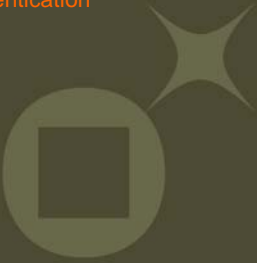


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Microsoft Desktop and Network Support for Smart Card-based Authentication


Jerome H. Denis
CTST 2009 – May 6, 2009



The Promise of Smart Card Authentication

- Network & Desktop Logon
- Data Confidentiality
- Digital Signature & Non Repudiation
- e-purse
- Unified Physical Access
- Time Attendance

Classic Trusted PKI Card



Alexandra Miller

network identity smart card security cryptographic usability

gemalto security solutions

www.gemalto.com

Corporate Identity Employee ID


Courtesy Zettl Research Group, Lawrence Berkeley National Laboratory and University of California at Berkeley.

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Do Smart Cards Meet the Enterprise Need?

Until recently, a smart card authentication infrastructure that met the organizational "Needs" was only possible through the sacrifice of the "Wants".

+ Converged LAC & PAC	+ User convenience
+ 2 factor authentication	+ Ease of deployment
+ Digital signature	+ Low Cost of Ownership
+ Data confidentiality	+ Universal usage

Needs  **Wants**

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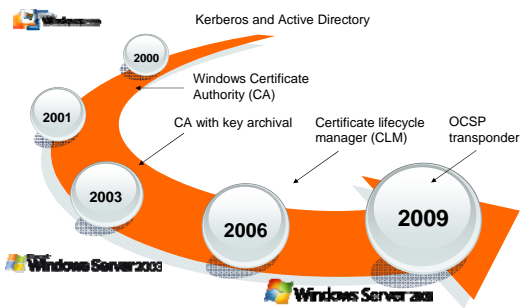
It's the Infrastructure, Stupid!

- + **"Zero Footprint" is the Holy Grail**
 - Large enterprise – 9 months and a M\$ to build a corporate image
 - Small enterprise – want to stick to "defaults"
 - Last system change = root cause for everything
- + **From NT4 to Vista, Three Trips to the Store**
 - Three years between each generation
 - Both End point and Server matter
- + **Hardware Matters**
 - Laptops with embedded smart card readers
 - Keyboards with integrated readers



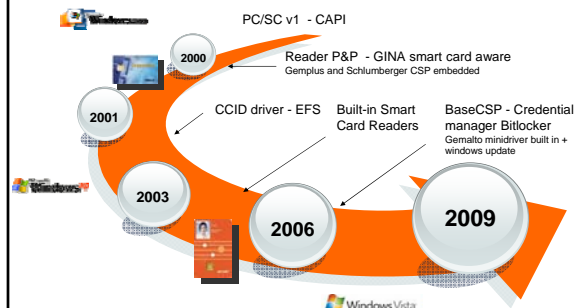
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Building the Infrastructure: OS/Directory



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Building the Infrastructure: Gemalto Smart Cards



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Native Smart Card Support in Windows 7

- + Smart Card Plug & Play**
 - Update transparent to user
 - At time of use
 - Through Windows update
- + Class Minidriver**
 - Supports PIV data model
 - Read only mode

Windows Update

Native Windows 7 Components

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Conclusion: The Road Ahead

- + Windows 7 Completes Smart Card Infrastructure**
 - The major "wants" of end users will be met
- + Physical Access**
 - The physical access world is starting to change
 - Will FIPS 201 become the universal framework for PACS?
- + Other Data Models**
 - IAS, GICS, ISO 24727
 - Is on interoperability enough?
 - Innovation vs standardization
- + Biometrics**
 - Windows 7 implements biometrics framework
 - Smart cards and biometrics complement each others (identity & privacy)
- + Personal Portable Security Device(PPSD) Era**
 - Multiple use cases, multiple form factors

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Thank You

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