Architecting the Identity-Enabled Enterprise

The Directory Interoperability Forum

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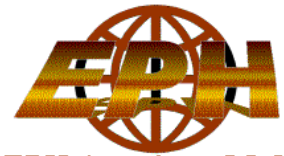

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Some Relevant and/or Irreverent Quotes

"Noble life demands a noble architecture for noble uses of noble men. Lack of culture means what it has always meant: ignoble civilization and therefore imminent downfall. "

- Frank Lloyd Wright

"No architecture is so haughty as that which is simple"

- John Ruskin, British art critic

"Architecture is the art of how to waste space"

- Philip Johnson

Agenda

- The difficulties of architecting for identity management
- Designing identity management for the enterprise
- Identity management building blocks
- The four strategies for identity management implementation
- Using TOGAF
- Conclusions

The Difficulties

The Difficulties

- Understanding the role of Identity Management
- Making it support the rest of the solution
- Integrating with existing infrastructure

The Role of Identity Management in the Enterprise

- Identity information creation, modification and deletion:
  - by administrators
  - by users
- Identity information provision:
  - to users
  - to applications
  - to access control decision points.

The Role of Identity Management in the Enterprise

Enabling personalised services

Supporting the Whole Solution

Integrating with Existing Infrastructure

Designing Identity Management for the Enterprise

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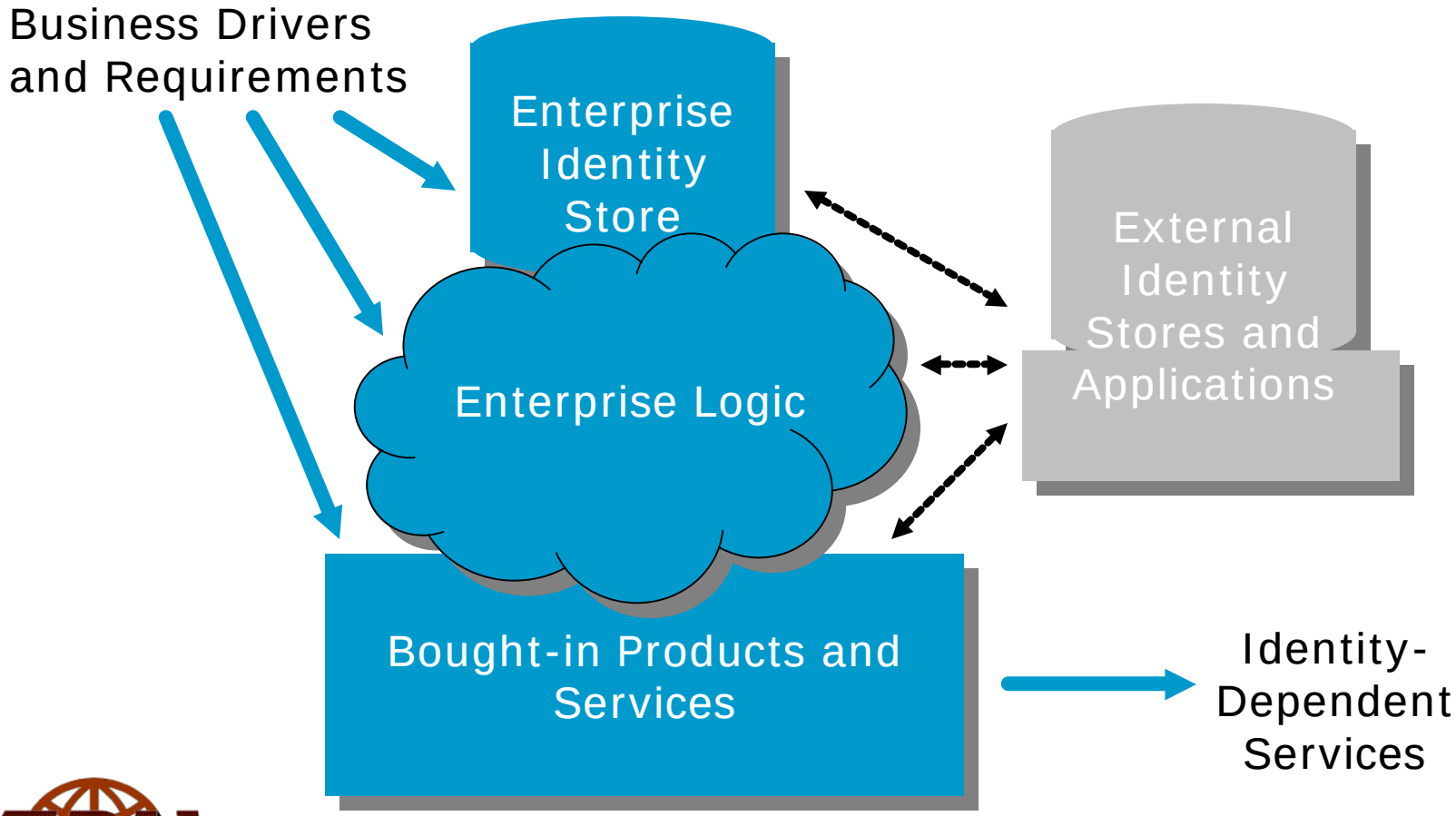
Designing Identity Management for the Enterprise



Building Blocks

Available Products and Services

- Directory, metadirectory, virtual directory
- Identification (biometrics, smart cards)
- Authentication (eg. via corporate & 3rd party databases)
- Single Sign-on (to web services, corporate applications)
- Access Control (including fine-grained, role-based)
- Identity Information Provisioning (ids, passwords, certificates, permissions, priveleges, attributes, profiles, . . .)
- Identity Information Administration
- Identity Information Synchronization
- Account federation
- Identity policy management

Standards for Interoperability

- Directory
  - X.500
  - LDAP
  - DSML
- Application Interaction
  - SAML - enables trusted access to external identity information
  - XACML - access control
  - SPML - provisioning
- Only X.500 and LDAP are mature
- LDAP is preferred to X.500 DAP over the Internet
- SAML (Liberty profiles) may become established

Standard Identity Management Building Blocks

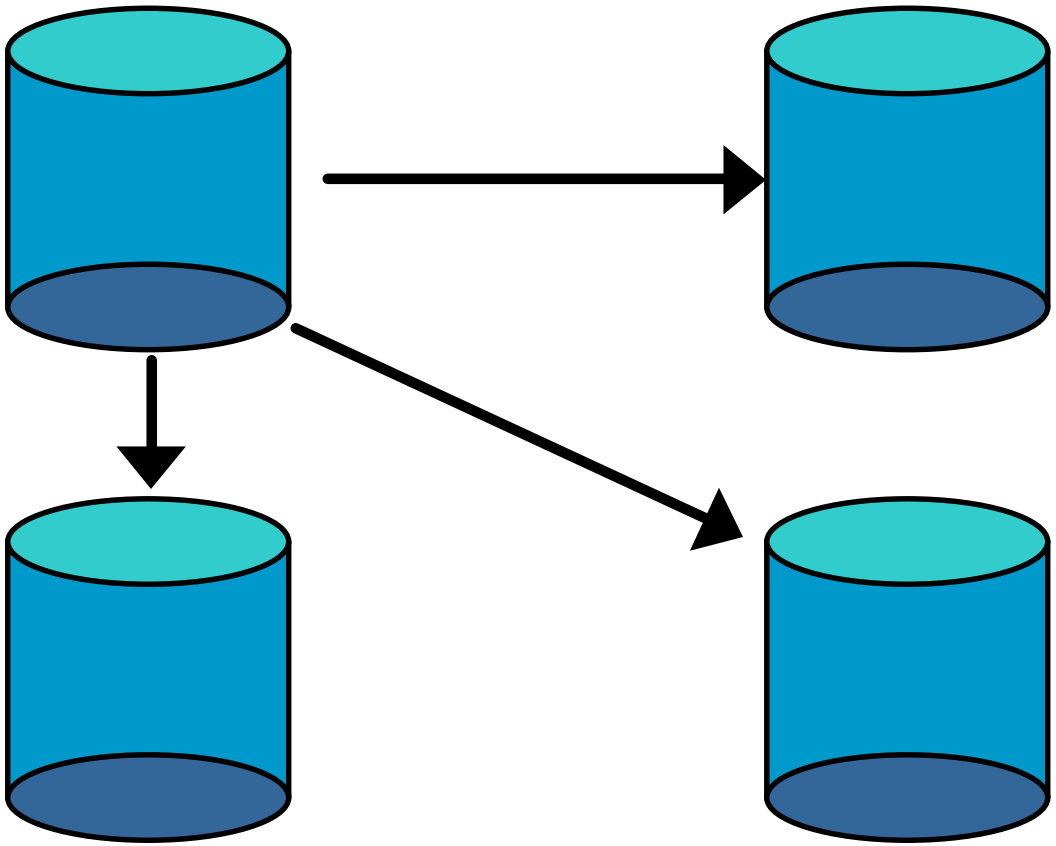
- Directories (X.500 and LDAP)

Identity Management Strategies

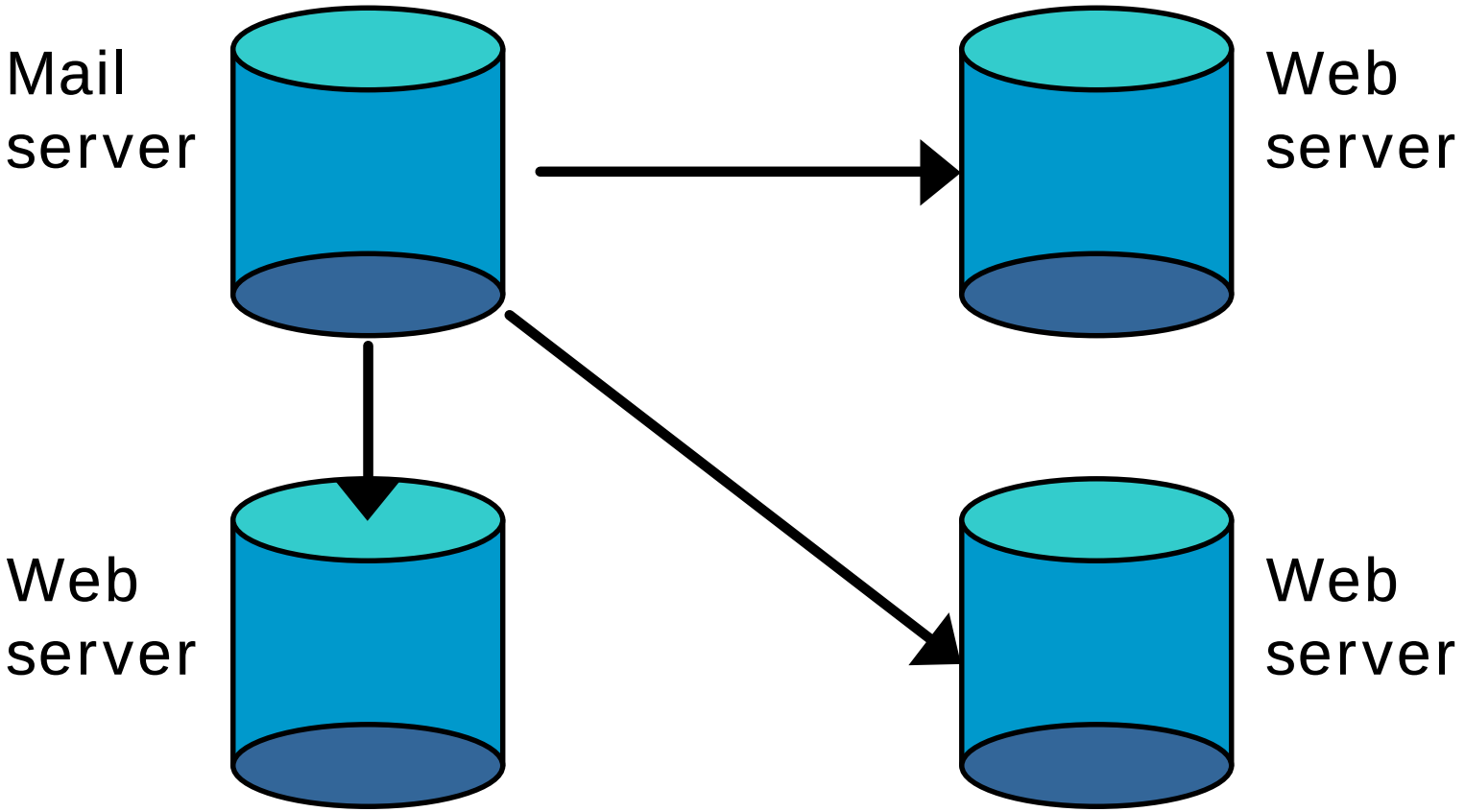
Identity management Strategies

- Synchronization
- Distributed directory
- Metadirectory/Virtual directory
- Federation

Synchronization



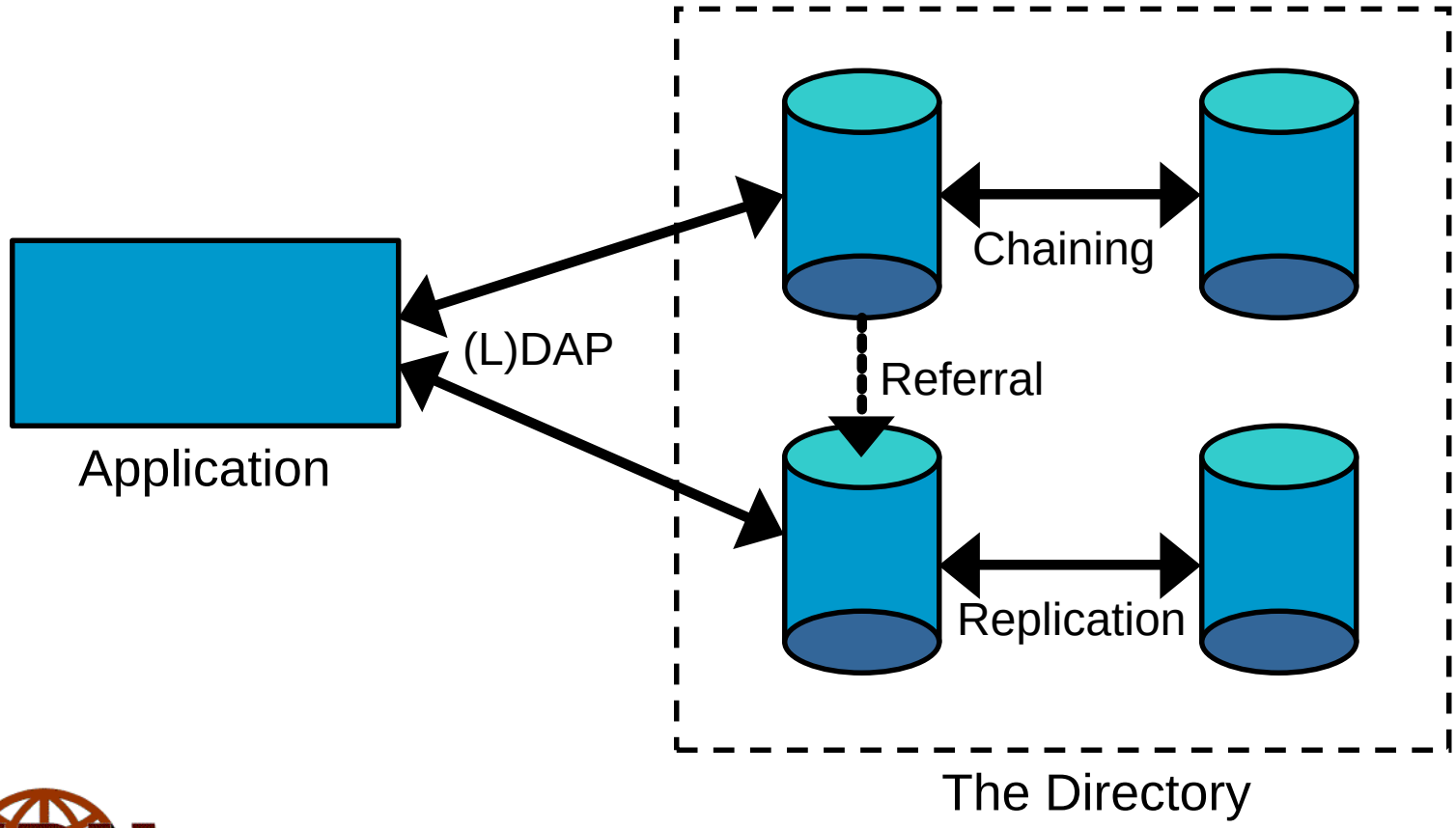
Synchronization Example - The Open Group



Distributed Directory

- X.500
- Proprietary

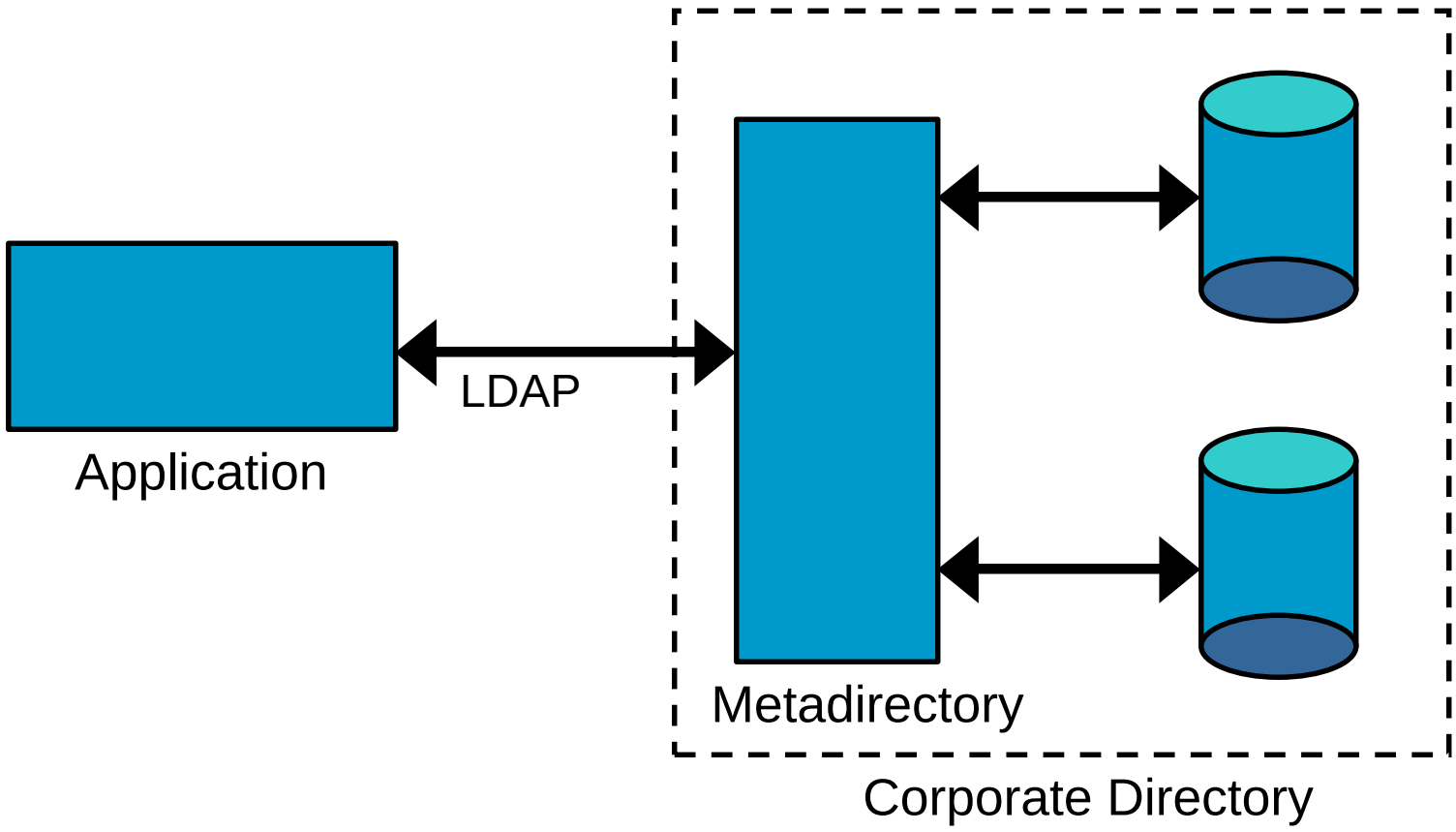
X.500 Model



Examples of Distributed Directory

- The major government chose Nexor X.500 directories
  - http://www.nexor.com/press_00.asp
- CNN uses distributed Novell directories
  - http://www.novell.com/success/cnn_wp.html

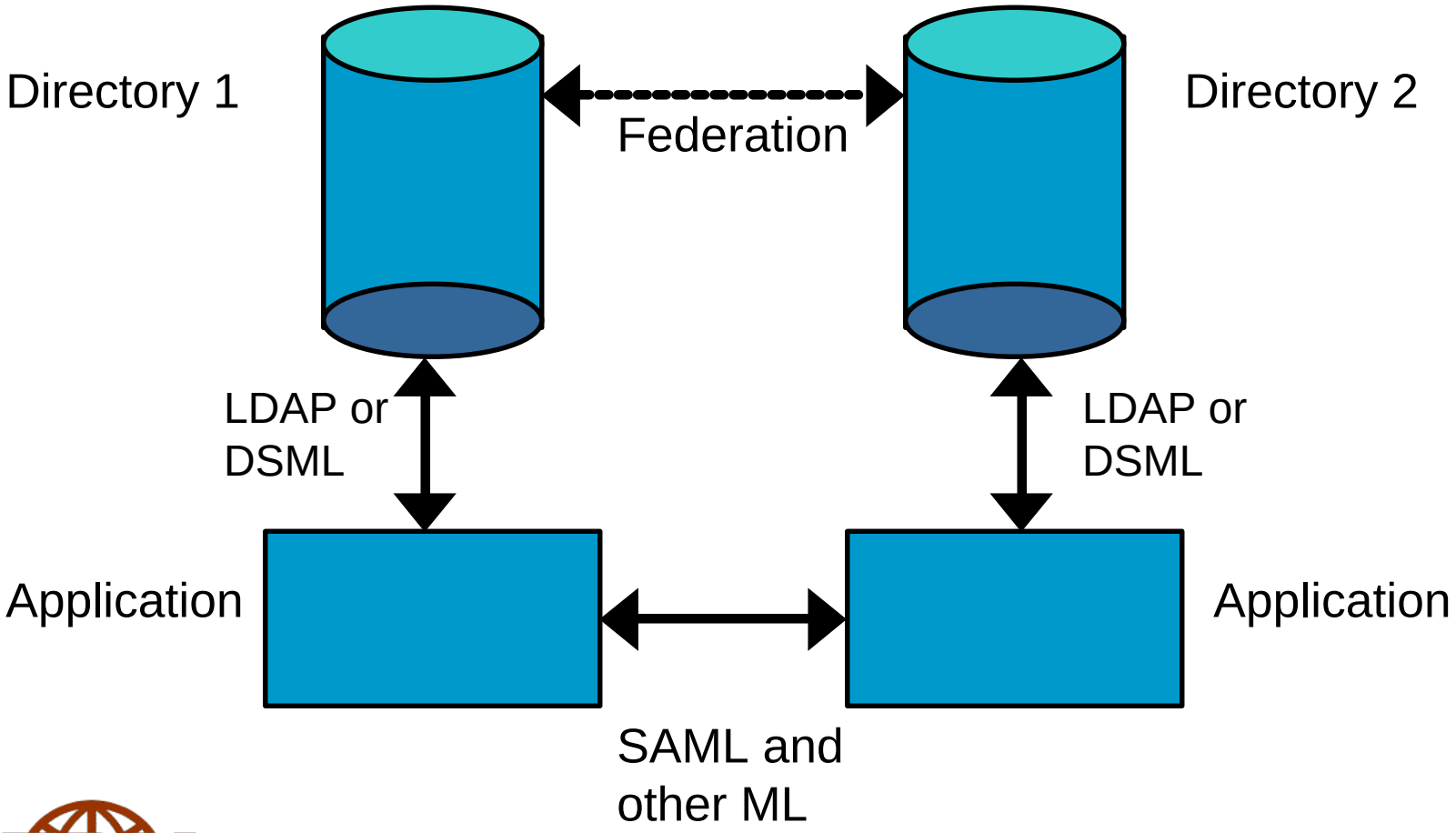
Meta/Virtual Directory



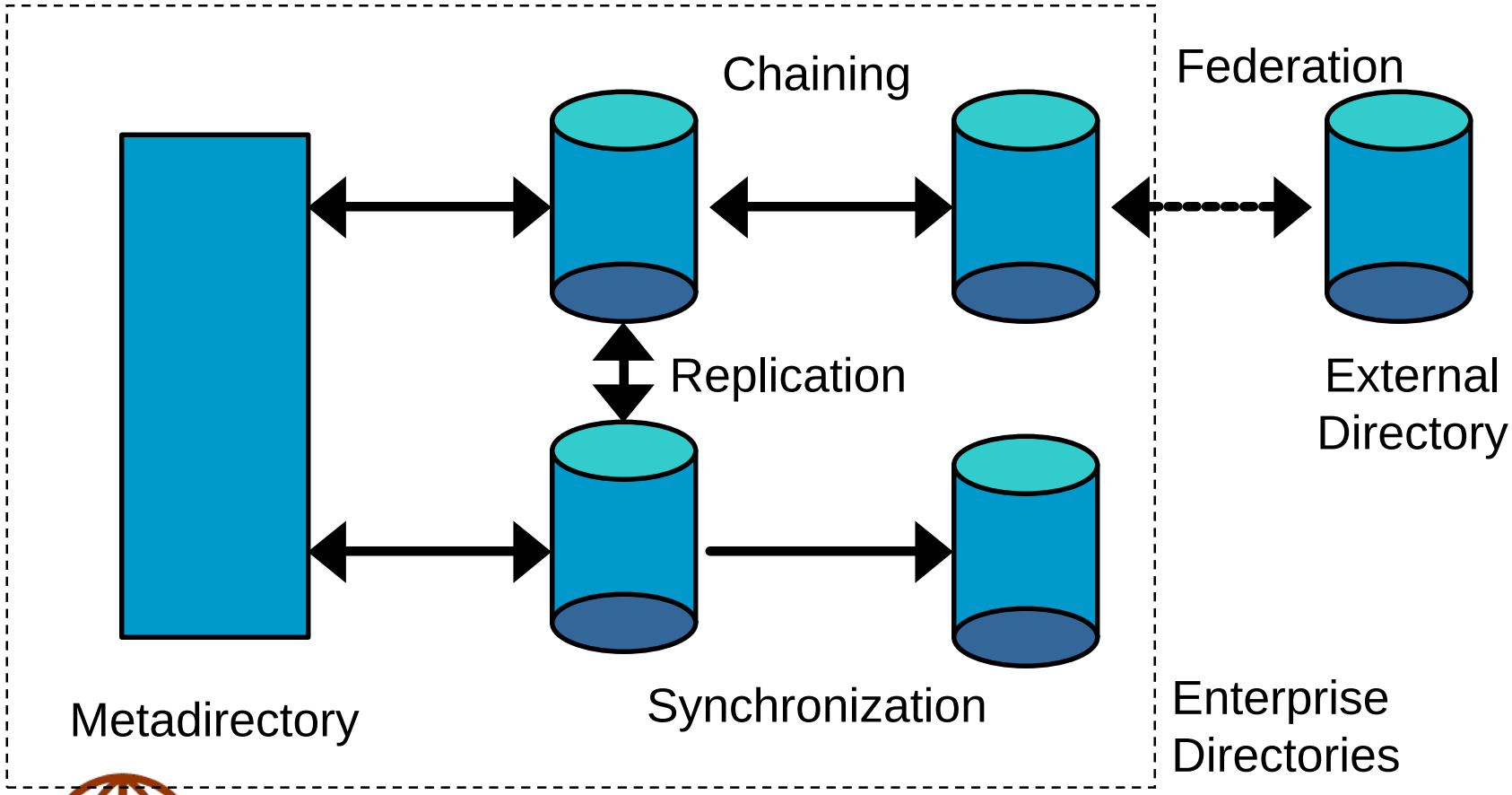
Examples of MetaDirectory/Virtual Directory

- Lufthansa uses Novell e-Directory
  - http://www.novell.com/news/press/archive/2002/01/pr02009.html
- ICL uses Microsoft Metadirectory Services
  - http://www.microsoft.com/presspass/features/2000/jul00/07-26mms.asp
- The Boeing Secure Messaging Challenge
  - http://www.opengroup.org/messaging/sm/index.htm

Federated Directories

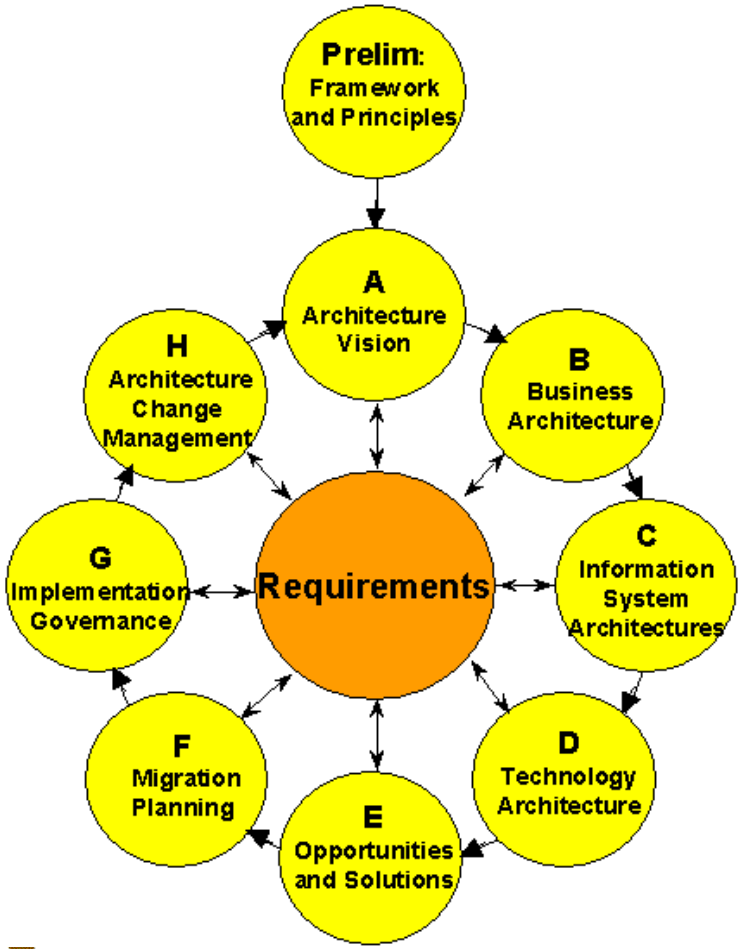


Composite Strategies



TOGAF

Using The TOGAF ADM



The Identity Management View

- People
- Identity Management Strategy
- Identity Store
- Identity Management Applications
- Identity Management Logic

Conclusions

Summary and Conclusions

- Identity Management is an important, specialized, aspect of architecture for the Boundaryless Enterprise
- But incorporating it in the architecture is not easy
- We have reviewed
  - design considerations
  - building blocks
  - implementation strategies
  - use of TOGAF
- More work is needed
  - to identify building blocks
  - to develop and describe the architecture process

Architecting the Identity-Enabled Enterprise

Thank you!