

Implications to the future of identity management

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LSEC, 20 November 2008

www.everett.nl

Contents

- Introduction
- Today's issues related to identity management
- Data leaks
- Identity fraud
- Excessive risk-taking
- Expanding identity realm



Customers



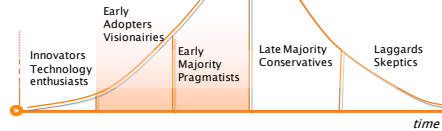
Portals, SOA, Identity & Access Management, Security

Everett

Organisation

- Systems Integrator
- Offices in NL, Italia, UK, India
- Consulting, architecture, realisation, support

Innovation



More about Everett

- Everett Competence Centres:
 - Application Integration Services
 - Enterprise Architecture
 - Identity & Access Management
 - Secure Platform Services
 - Governance, Risk management & Compliance
- Together with SURFnet winner of the EEMA Award of Excellence



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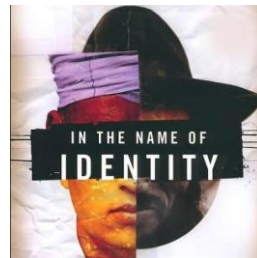
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Today's issues related to identity management

- Data leaks
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These issues will likely determine the future of identity management

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Data leaks

- IT infrastructures become ever more borderless environments:
 - Business partners and their applications need access to the IT infrastructure
 - Information is taken outside through laptops, USB sticks and other devices
- However, USB sticks are often not secured and may be lost or stolen
- Other examples of data falling into the wrong hands:
 - Industrial espionage
 - Wrong e-mail recipients



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Data leaks

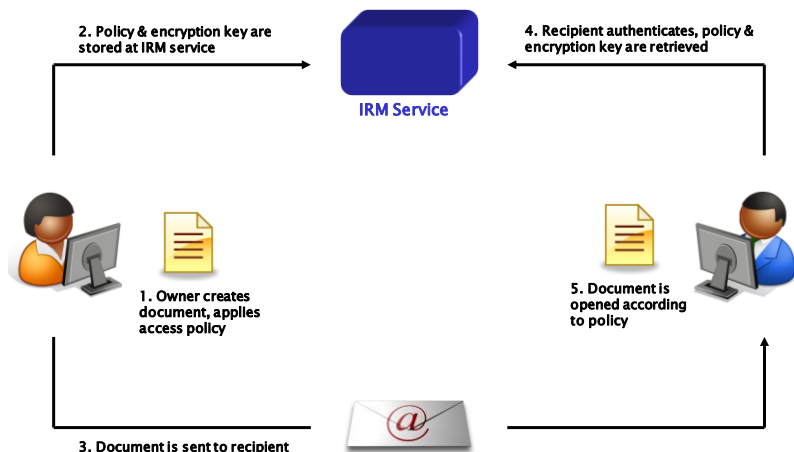
- Traditional security mechanisms, such as firewalls, IDS/IPS and folder access rights, are not sufficient
- Instead, information needs to be secured more directly
- This concept is also known as de-perimeterization
- Information rights management (IRM) might be the answer



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Information rights management



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Identity fraud

- One of the major issues of our time
- Ever increasing, mainly because of the growth of online transactions
- The risks associated with identity fraud are significant:
 - Financial damage
 - Reputational damage
 - Psychological damage



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Some definitions

- Identity fraud (identity theft):
 - Not the same as online fraud
 - Makes use of stolen identity or fictitious identity
 - As old as mankind
- Online fraud (internet fraud):
 - Associated with the internet (as the place where or the means by which the fraud is committed)
 - Relatively recent



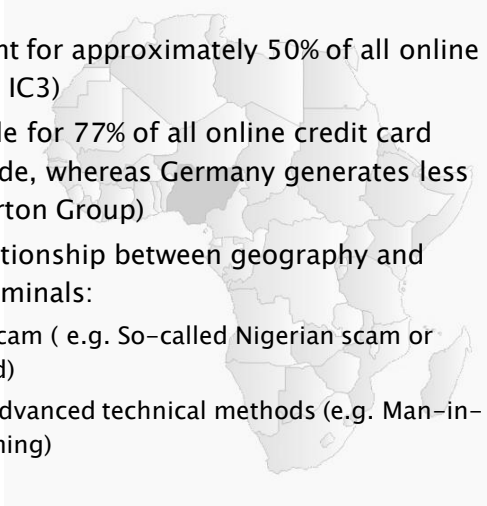
Some definitions (continued)

- Computer fraud:
 - Type of fraud that uses computer technology to manipulate or steal data, goods or money
 - Often inside the organisation
 - Already decades old
- Computer crime:
 - All forms of crime that uses computer technology such as online fraud, computer fraud, digital child porn, hate mail and internet stalking



Some facts

- Auction sites account for approximately 50% of all online fraud cases (source: IC3)
- The US is responsible for 77% of all online credit card fraud cases worldwide, whereas Germany generates less than 1% (source: Burton Group)
- There is often a relationship between geography and methods used to criminals:
 - Africa – ordinary scam (e.g. So-called Nigerian scam or advanced fee fraud)
 - Eastern Europe – advanced technical methods (e.g. Man-in-the-middle, pharming)



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Measures

- Legislation (e.g. WBP, WVP)
- Training
- Prudence
- Technical measures such as:
 - Personal firewall
 - Anti-malware
 - Secure DNS
 - Spam filters
 - Risk-based authentication



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Risk-based authentication

- Based on a combination of:
 - Transaction anomaly detection
 - Strong authentication
 - Identity proofing



Activity	Risk	Authentication mechanism
View personal data	Low	User ID & password
Change personal data	Moderate	Password + secret question
Usual or small financial transaction	Average	Strong authentication
Unusual or large financial transaction	High	Strong authentication + additional verification (e.g. a telephone call)

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Excessive risk-taking

- Major corporate fraud
- Trade scandals
- Global financial crisis



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Excessive risk-taking

- Numerous regulations have already been implemented as an answer to fraud and scandals:
 - Sarbanes-Oxley
 - HIPAA
 - PCI DSI
 - Etc.
- Transparency and control are the keywords of modern regulations
- The latest iteration of excessive risk-taking will likely bring forth new regulations



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Controls

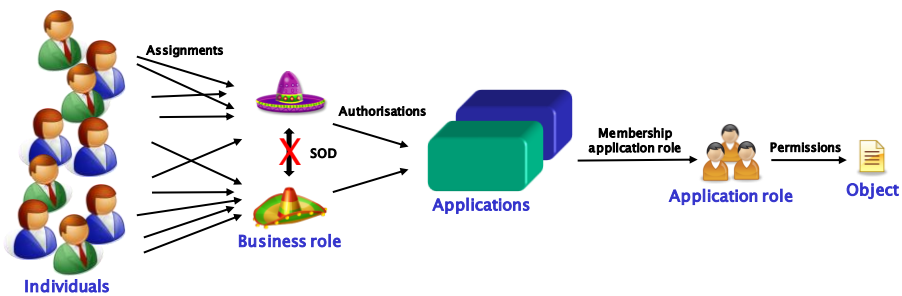
- Transparency and control require identity management techniques
- Role-based access control & segregation of duties play a key role in here
- However, identity management techniques will not be enough
- Next to this, a so-called SOLL IST comparison process will be needed



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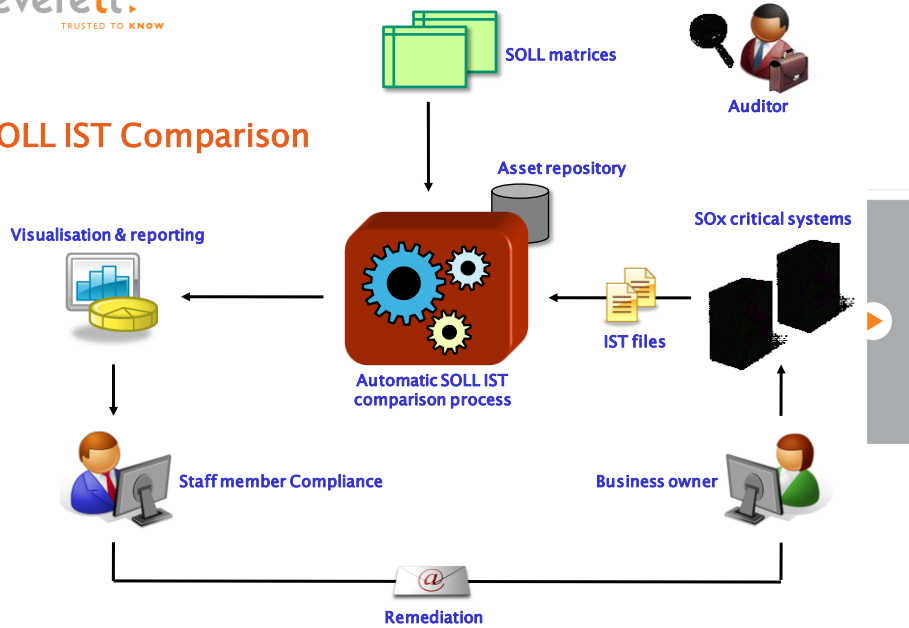
RBAC & SOD



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SOLL IST Comparison



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Expanding identity realm

- The arrival of the computer and the internet have caused a tremendous increase of identity information
- At the same time our identity information is ever more spread – across the internet, the company network and our home computer
- Privacy, security and user convenience are the reasons to carefully handle our identity information
- Federated identity is the answer in cross-domain environments
- Will Identity 2.0 (also called *identity metasystem* or *user-centric identity*) be the answer for distributed and independent environments?

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Identity 2.0

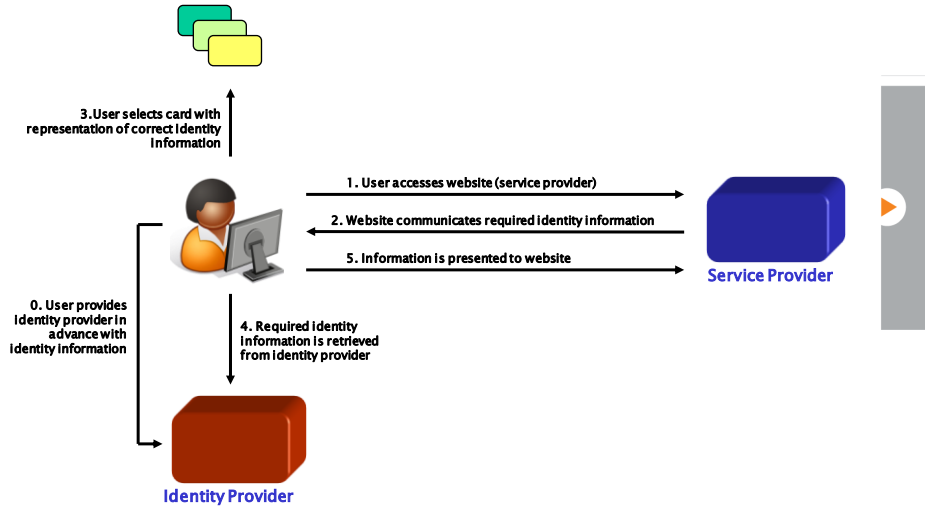
- Identity 2.0 places the control of identity information into the hands of the user
- There are two types of identity selectors:
 - Information cards
 - URL-based identity selectors
- However, the adoption of Identity 2.0 is very sluggish because of:
 - Lack of trust
 - Lack of a compelling business case



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Identity 2.0 architecture



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Q&A



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Further information

Look at our publications on www.everett.nl...

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