IBM Global Services

Programs and Trends
in Government Identity Systems

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The Identity Lifecycle

Establish	Provision	Usage	End

- Begin or create an identity relationship
- Issue credentials and grant access per roles and responsibilities
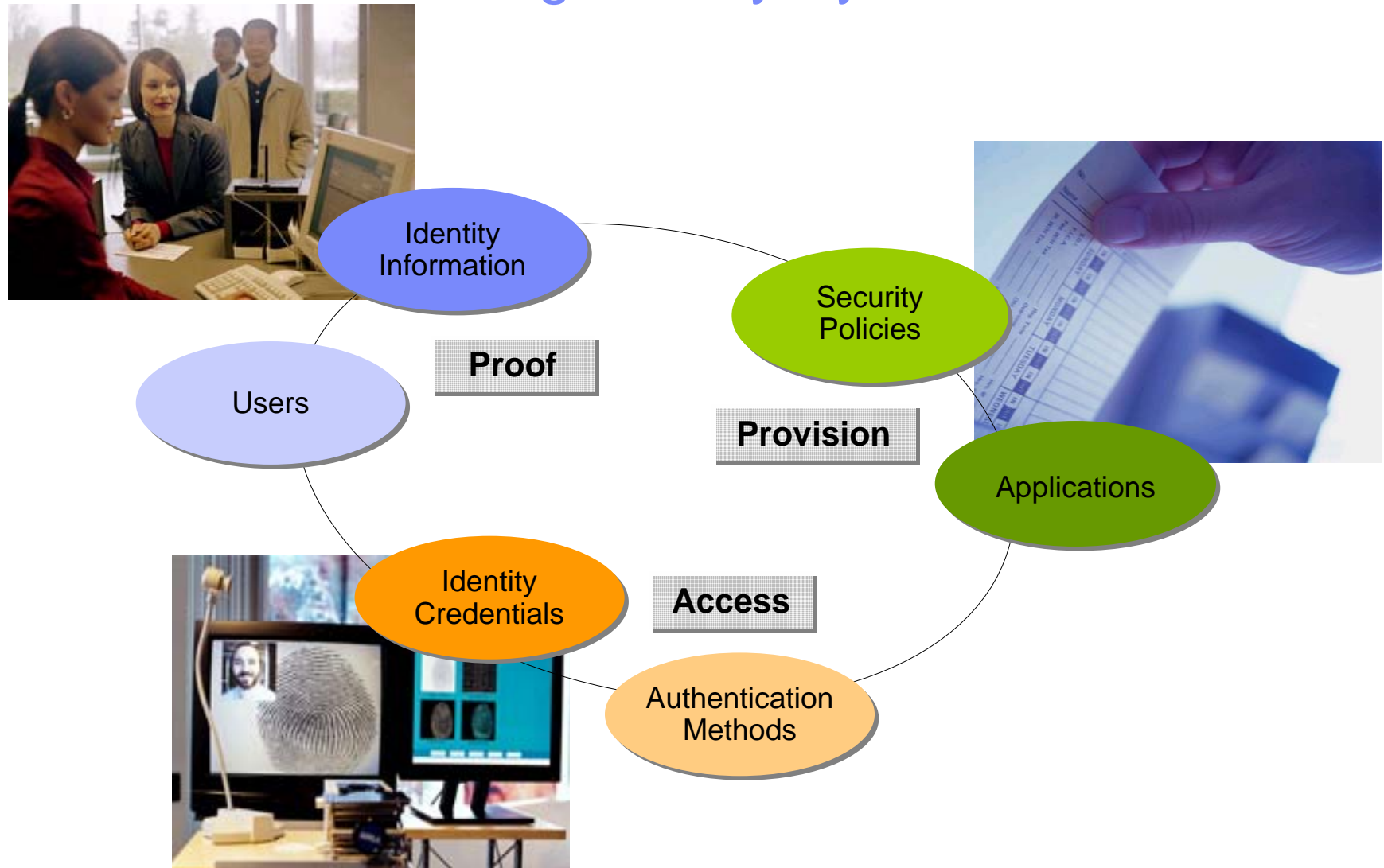- Use identity to access government assets and resources
- Terminate or suspend the identity relationship

A Model for Considering Identity Systems

Considerations

Government Identity Programs

- Large government identity programs take several years to plan and implement.
- Recent programs have broken new ground and paved the way for others.
- Most of these programs have demonstrated good collaboration between public and private sector stakeholders.
- Many programs have established or utilized important new identity standards.
- Many programs have successfully adopted a federated inter-ministry identity model.
- Many programs have tightly integrated their identity program with their trust (PKI) infrastructure.
- Many programs have enabled their identity system for multiple applications, including private sector ones.
- Some programs have taken advantage of their identity system to consolidate their physical and logical security systems.

Hong Kong National ID

India Driver's License

Finland eGovernment Services

UK Immigration Control

Germany eHealth

US Border Crossing

ePassports

US Federal Employee ID

Hong Kong National ID

Program overview

- Hong Kong recently replaced their pre-existing government identification cards with smart cards.

- The ID is primarily intended for government use in secure identification and immigration control applications.

- Citizens must at a minimum carry their ID or face monetary penalties.

- Hong Kong Post also provides digital certificates on the ID for use with securing online applications.

Trends

- Since the new ID was introduced, there has been rapid public acceptance of it for online banking.

- Citizens can now use the digital certificate on their IDs to perform electronic transactions and online banking.

- Nearly a dozen banks have employed two-factor authentication tools that utilize the ID for high-risk online banking transactions.

More information

- http://www.smartid.gov.hk/en/index.html

Facts & Figures

Location: Hong Kong

What: National ID

When: Started in 2003, will reach all citizens by mid-2007

Applications: ID, immigration, border control, banking, etc.

Adoption: Close to a million citizens already use their IDs for e-commerce

India Driver's License

Facts & Figures
Location: India
What: State government issued driver's license program
When: Phase 1 now, full rollout within 5 years
Applications: Now – license and vehicle registration. Future – insurance, payment and loyalty
Adoption: 100,0000 users have been issued the new license as part of the first phase of the program

Program overview

- New drivers license and vehicle registration program, with 100 million users anticipated over the next five years.

- The license uses a combination of smart card and optical card technologies to provide security and storage.

- The license stores information about vehicle registration and the owner, as well as data on vehicle history, pollution control certification, and other vehicle documents.

Trends

- The Indian government created standards that would guarantee interoperability between the various state transportation departments.

- The new license is expected to help reduce vehicle theft. It will also increase revenues and improve service by making it easier to collect fees and reducing registration times.

- The license will eventually be used by the private sector for other applications including proof of insurance, electronic payment and loyalty.

More information

- http://india.gov.in/default.htm

Finland eGovernment Services

Program overview

- Finland offers its citizens eGovernment services via the internet using digital certificates to verify the identity of users.

- The government now offers citizens the option of obtaining their certificate on their mobile phone.

- Citizens can access online government services or authenticate online transactions by responding to a text message on their mobile phone.

Trends

- The Finnish government sees mobile citizen certificates as an important next step in the delivery of online services.

- The public/private partnership with the country's mobile network operators has been very successful.

- Using the mobile phone platform reduces cost compared to other channels and is well accepted by the public.

- Several additional Ministries plan to make use of the mobile citizen certificate in the near future, followed by banks and others in the private sector.

More information

- http://www.vaestorekisterikeskus.fi/vrk/home.nsf/pages/index_eng

UK Asylum Seekers

Program overview

- A recent program in the UK that scraps the old voucher and dispersal systems as part of a "fundamental and radical reform" of the UK's asylum and immigration system.

- Previously each asylum seeker arriving in Britain was given a Home Office letter confirming their right to stay while their case was being considered. These papers have proved easy to forge.

Trends

- The UK government equipped the new program with the latest identity technologies to combat fraud and ensure that asylum seekers are identified rapidly at all stages of their applications.

- The new system, which is compulsory, is also expected to improve service by speeding up the processing of asylum applications.

More information

- http://www.homeoffice.gov.uk/passports-and-immigration/immigration/

- http://news.bbc.co.uk/1/shared/spl/hi/uk/03/destination_uk/seeking_asylum/html/default.stm

Facts & Figures

Location: *UK*

What: *Government program for asylum seekers*

When: *New asylum program enacted in 2002*

Applications: *Immigration control and identification for asylum seekers to the UK*

Adoption: *Compulsory for all asylum seekers looking to enter and stay in the UK*

German eHealth Program

Program overview

- The German eHealth program is entering its 2nd generation, being first established over 10 years ago.

- The eHealth program connects over 80 million patients with 270,000 physicians, 77,000 dentists, 2,000 hospitals, 22,000 pharmacies and more than 300 health insurance companies.

- Identities of health system users, caregivers, and service providers are all strongly verified throughout the system.

Trends

- The program represents an extensive collaboration between the public and private sectors.

- It focuses on best practices that optimize workflows and processes to reduce treatment costs and improve patient care.

- One example is the electronic prescription, which streamlines and optimizes prescription processes between doctors, patients, pharmacists, and insurance companies.

More information

- http://www.bmg.bund.de/cln_041/nn_600110/EN/Home/homepage__node,param=.html__nnn=true

Facts & Figures

Location: Germany

What: Government healthcare program

When: 2nd generation started in early 2006

Applications: Access to health services, prescriptions, records

Adoption: All citizens, healthcare providers, and administrators use the system

Western Hemisphere Travel Initiative

Facts & Figures

Location: *United States*

What: *Travel between the Caribbean, Bermuda, Panama, Mexico, Canada and the US*

When: *Must be in place by January 1st, 2008*

Applications: *Border crossing and immigration control*

Adoption: *Targets frequent travelers, especially border towns along the US/Canadian and US/Mexican borders*

Program overview

- The Western Hemisphere Travel Initiative (WHTI) mandates that anyone entering the US, including US citizens, must have travel documents that prove their identity.

- WHTI affects travelers from the Caribbean, Bermuda, Panama, Mexico, Canada and the US who don't have passports.

- WHTI will eventually replace or enhance several existing US border crossing programs (BCC, FAST, NEXUS, SENTRI).

Trends

- The program will likely use a centralized identity model to allow for the use of lower cost travel document technologies, compared to passports.

- Enrollment and vetting processes will be similar to that used for US passports.

- This opt-in program is expected to attract frequent travelers, especially those in border towns, because of lower costs and faster border crossing times.

More information

- http://www.cbp.gov/xp/cgov/travel/vacation/west_hem_init/

- http://travel.state.gov/travel/cbpmc/cbpmc_2223.html

ePassports

Program overview

- The International Civil Aviation Organization (ICAO) has specified new security requirements for passports, including the use of a smart card chip with biometric identifiers.

- Most countries will comply with the ICAO specs in their passport programs over the next several years.

- Countries with Visa wavier agreements with the US are compelled to comply soon in order to maintain their wavier status.

Trends

- ePassports will be a key component to the more sophisticated border management and immigration control systems being planned and deployed worldwide.

- While primarily intended to improve security, ePassports and the border management systems that use them will also see improvements in efficiency and usability.

More information

- http://www.icao.int/mrtd/Home/Index.cfm

Facts & Figures

Location: *Many countries*

What: *Government issued passport books*

When: *Trials now, plans to start issuing by end of 2006 in some countries*

Applications: *Border crossing and immigration control*

Adoption: *Countries with Visa wavier agreements are expected to be first adopters*

US Personal Identity Verification

Program overview

- The US Personal Identity Verification (PIV) program was established by Homeland Security Presidential Directive #12 (HSPD12), signed in August, 2004.

- The PIV program is intended to improve the security of access to government physical and logical systems by US federal government employees and contractors.

- The US government has developed comprehensive standards (FIPS 201) to ensure interoperability and vendor neutrality.

Trends

- The PIV program specifies important vetting and identity proofing measures to ensure the integrity of the program.

- The PIV program builds on the federated inter-agency trust infrastructure used by the US government, making extensive use of the US federal (PKI) bridge.

- State and local governments and the US private sector are closely watching the PIV initiative, and are expected to adopt similar standards, technologies, and architectures.

More information

- http://csrc.nist.gov/piv-program/

Facts & Figures

Location: *United States*

What: *Government employee ID*

When: *Started in August 2004, will reach all employees by end of 2007*

Applications: *Access to US government physical and logical systems*

Adoption: *Over 7 million users are already credentialed, mostly in the Department of Defense*

Lessons Learned

Government Identity Programs

- Large government identity programs take several years to plan and implement. *Take your time to get it right.*

- Recent programs have broken new ground and paved the way for others. *Leverage and learn from them.*

- Most of these programs have demonstrated good collaboration between public and private sector stakeholders. *Encourage a strong public/private partnership.*

- Many programs have established or utilized important new identity standards. *Adopt existing or emerging open standards wherever possible.*

- Many programs have successfully adopted a federated inter-ministry identity model. *Consider adopting a similar model, based on strong identity contracts.*

- Many programs have tightly integrated their identity system with their trust (PKI) infrastructure. *Doing so can improve the security and functionality of the program.*

- Many programs have enabled their identity system for multiple applications, including private sector ones. *Consider doing the same, it will increase the adoption and use of the program.*

- Some programs have taken advantage of their identity system to consolidate their physical and logical security systems. *Look to do the same wherever feasible.*

National ID

Driver's License

eGovernment Services

Immigration Control

eHealth

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ePassports

Employee ID