

# Industry Standards: Definitions, Uses and Benefits



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2006 Users Conference ♦ San Francisco

# Your panelists...

- Eric Shepherd, Questionmark – Moderator
- Tom King, Chief Consultant, Mobilemind
  - Actively involved with AICC, ADL, and IEEE standards initiatives
- Chuck Allen, Director, HR-XML Consortium
  - Director of the HR-XML Consortium
- Robby Robson, President, Eduworks Corporation
  - Chairs the IEEE Learning Technology Standards committee



# Open standards provide...

- The language for interoperability
- An environment in which...
  - Best-of-breed technologies flourish
  - Innovation thrives



# Questionmark Supporting Standards

- Questionmark Perception is:
  - AICC certified
  - HR-XML certified
  - ADL SCORM compliant
  - .NET certified
  - QTI compliant



# Standards enable integrations and interoperability

- Check out the new white paper on Integrations
- Basic integrations:
  - Pass data into Perception
  - Launch and track assessments from LMS's
  - Launch assessments from portals
    - ◆ Single sign-on for participants and administrators
  - Retrieve results data from Perception
    - ◆ Normally used within HR systems



# Integration with Perception

Method of Integration	Example
Launch and Track	AICC SCORM
Data Integration	QMWISe HR-XML
Portals	Sharepoint JSR-168 uPortal



# Format for this discussion...

- Opening remarks
- Each panelist delivers opening remarks
- Open question & answer sessions
  
- Tell us what you want from today's discussion
  - Why did you choose this session?
  - What questions do you have?
  - What are your goals...
    - ◆ To learn about standards?
    - ◆ Discover how to integrate Perception with other systems?



# Standards Panel



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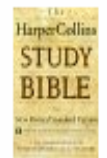
Narrow by Category

- [Books](#) (69)
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Showing results in: [Amazon.com](#) > "standards humor"

No results found

Listmania!



Reference Books

# Standards Can ...

1. Specify the form and function of technology
2. Determine how information is exchanged
3. Require procedures to be followed
4. Define acceptable outcomes



# Good standards are enablers

- Make it possible to build better products
  - Provide a basis for new solutions
  - Operate invisibly
- 
- Good standards are about being *good enough*, not being perfect!



# Why Bother With Standards?

## INNOVATION

- Standards *define and catalyze new technology*
- Standards *enable new solutions*
- Standards *solve existing problems*



# Why Bother With Standards?

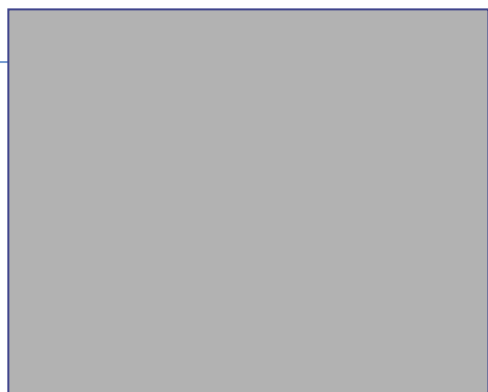


**HELP THE  
CONSUMER**

- Standards *prevent lock-in*
- Standards *accelerate commoditization*
- Standards *increase reliability*
- Standards *enable competition*



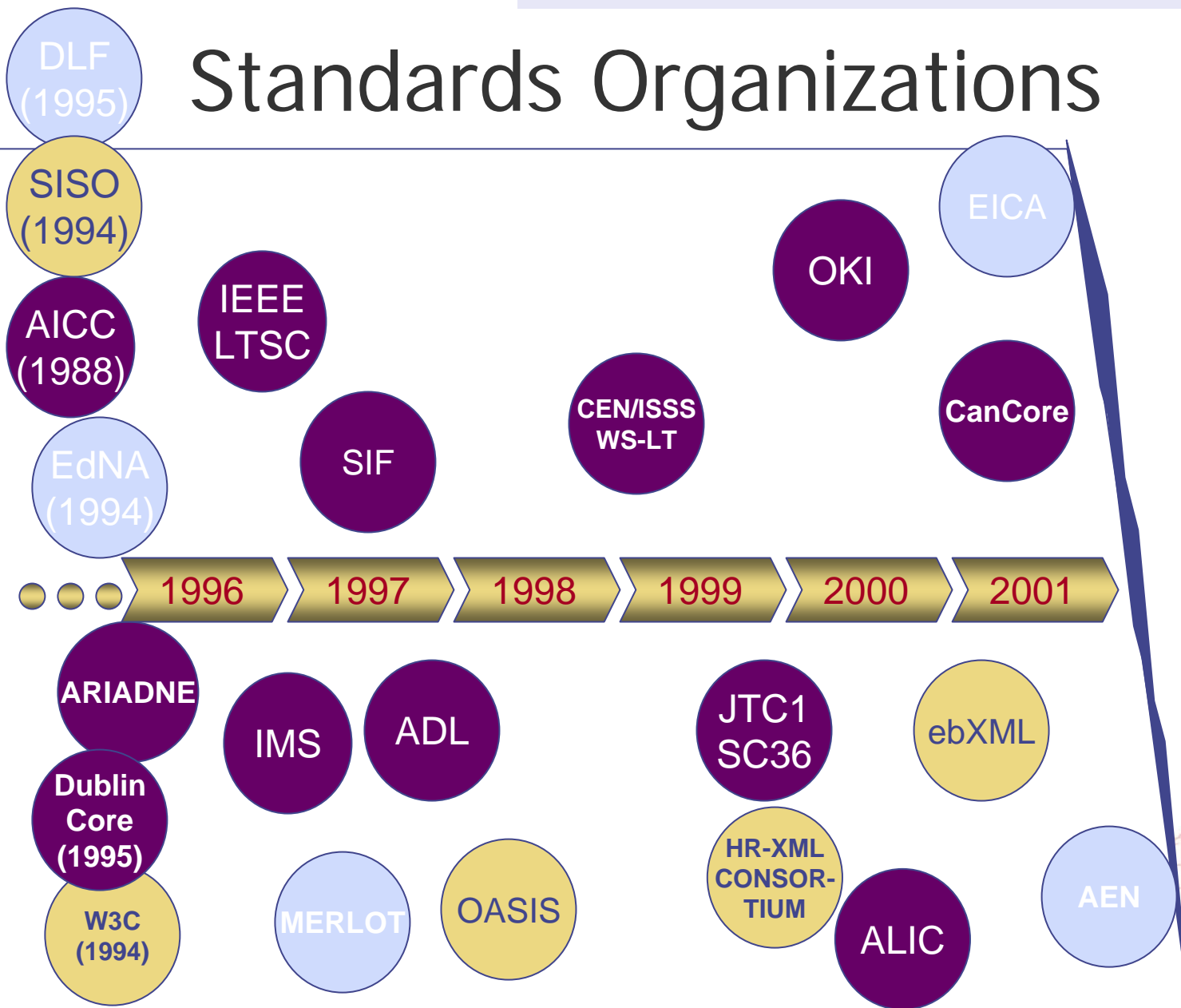
# Why Bother With Standards?



- Standards can *lower design, development and production costs*
- Standards help *modularize supply chains*
- Standards *build consumer confidence*
- Standardization *distributes effort*



# Standards Organizations



**But few since 2001**



# Learning Technology Standards

- Metadata (search & discovery)
  - LMS – Content communication (interoperability)
  - Content representation (including questions & tests)
- 

- Workflow
- Simulations / games / experiential training
- Security
- Competencies
- Distributed architectures



# Standards Panel



Tom King

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# Emerging Standards

- **ADL CORDRA** (for repositories)
- **AICC PENS** (for publishing 'packages')
- **IEEE/SISO** Task Group  
*Simulation Interoperability*
- Others



# Package Exchange Notification – What is it?

- “A better way to get content to an LMS.”
- Guiding Principles for PENS
  - Focus on learning & training uses
  - Simplify deployment for authors (*AICC and SCORM and ...*)
  - Use established & understood technology
  - Easy for vendors on all sides to implement & interoperate
  - Enable evolution & extension
    - ◆ Fast track with AICC, move on to IEEE
    - ◆ Separate concept (model) from binding (transport)

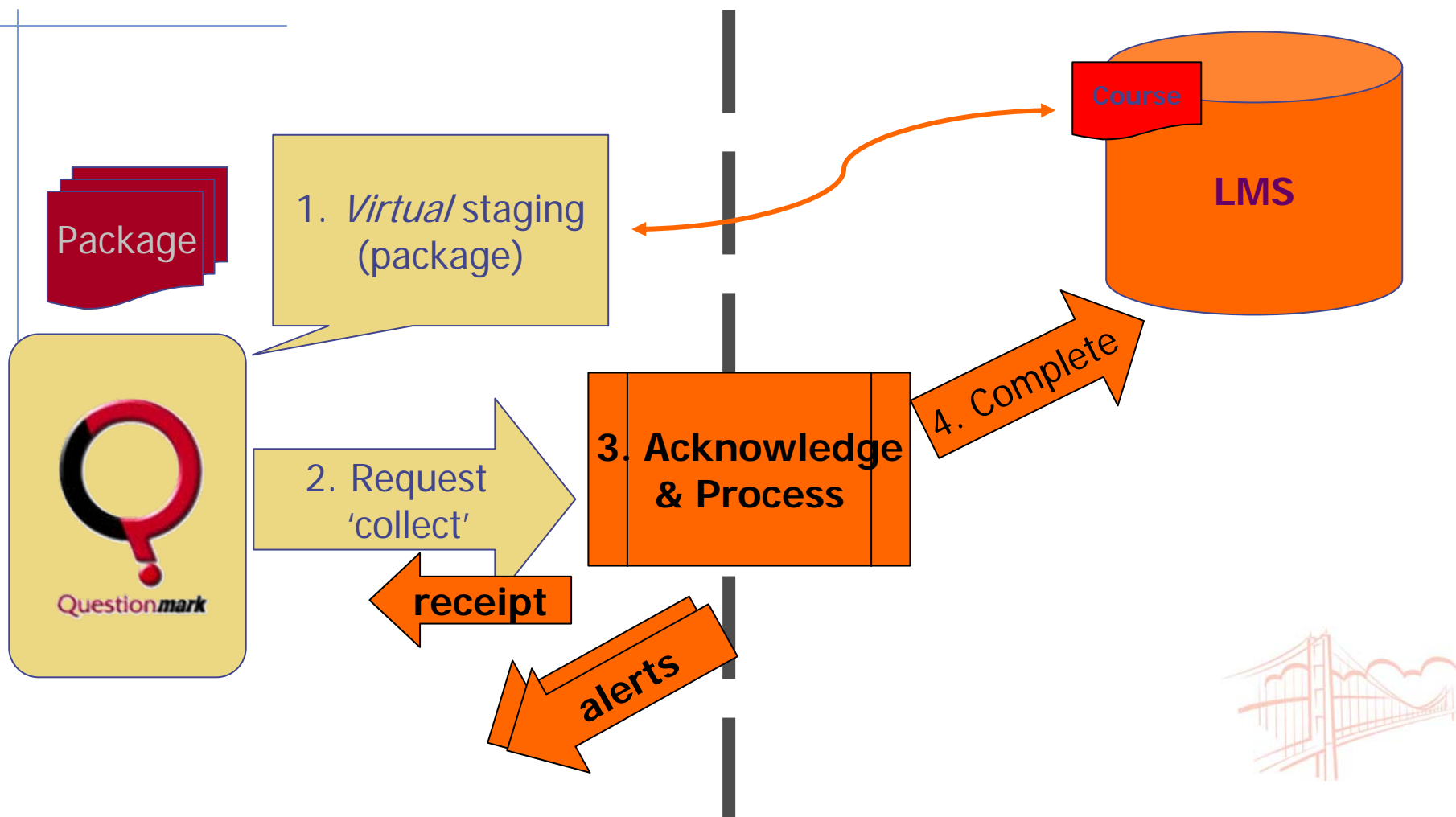


# PENS Leadership



many others monitoring & implementing

# Model PENS for Deployment



# Implementations

- **Questionmark**
  - Perception (*prototype*- server sends PENS for *hosted* content)
- **EEDO**
  - ForceTen (sends PENS, *prototype receives* PENS)
- **EMC-Documentum**
  - Learning Services Integrations (see Documentum web site)
- **Harvest Road**
  - Harvest Hive (sends PENS)
- **Recombo**
  - Recombo Router (receives PENS, sends PENS)
- **Macromedia**
  - Authorware & Captivate (*sample* client-side tool extensions, sends PENS)
- **Pathlore (SumTotal)**
  - SDK-based Add-on, supporting authoring & CMS
- **Plateau**
  - OpenSuite (receives PENS, additional workflow extensions pending)



# NEXT STEPS

- Other Bindings - Web Services or WebDAV
- Migration of spec to IEEE (now est. 2006 or 2007)
- ADL interest in PENS supporting CORDRA
  
- Get PENS documents from AICC.ORG
  - AGR-011 (Overview): <http://aicc.org/docs/AGRs/agr011v1.pdf>
  - CMI-010 (Full Spec): <http://aicc.org/docs/tech/cmi010v1.pdf>
- Talk to your vendors
- Send questions & feedback
  - AICC PENS Forum: <http://aicc.org/cgi-bin/yabb/YaBB.pl?board=PENS2>
  - My email: [tom.king@aicc.org](mailto:tom.king@aicc.org)





# An HR-XML Certified Solution Provider!



Chuck Allen



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# HR Service Delivery Trends

- The way HR does business has changed dramatically and continues to change.
- HR's embrace of e-business, outsourcing, and ASP-model services means that work is more distributed outside the enterprise than ever before.
- More HR processes involve strategic partners and other intermediaries.
- ***Standards are essential*** for making this distributed processing environment productive.



# Distributed Process Example



hiring manager 1



hiring manager 2

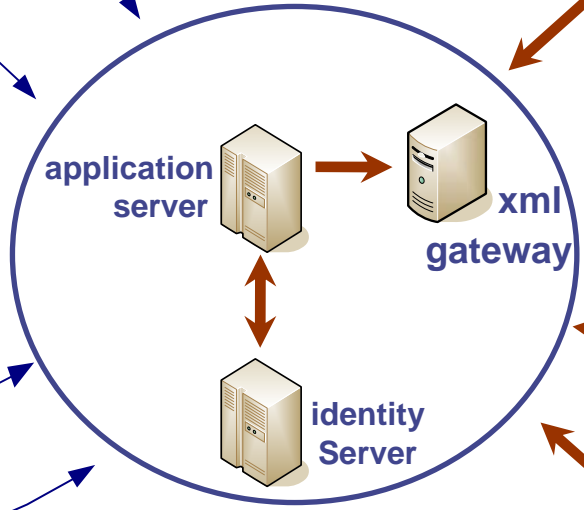


HR manager

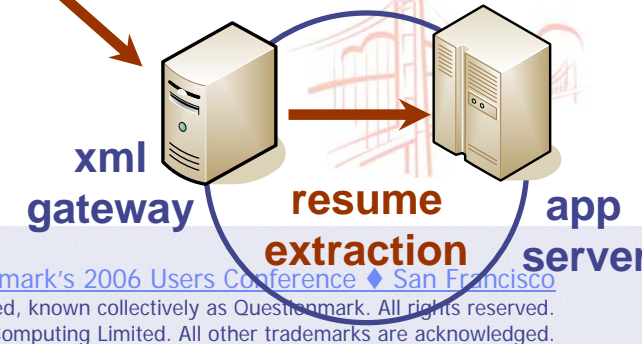
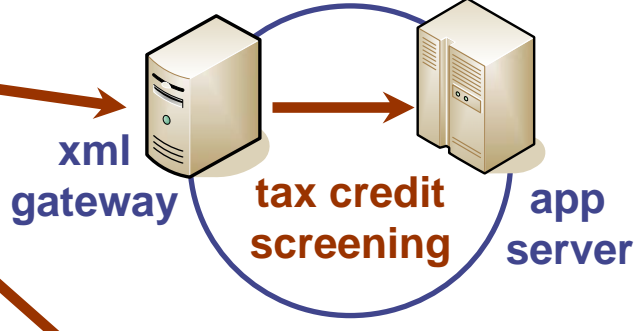
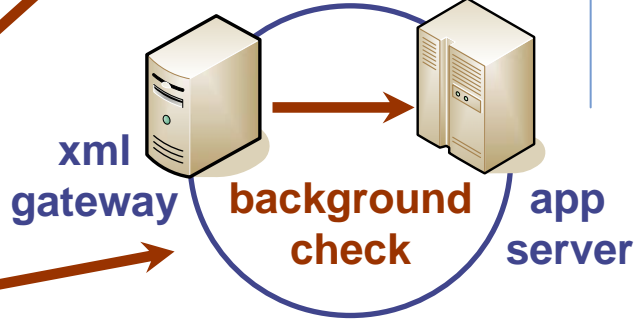
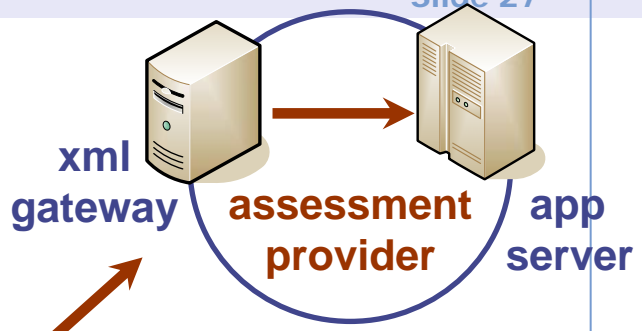


hiring manager n

Secure Access Via Web App



**Hosted Applicant Tracking Solution**



# HR Technology Trends?

- There are broad, but discernable trends that favor solutions that are:
  - **Opaque** (details are hidden)
  - **Connected** (e.g., service centers possible because data can be retrieved electronically from central databases)
  - **Real-Time** (vs. batch)
  - **Distributed** (economics – Work migrates to where it can be done with the highest quality and lowest cost; where most value can be gained).
  - **Secure** (work cannot be distributed and connected if it is not secure).

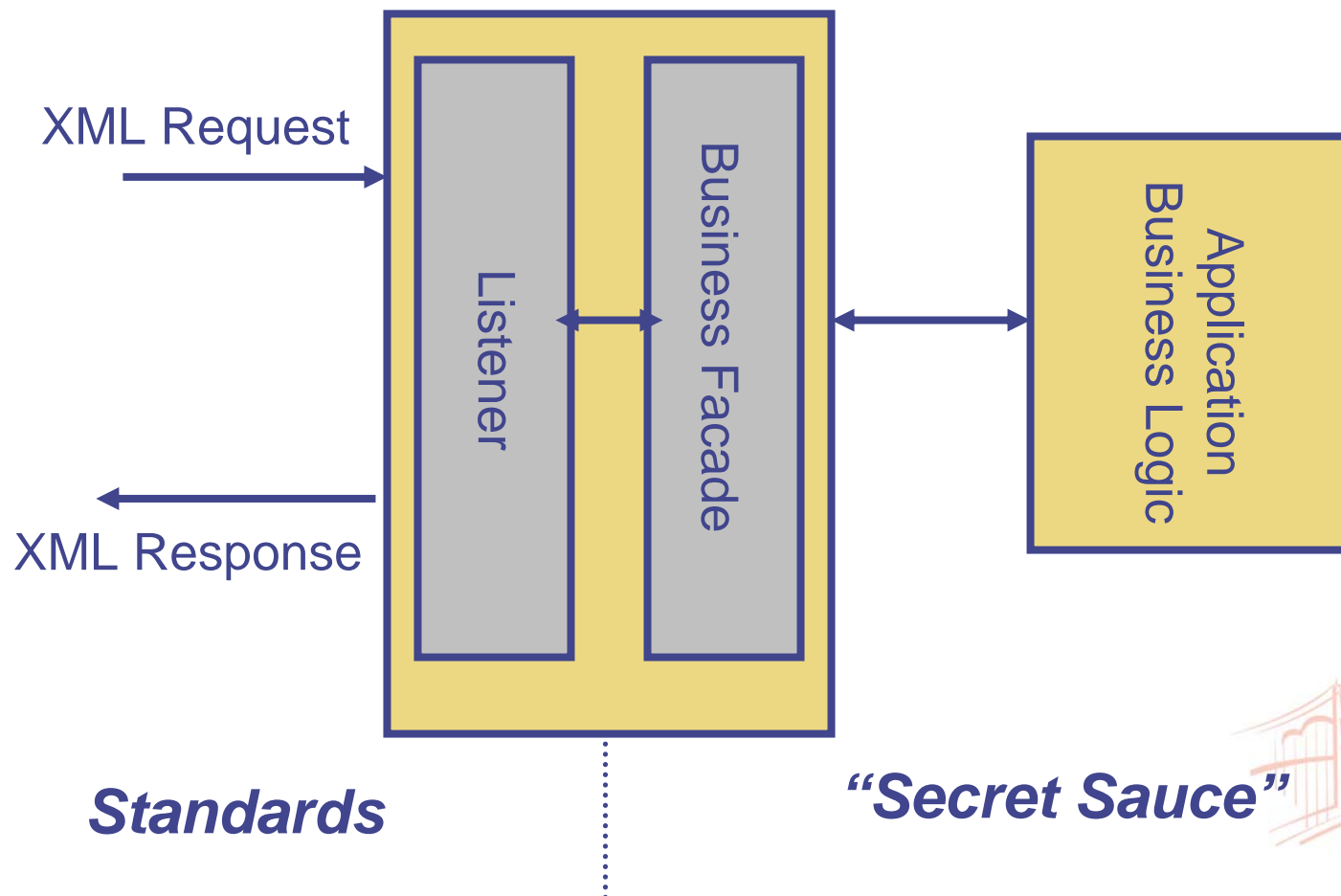


# What is HR-XML?

- Independent, non-profit corporation (Dec 1999)
- Open to users, vendors, consultants, standards bodies, employers and other end-users, and individuals. 100+ organizational members
- Mission:
  - Enabling interactions (conversations) between *arms-length* trading partners.
  - Defining a common, freely available language: Nouns and Verbs
  - Relevancy and use in many countries. Japanese, European Chapters. Chinese Chapter?
  - Focusing on the practical vs. theoretical; the common vs. the 'secret sauce'

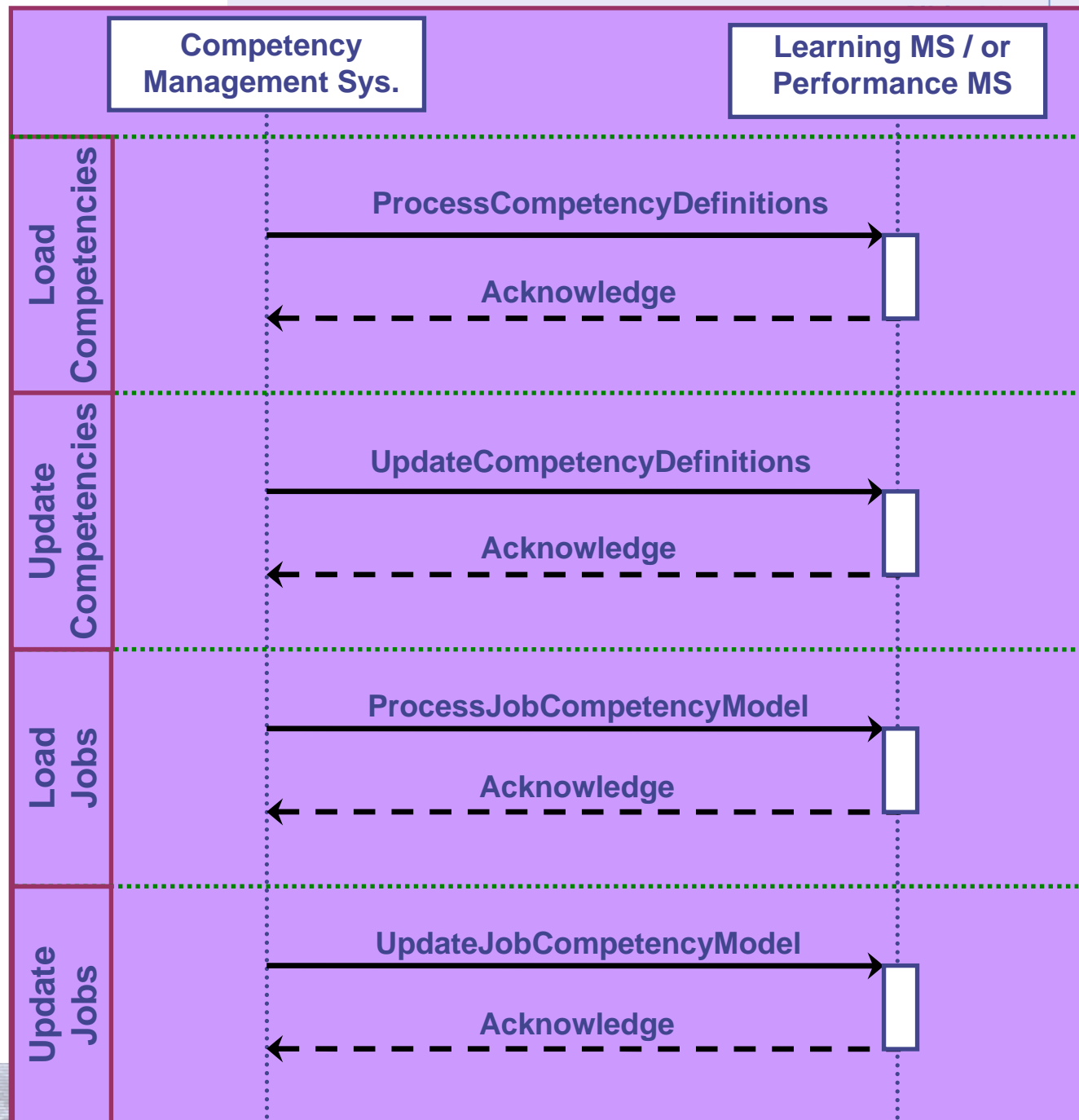


# Web Services: A “Loosely Coupled” Approach



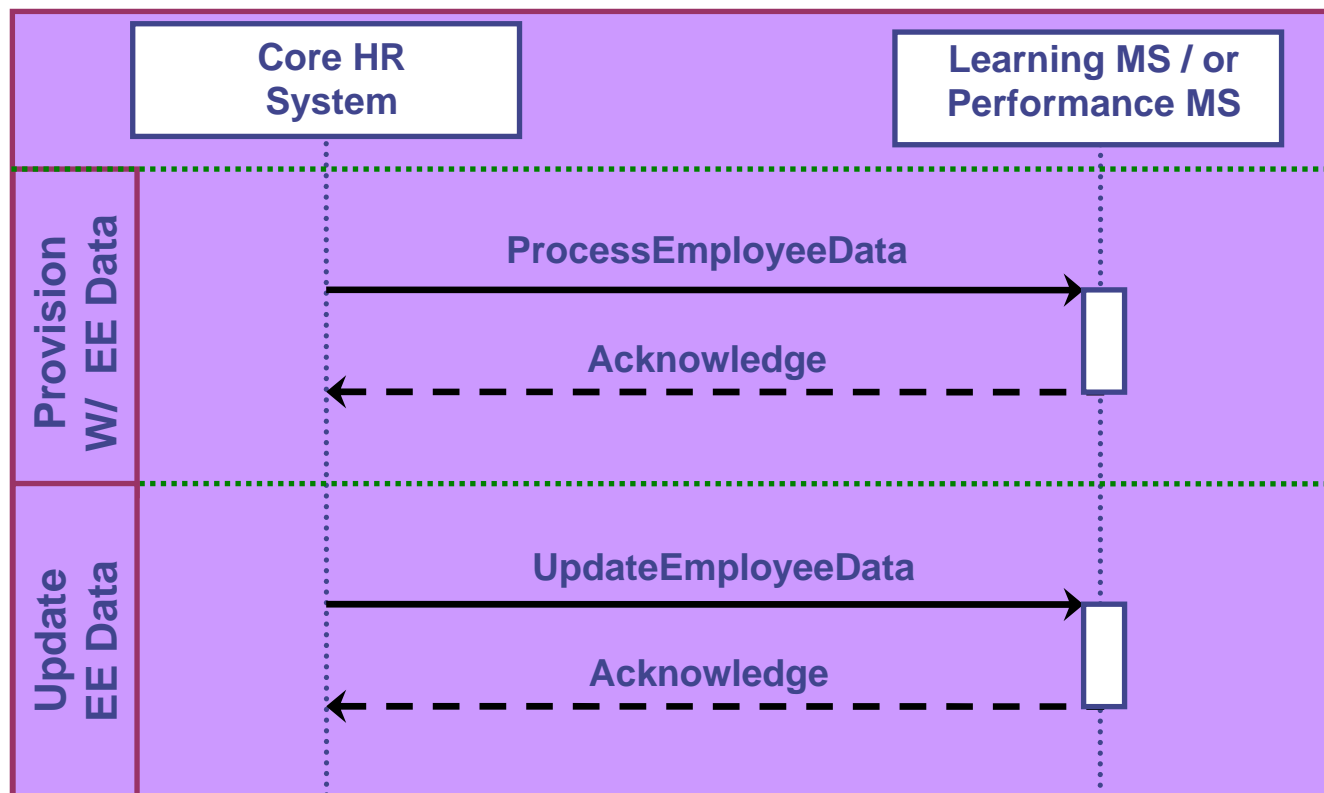
# Competency Web Service

Provisioning Systems With Competencies and Job Competency Models.

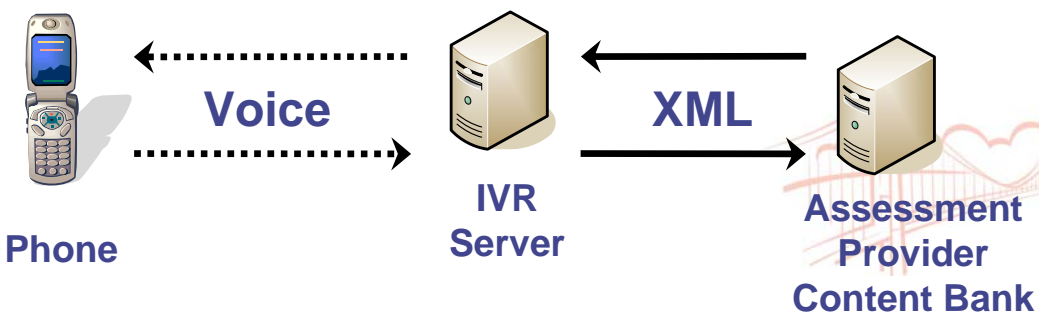
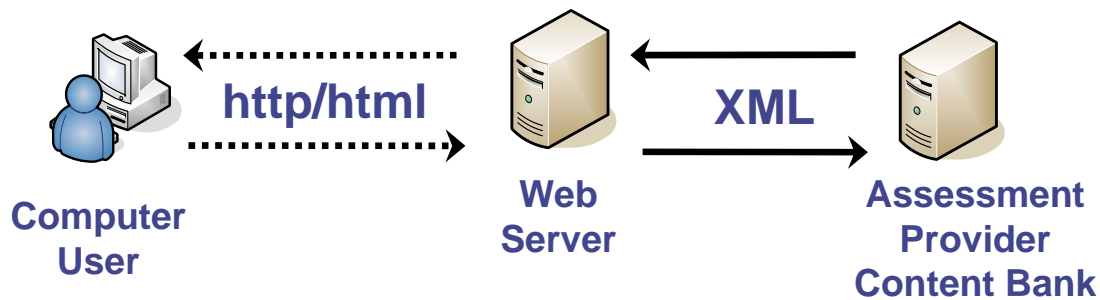
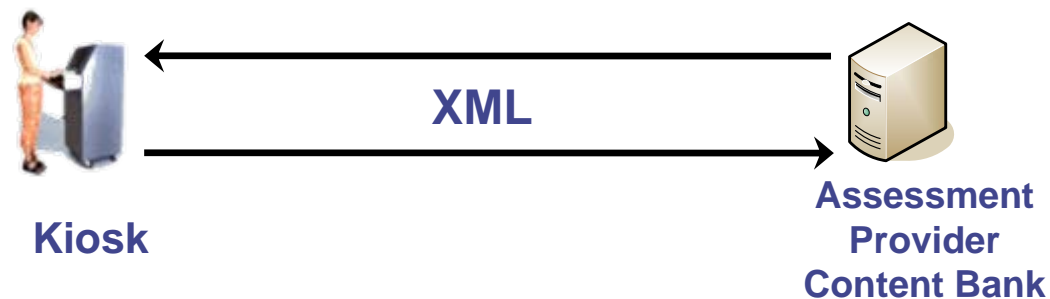


# LMS/PMS Provisioning Web Service

Provisioning  
Systems With  
Employee Census  
Data and Joblds.





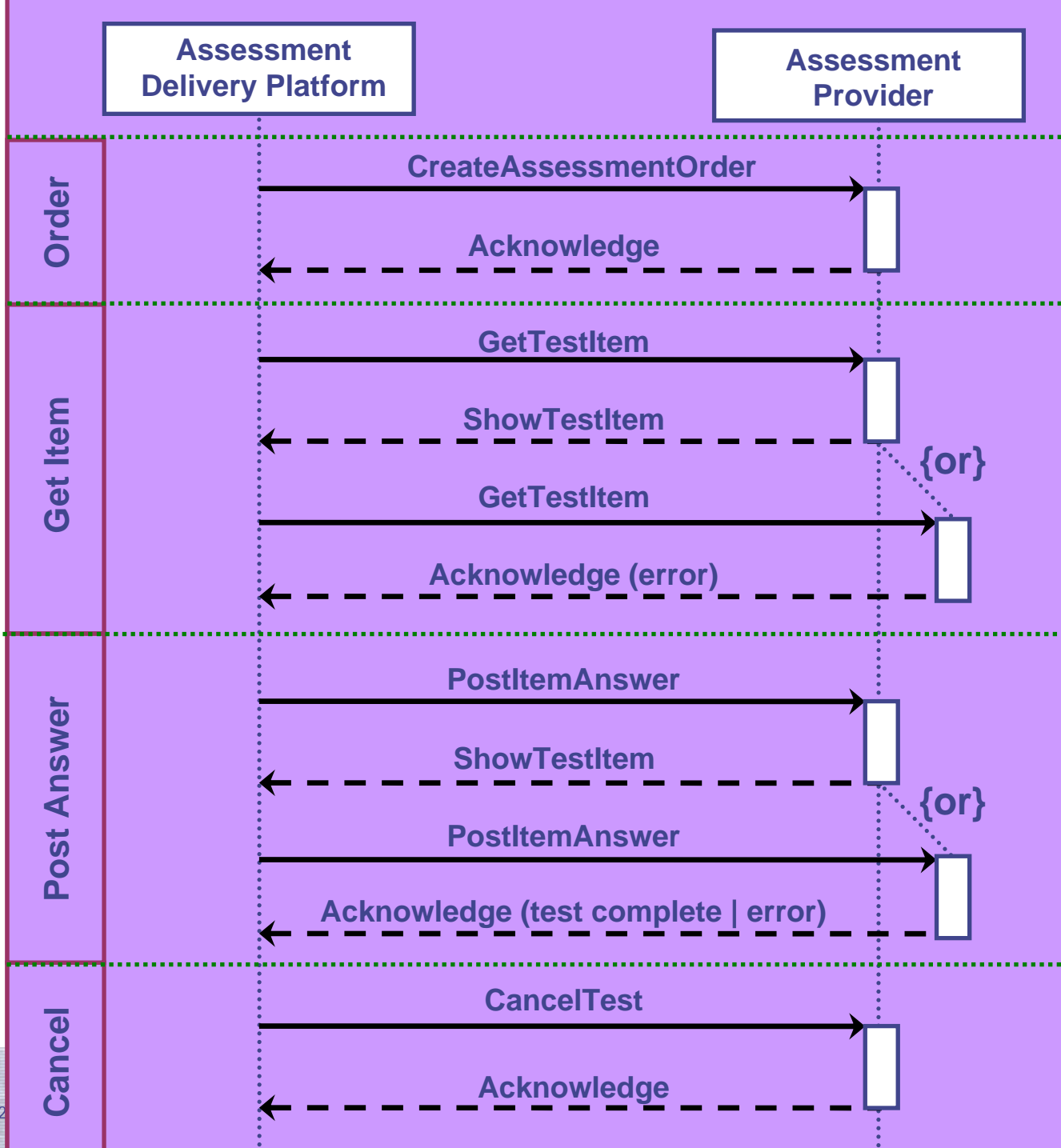


**Batch Provisioning  
and/or  
Return Of Results**

**Real-Time Serving  
Of Items and  
Return of Results**

# Interactive Assessment Web Services

Simple WS Operations To Support Exchange of Assessment Content.



# What Questions do you have?



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