

Understanding and Implementing ebXML Registry & Repository

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- Implementing ebXML Registry & Repository
- Case Study (ebXML Adoption)
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- UDDI vs. ebXML Registry
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ebXML Registry & Repository

Understanding ebXML Registry & Repository

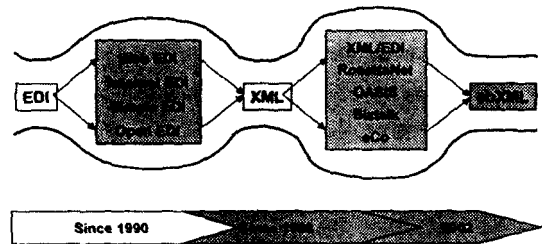
- e-Business Technical Infrastructure
- Reality of e-Business Technical Infrastructure
- Barriers to Global e-Business
- Vision of ebXML as a Global e-business Standard
- The Scope of ebXML Compliant SW
- ebXML Functional Service View
- Position of ebXML Registry & Registry Client
- How to work with Registry and Registry Client
- ebXML Stack & Thread for Registry

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ebXML Registry & Repository

e-Business Technical Infrastructure



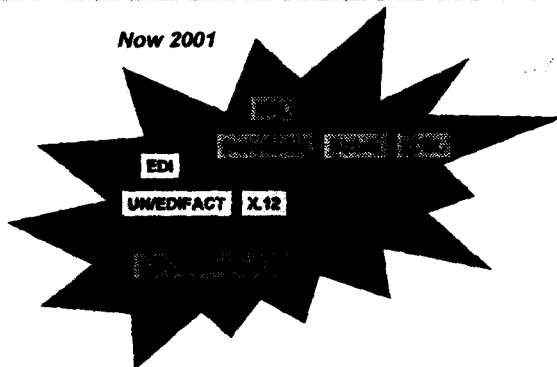
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Reality of e-Business Technical Infrastructure

Now 2001

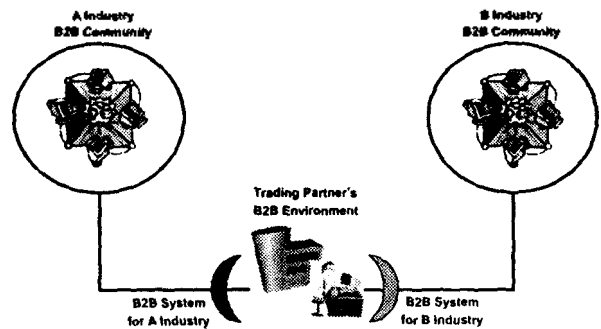


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Barriers to Global e-Business



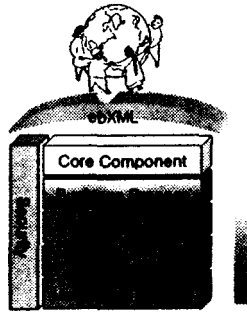
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Vision of ebXML as a Global e-business Standard

Single Global Market



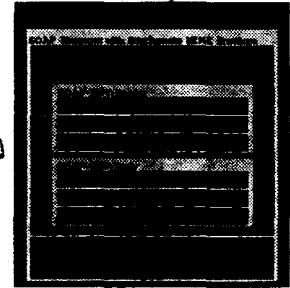
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ebXML Registry & Repository

ebXML Messaging Service

- How to Pack Message
- How to deliver/transport
- How to route



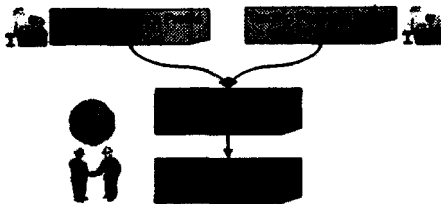
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ebXML CPP/CPA

- How to describe Trading Partner's Profile
- How to describe B2B Environment Profile
- How to make an agreement between Trading Partners
- How to negotiate on agreement



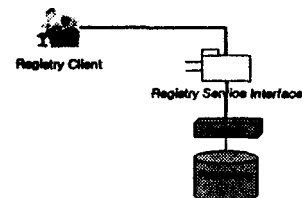
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ebXML Registry

- How to share e-Business Information
- How to discover Trading partners
- How to manage life cycle of submitted contents & Metadata
- How to search specific information



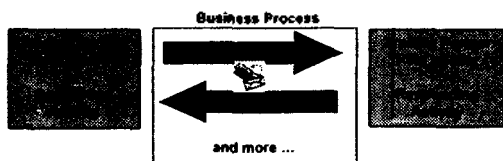
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ebXML Business Process

- How to define Trading Partner's Business Process (Steps & Control & Document & Role)
- How to automate the flow of Business Process step by step
- How to share Business Process with Partners



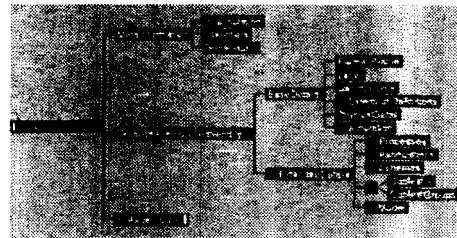
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ebXML Core Component

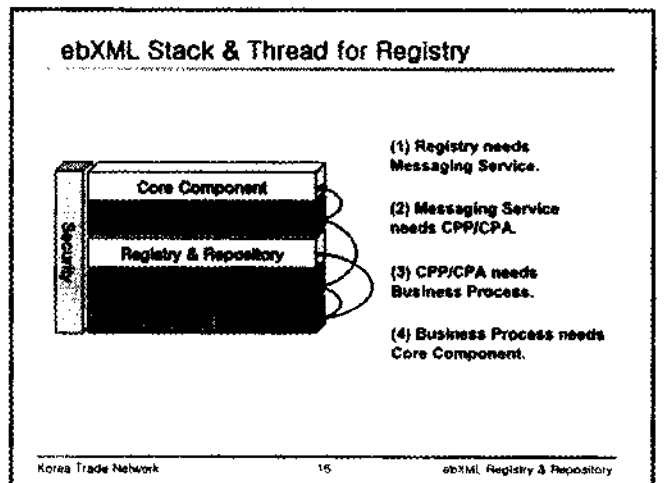
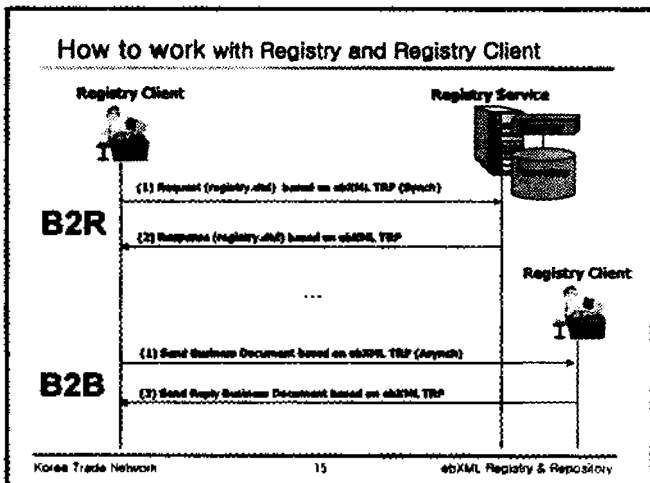
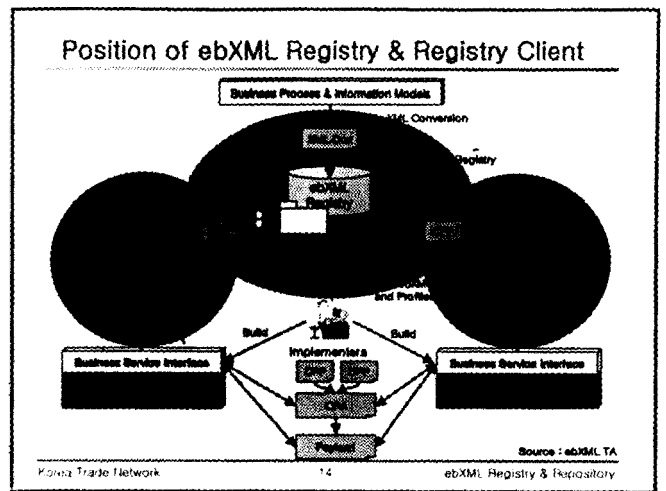
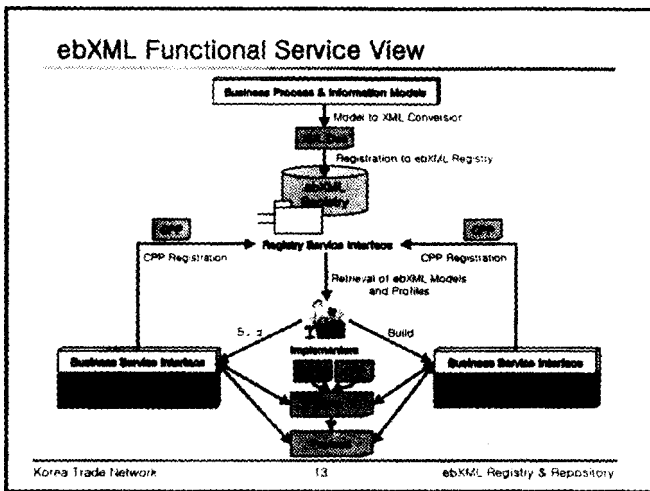
- How to define Reusable Data Items in XML Format
- How to reuse pre-defined Elements in Business Document
- How to aggregate basic items into composite element
- How to assign different semantic context on the same element



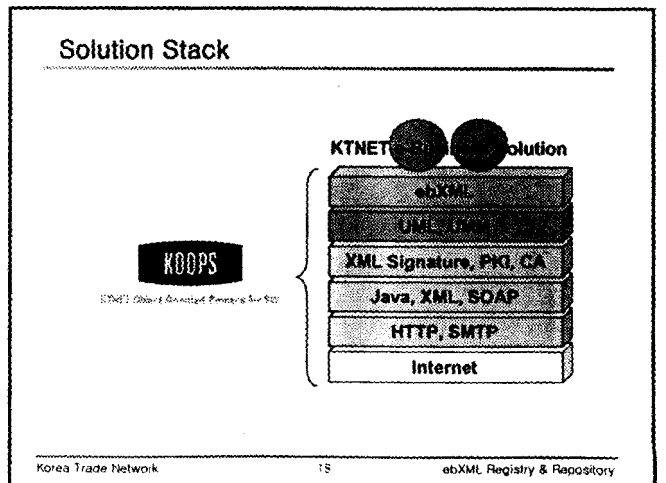
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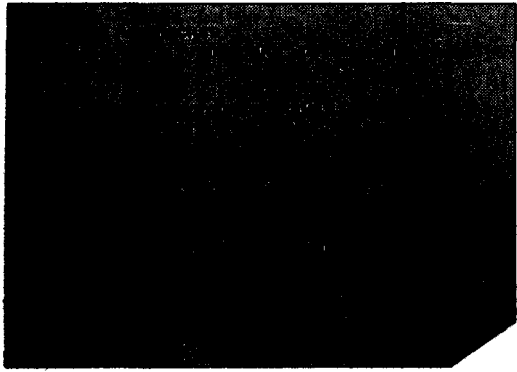
ebXML Registry & Repository



- ### Implementing ebXML Registry & Repository
- Solution Stack
 - Technical Specifications
 - Features
 - System Architecture
 - Case Study (ebXML Adoption)
- Korea Trade Network 17 ebXML Registry & Repository



Technical Specifications



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ebXML Registry & Repository

Features

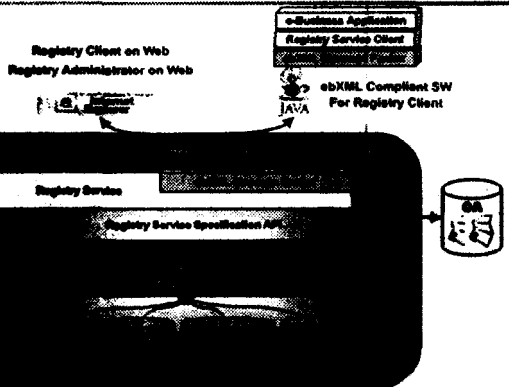
Components for	Features	Platform / Type
ebXML Registry	Registry for metadata Repository for contents Life Cycle Service Query Service Authentication & Authorization Multiple Registry Access Federated Registries Reorganize Remote Metadata	JVM 1.3 Web Server Servlet Engine eXcelon Portal Server
ebXML Registry Client	Contents Registration & Management (CPP/CPA/BP/Schemas and so on) Query Generator/Result Displayer Multiple Registry Access Signing XML Signature	Web Interface Java Application
ebXML Registry Administrator	Classification Scheme Management Access Control Policy Management Metadata and Contents Management Statistics	Web Interface

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ebXML Registry & Repository

System Architecture

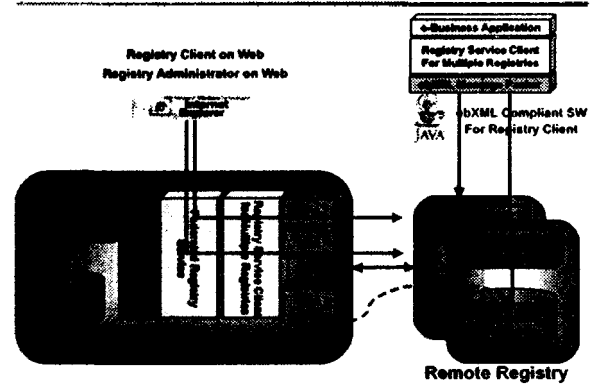


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System Architecture for Federated Registries

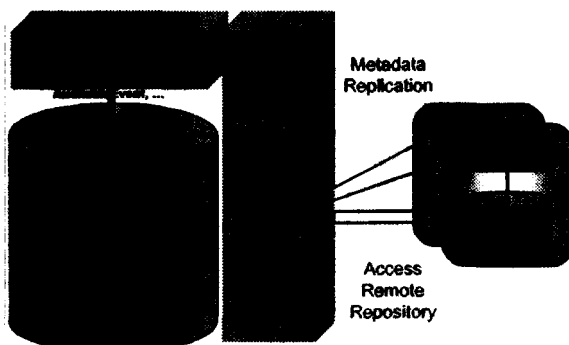


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ebXML Registry & Repository

System Architecture – Metadata and Contents View

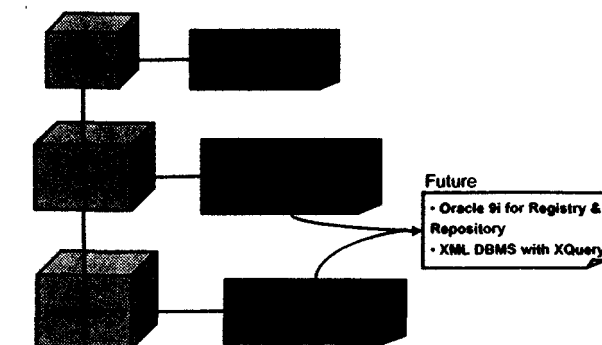


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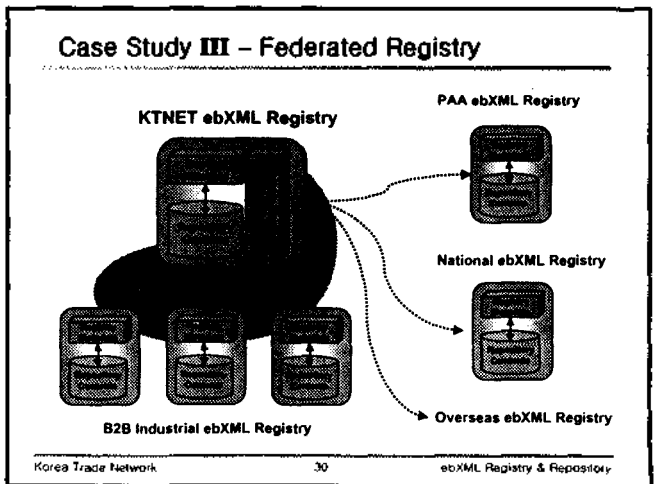
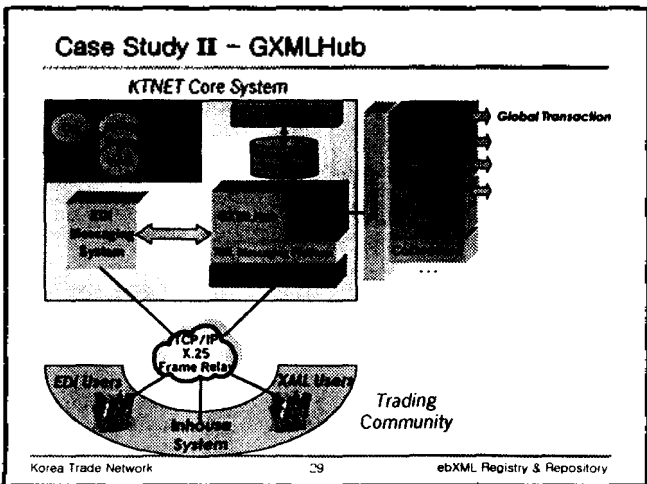
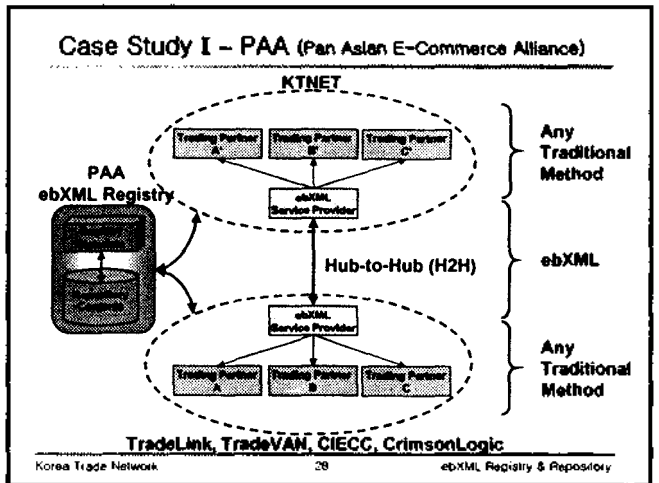
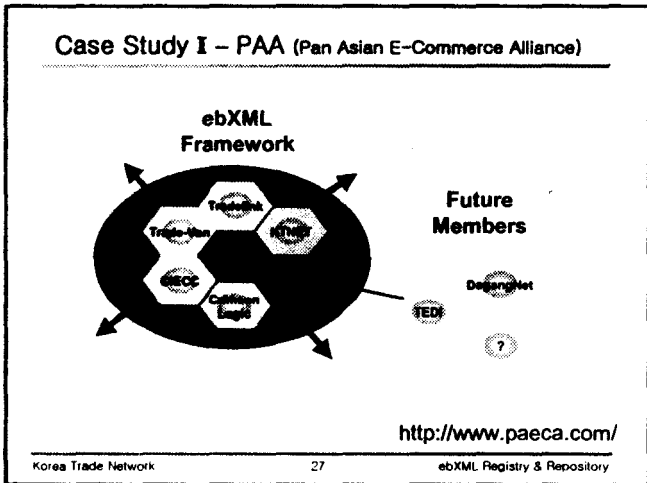
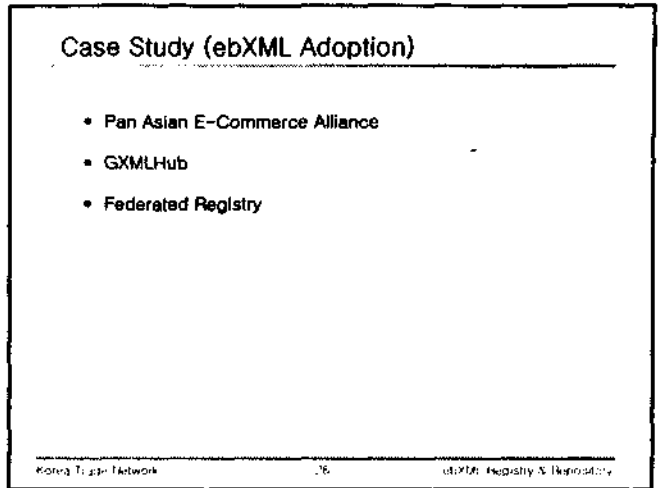
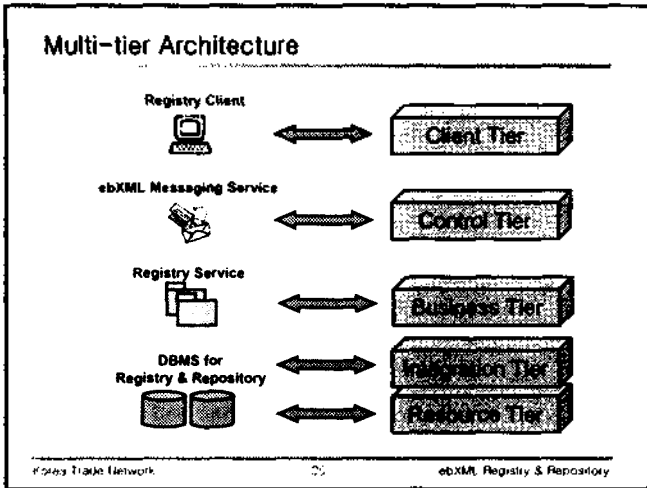
Deployment Diagram



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ebXML Registry & Repository



KTNET ebXML Product

For Trading Partners (Conformance as an ebXML Registry Client)

- ebXML Compliant SW 1.0
 - ebXML Registry Client + ebXML TP Management
 - ebXML BPM Engine (Future)

For Service Providers (Conformance as an ebXML Registry)

- ebXML Registry & Repository 1.0
- ebXML Compliant SW 1.0
- ebXML BPM Engine for ASP (Future)

ebXML Products

(<http://www.ebxml.org/implementations/>)

• KTNET

- ebXML Registry & Repository (Commercial DBMS)
- ebXML Compliant SW for Trading Partner (Registry Client, Messaging Service, CPP/CPA) - Web, Java Application
- Open in Public (www.GXMLHub.com)

• XML Global

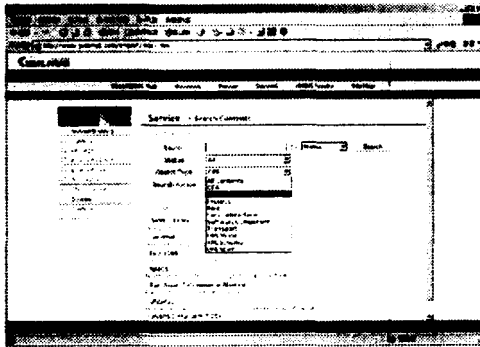
- ebXML Registry & Repository (Self developed XML Repository)
- ebXML Registry Client - Web
- Downloadable (www.xmlglobal.com)

• Innodigital, ETRI, Hanmaek, ...

- Data Networks Corporation, SUN Microsystems, Vitria, Oracle, eXcelon, IONA, TIBCO, Xeco, Vitria, webMethods, Bind Systems, ...

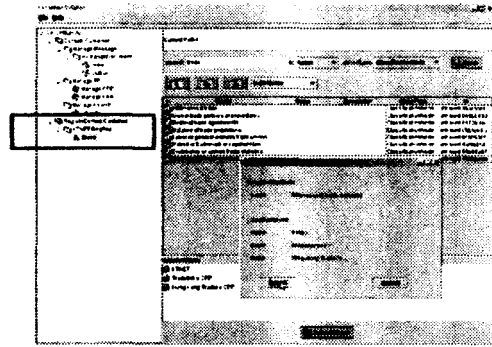
KTNET ebXML Registry Client (<http://www.GXMLHub.com/>)

• Thin Client on Web Browser



KTNET ebXML Registry Client

• Fat Client on Java Application



Registry 2.0 (RIM 2.0)

- Web Services (Service, ServiceBinding, SpecificationLink)
- Association (Intramural, Extramural), Confirmation of Extramural Associations
- ClassificationNode, ClassificationScheme
- ExternalIdentifier (Reference ClassificationScheme)
- Security View (Registry Service Specification)
- Package → RegistryPackage
- Deep Hierarchy → Flat Hierarchy

Registry 2.0 (RS 2.0)

- Registry Service (SOAP Binding, ebXML Messaging Service Binding)
- No Browse and Drill Down Query (Possibility for W3C XQuery)
- Registry Schema (only W3C Schema, not DTD)
- Registry Users (RegistrationAuthority, RegistryAdministrator, Registered User, Registry Guest, Submitting Organization, Registry Reader, Responsible Organization, Registry Client)
- Registry Service (QueryManager, LifeCycleManager)
- Clear Description of Synchronous and Asynchronous Responses
- LifeCycleManager (submit, approve, update, deprecate, remove)
- Update for RepositoryItem, RegistryEntry?
- Registry Communication Bootstrapping (SOAP binding - UDDI public registry)
- Specific Error Handling for LifeCycleManagement Protocol
- Query Management Service (Query Response Option - returnType)
- Registry Security (Header Signature + Payload Signature)

What is Missing in Registry 2.0

- No Specific Mechanism for Cooperative ebXML Registries
- Content Based Query
- XML DTD (only W3C Schema)
- No Backward Compatibility
- Error Code

What is going on Registry 3.0

- Compatibility with v2.0
- Migration Path from v2.0 to v3.0
- XQuery Support
- Content Based Query
- Federated Registries
- Query Manager – Large amount of query result
- Cooperation with UDDI
- Operation Policy
- Etc.

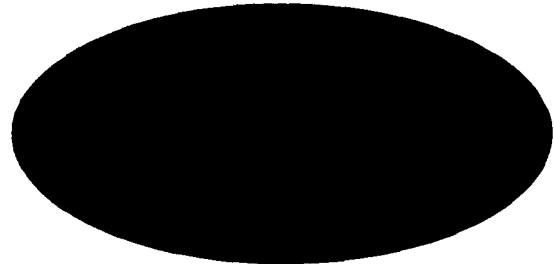
UDDI vs. ebXML Registry

- UDDI (Universal Description, Discovery and Integration)

	UDDI	ebXML Registry
Registry & Repository	Only Registry	Registry & Repository
Purpose & Scope	Web Services	Global e-Business Part of ebXML Framework
Actor	Service Provider Service Registry Service Requestor	Registry Guest Content Owner Registry Administrator
Relationship	Using tModel, UDDI specifies ebXML Registry Service.	RIM 2.0 will support Web Service Interface – Service, ServiceBinding, SpecificationLink
Organization	IBM, MS, HP, Arriba	UN/CEFACT, OASIS

Web Services vs. UDDI vs. ebXML Registry

- Web Services are the core technology for Collaborative-Commerce.
- ebXML Registry can play the role of Registry for Web Services.
- UDDI is the representative Registry for Web Services.



What is missing in ebXML

- There is no Document Standard.
(EDI → xCBL → UBL, UBL in OASIS based on xCBL 3.0)
- Figuring out the relationship with ebXML Core Components & UBL
- The Relationship with SW Developer Community (UDDI, SOAP, ...)
- The Relationship with Business Sphere (RosettaNet, GM TradeXchange, Biztalk, ...)
- UN/CEFACT & OASIS

Roadmap

- 2001.5. ebXML Registry POC Version for KIEC
- 2001.5. ebXML Registry POC Version for GXMLHub
- 2001.5. ebXML compliant SW POC Version for seller/buyer
- 2001.6. Exposition SEK 2001 in Seoul
- 2001.10. – Pan Asian E-Commerce Alliance(PAA) Pilot Project
- 2001.12. ebXML Registry 1.0 & ebXML Registry Client 1.0
- 2001.12. XML 2001 Exposition & Conference, Orlando, Florida
- 2002.6. GXMLHub Launch
- 2002.6. ebXML BPM Engine POC Version
- 2002.12. ebXML BPM Engine with ebXML Compliant SW 1.0
- 2002.12. ebXML Registry 2.0 & ebXML Registry Client 2.0

Reference

- 전문가와 함께 가는 XML Camp
- 글로벌 e비즈니스 리더를 위한 ebXML
- ebXML : The New Global Standard for Doing Business Over the Internet
- (Professional) ebXML Foundations
- ebXML Simplified: A Guide to the New Standard for Global E-Commerce
- ebXML: The Technical Specifications



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ebXML Registry & Repository

Quote

- ebXML is the cornerstone technology for the next generation of B2B applications
- 80% of all B2B traffic by the year 2003 will use ebXML
- ebXML will become a default standard for transmitting messages between systems in business-to-business applications
- In the case of ebXML, however, I mostly expect it to live up to its billing as a global protocol for most business transactions within the next five years.
- ebXML will allow small to medium-size enterprises (SMEs) to start to participate in electronic marketplaces
- And more ...

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Q&A

Deep Change or Slow Death



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