
- Again work out the vendor assignments
- Consider the state of your other existing systems and decide in what manner you will bring those systems into your flourishing IHE environment

Identify all Actors whose role will be filled by non-IHE equipment or systems

- Decide on the manner in which those systems or devices will be integrated into your IHE environment
- Identify the vendor responsible for that integration
- Double check that EVERY transaction related to the relevant Actor(s) are adequately covered

The IHE Steering CMTE

- Contractual process for evaluating and deploying modified/future IHE profiles
- A standing committee comprised of IHE savvy representatives of the customer and each IHE vendor (e.g., PACS and RIS vendors) with systems installed at the customer's site
- Periodic Committee T-CONs or meetings
- The Steering Committee provides the forum for the customer and the IHE vendors to evaluate modified/future integration profiles

Future IHE Profiles

- The IHE vendors should agree to support modified/future IHE profiles that are relevant to customer's work flow
- The Steering Committee should be the forum for determining "relevance"
- Customer needs the right and contractual mechanism to require the IHE vendors to support a modified/future profile if specific criteria are met
- Agreed upon cost allocation for development and deployment of modified/future profiles

Enterprise-Wide IHE Agreement

- Establish an enterprise-wide IHE integration initiative for all IHE vendor purchases
- Incorporate a standard IHE integration agreement into your purchasing process
- Require representations and warranties regarding compliance with minimum IHE requirements
- Require participation in your IHE initiatives, including participation in IHE Steering Committees with other IHE vendors
- Establish cost allocation for development and deployment of new interfaces with other IHE vendors



Key Components

- A detailed listing of profiles and actors to be supplied along with customer go-live dates
- A mechanism for keeping the IHE profiles and actors at the state-of-the-art

So after the contract is completed,
now what?

We strongly recommend that you
have that contract reviewed by
qualified and competent legal
counsel

IHE is a new area in healthcare
law

Implementation

- For small organizations & practices, IHE implementation can follow standard methods of system implementation
- For larger organizations, the number of systems and devices that attach to the IHE environment is such that the creation of an IHE test environment is prudent

The IHE Test Environment

- The IHE test environment functionally acts as an onsite IHE connectathon and allows the customer the luxury of testing the IHE functionality against IHE and non-IHE systems
- The ability to test upgrades, patches and other vendor enhancements in a complete test environment assures uptime performance and reduced potential for errors and failures when these same products are moved to the live, clinical production environment

Imagine a world where lawyers and doctors, administrators & vendors work collegially and collaboratively for the benefit of their patients and organizations

The IHE Profile for healthcare enterprise success!

Summary

- The Approach to IHE Acquisition
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