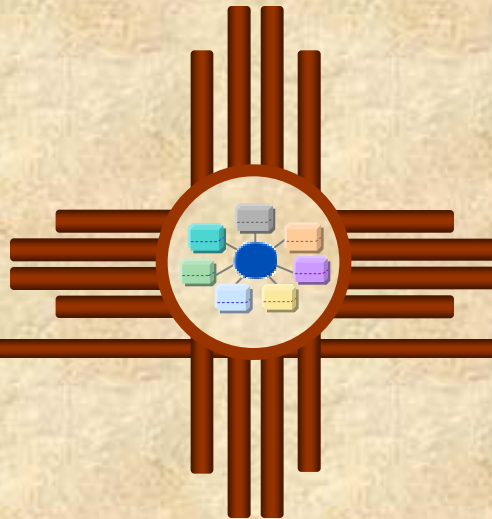


OASIS ebXML Registry Standard



Open Forum 2003 on Metadata Registries


10:30 – 11:15
January 20, 2003

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What is an ebXML Registry?

- Provides services for sharing information
- Provides publishing and discovery of information
- Accessible as a web service
- Communicates using XML based request and responses
- Provides mechanisms to store and retrieve persistent information
- Includes a Repository

Why We Need Registries

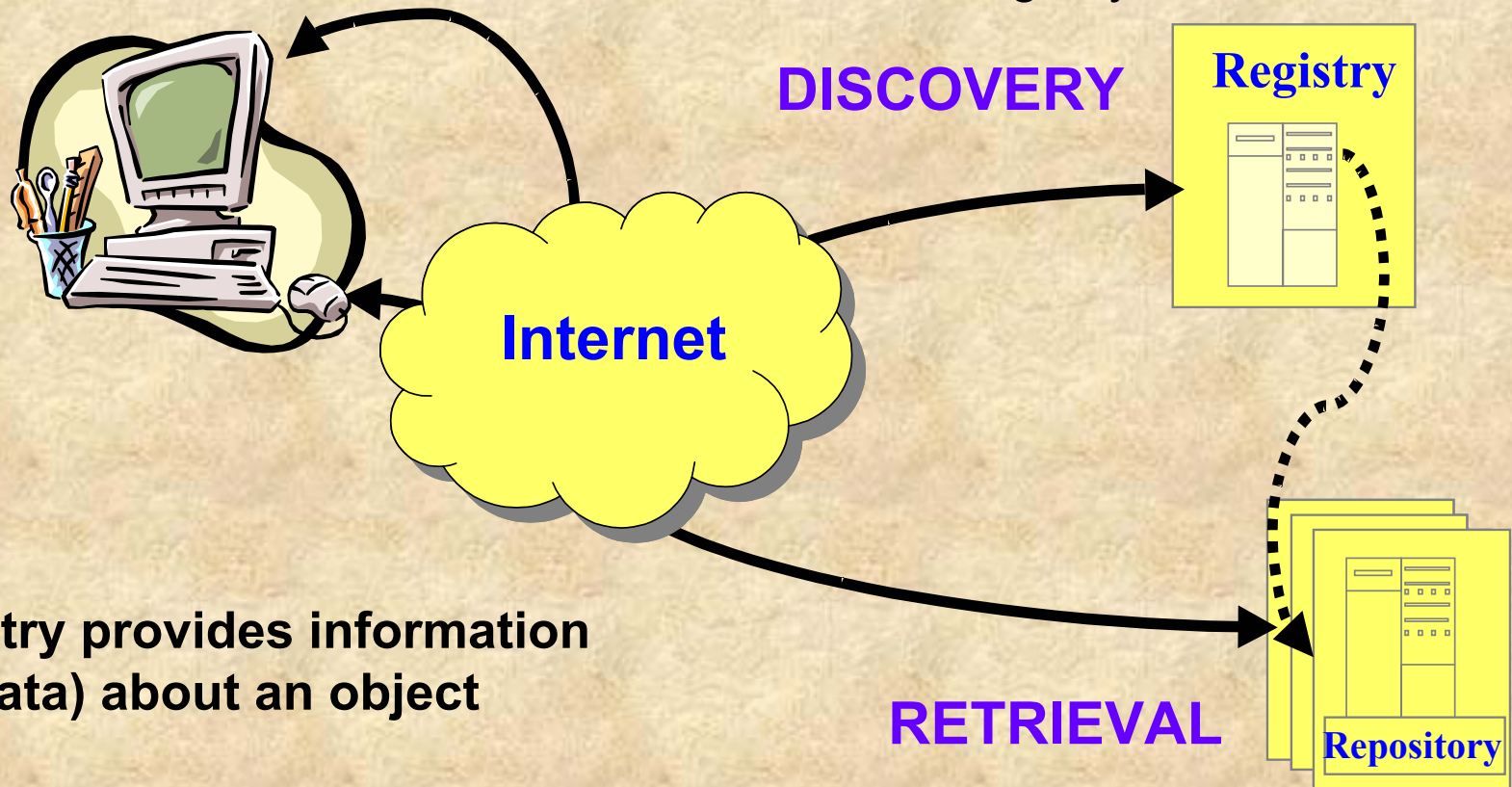
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- To enable publishing and discovery of information objects and artifacts
 - ◆ Technical specifications, business documents, multi-media content
 - ◆ Core components, schemas, XML DTDs, UML models, and other artifacts needed for electronic business
 - Allows organizations to locate business process information
 - ◆ Trading partners, services and capabilities
 - ◆ Business processes, business objects and artifacts
 - To provide content management and cataloging services

Role of ebXML Registry & Repository

Discovery & Retrieval

Information is easy to discover and retrieve

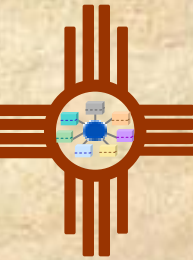
The registry enables discovery



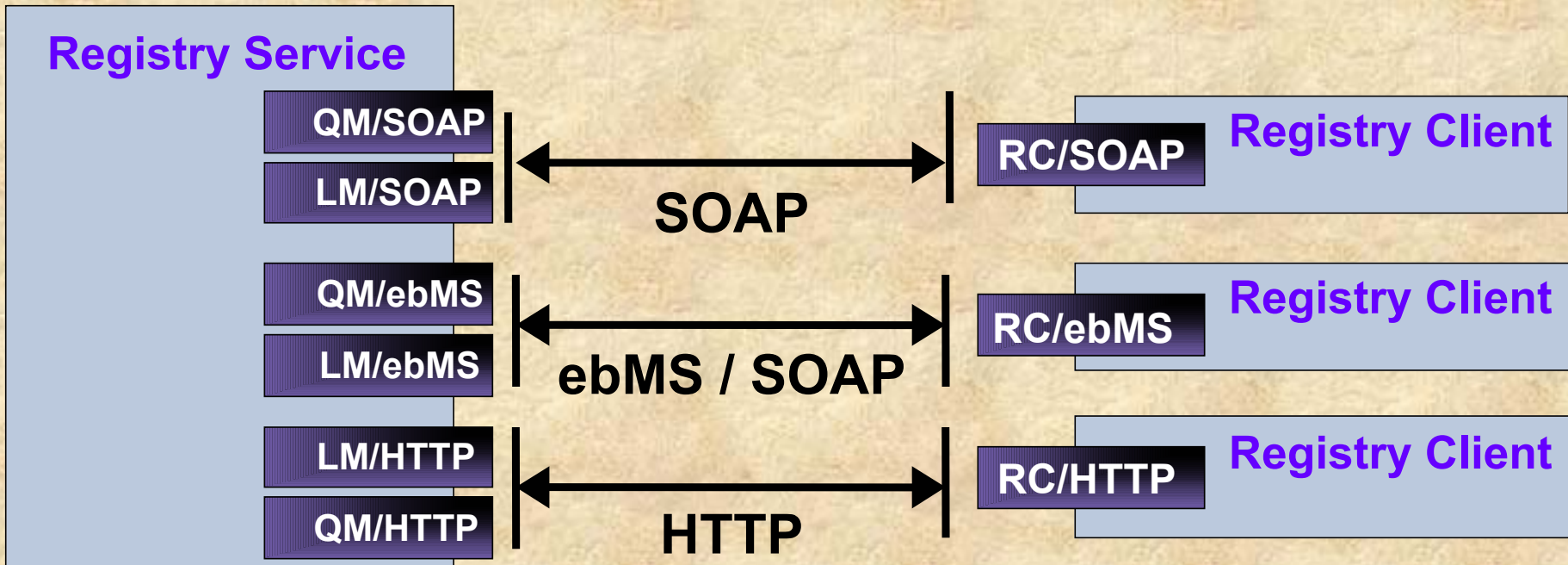
A registry provides information (metadata) about an object

The repository enables retrieval

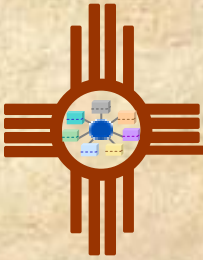
Architectural Principles

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- Distributed Object-Oriented information model
 - Extensible information model
 - Dynamic metadata support
 - Service interfaces carry XML structures
 - Security designed in – not an afterthought
 - Native language (I18N) support
 - Web Service interface to registry supports multiple interface options
 - ◆ SOAP 1.1 with attachments
 - ◆ ebXML Messaging Service
 - ◆ Pure HTTP

ebXML Registry Architecture

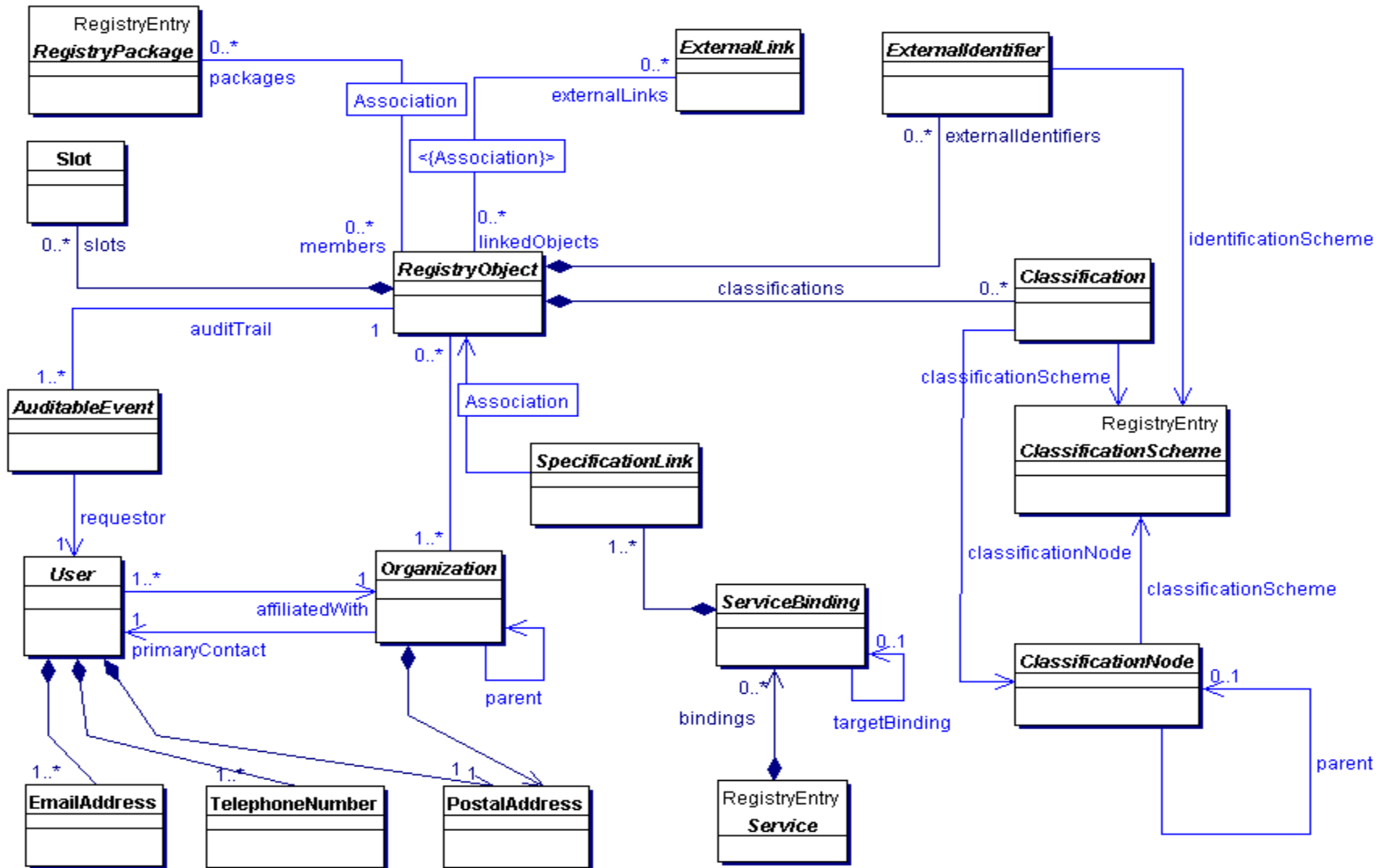


OASIS ebXML Registry Key Features



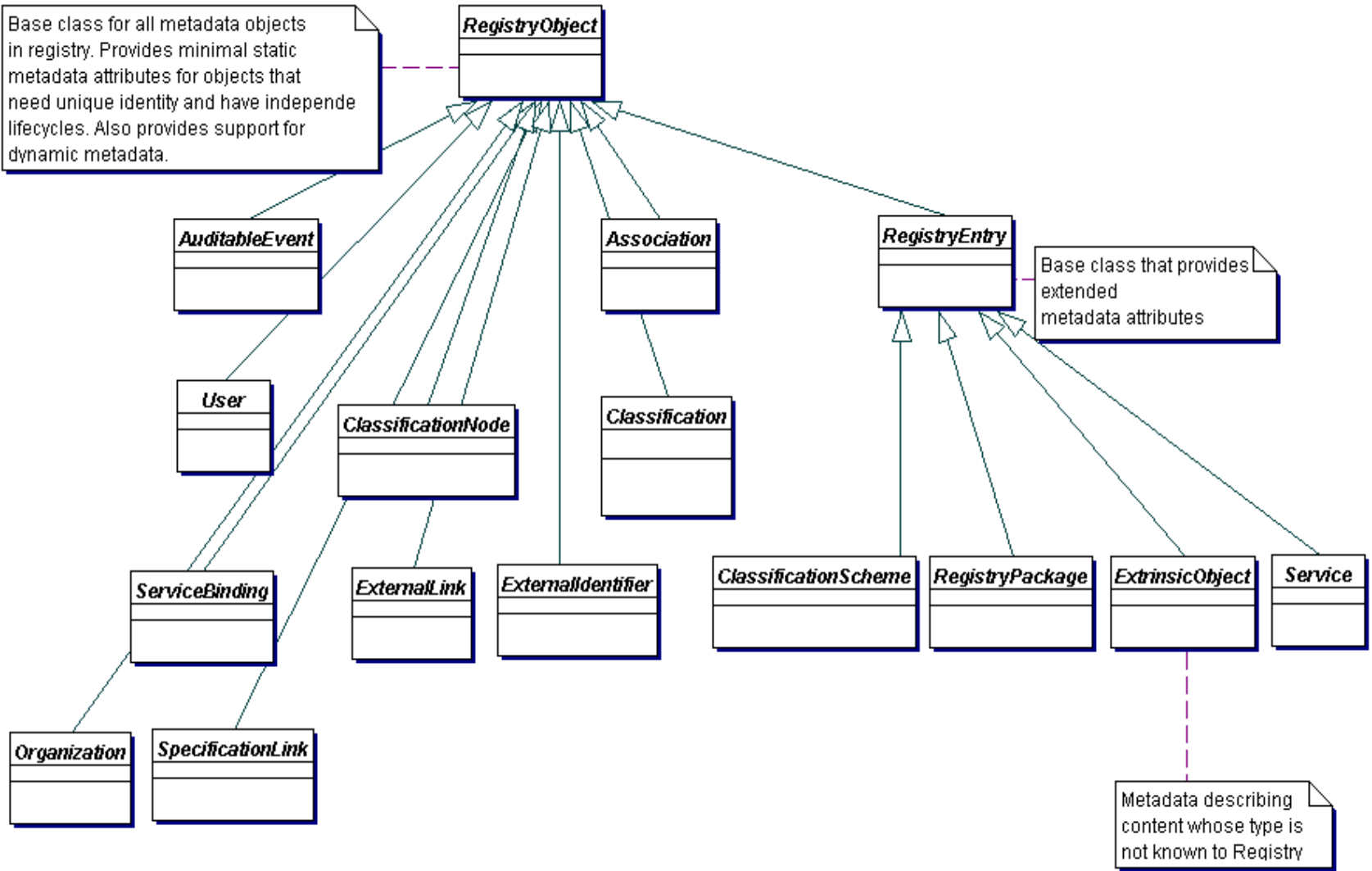
- Registry plus Repository
- Registration of any type of object
- Classification of any type of object
- Taxonomy hosting, browsing and validation
- Association between any two objects
- Registry packages to group any objects
- Links to external content

Registry Information Model



Object Oriented Architecture

Base class for all metadata objects in registry. Provides minimal static metadata attributes for objects that need unique identity and have independent lifecycles. Also provides support for dynamic metadata.



Metadata describing content whose type is not known to Registry

OASIS ebXML Registry Key Functions

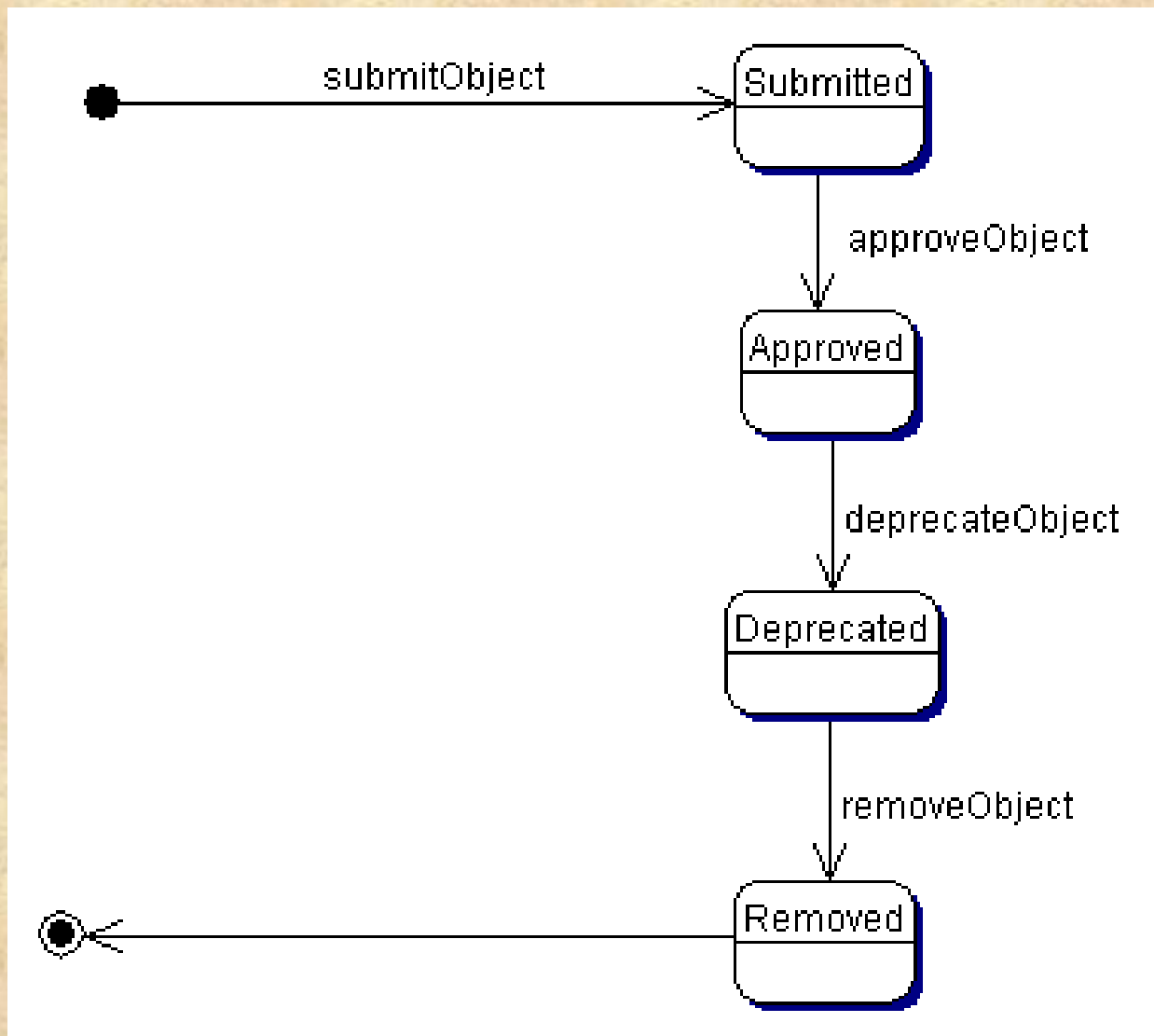
- Life cycle management of objects
- Flexible query options
- Security functions
- Inter-registry cooperation
- Event archiving – complete audit trail
- Service registration and discovery



Lifecycle Management Service

- Submission of repository items, their registry entries and dynamic metadata
 - ◆ Single request allows batch submission
 - ◆ Schemes, Classifications, Associations etc. all submitted the same way
- Approval of submitted content
- Deprecation of submitted content
- Removal of submitted content

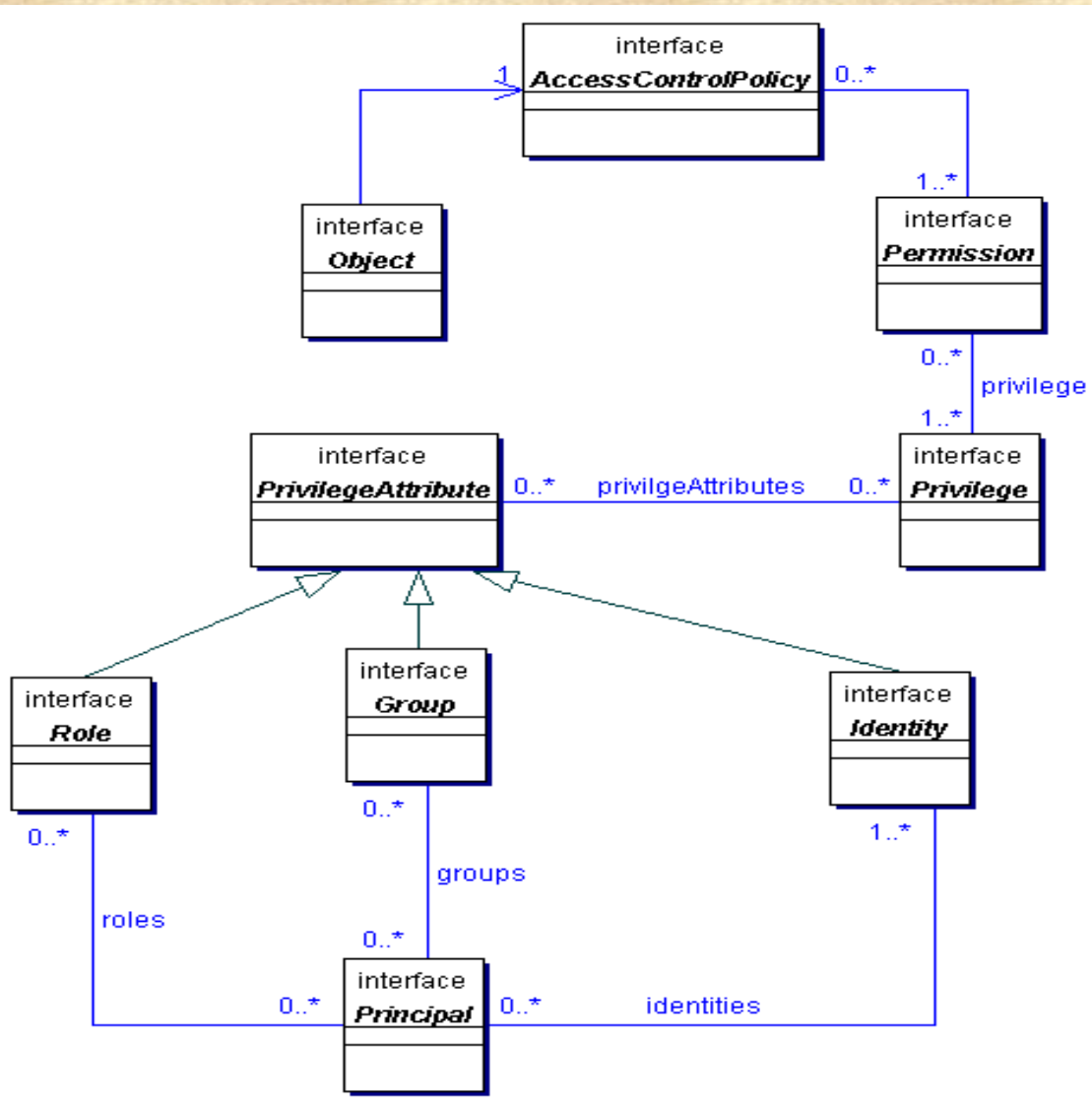
Lifecycle of a Registry Object



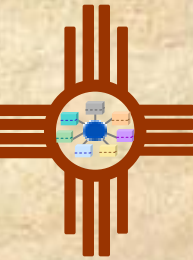
Query Service

- Multiple query options:
 - ◆ XML based filter queries
 - ◆ SQL queries (optional)
- Query schemas based on binding to Registry Information Model
- Support for retrieval of registry entries and repository items

Security Functions



- Access control policy
- Permissions
- Privileges
 - Roles
 - Groups
 - Identity
 - Principal



Inter-registry cooperation

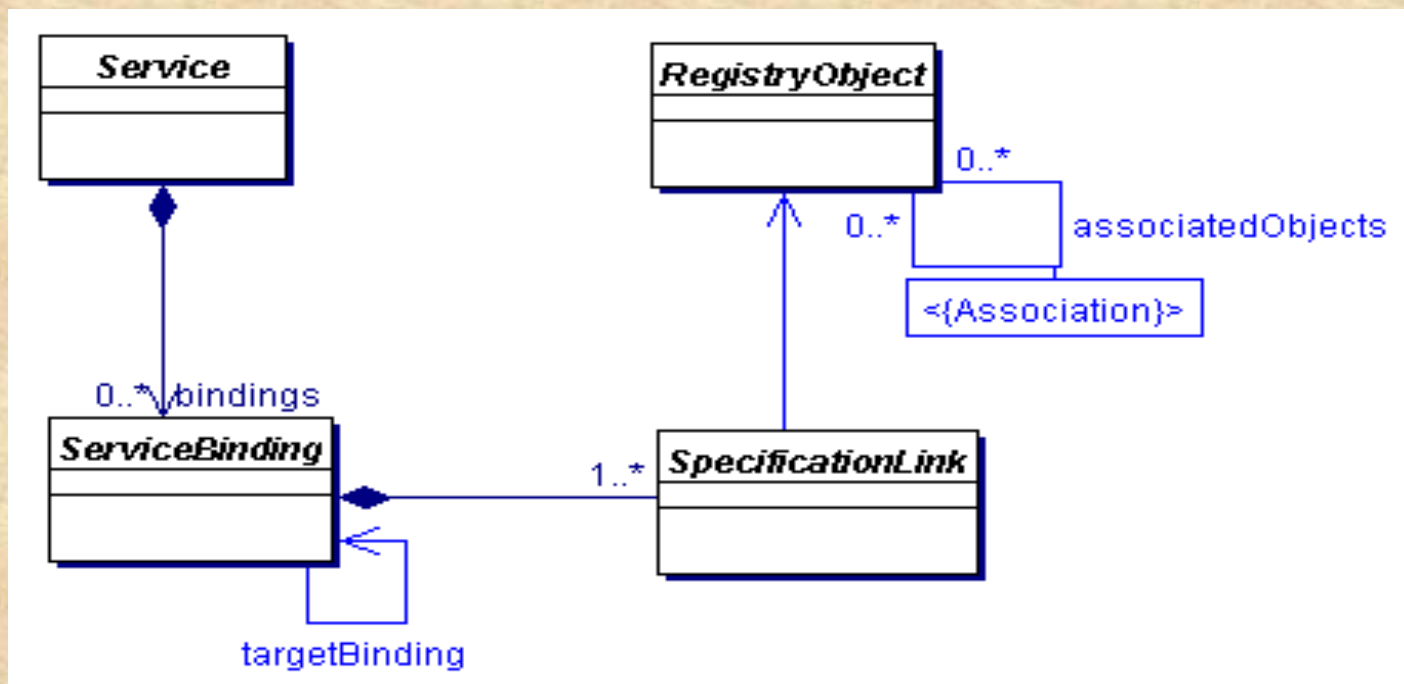
- Allows multiple ebXML Registries to work together to address user needs
- Access to ebXML registry objects and repository items over HTTP

Event Archiving

- Selected events trigger an audit trail
- Provides long-term record of events for changes
- Reflects a change in life cycle of registry object (create, update, deprecate, delete)
- Read only access is not part of the audit trail
- Each event identifies the user requesting the change that generated the audit trail

Publish and Discovery of Web Services

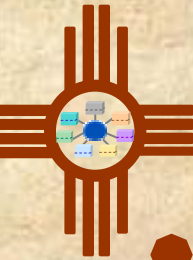
- Services, service bindings, and specification links are Registry Objects
- Service definition may be stored in Repository
 - ◆ WSDL, ebXML CPP/BP, CORBA IDL





New Features in Version 3.0

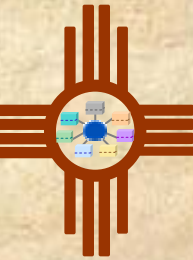
- Cooperating registries
- Event notification
- Content management services
- HTTP interface to registry
- Iterative query support



Cooperating Registries

- Enables multiple ebXML Registries to work together to address user needs
- Based on a loosely-coupled federation model
 - ◆ Allows local autonomy to each registry operator
 - ◆ Enables smaller registries to access resources of larger registries
 - ◆ Enables federated queries to multiple registries
- Inter-registry object references
- A registry may belong to multiple Federations

Event Notification

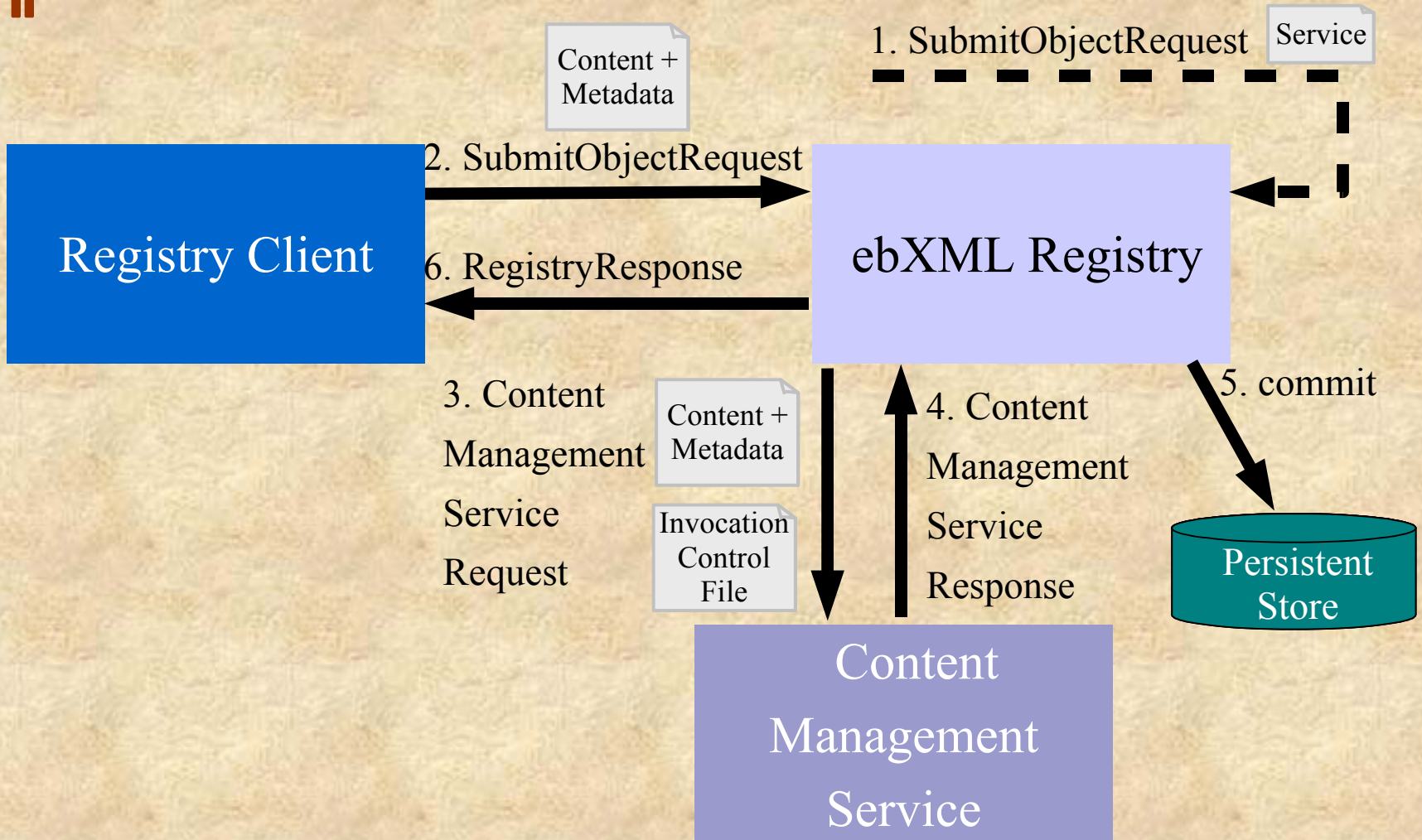
- 
- Enables notification of events regarding registry objects
 - Clients may be registry users or other registries
 - Subscription Service registers clients for notification
 - Supports e-mail and programmatic notification
 - Flexible notification options
 - ◆ References to event
 - ◆ Actual event
 - ◆ Objects affected by the event



Content Management Services

- Enables content management based on object type
- Content cataloging and validation
 - ◆ Validate on submission
 - ◆ Cataloging metadata applied on submission
- Content-based publish, discovery and subscribe
- User-defined relationships between content
- Invocation control file defines rules for cataloging service

Cataloging Invocation Model





HTTP Interface to Registry

- Provides a pure HTTP interface to Registry
 - ◆ Does not require SOAP
 - ◆ Registry objects and Repository items addressable via URLs
- Allows ebXML Registries to interoperate with other types of registries
- Improves access to Registry content

Iterative Query Support



Query Request Parameters		Query Response Parameters		
Start Index	Max Results	Start Index	Result Total	Results
0	100	0	1007	100
100	100	100	1007	100
200	100	200	1007	100
300	100	300	1007	100
400	100	400	1007	100
500	100	500	1007	100
600	100	600	1007	100
700	100	700	1007	100
800	100	800	1007	100
900	100	900	1007	100
1000	100	1000	1007	7

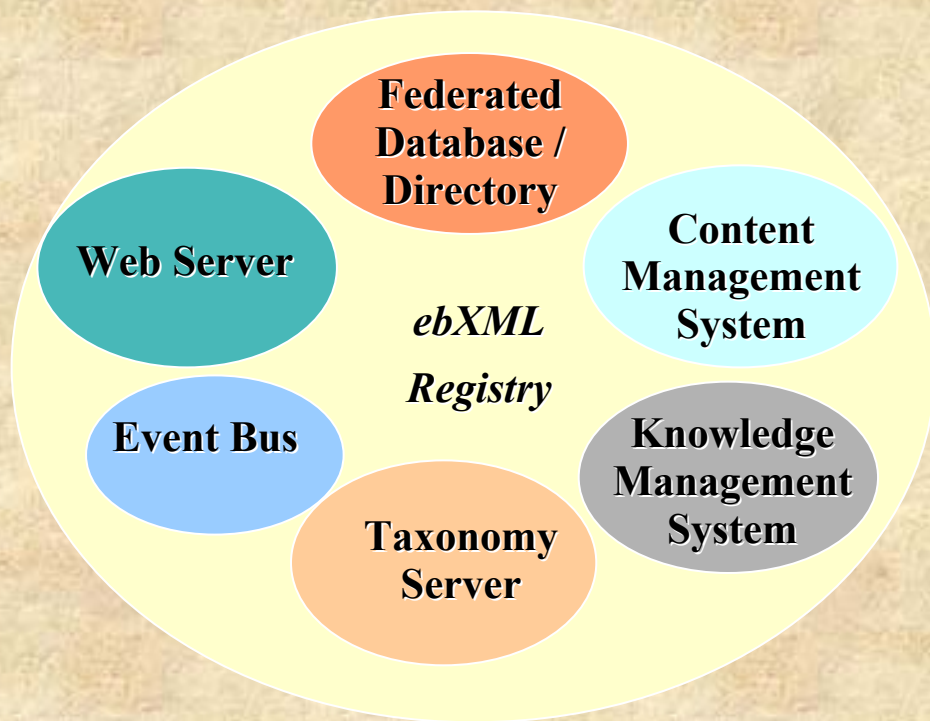
100 results returned in each iteration from 1007 total result set



ebXML Registry Development

- A result of a global, open initiative sponsored by UN/CEFACT and OASIS
- Built upon past standards efforts, such as ISO 11179
- Based upon a flexible architecture
- Provides a comprehensive registry platform
- Have widespread support, momentum and adoption
- Version 3.0 enhancements provide improved functionality for business needs

Summary



- ebXML Registry/Repository provides publish and discovery of any type of object
- ebXML Registry/Repository provides life cycle management of objects
- Version 3.0 functionality adds additional flexibility
 - ◆ Content management
 - ◆ Cataloging services
 - ◆ Event notification
 - ◆ Cooperating registries
- ebXML Registry/Repository meets diverse business needs

ebXML Registry V2.0 Implementations

- Open Source Implementation
 - ◆ <http://sourceforge.net/projects/ebxmlrr>
- ebxmlsoft Inc. Implementation
 - ◆ <http://www.ebxmlsoft.com/>
- XMLGlobal Implementation
 - ◆ <http://www.xmlglobal.com/prod/registry/>
- DISA (Data Interchange Standards Association)
 - ◆ <http://www.disa.org/drive/>
- NOIE (National Office for the Information Economy)
 - ◆ <http://www.noie.gov.au/>
- KIEC (Korea Institute for Electronic Commerce)
 - ◆ <http://www.kiec.or.kr/english/index.html>

Additional Information

- OASIS ebXML Registry Technical Committee
 - ◆ <http://oasis-open.org/committees/regrep/>
- ebXML.org
 - ◆ <http://www.ebxml.org/>



Questions?

For More Information

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