

Lessons from the Front – How Your Lab Can Handle LIS-to-EMR Interfacing Projects Faster, Better and (Yes) Cheaper

Presented by:

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“Experts predict that clinical labs and pathology groups may soon be overwhelmed as large numbers of physician clients ask for a LIS-to-EMR interface. Their goal will be to use their new EMR to order lab tests and get results that can be downloaded directly into patient records.”

From The Dark Report
September 2010 audio conference -
“How Meaningful Use and EMR Adoption Will Reshape Your Lab’s
Competitive Future—and Its Profitability”

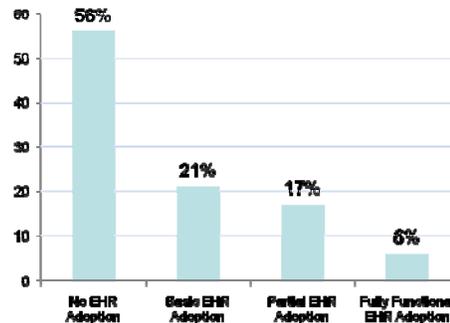
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Physician Market

There are approximately 788,000 physicians in the U.S.:

- 65% (512,000) are in the outpatient EHR market.
- 44% (225,000) are using an EHR to some extent



According to the CDC 2010 Preliminary survey:
Basic EHR adoption includes demographic information, patient problem lists, clinical notes, orders for prescriptions, and viewing laboratory and imaging results.
Partial refers to EHR systems as those not exclusively used for billing.

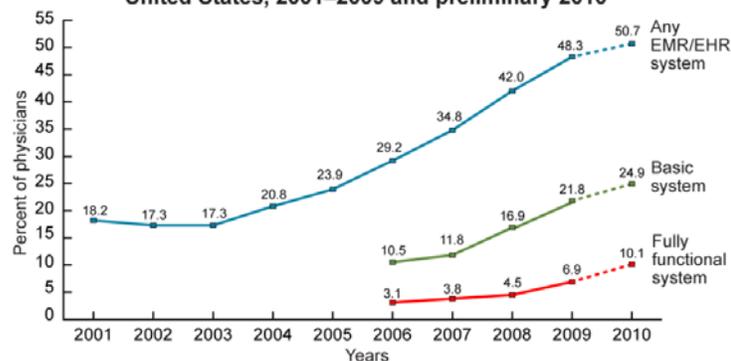


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Ambulatory EMR/EHR Adoption - Current

Figure 1. Percentage of office-based physicians with electronic medical records/electronic health records (EMRs/EHRs): United States, 2001–2009 and preliminary 2010



NOTES: Any EMR/EHR is a medical or health record system that is either all or partially electronic (excluding systems solely for billing). The 2010 data are preliminary estimates (as shown by dashed lines), based only on the mail survey. Estimates through 2009 include additional physicians sampled from community health centers; prior 2008 combined estimates were revised to include those physicians (4). Estimates of basic and fully functional systems prior to 2006 could not be computed because some items were not collected in the survey. Fully functional systems are a subset of basic systems. Some of the increase in fully functional systems between 2009 and 2010 may be related to a change in survey instruments and definitions of fully functional systems between 2009 and 2010 (see Table for more details). Includes nonfederal, office-based physicians. Excludes radiologists, anesthesiologists, and pathologists.
SOURCE: CDC/NCHS, National Ambulatory Medical Care Survey.

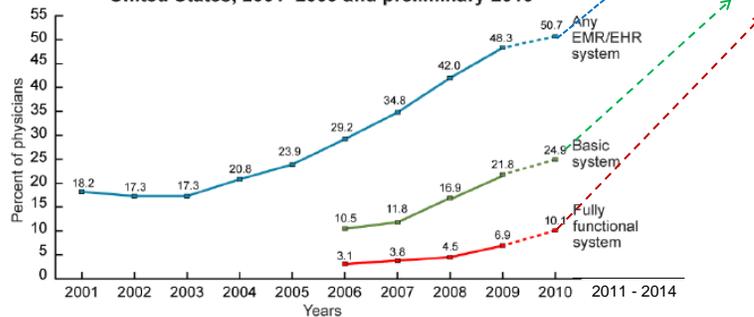


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Ambulatory EMR/EHR Adoption – Future

Figure 1. Percentage of office-based physicians with electronic medical records/electronic health records (EMRs/EHRs): United States, 2001–2009 and preliminary 2010



Many EMR/EHR Systems installed today will need to be replaced or supplemented in order for physicians to satisfy “meaningful use” requirements.

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Additional Drivers

Physicians will need to replace existing EMR/EHRs due to:

- Existing thick client platform
- Lack of key functionality for “meaningful use”
- Inability to handle HL7 messages (discrete data)
- Lack of interoperability
- Limited (or no) support for electronic orders

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Meet the New “Middleman”

Labs face an *Intermediated* future

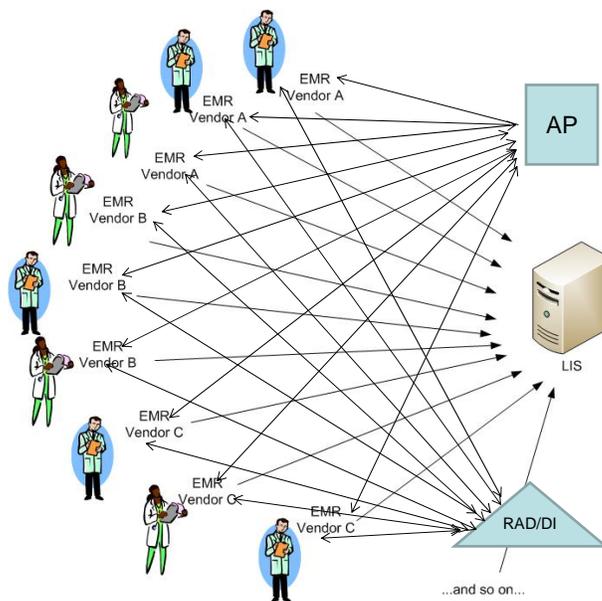
- A dramatic increase in order volume coming from systems you do not control
- Potential competitive “land grab”
- Brand at risk
- Loss of \$\$\$

Not only are labs being Intermediated, but you must now connect to a myriad of different EMR systems!

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The Chaos of Point-to-Point



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The Problem – It's Complicated & Expensive

Testing Facilities and EMRs occupy *divergent universes*

- Dramatically different workflow demands
- Divergent business and operational requirements
- Lack of appreciation for each domain's challenges

Current *point-to-point* approach depends on
“*custom code*” and “*duplicative effort*”

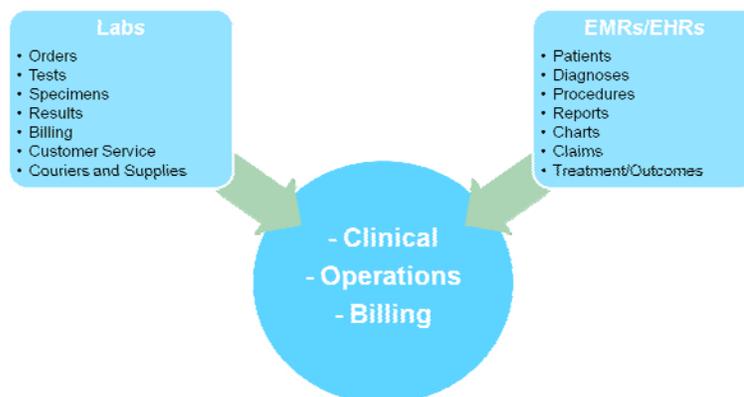
- Costly
- Resource intensive
- Slow

And, it still may not do the job!

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Integrating Divergent Universes



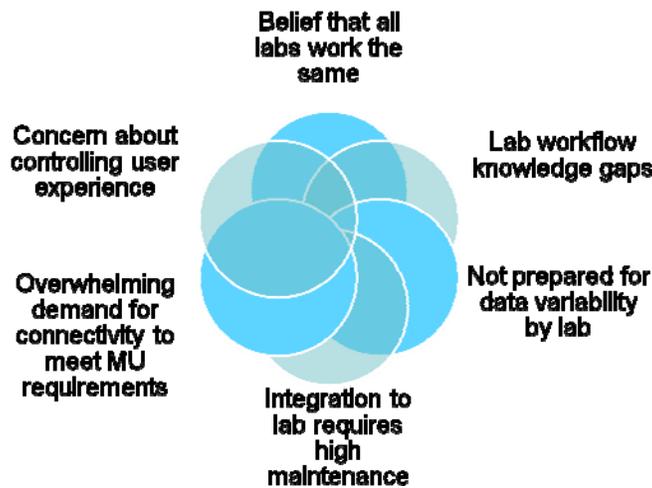
The Connected Care challenge:
Harmonize processes across these divergent universes

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EMR Vendor View of Challenges



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EMR/EHR Integration – Challenges

EMR Weaknesses/Complexities:

- Accept unsolicited results?
- Need an EMR order number, or Patient ID to properly match?
- EMR's test and result codes mapped correctly with the lab's codes? Is the mapping up-to-date?
- "Ask at Order Entry" questions?
- Specimen Requirements?
- Medical Necessity Verification?
- Office-based versus Internet-based?
- Images in reports? PDFs?
- Support for partials and finals?

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EMR/EHR Integration – More Challenges

EMR Weaknesses/Complexities:

- One EMR order with both AP and Clinical tests?
- AP done in-office and clinical drawn at PSC?
- Split requisitions?
- Multiple IDs – Chart #, MRN, PMS ID, Hospital IDs?
- Coordinating with POL systems and EMR?
- Discrete Micro?
- Payer Plan-driven routing?
- Exception handling?
- Costs?

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Feedback from the Trenches

Labs are:

- Creating an EMR integration plan
- Investing in a project management process
- Building new relationships with EMR vendors
- Attempting to set and meet client expectations
- Struggling with costs of point-to-point Interfaces
- Desperate for a more effective approach

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Can you do this faster, better and cheaper?

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Faster...

*"I couldn't wait for success...
...so I went ahead without it."*

-Jonathan Winters

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Success!!! (Really?)

Electronic point-to-point custom interfaces may create as many problems as they solve.

- Problems delivering results
- “Dirty” orders
- Decreased efficiency
- Reduced lab branding
- Jeopardized physician customer relationships

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Two steps forward, three steps back

Problems with “faster” integration

- EMR control over requisitions and labels
- Lack of medical necessity verification, ABNs
- Difficulty managing order – result reconciliation
- Problems in test catalog mapping
- Incomplete billing data
- No insurance cross mapping

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Take The Time To Do It “Faster”

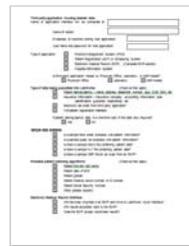
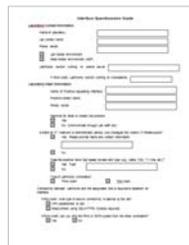
- Invest more work upfront on the first connection so that subsequent interfaces can be done in a fraction of the time
- Create tools to manage the differences between EMRs reducing (eliminating) reliance on custom code
- Build a standard, predictable process

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Adopt a Programmatic Approach

- Analyze and document physician office workflow
- Develop a written specification describing interface behavior - more than just HL7, include orchestrated workflow



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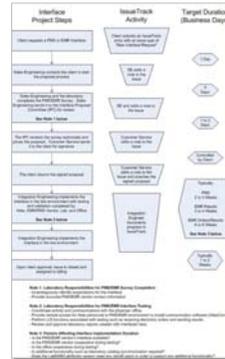




Adopt a Programmatic Approach

Require a mutually agreed project charter

- Timeline
- Resource Requirements
- Implementation Steps
- Testing Plan
- Go-Live
- Monitoring



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Better...

“The day you invent a better mousetrap...

...the government comes up with a better mouse.”

-Ronald Reagan

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Today's "Better Mouse"

As "meaningful use" continues to drive adoption, most physicians will want to (need to) use their EMR to place electronic lab orders, and to receive results from the lab.

Stage 1 includes (but is not limited to):

- CPOE for meds - 30%
- ePrescribing
- Record Demographics
- **Structured lab results**
- Submit lab reportable data
- Timely electronic access

Stage 2* includes (but is not limited to):

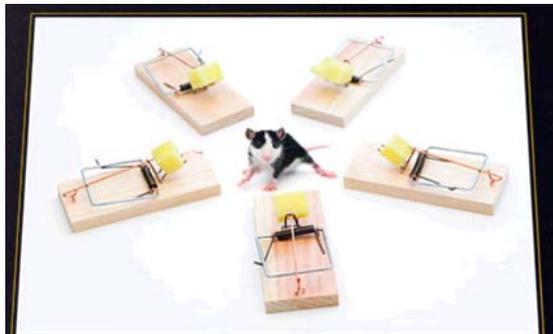
- **CPOE for lab/radiology - 60%**
- Patient portal
- Online secure messaging
- Patient preferences for communication
- Immunization data
- Submit data to Public Health

* Proposed certification criteria

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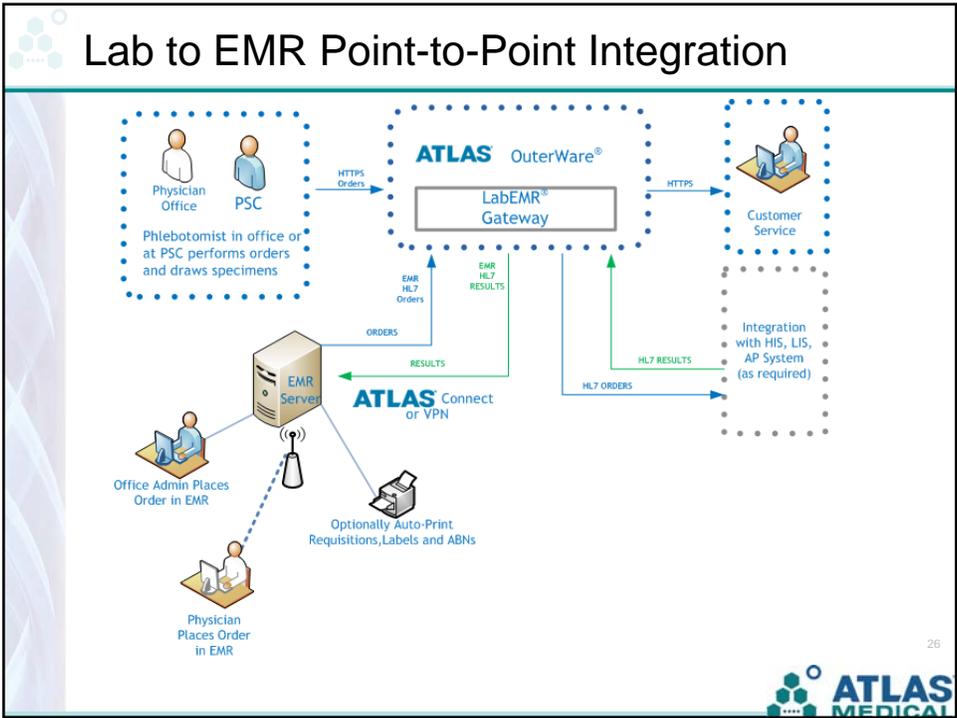
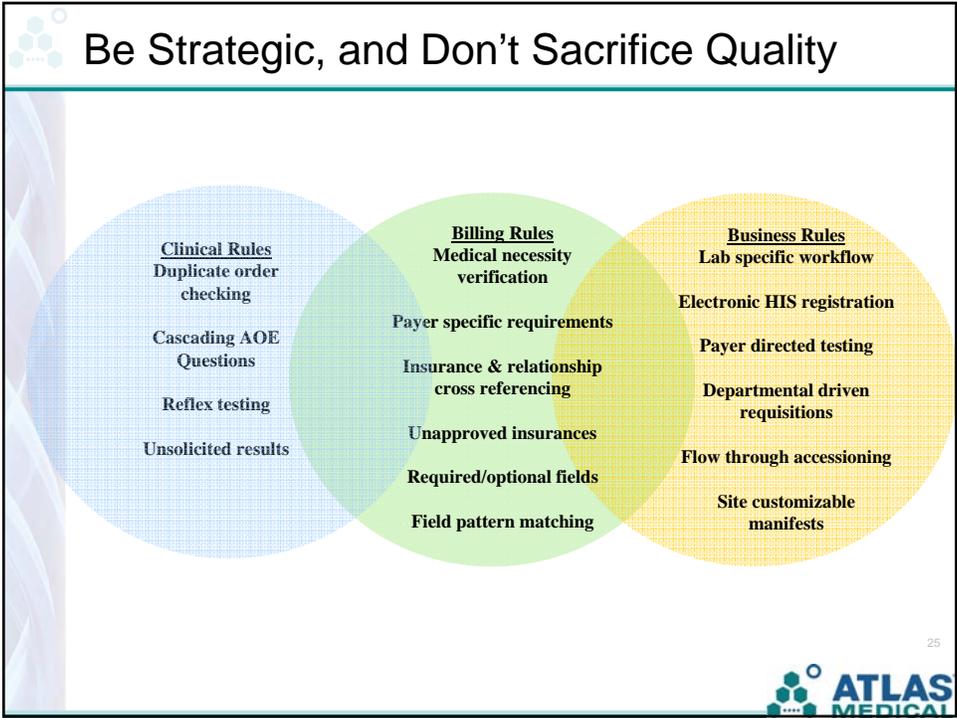


The Better Mousetrap



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Cheaper...

"I bought some batteries, but they weren't included..."

...so I had to buy them again."

-Steven Wright

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Leverage and Scale

Up until now, for each point-to-point interface:

- When you've done one, you've done one
- You expend time and effort coordinating each project
- You often pay fees to multiple vendors
- Extended time to market adds to overall cost

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It's No Joke!

"If you want to make it cheaper...

...you must move beyond point-to-point interfaces!"

-Rob Atlas

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Next Generation Approach

Delivers the scale, flexibility and power needed to overcome today's integration challenges

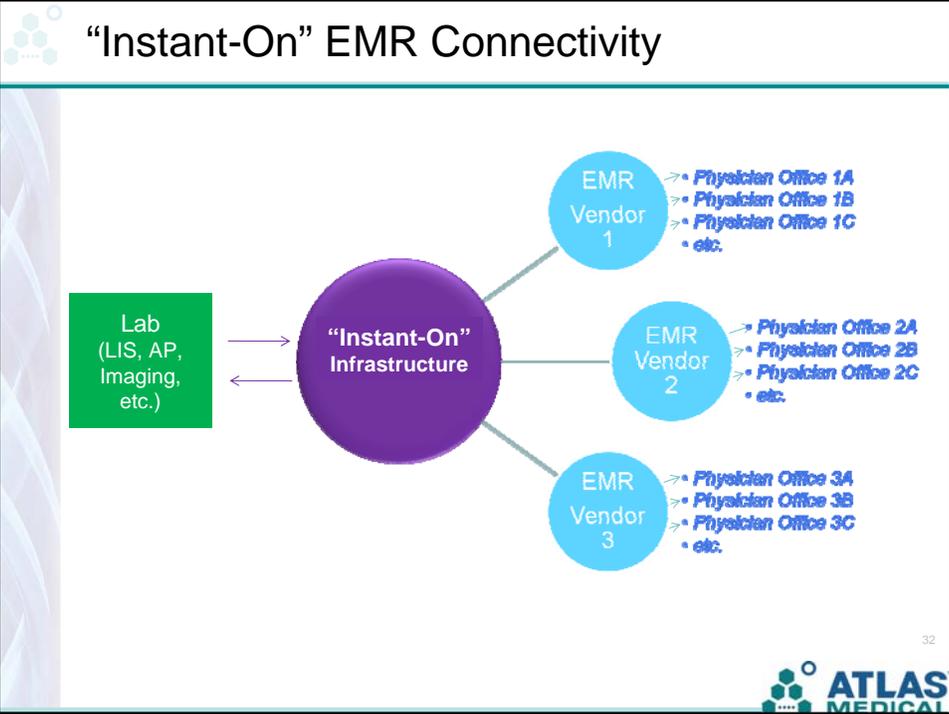
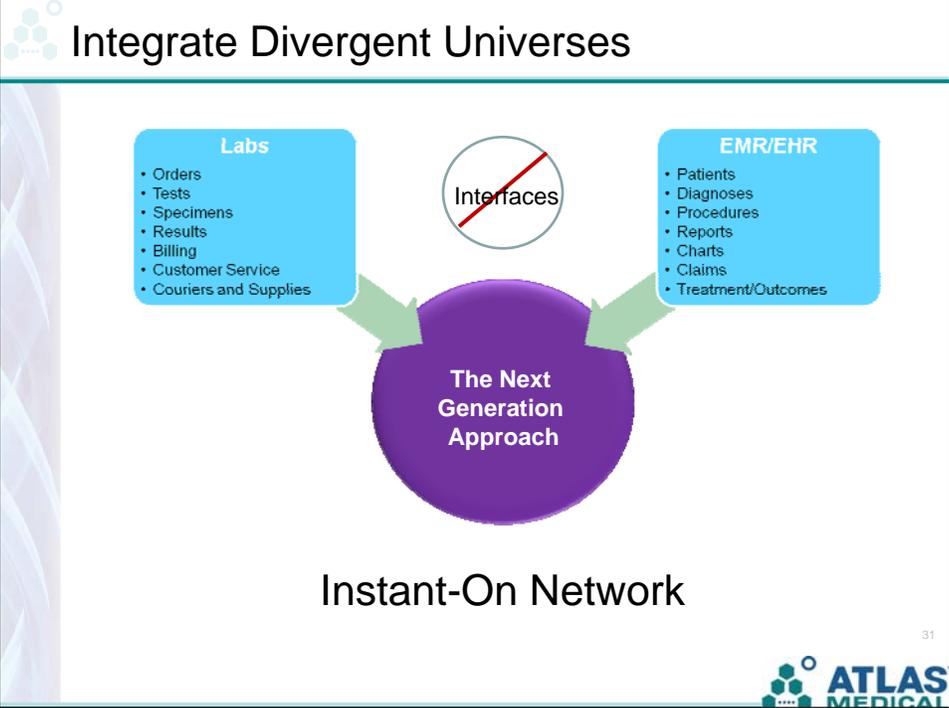
It includes

- Solution-as-a-Service
- Proven, robust technology platform
- Efficient workflow, data flow and process management
- Cost-effective, predictable model

This approach is a completely new business paradigm that benefits all parties

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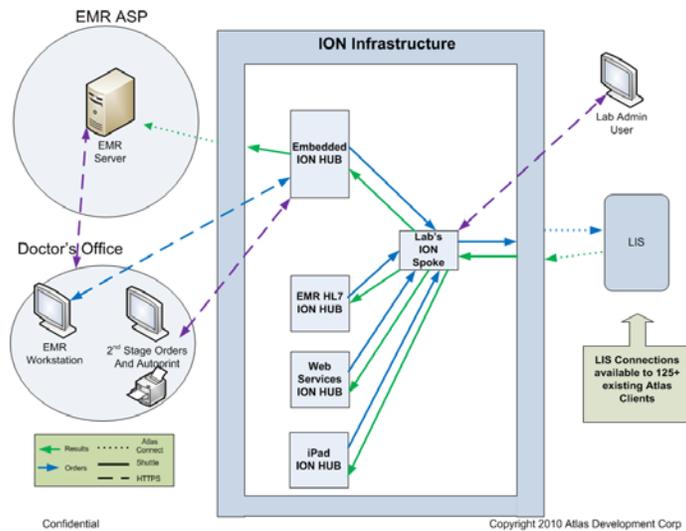
The New Approach

ion
 The Power of **Instant On**
 Connecting Labs to EMRs Instantly

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Lab View of EMRs with New Approach



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Having It All – Faster, Better, Cheaper

- Seamlessly integrate multiple systems at far reduced costs
- Orchestrate data and clinical/business processes
- Harmonize workflow and dataflow
- Quickly accommodate new and changing integration requirements
- Turn on customers with EMRs using “Instant-On” service



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“Must Do”

Employ a multi-pronged integration strategy

- When doing point-to-point interfaces, do them smarter
 - Adopt a programmatic approach
 - Require a project charter for each interface
 - Perform a workflow analysis for each physician office
 - Engineer as much repeatability as possible
 - Build or buy a Lab-EMR gateway platform
- Aggressively pursue a next generation approach
 - Must be cost-effective, scalable, and deliver time to market advantages

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“Must Avoid”

Letting electronic orders from EMRs flow directly into your LIS/AP systems

Creating results interfaces that do not address complexities

Accepting point-to-point interfaces as the only solution

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It's Time for a Fresh Approach

Insanity is doing the same thing over and over again and expecting different results.

-Albert Einstein

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Thank You.

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