eGovernment

Large Scale Consumer eAuthentication

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CTO – MS Passport

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Agenda

- Discuss an approach to consumer authentication services
- Passport
  - What it does
    - Different types and levels of auth
    - Allow anonymous / pseudonymous IDs
    - Allows multiple IDs
    - Allow strong authenticated IDs (3.0)
  - What it does not do
    - Identity verification
    - ID management
- Microsoft – Advise, Standards, Products, Services, Standards, Development tools

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Identify, Authenticate, Authorize

- Identification – The determination of the identity (or credential) of a principal
- Authentication* – The verification of an identity claim
- Authorization – The decision to grant a privilege or permission

Consumer eAuthentication

...required coordinated-parts

- Economic Models to make this viable
- Governance / Operating Rules
  - Policies / procedures / compliance with Law
  - Audit requirements
  - Arbitration / dispute resolution
- Technology
  - Interoperable standards / protocols
  - Products
    - Widely available
    - Well supported
- Operations
  - Services
  - Physical and virtual locations

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Economic Model
...economically viable

- Economic / Business Model for all the service providers
  - Registration Authorities
  - Identity Issuance Authorities
  - Identity Verification Service
  - Service consumed

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Governance
...Legally valid

- Policies / Procedures / agreements
  - Uniform across the 'community of trust'
- Compliance with laws of applicable Jurisdiction
  - Cross Jurisdiction enforceability
- Legal Recourse
- Consumer protection
- Privacy and security of PII
- Audit and Verification process
- Arbitration / Dispute resolution

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Technology
...technologically feasible

- Standards
  - Allows large population of Identity Issuers and Service providers to work together
  - Allows large number of product developers to build products and applications that use such services
- Products / Tools
  - Ubiquitous availability of interoperable products is a requirement for consumer facing services
  - Products need to be widely supported and accessible

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Services / Operators
...operationally doable

- Identity verification* / Credential enrollment services (Registration Authority)
  - Banks / USPS
- Identity Issuance services
- Identity Authentication Service
- Consumer service
- Dispute resolution service

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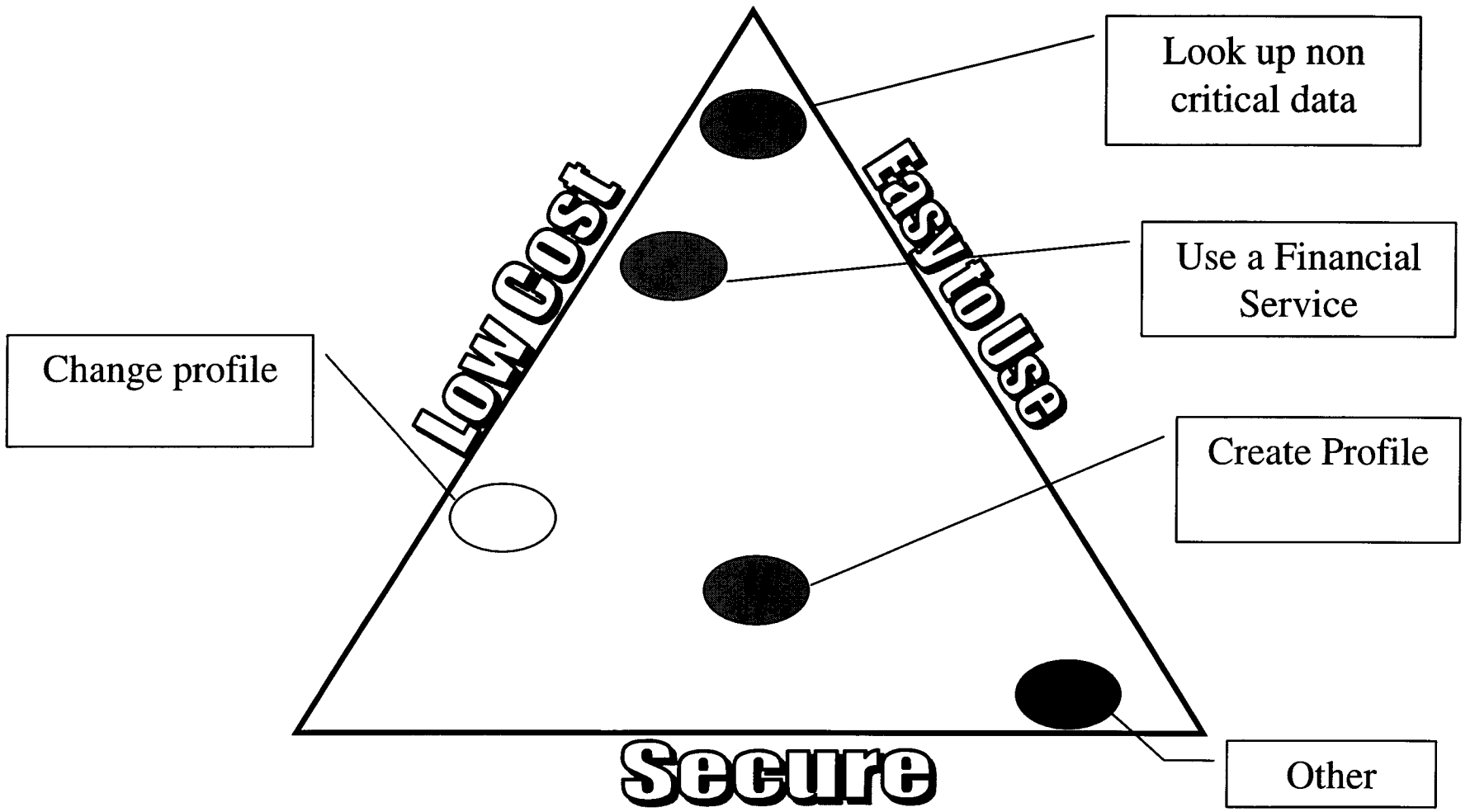
Security Goal



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Passport Trust Models

- Centralized vs. Decentralized
- Single or multiple ID issuers
- High / Medium / Low assurance
  - Authentication
  - Identification

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The Passport Service
...eAuthentication experience

- Consumer interaction
- Legal / Regulatory interaction
  - Privacy law / COPA
  - EU Safe Harbor
- Security Experience
  - Relying Party
  - Tool / product provider
  - Personnel
  - Service user
  - Service Providers
  - Data Providers
- Operational Experience
  - Scale
  - Reporting / Logging

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The Passport Service

- Platform for Web services – offers authentication of user identity
  - PUID – unique, global, static identifier
  - Profile – (optional) demographic and selected personal information
  - Scope of sharing – set of sites with common TOU and privacy policy
- Applications
  - Primarily – Consumer access to Hotmail and MSN.COM
  - MSN Messenger Connect – Managed Instant Messaging for enterprises
  - Microsoft Developer Network (MSDN)
  - A growing number of 3rd parties
- Namespaces
  - 300,000,000 active identities
  - 90% in msn.com, hotmail.com and hosted namespaces
  - 10% in other namespaces ("EASI" – Email as Sign-In)
- Passport facilities separate from MSN
  - distinct TOU and Privacy Policy
  - separate data center cages and operations staff

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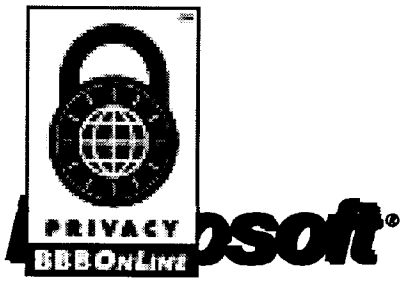
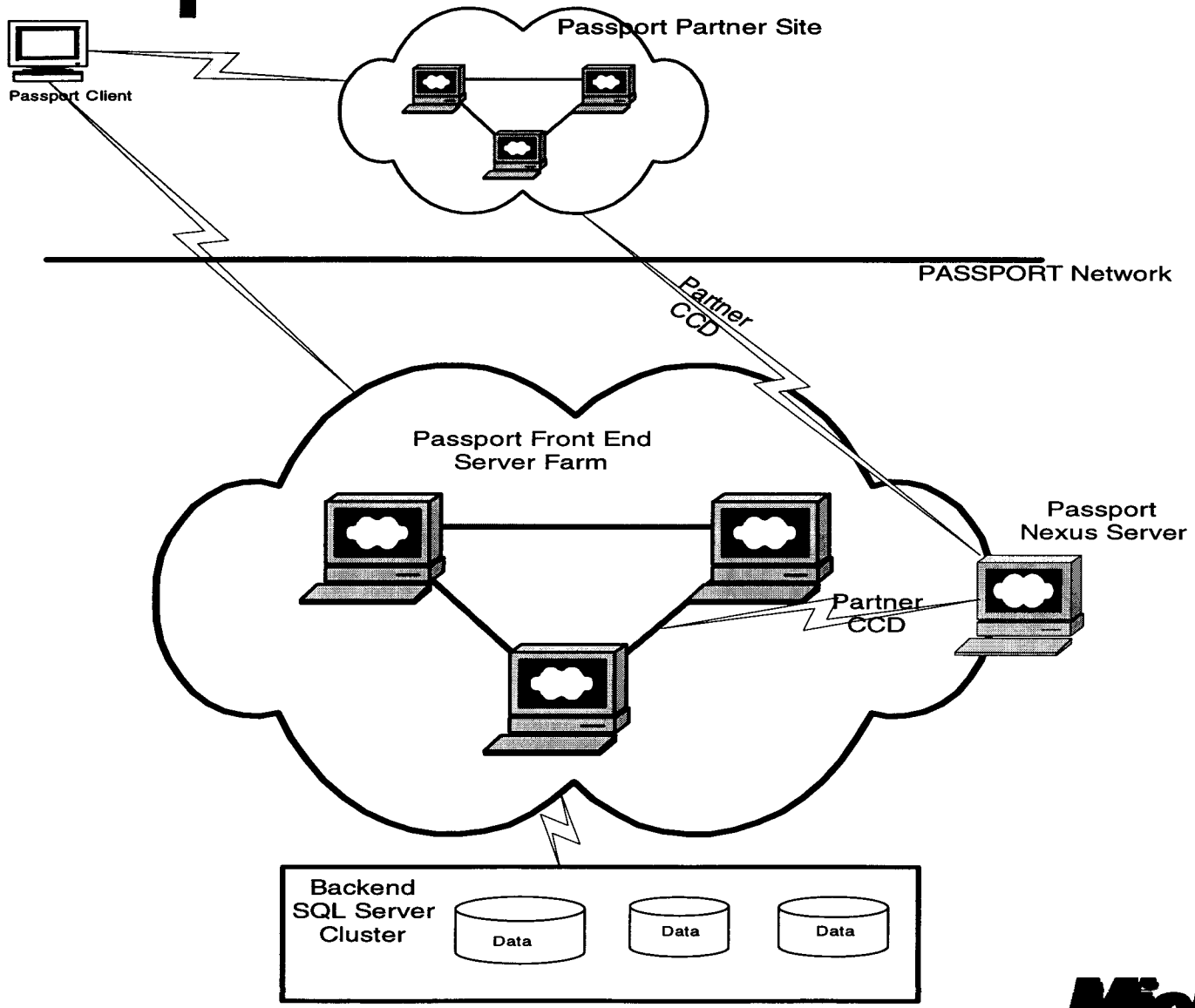
Privacy Policy

- **Critical success factor: trusted data management**
  - **Passport does not mine, sell, rent, or market Passport data**
  - **Passport does not allow secondary use of Passport data by Microsoft or anyone else**
  - **Passport facilities not shared**
- **Focus is on consumer empowerment**
  - **Easy user management of consent/permissions**
  - **Passport contract requires participating site to post their privacy policy and to support P3P**
  - **We support E.U. Safe Harbor**



Passport Architecture



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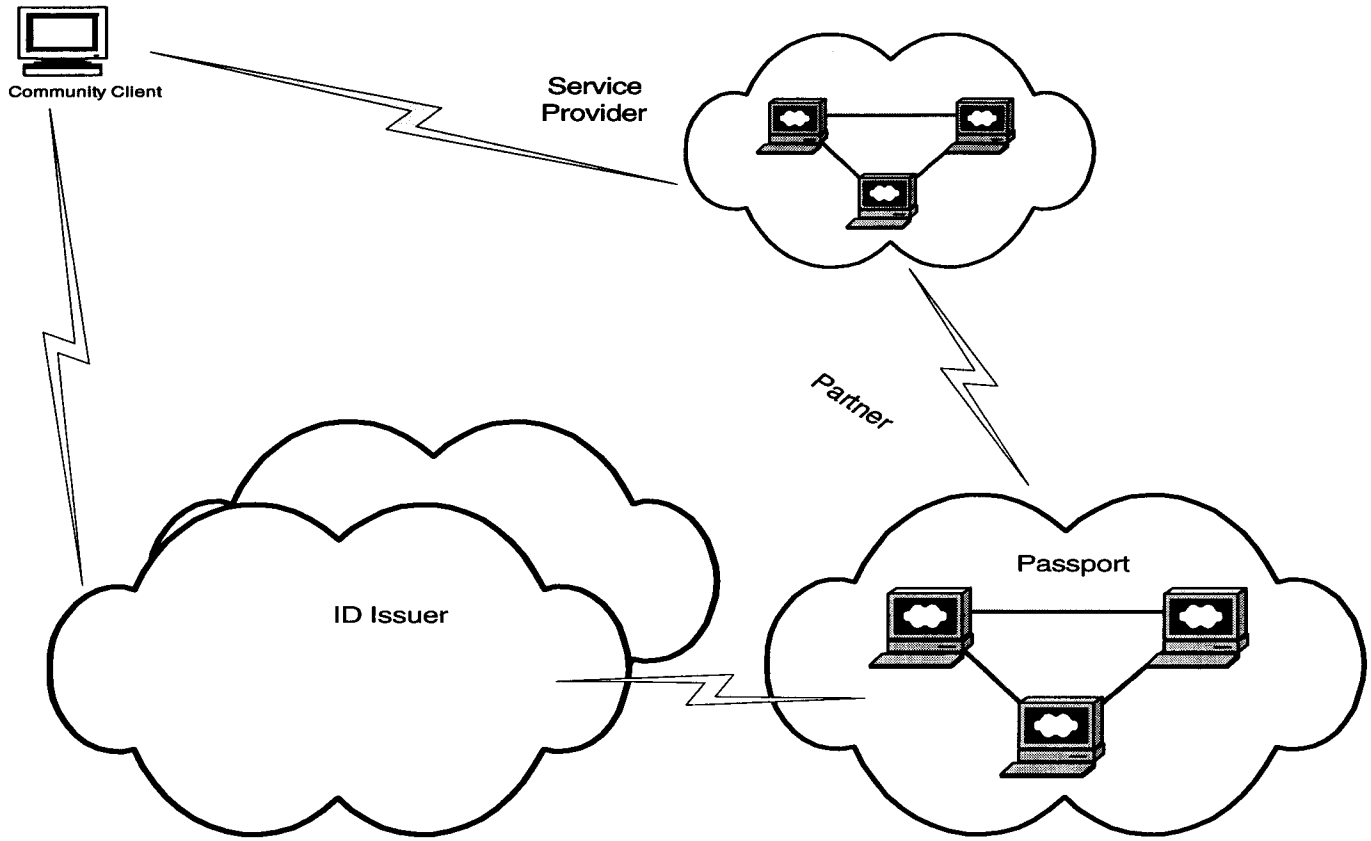
Passport Architecture



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Security

...Deter, Deny, Detect, Defuse

- Protected data centers
  - Physical access controls
  - User information stored on servers that are not directly connected to the Internet
- Secure Coding practices
- Comprehensive use of data and session encryption
- Perimeter protection and service monitoring / IDS / Firewalls / Log Analysis
- Audited Operational framework
- Secure Operational procedures

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Future Exploration
...stronger auth and privacy options

- Cert based auth
- Dual password
- One time password
- Phone based Authentication
- Multiple Issuers of ID
- Multiple Authentication services in 'Federation'

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Q & A

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Authentication vs. Authorization

Authentication is the process of uniquely and reliably identifying a user

Cf. Authorization, determining what a user can do

- **Sites, devices, networks, and applications need a way to provide a secure, customized experience**
- **A reliable authentication mechanism is important in any electronic service relationship and to ensure the integrity of any transaction**

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