The Global Identity Ecosystem
Internet Society Overview

- Non-profit based near Washington, DC and Geneva, Switzerland

- Founded in 1992 to provide leadership in Internet related standards, education, and policy

- Membership:
  - 100+ Organization Members
  - 80+ Global Chapters
  - 44,000+ Individual Members

- Standards Body Relationships
  - Internet Engineering Task Force (IETF)
  - Internet Architecture Board (IAB)

- Regional Bureaus: Africa & the Middle East, Europe, Latin America & the Caribbean, North America and Asia
Internet Ecosystem
Internet Ecosystem – detailed
Mapping the Identity Ecosystem Workshop
Amsterdam – December 14-15, 2012
Mapping the Identity Ecosystem Workshop

- **Objective:** Facilitate an international multi-perspective conversation on the Global Identity Ecosystem
  - Bring together a cross-section of the Identity Ecosystem representing technology, policy, and economic perspectives.

- **Agenda**
  - Ecosystem Map
  - Values
  - Gap Analysis
    - Technology Gaps
    - Policy Gaps
    - Economic Gaps
  - Near Term Actions
Who makes up the Identity Ecosystem?

Roles

- Identity Provider
- Relying Party
- Federation Operator
- User/Consumer
- Inter-federation Facilitator
- Sources of Authoritative Attribute Information
- Attribute Provider
- Auditor
- Gateway/Portal Provider
- Advocate
- Legislators and Regulators
- Governance for Trust Frameworks
- Dispute Resolution

Communities

- Ecosystem Development Communities
  - Standards or Collaboration entities
  - Civil Society
  - Government
  - Product Developers
- Identity Consumer Communities
  - Research & Education
  - Healthcare
  - Finance
  - Security Industry
  - Telecommunications
  - Advertisers
  - Sales and Marketing
  - National security, first responder, law enforcement
  - Real End Users
Workshop Demographics: Areas of Expertise

- Technical: 21
- Policy: 17
- Economic: 3
- Other: 2
Workshop Demographics: Regions

- Africa: 4
- Asia: 16
- Europe: 7
- Latin America: 4
- North America: 15
Values …

The Identity Ecosystem…

• Encourages ease of collaboration (e.g. Harmonization of language (glossary and schema); agreement on how to extend that language to meet local needs)

• Has low barriers to entry into the ecosystem for identity related services

• Promotes usable privacy-respecting solutions

• Allows for the separation of individual identities for the consumer space based on desired context (e.g. Citizen identity, Consumer identity, Social identity – the concept of identity is too fluid for a static model)
And More Values …

The Identity Ecosystem also…

- Uses unencumbered technology
  - Allows anyone the ability to implement freely
  - Is interoperable across protocols
  - Is interoperable across legal systems
  - Avoids fragmentation of the identity ecosystem and associated marketplace
- Allows for the portability of identity data
  - Supports choice in the marketplace
  - Is cost effective, efficient and easy to use
  - Is secure and resilient
Technology Gaps

- Addressing non-web-based applications that require identity and attribute information
  - mobile networks, virtualization networks, services below the web

- Matching technology to the legal requirements
  - Informed choice and the issue of consent

- Balancing scalability versus deployability
  - the challenges of interfederation

- Coming to terms with the Attribute space

- Addressing context
  - changing context with various parties
Law and Policy Gaps

- Different national approaches to identity
- Different (sometimes incompatible) laws regarding personal data
  - Impact on legitimate cross-border use of online identities/attributes
- Changing notions of identity
  - A single verified government-issued identity
  - Identities provided by one or more private entities (IdP) with varying levels of assurance
  - User-created identities based on true and/or false information
  - "Throwaway" identities
  - Use of attributes (e.g. age, location) rather than identities
  - Anonymous authenticated identity
- Balancing commercial and private interests
- Ownership/Control of personal data disclosed in various contexts
Economic Gaps

• Insufficient understanding of the commercial incentives and drivers for identities and attributes

• Insufficient appreciation of the differences among:
  • Identity as a service (provided in the context of an established agreement, government ID, federations in education)
  • Identity as leverage (monetization of subject in exchange for service)
  • Identity as a credential (e.g. client, entitlement, earned benefit)

• Identity as a commodity masquerading as identity as a service
  • The cost of free
  • Identity portability

• The tussle between the monetary and the non-monetary value of personal data

• How to assess the value of unverified self-asserted attributes?
Some tough questions …

• Is the Identity Ecosystem an ocean of islands?
  • Are Identity Ecosystem actors developing standards, rules and practices in isolation?
  • How do we connect the islands?

• Is this a land grab?
  • Is this a race to market dominance?
  • Is there a first-mover advantage?

• Building walls, digging moats and installing electric fences
  • Is there a commercial incentive to drive the development of proprietary standards?

• Treasures and trinkets
  • Where monetary value concentrated in the ecosystem?
  • Who gets the largest share?
More tough questions…

- **Identity Ecosystem or Attribute Ecosystem?**
  - Are attributes more important than identity?
  - Are attributes more valuable ($$) than identity?
  - Do attributes open the way for business models based on authorization?
  - How will attributes effect both data minimization and data correlation?

- **Federations and Collaboration**
  - Is there as much or more value in collaborating across verticals than there is within verticals?
  - Are federations and collaboration the new reality?
    - Research and education communities are strongly encouraged.
    - Governments are mandated.

- **How does the system handle risk and liability?**
Final Thoughts and Next Steps

- Many questions – not many answers
- Enable connections, facilitate coordination, encourage collaboration
- Encourage efficiency of effort among bodies addressing the same or similar topics

Next Steps
- Convene a workshop to focus on attributes
- Facilitate further cross vertical collaboration (EU government and research and education communities)
- Produce a workshop report (coming soon)
- Develop a collaboration and coordination workspace (under development)
Moving Forward with an Internet Attribute Infrastructure

- Workshop held 12 March 2012 in Gaithersburg, MD
- Productive and energetic discussion (thanks to all who participated!)
- Notes and short report to follow
- Long list of topics for further discussion
- Proposed near term action items:
  - White paper on attribute issues
  - Requirements document for an attribute registry
  - Collaboration on NSTIC governance bylaw discussion
Additional Information

- **For more information:**
  - www.internetsociety.org/privacy
  - www.internetsociety.org/identity (Coming Soon)

- **Collaborative workspace:**
  - Mailing list: identity-ecosystem@elists.isoc.org
  - Wiki: www.tid.isoc.org/trac/ideco
  - Currently has controlled access: contact us for details
  - Working on making the collaboration space openly accessible

- **Contact us:**
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