Identity Assurance Interoperability Needs Panel

RSA April 20, 2009

Liberty Alliance & Information Card Foundation – Harnessing the Power of Digital Identity – 2009 and the Promising Road Ahead

Lena Kannappan,
Founder & CEO, FuGen Solutions, Inc.

Brokering Identities Everywhere.™

FuGen Solutions

Who am I ?

- Lena Kannappan, Founder & CEO FuGen Solutions, Inc.
- Active Contributor, Identity Assurance Expert Group
- Editor, Contributor to SAML 2.0, ID-WSF, WS-* and IIW
- Former Chair of Identity Services Group, Liberty Alliance
- Former Chair of Web Services Convergence sub-committee
- Former Chair of Mobile Web Services, Open Mobile Alliance)

What does FuGen Solutions do ?

- Founded in 2006, based in Sunnyvale, CA
- IDENTITY FEDERATION EXCHANGE SERVICES provider offering SaaS-based services that include:
  - ✓Federation On-boarding
  - ✓Certification for Compliance
  - ✓Federation Monitoring & Reporting
  - ✓Federated Identity Auditing
  - ✓Hosted Federation for SMBs
- Customers include Government, Financial and Application Service Providers

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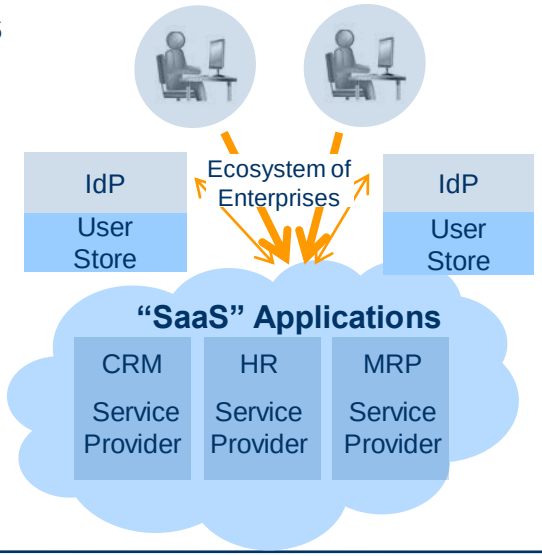
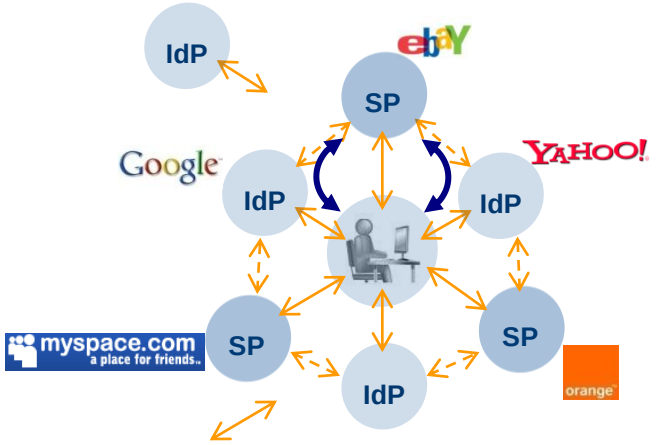
Digital Identity Management Landscape

Enterprises

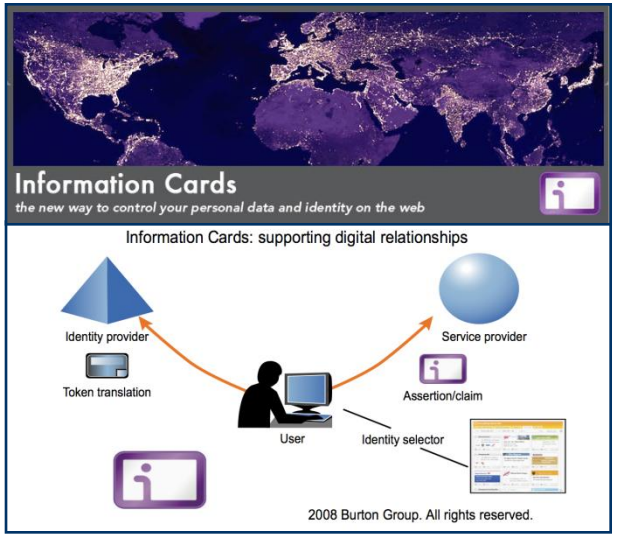


Consumers



Governments

- Government-to-Citizen
  - Taxes, loans
- Government-to-Business
  - Wage reporting, trade processes
- Government-to-Government
  - Disaster assistance and disaster response
- Internal Effectiveness and Efficiency
  - Travel, training



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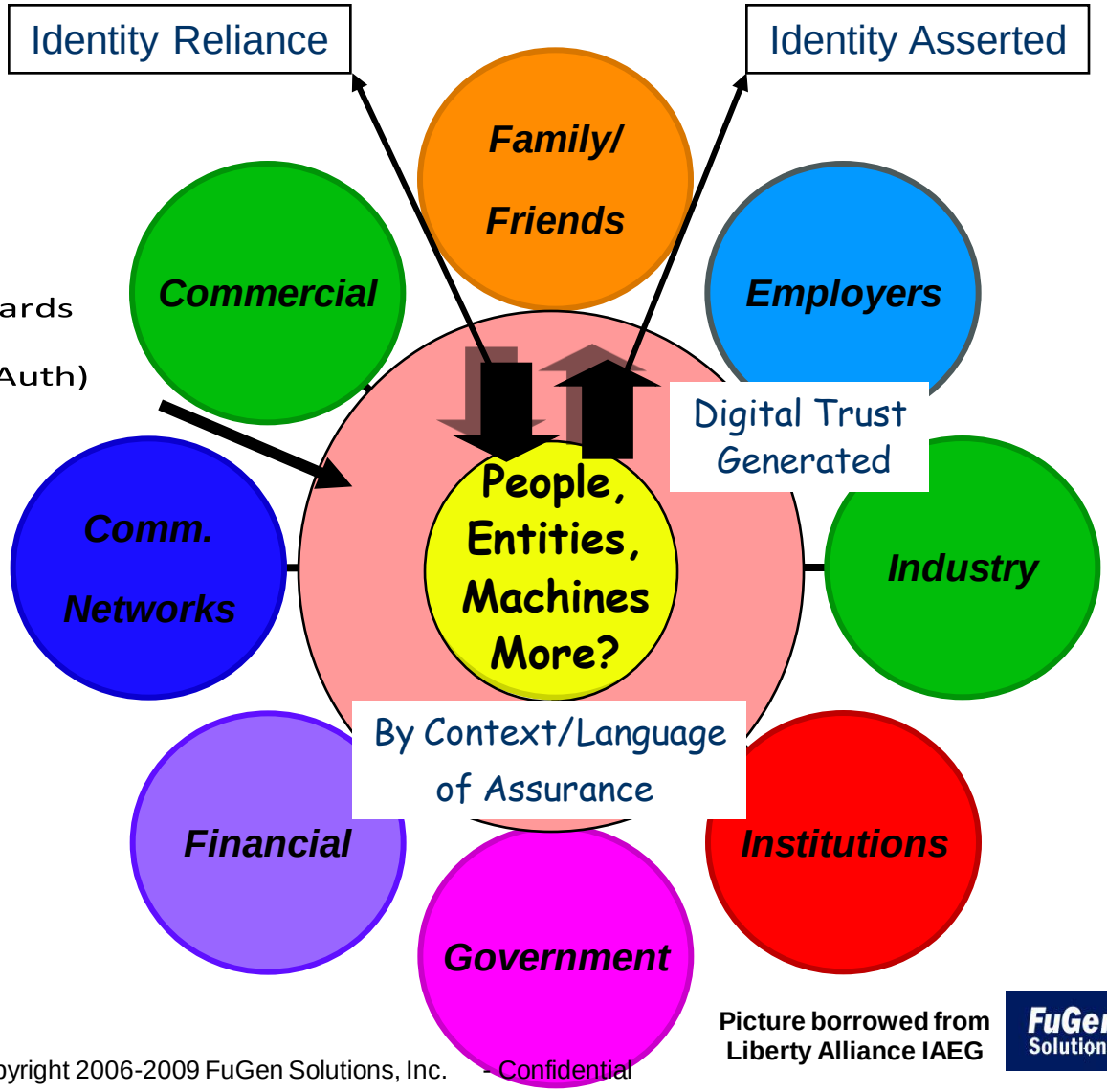
Identity Assurance Needs

Identity Assurance Needs

-- Interoperable across domains
-- Subject to Identity Proofing standards
-- Trust levels defined
  * Minimal to High (Low to Strong Auth)
-- Service assessment criteria
-- Protocol agnostic
-- Privacy
-- Consumed by New/Emerging Federations
-- Enable Inter-Federations
-- Customer Convenience
-- Commercially Viable
-- A Source of Revenue for Certification Agents



Picture borrowed from Liberty Alliance IAEG

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Identity Assurance Definition

- Identity assurance, in an online context, is the ability for a party to determine, with some level of certainty, that an identity claim made by some entity – whether a human or a machine, with which it interacts to effect a transaction, can be trusted or actually pertain to the entity.

- In the case the entity is a person, identity assurance is the level at which the identity being claimed can be trusted to pertain to the individual making the claim, and not someone else. Identity claims can be made by presenting personally identifiable information such as name, address, birth date, etc. by presenting an acceptable form of an electronic credential.

- The level of certainty one can have about the claim is what is referred to as the "Assurance Level". Assurance Levels (ALs) are the levels of trust associated with a claim as measured by the associated technology, identity –proofing processes, and policy and practice statements.

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Example : Identity Assurance Levels Illustrated

- **Assurance level criteria as posited by the OMB M-04-04 and NIST Special Publication 800-63:**

  - **Level 1** – little or no confidence (e.g. registration to a news website)
    - Satisfied by a wide range of technologies, including PINs
    - Does not require use of cryptographic methods
  - **Level 2** – some confidence (e.g. change of address)
    - Single-factor remote network authentication
    - Claimant must prove control of token through secure authentication protocol
  - **Level 3** – high level of confidence (e.g. online access to a brokerage account)
    - Multi-factor remote network authentication
    - Tokens can be “soft”, “hard” or “one-time password”
  - **Level 4** – very high level of confidence (e.g. dispensation of controlled drugs)
    - Multi-factor remote authentication through “hard” tokens
    - cryptographic authentication

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Introducing Our Panel

- Ron Carpinella, Equifax
- Colin Wallis, New Zealand Government
- Nat Sakimura, Nomura Research Institute (NRI)
- Bob Morgan, InCommon

EQUIFAX®

Identity Assurance Panel
RSA Conference April 2009

Ron Carpinella, VP Identity Management

2009

Equifax Confidential and Proprietary

I'm the other guy here…

- **Vice President of Identity Management**
  - Developing User Centric Identity Management Solutions
- **Board Member**
  - Information Card Foundation (ICF)
  - Center for Applied Identity Management Research (CAIMR)
- **Founder**
  - Atlanta Interactive Marketing Association
  - South Florida Interactive Marketing Association
- **Formerly**
  - Google, Veoh, Flycast (CMGi), Relevant Knowledge
- **Education**
  - Duke University (MBA), Purdue University (BA)

In the beginning,…

"On the Internet, nobody knows you're a dog."

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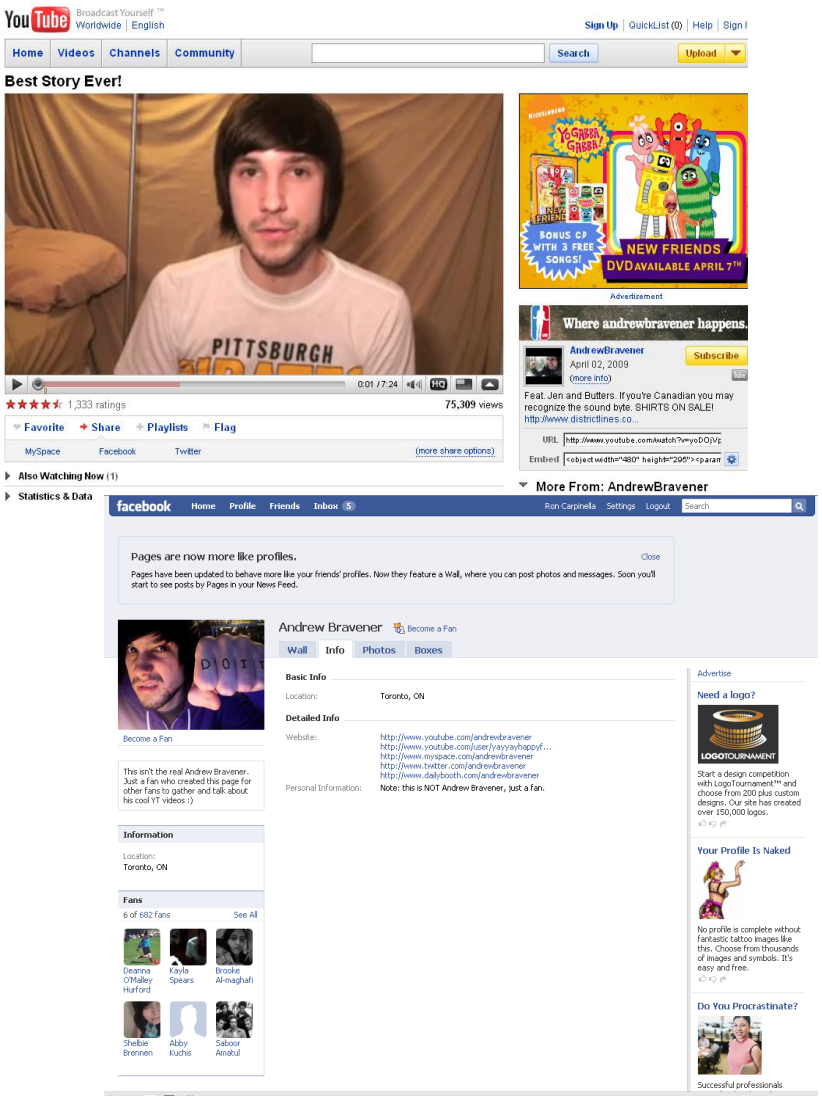
…Today,…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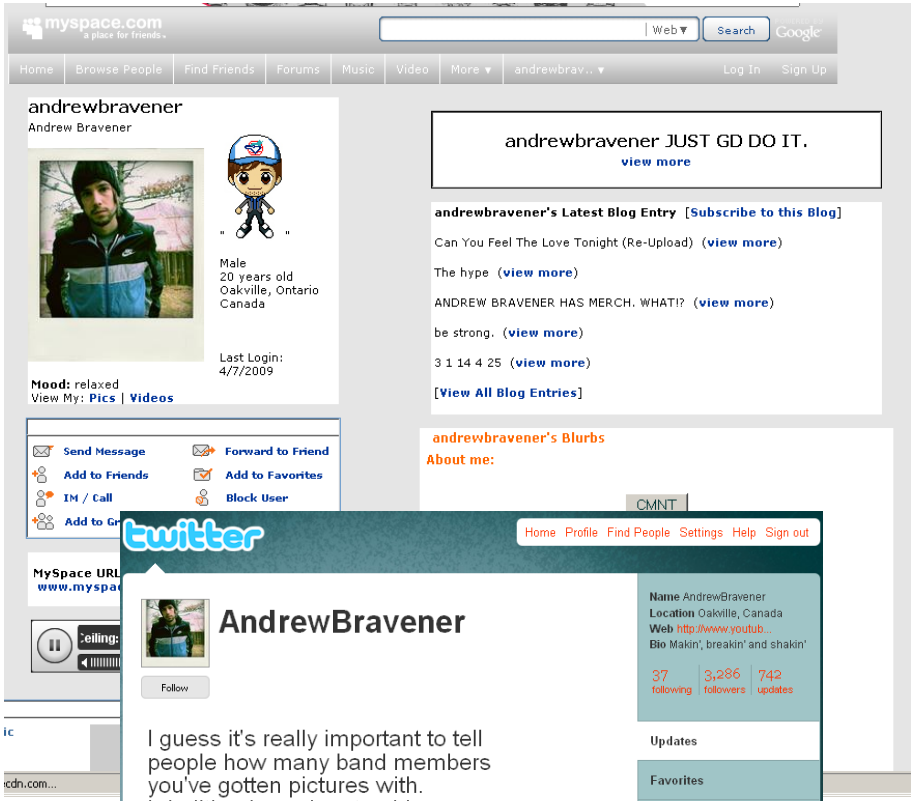
Where andrewbravener happens.
More From: AndrewBravener
facebook
Pages are now more like profiles.
Andrew Bravener
Become a Fan
Wall
Info
Photos
Boxes
Basic Info
Detailed Info
Information
Fans


myspace.com
andrewbravener
Andrew Bravener
Male
20 years old
Oakville, Ontario
Canada
Last Login:
4/7/2009
Mood: relaxed
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Add to Friends
Add to Favorites
IM / Call
Block User

twitter
Home
Profile
Find People
Settings
Help
Sign out
AndrewBravener
Follow
I guess it's really important to tell people how many band members you've gotten pictures with. brballtimelowcobrastarshipparamore
about 3 hours ago from web
I've just snapped a new picture: http://dailybooth.com/Andre...
about 6 hours ago from web
I'll echo this sentiment my fellow torontonians, WTFSNOW!?
about 7 hours ago from web
SO GUESS WHAT. I love you all, you're all my favorites.
about 18 hours ago from web
Just spent half an hour loving the haters.
about 19 hours ago from web
Name AndrewBravener
Location Oakville, Canada
Web http://www.youtub...
Bio Makin', breakin' and shakin'
37 following
3,286 followers
742 updates
Updates
Favorites
Actions
block AndrewBravener
Following
Camille
TehDancingJames

…The Future

"On Facebook, 273 people know I'm a dog.
The rest can only see my limited profile."

"Do you remember my OpenID URI?
It was either dog.pets.com, =dog, snowcloneldog, ..."

Equifax's Identity 2.0 Goals

- Identity is more than fraud prevention and mitigation
- Identity is about empowerment and engagement
- Your Identity isn't monolithic
- Identity should be exchangeable
- Identity should be empowering
- Identity should be verifiable and secure

Equifax's Efforts

- Identity Validation and Verification: eID
- Federated Identity Tools: Information Cards
- Identity Provider (IdP) capabilities
- Identity Relationship Tools

Identity Assurance Interoperability Needs Panel

RSA Conference 2009

Colin Wallis

Identity Standards Manager

SSC, New Zealand government

colin.wallis@ssc.govt.nz

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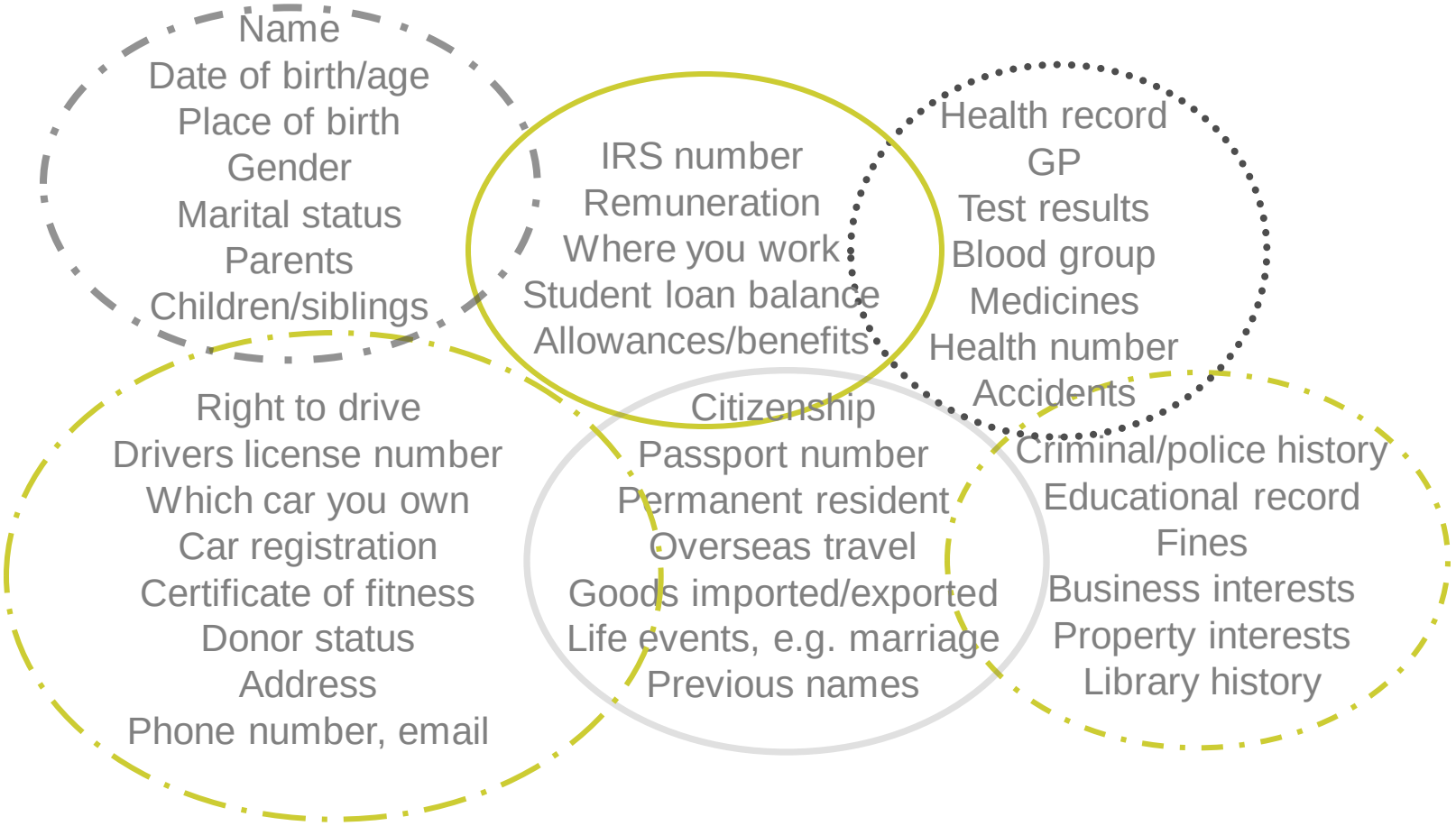
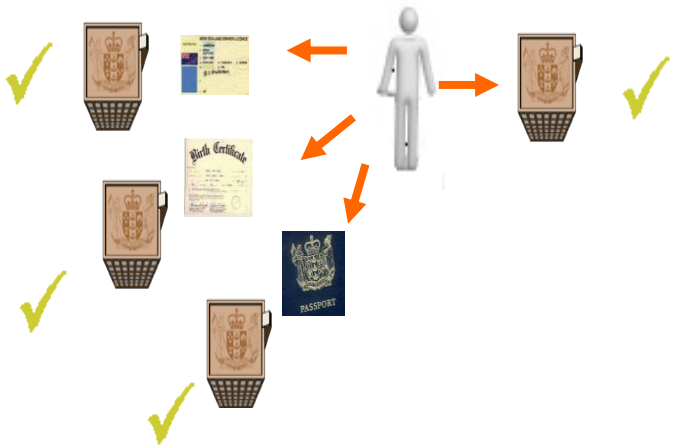
igovt

- New Zealand delegate on ISO JTC1 SC27 Working Group 5, (Identity Management)
- Chair the eGov Special Interest Group at Liberty Alliance (soon to join Kantara, a consortium specializing in Identity Management)
- OASIS roles: eGov Steering Committee and Security Services (SAML) and Customer Information (CIQ) Technical Committees
- ITU_T and UN/CEFACT rep for my organisation


Name
Date of birth/age
Place of birth
Gender
Marital status
Parents
Children/siblings
IRS number
Remuneration
Where you work
Student loan balance
Allowances/benefits
Health record
GP
Test results
Blood group
Medicines
Health number
Accidents
Right to drive
Drivers license number
Which car you own
Car registration
Certificate of fitness
Donor status
Address
Phone number, email
Citizenship
Passport number
Permanent resident
Overseas travel
Goods imported/exported
Life events, e.g. marriage
Previous names
Criminal/police history
Educational record
Fines
Business interests
Property interests
Library history

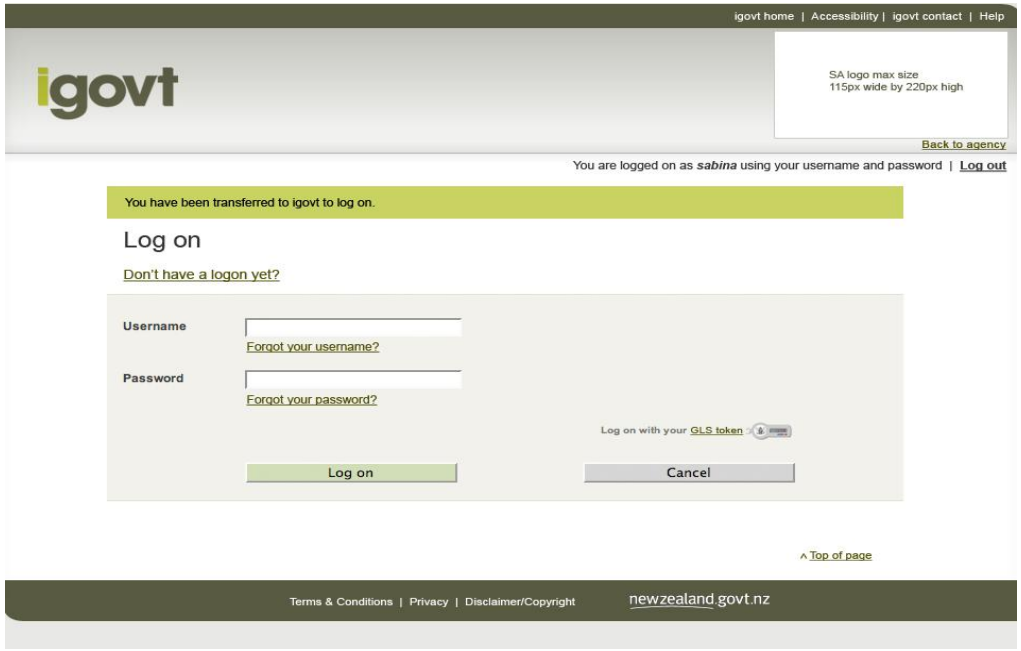
The Industrial Age …

For the last 200 years people have had to shuffle paper documents between government agencies – **slow, expensive** for citizens and government.



The Information Age.. still largely Identity 1.0 but creeping slowly towards Identity 2.0!

Replace with a metasystem of online, realtime assertions, from authoritative sources direct to where it's needed, under the full control of the citizen – **fast, cheap** for citizens and the government.



- Pseudonymous centralised logon service
- Identity proofing at agency from OMB M-04-04 based on service risk
- LoA determined by service risk from NIST Special Publication 800-63
- Considering Liberty Identity Assurance Framework 'SACs' in addition
- Supporting all the above into ISO standardization
- Contributing to the development of a global eGov Profile and vendor test plan

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The igovt logon service - iLS

野村総合研究所

Identity Assurance Panel
RSA Conference April 2009

Nat Sakimura
Senior Researcher

Nomura Research Institute, Ltd.

Nat Sakimura

- Senior Researcher at Nomura Research Institute, Tokyo, Japan
- Working on “Identity” since year 2000
  - Including some government assignments on identity related issues,
- Vice Chair, XDI Public Trust Organization
- Co-Chair, OASIS Open, Open Reputation Management Systems (ORMS) TC
- Founder, OpenID Japan
- Community Board Member, OpenID Foundation
- =nat , n-sakimura@nri.co.jp, http://www.sakimura.org/

- Founder, gosoudan.com
- Founder, Marimba.org
- Plays Flute
- Loves beer, wine, sake
- Grew up in Kenya
- Etc.

My Partial Identity

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Use Cases

- Citizen Interacting with Government
  - Asking for General but Customized Information etc.
  - Asking to receive a grant, etc.
  - Registering oneself, land ownership, etc.
- Customers interacting with Shops
  - Buying a book – contrast between OTC and the Net
    - Do you tell your name, birthday, address, credit card number, etc. when you buy a book at a bookstore?
    - I do not.

KEYWORDS

- Privacy
  - Minimum Disclosure
- Types of Identity
  - Veronym
  - Pseudonym
  - Anonymous
- Level of Assurance
- Reputation

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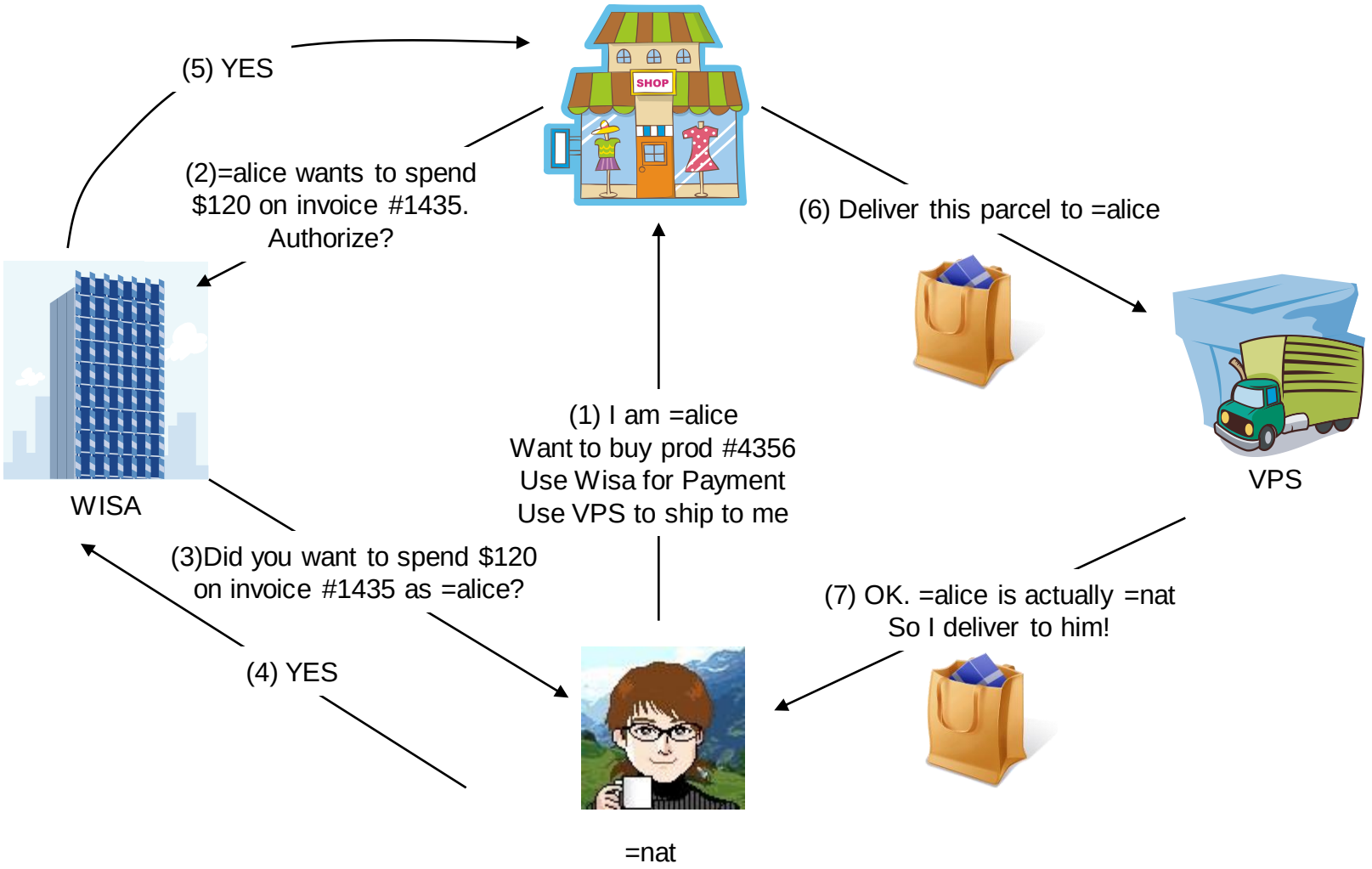
Shop Use Case



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Identity Assurance: A Higher-Ed View

RL "Bob" Morgan
University of Washington
Internet2 / InCommon

Background

RL “Bob” Morgan

- identity architect, University of Washington
- co-leader, Internet2 Middleware Initiative
- co-chair, InCommon Technical Advisory Committee
- SAML, LDAP, Kerberos, Shibboleth guy

InCommon Federation

- US Higher-Ed identity federation, since 2004
- 100 universities, 40 partners, doubling yearly
- SAML-based, considering other protocols

Identity Assurance

- HE IdM supports wide range of users
  - faculty, staff, students, alums, affiliates, guests, medical staff, researchers, ...
  - usually all in one IdM system, so need “levels”
    - password policies etc based on affiliation
  - HE practices roughly consistent, not standardized
- Interest in formal Assurance driven by US Gov
  - federated access to apps at NIH, NSF at “Level 2”
  - hence compliance with ... NIST 800-63? E-Auth?

InCommon Assurance Program

- developed IA framework parallel to US E-Auth
  - Bronze, Silver == E-Auth 1, 2
  - compatible, but more precise, realistic, auditable ... for HE community
  - use the term “profiles” rather than “levels”
    - may be other non-ordered profiles
  - covers (a little) assurance of user attributes (e.g. “is-a-student”) in addition to “identity”
  - uses for profiles outside of federation appearing
  - still new, no campus has certified yet ...

The Big Issue: Cost

- Cost of compliance is significant
  - maybe 4 FTE-months minimum, likely more?
  - where will auditors come from? internal?
  - what percentage of US HE can afford it?
- Relying parties are the ones who benefit
  - assurance done by IdPs is work they don't have to do, so will they contribute?
  - will high assurance bar cause RPs/IdPs to continue with current high-cost, low-assurance account management?

Questions for the Panelists

- What is the commercial model that you would see fit ?
- What are the challenges around the Identity proofing processes adopted today and what would you see as the future approach ?
- Definition of levels of assurance—does this translate across protocols and what are the future needs of interoperability across multiple disparate domains or inter-federation scenarios ?
- Do the current privacy laws and regulatory mandates address what's required ?

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