Online Identity Attribute Exchange
2012 Initiatives
**Market Opportunity**

**Startup (2011)**
- Unrealized Large Market Potential
- Evolving Value Props & Use-Cases
- Evolving Tech/Policy Standards
- Initial Tech Implementations
- Low Volume Pricing (inefficient)
- Disruptive Tech/Business Models

**Pilots/Early Adoption (2012)**
- Unproven Market
- Defined Market Objectives & Metrics
- Baseline Tech/Policy Standards
- Demo and Pilot Systems Ready
- Low Volume Pricing (inefficient)
- Contracts w/Early Participants

**Growth/Efficient (2013 +)**
- Established Market Adoption
- Expanding Portfolio of Use-Cases
- Stabilized Tech/Policy Standards
- Technology – Proven & Operational
- High Volume Pricing (efficient)
- ATP and APN Market Evolution

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**Proforma “Street Identity” Market Adoption**

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<tr>
<th>Year</th>
<th>Street Identity ID Provisioning</th>
<th>Relying Party ID Provisioning</th>
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Cumulative ID Provisioning
Exploring Real World Use Cases

How do I connect a digital identity presented to my web site to a real person?

• Simply
  – APIs and Policy management
• With minimal friction to my customer
  – Privacy protective, opt-in / opt-out
• Cost effectively
  – Including process management
• Scalably
  – Web single sign on

How do I as service provider or retailer verify customer information at my web site?

• At an affordable price point
• With appropriate confidence
• In a way that is consistent with my web site user experience and services

How do I obtain real world information to support my customer transactions?

• Minimizes what I have to ask the customer
• Allows me to market to them more effectively
• Increases the array of services I can offer
• Reduces my fraud loss rate
Attribute Exchange Ecosystem
Benefits to Relying Parties

• Federated Login
  – Simplify and increase sign-up/sign-in
  – Lower help desk costs
  – Improve security & reduce fraud
  – Strengthen trust and brand

• Online Identity Attribute Exchange
  – Stronger authentication
    • User asserted, verified & permissioned attributes
    • User-centric privacy
  – Reduce cost of identity attributes per user
  – Sell higher value products/services
  – Improve target advertising

• Advanced Online Applications (APIs)
Enhancing Online Experience

• Frictionless registration of new customers
  – Financial service providers, doctors, insurance, etc.
• Access to premium media content anywhere
• Access to citizen services
• Internet access to medical services
• Targeted and location-based marketing
• Mobile service provisioning
• Mobile payment applications
• Supply chain management
Concurrent Engineering

Attribute Exchange Pilots

- AX Phase 1: Q2 2012 – Q3 2012
- AX Phase 2: Q3 2012 – Q1 2013
- US NSTIC
- UK tScheme

Attribute Exchange Trust Framework

- Levels of Protection
- Levels of Assurance
- Levels of Control
- Audit and Assessment
- Certification and Dispute Resolution
• **Purpose:**
  - Demonstrate online attribute exchange operations
    - User, AP, IDP and RP interfaces and process/data flows
    - Legal, policy and technical interoperability, security and scalability
    - Business models
    - Assessor roles and processes

• **Objectives:**
  - Simplify AP, RP and IDP participation, deploy new online services and demonstrate asset monetization via an *Attribute Provider Network platform*
    - AP online verification services
    - Hybrid Mail AP service – PIN code mail piece
  - *Live User data* for 1+ Google RP, 2+ commercial RPs, 2+ Government RPs
    - RP billing (monthly) and AP/IDP transaction/payment statements

• **Scope:**
  - Limited to key identity attributes (NEAT) initially
  - For each RP service: Free market Trial of verified attribute services for 90 days or 50,000 Users, whichever occurs first
Attribute Provider Network

- Online market channel manages attribute processing – no OCI
- Software as a Service (SaaS) Attribute Provider Network Features
  - **Business**: Simplify ability to participate, deploy new services, and monetize assets
  - **Legal**: N-to-1 standard contracts, audit logs/processes, SLA’s
  - **Technology**: Secure, N-to-1 open APIs for all participants

- Attribute Provider Network Benefits
  - Account control: new RP contracts, new User verifications, User attribute re-use
  - Attribute Processing and Payment (APP) algorithms
Monetizing Attribute Exchange

Assumptions:
• APs have enterprise service contracts with RPs
• APs will offer their RP customers new online services via an APN (“AP customer RP”)

Transactions (follow the $):
1. New Users @ AP1-customer-RP1
   • Factor 1 - resembles per transaction model
   • More network Users
2. AP1 Verified Users @ AP2-customer-RP2
   • Factor 2 - APN “Network Effect” from (N) RPs
3. AP2 Verified Users @ AP1-customer-RP1
   • Factor 3 - APN “Network Effect” from multiple APs