# Identity 2.0

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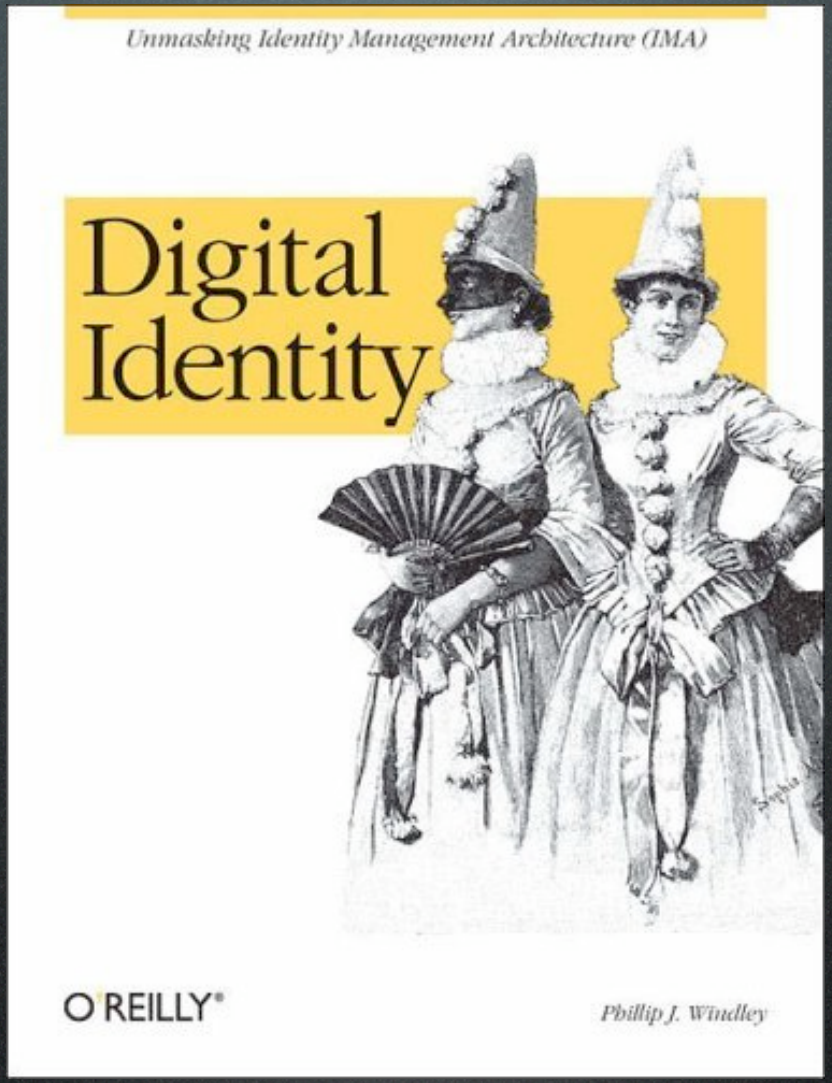


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# Does Identity Matter?


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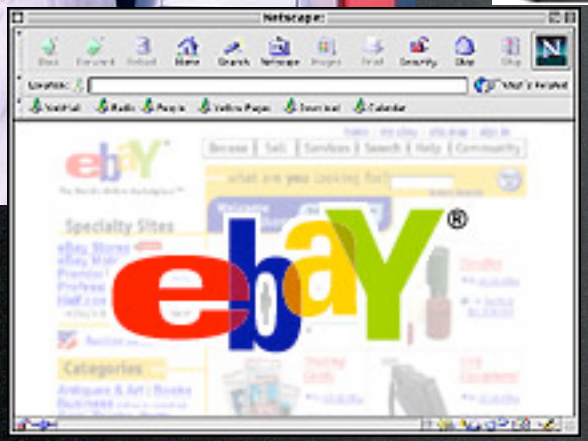


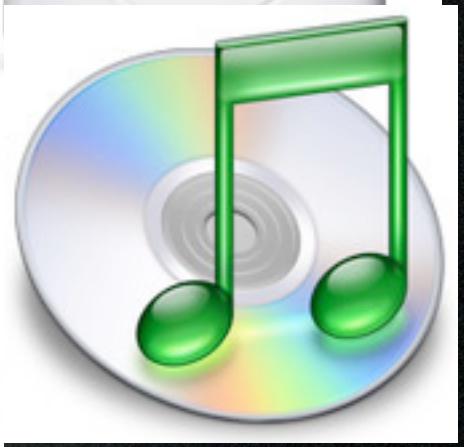

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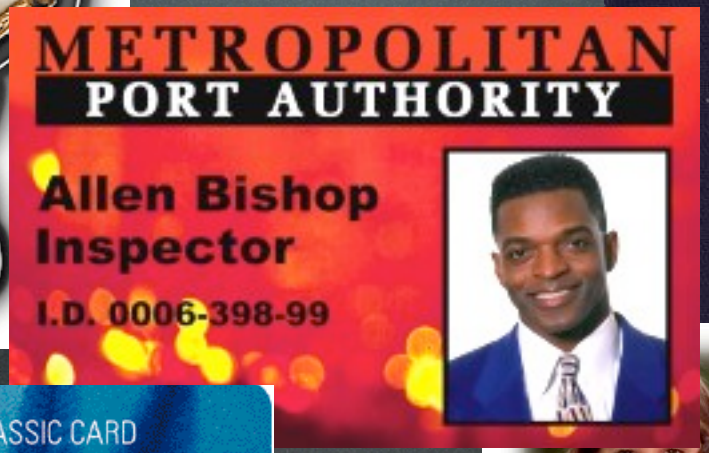
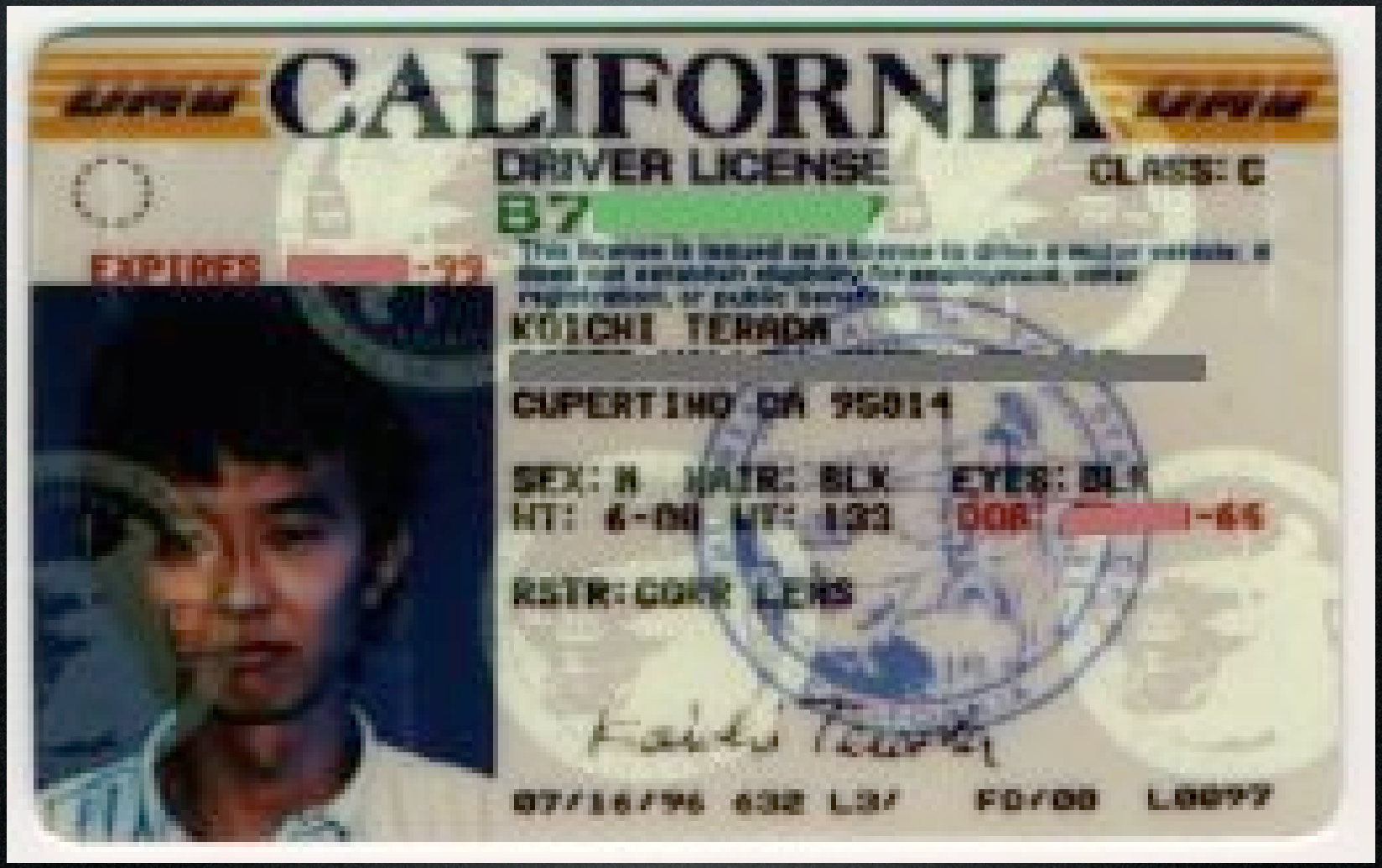
# What is an Identity?







# Credentials

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# Buying Beer




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# What Happened to the Walls?

# What Happened to the Walls?

# The Border Patrol

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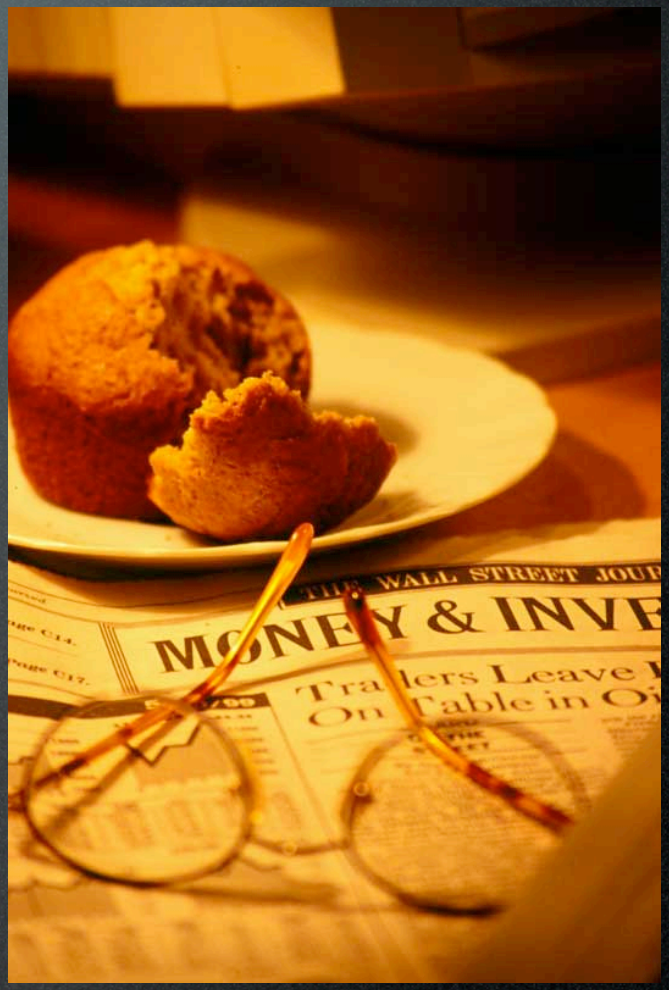
# Business Context of Identity

vs

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# Wide Area Identity

- Federated identity
- Internet identity
- Modalities
  - Tokens
  - Addresses

# Credential Context


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# Credential Context


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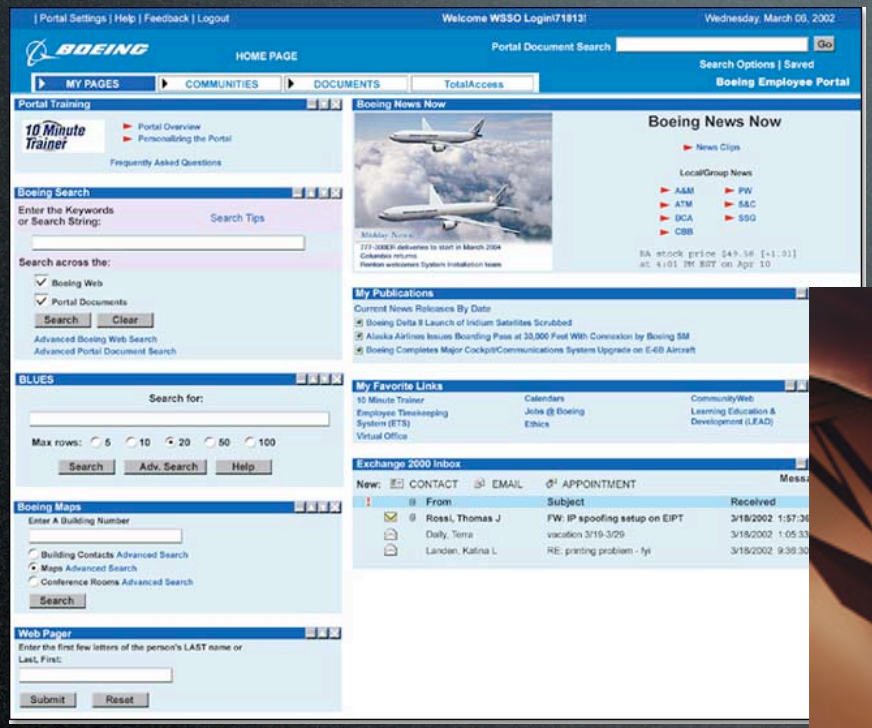
# Credential Context


# Token Use Case




Linking 401K site to employee portals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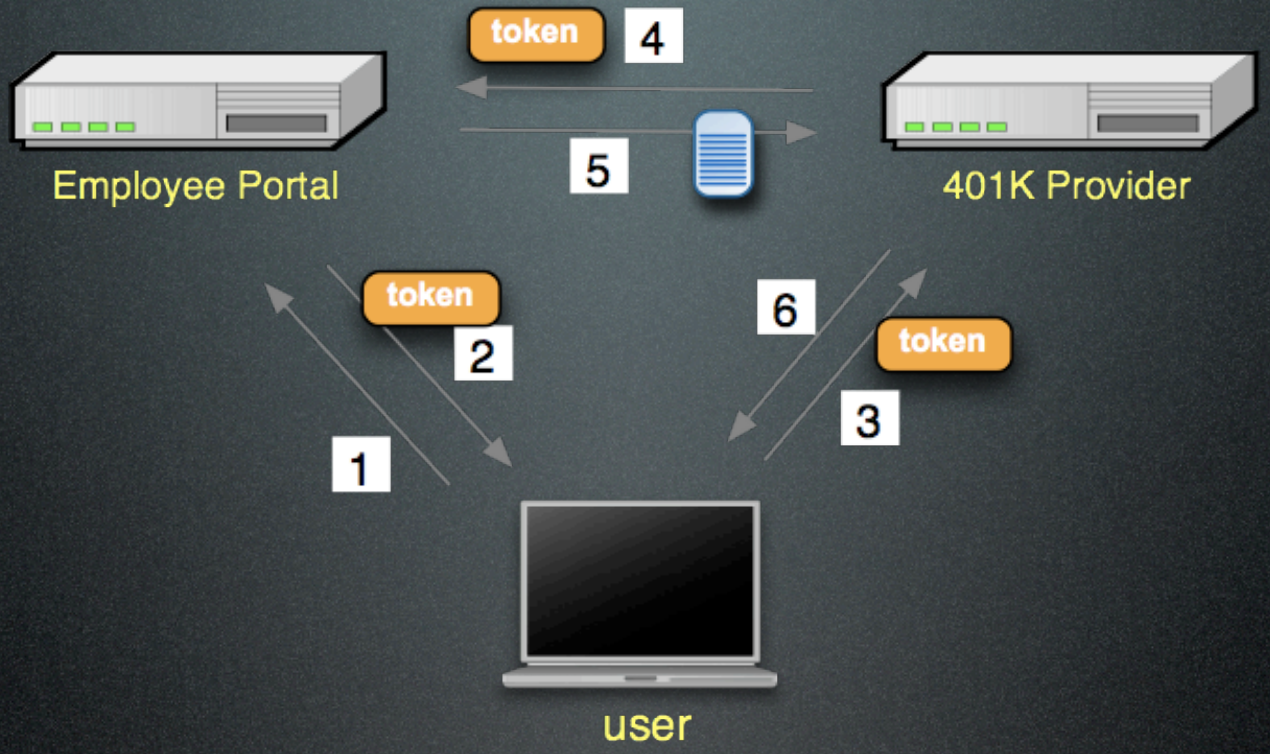
# Roles

1. Identity issuer
2. Relying party

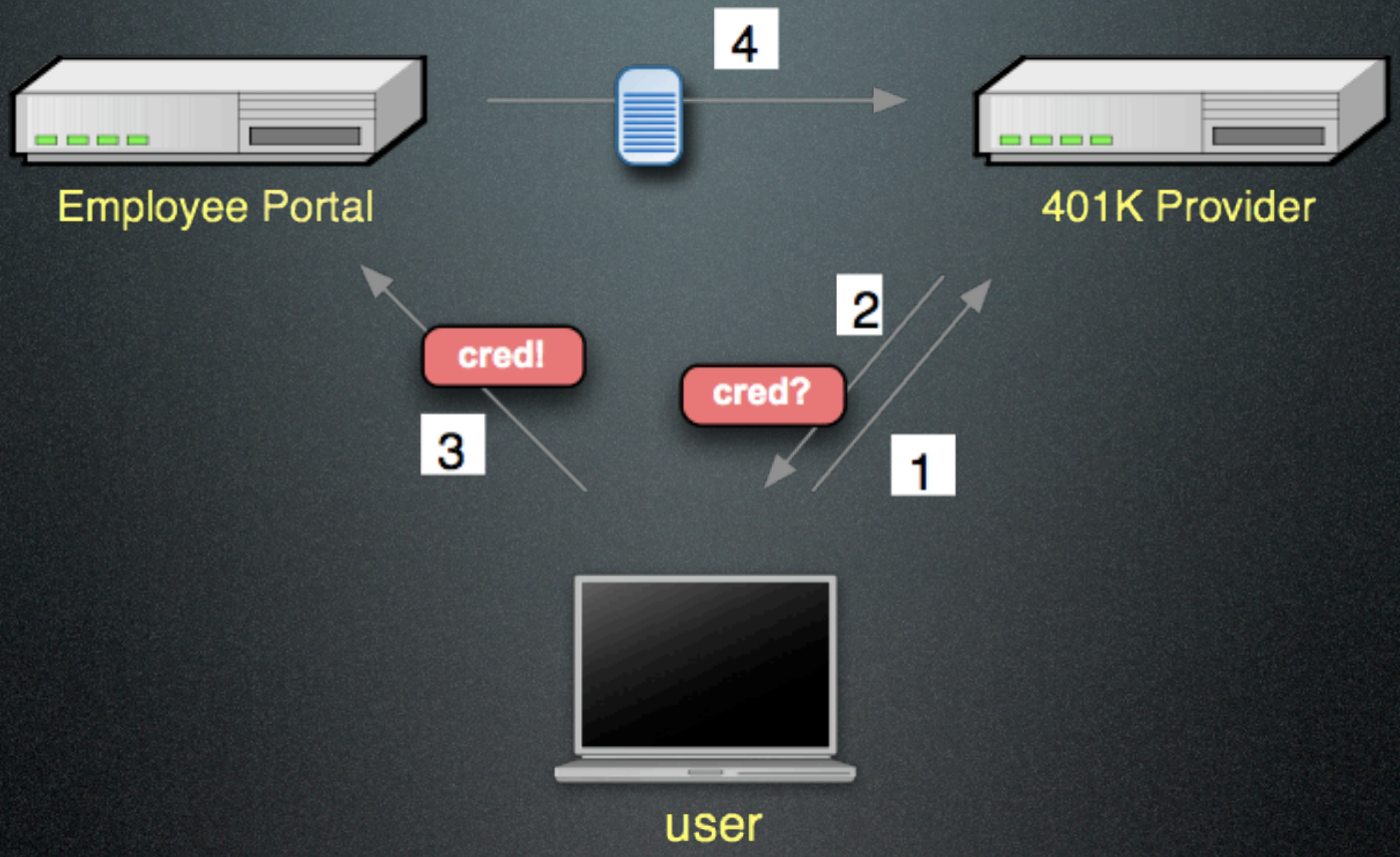
# Roles

1. Identity issuer
2. Relying party
3. User




# scenario one

- ID issuer and relying party have prior arrangement
- User is only involved peripherally and because of policy




# scenario two

- ID issuer and relying party need no prior agreement
- User involved structurally

# Internet Identity Technologies

| Name | Type | Comments |
|---|---|---|
| XRI, i-names | address | URI-like |
| OpenID | address | URL |
| OpenID | address | URL, attributes |
| CardSpace | token | ubiquity, complete |
| SXIP | token | complete solution |
| Higgins | token | interop framework |
| Liberty | token | enterprise |

# OSIS Announcement

June 20, 2006, Berkman Identity Mashup

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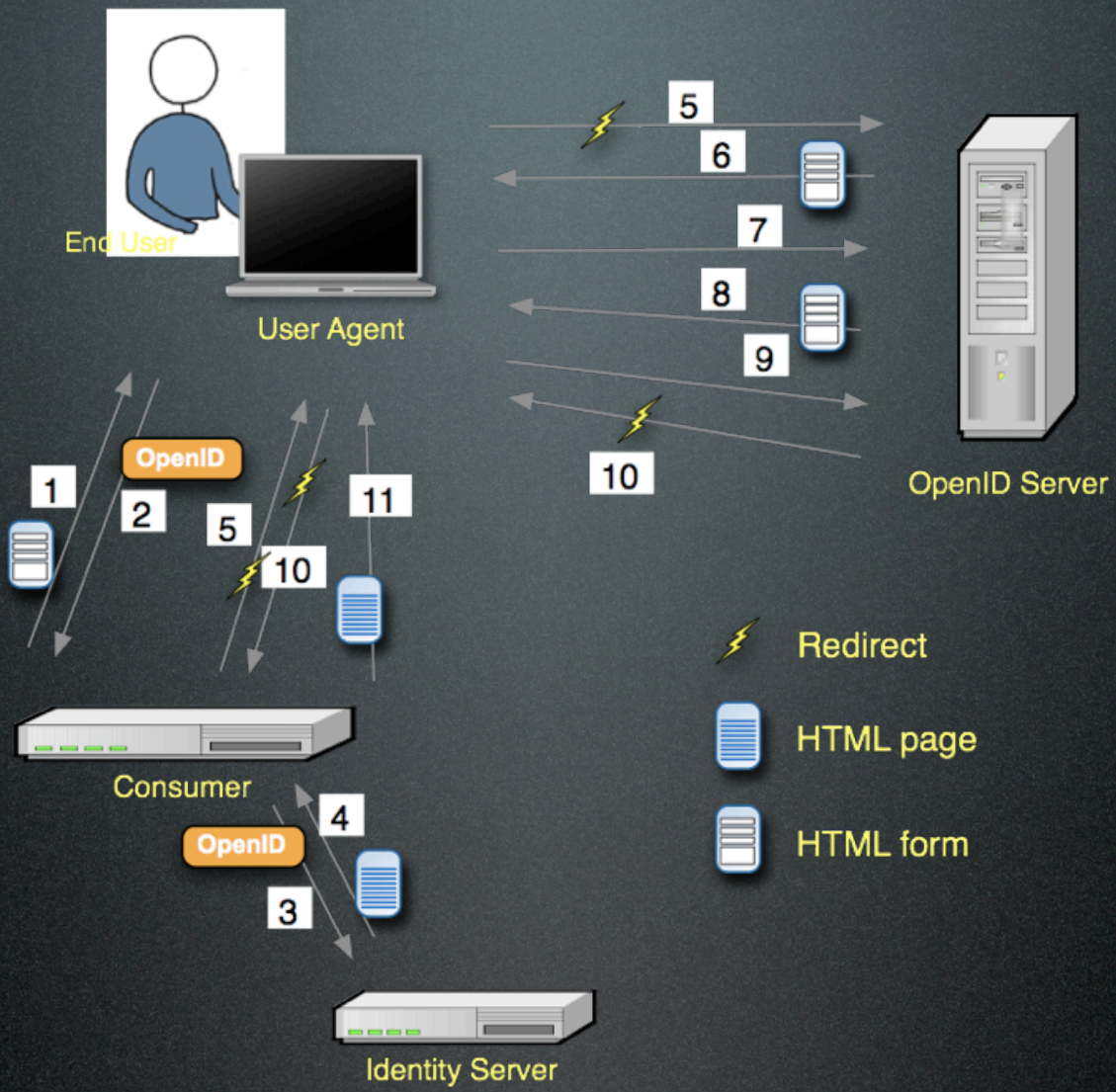


# OpenID interactions

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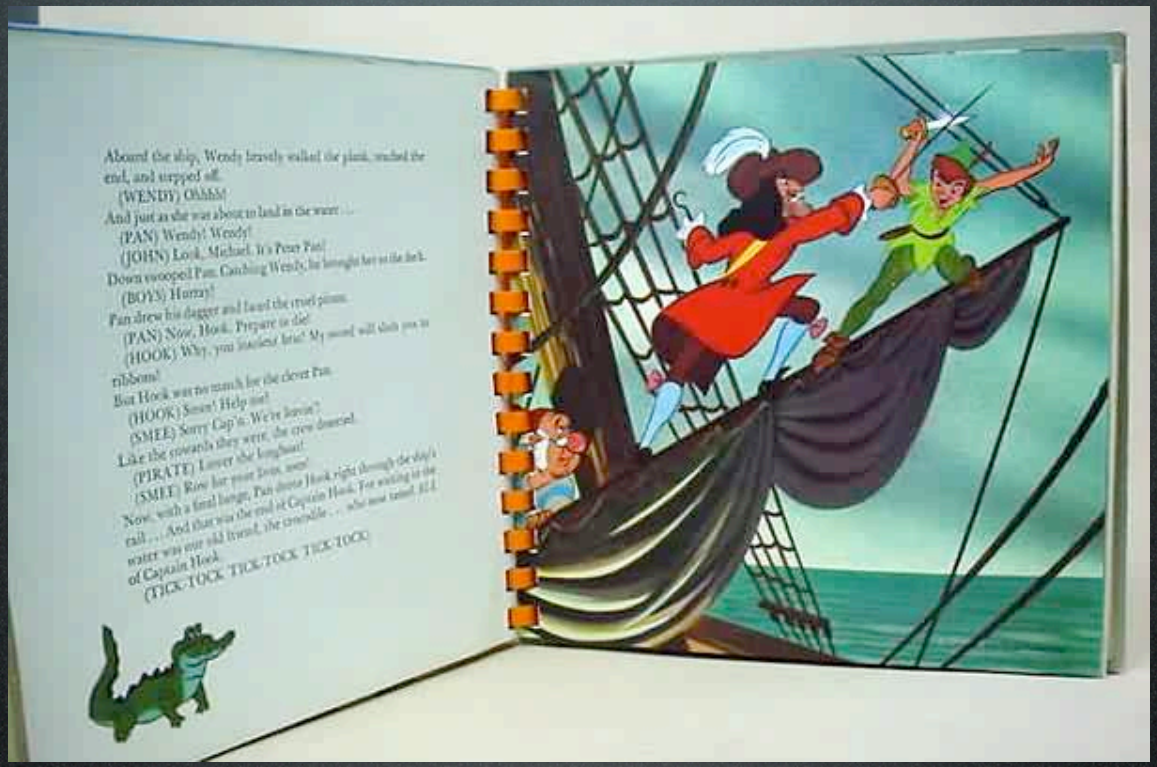
# Reputation




# Your story about me

# Principles of Reputation

- Trust based on reputation
- Exists in the context of community
- Reputation *based* on identity
- Reputation is a currency
- Reputation is multi-level

$$r_{id} \approx f(\phi, Tx, \rho)$$

# CS601

- Reputation theme
- Reviewed dozens of papers
- Class project
  - Agile methodology
  - 3 two-week iterations
  - 9 students

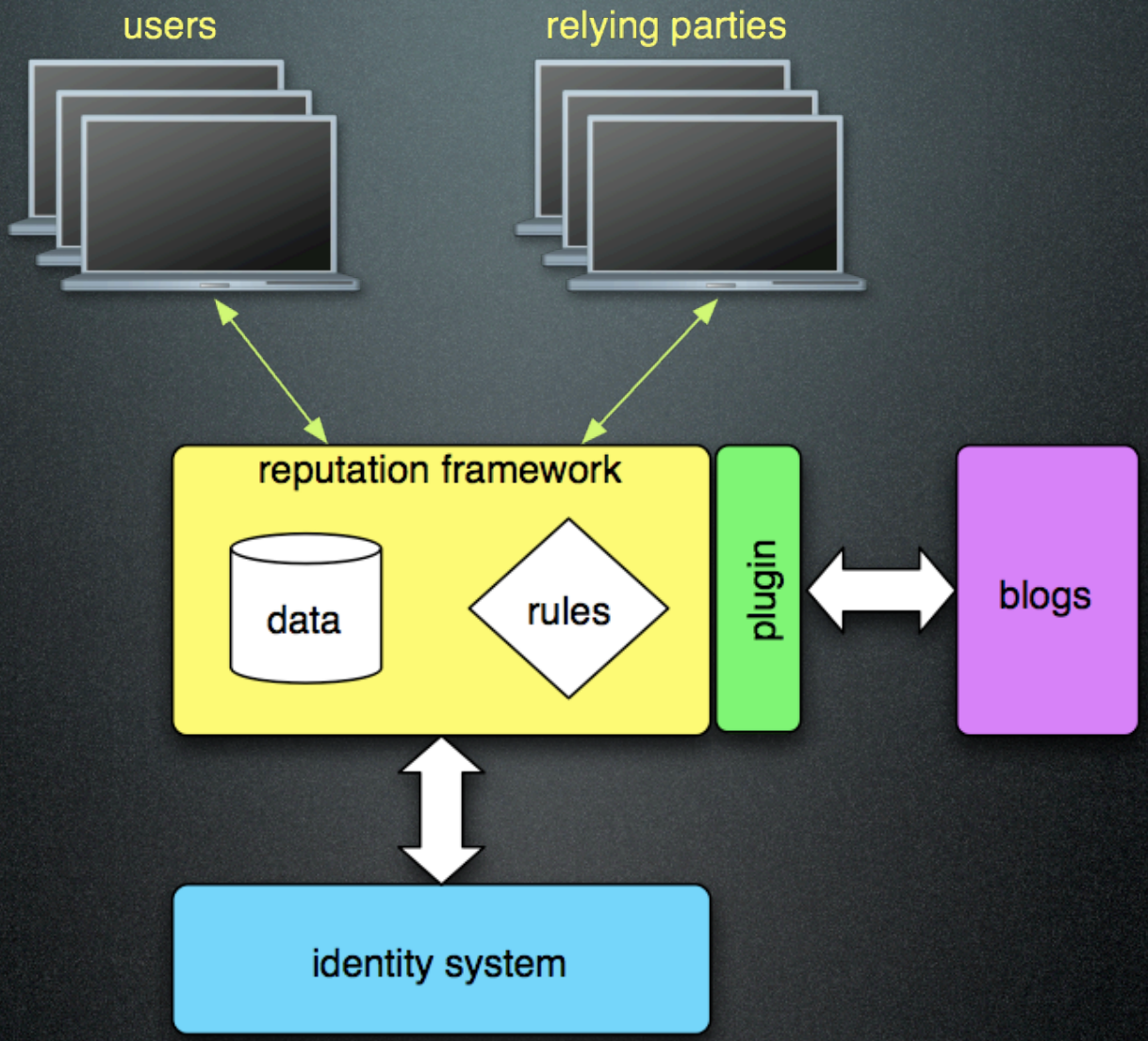
# Design Philosophy

- Reputation is a calculated score
- Factors
  - verified facts and credentials
  - transactions
  - ratings & endorsements
- Transparency
- Transactions jointly owned and immutable

# Architecture

- ID system neutral
- Data model for users and credentials
- Rules engine
- Plug-in architecture
  - adds data model
  - adds rule operations

You've got to start somewhere

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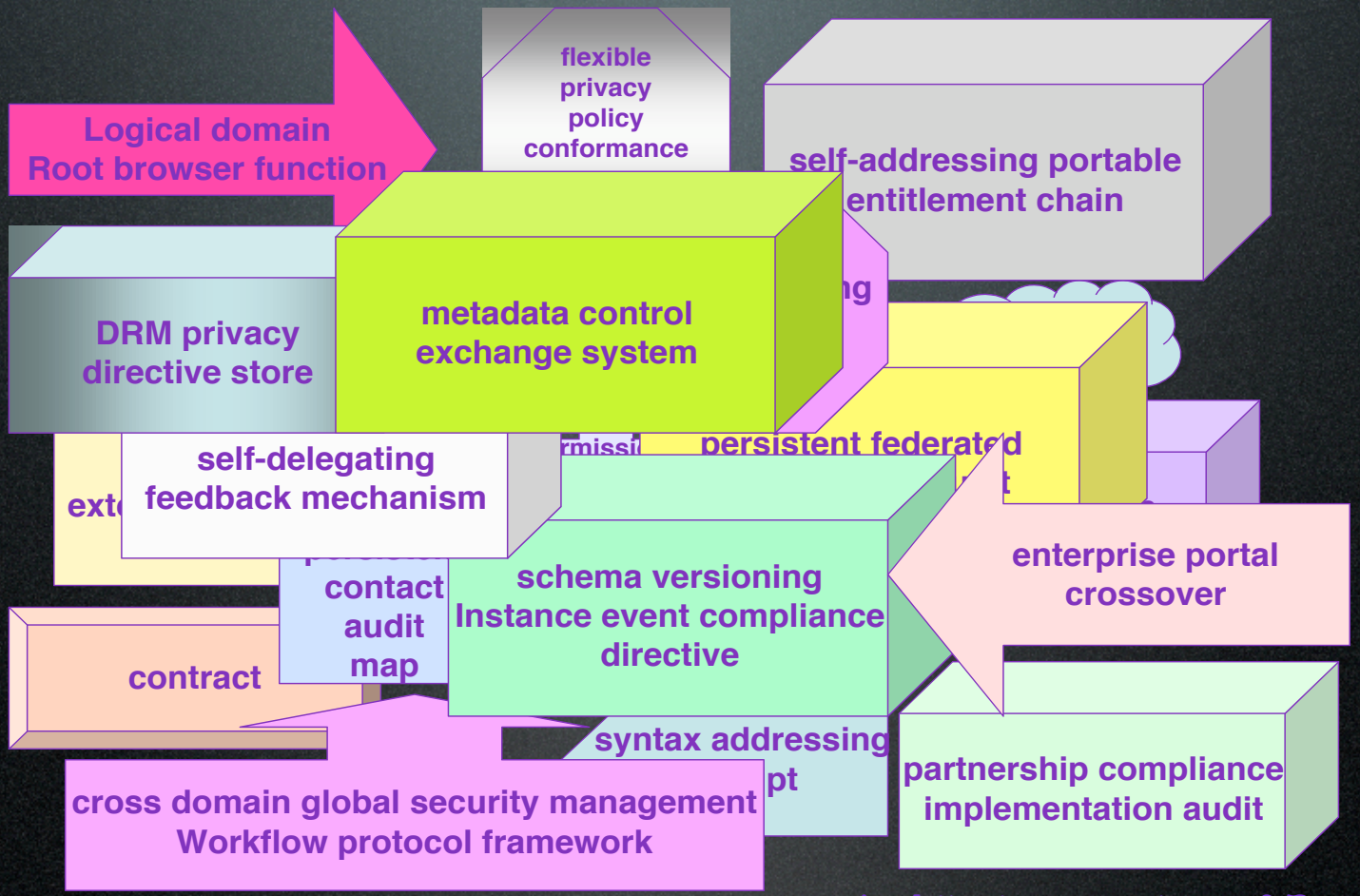
# Future Reputation Work

- Ratings and endorsements
- Interuser trust
  - claim bloglines OPML, friends
- Check other network data
- Identity broker
- Credential validation

# Identity in the Enterprise

# Identity Infrastructure (as built)




Architecture courtesy of Doc Searls

# Identity Management Architectures

City Planning

- Standardization
- Certification
- Management
  - Rules
  - Regulation
  - Enforcement

# Creating a IMA Strategy

Key Steps

1. Governance
2. Business context
3. Resources
4. Policy
5. Interoperability framework
6. Reference

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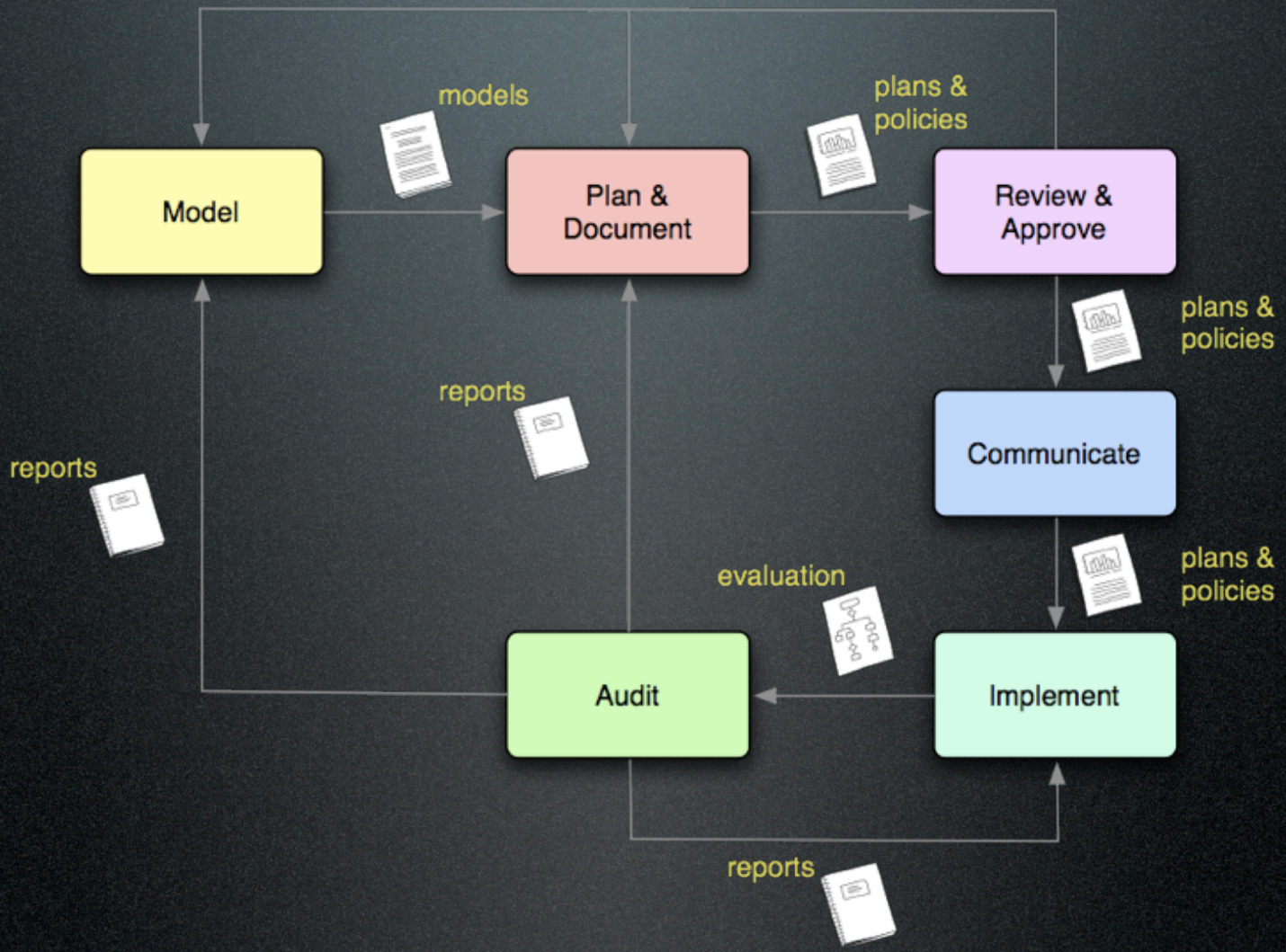
# IMA Lifecycle



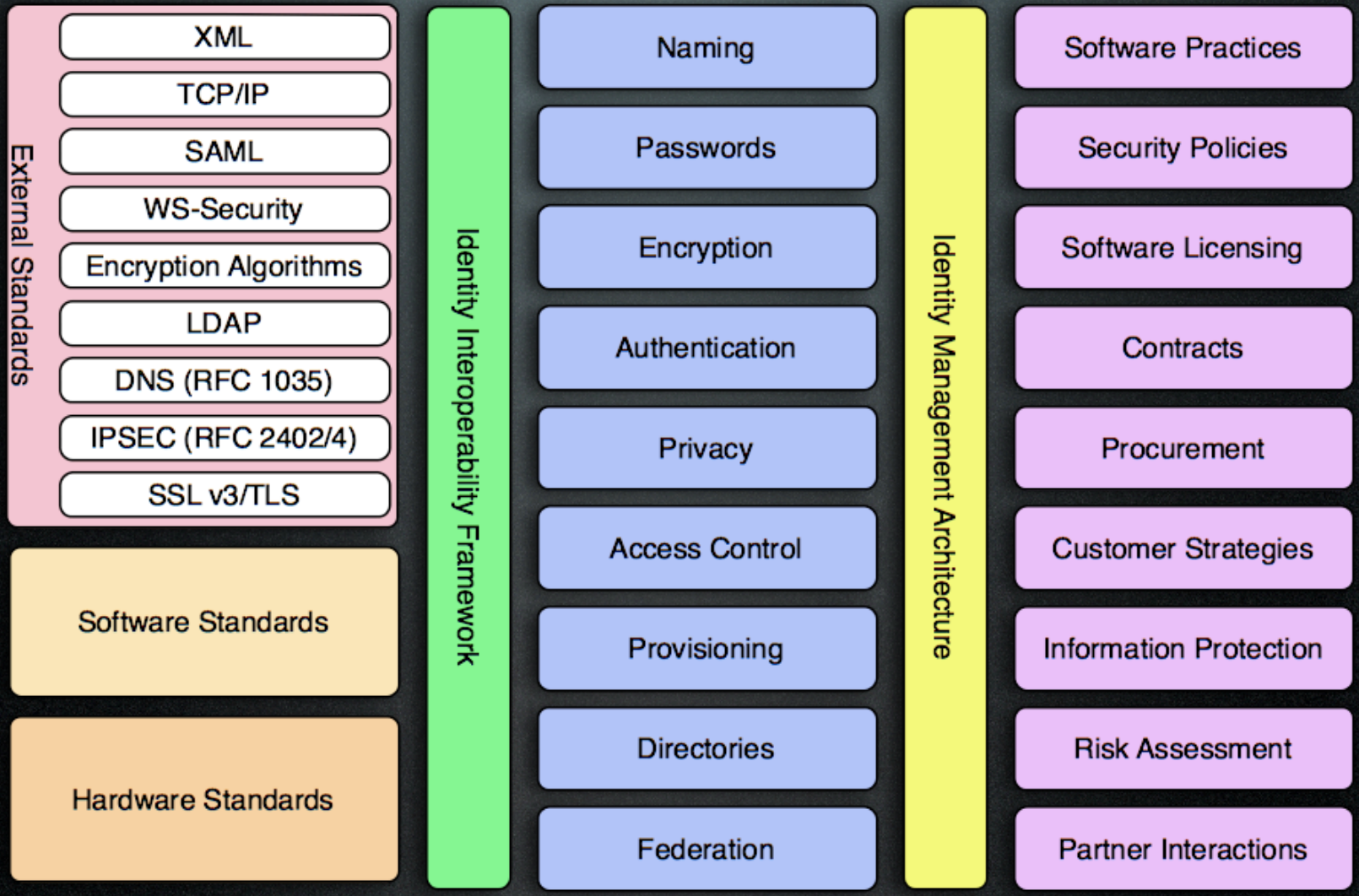
# Accountability vs. Enforcement

"Accountability is a log processing problem"

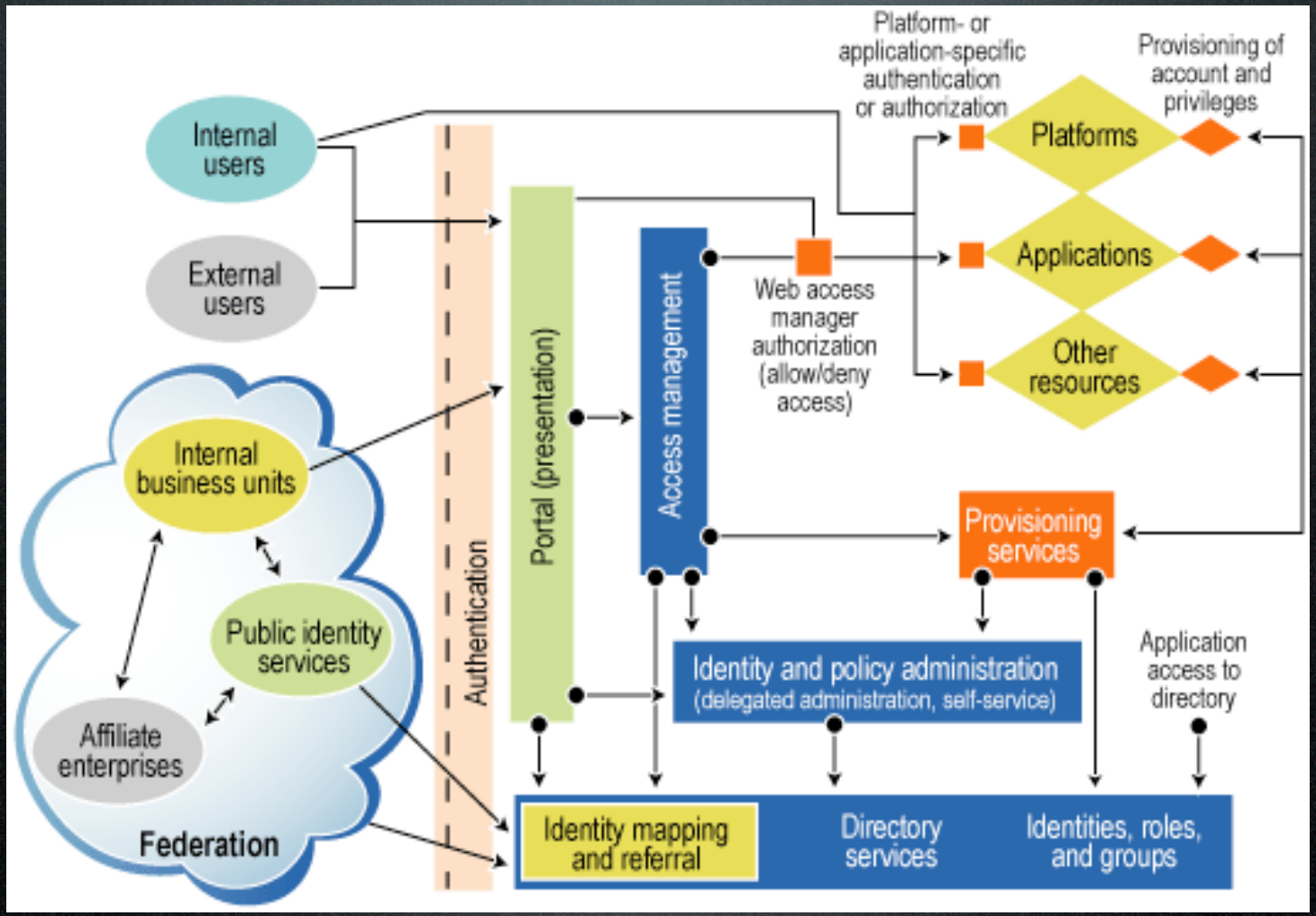
-Dan Geer

- Access control scales geometrically (its a multi-dimensional table)
- Accountability scales linearly
- Access control systems are incredibly vulnerable to DDoS attacks

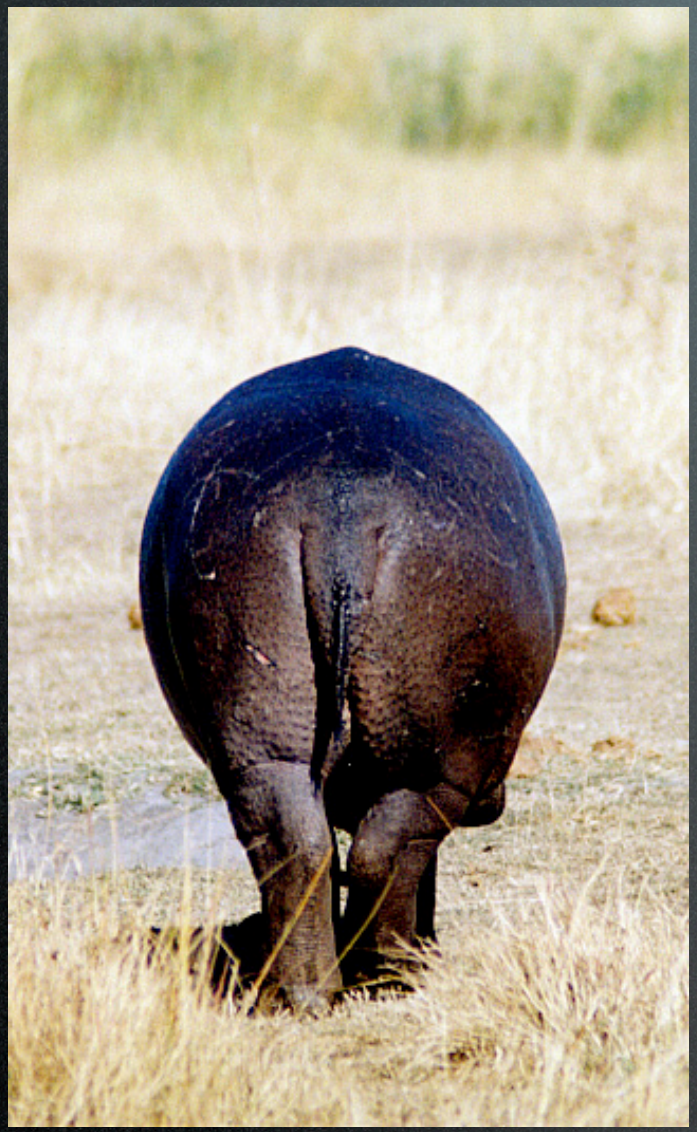
# Identity Policy Stack



# Reference Architecture




Courtesy of The Burton Group

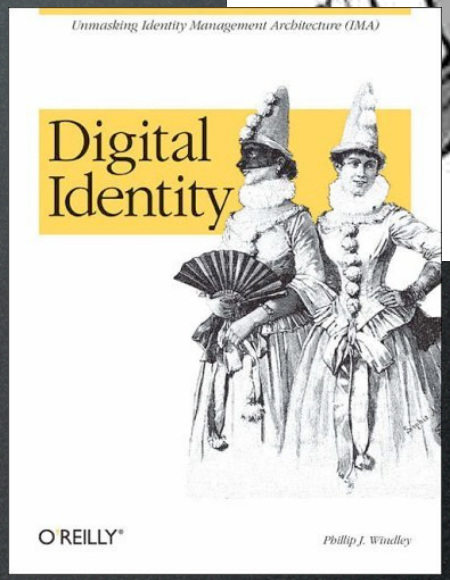


# The End

# Contact Information

**Contact me**

- phil@windley.com
- www.windley.com


**Buy the book...**

**Questions?**