



The new virtualization

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Agenda

- Virtualization: methods & business reasons
- Virtualization: vendors
- Virtualization: More secure?
- Conclusion

The new virtualization

- **Virtualization:**
 - has been around since long
 - In most cases used for server applications
- **Now:**
 - Virtualization for the end-user

Methods of virtualization

- **Server based:**
 - Virtual desktop infrastructure
 - Applications and data can reside anywhere:
 - Server / in the cloud
 - PC
- **USB key based**
 - Smaller companies
 - Operating system on the USB key
 - Can be:
 - Pre-boot
 - After boot
- **Software based (on a CD)**
 - Software to be installed on top of the operating system

Business reasons for virtualization

- Lower Total Cost of Ownership
- Higher ROI
- Manageability of:
 - Software
 - Data
 - Pc's
- Centralized, Policy-Based Management
- Increased security

Consumer benefits

- Virtualization will be offered to consumers too
- Portability for the consumer:
 - Data
 - Applications
- Additional security
- Banks could impose virtualization by providing the technology

Vendors: the large companies

- The brand leader to be challenged:
 - VMWare – acquisitions of Thininstall and b-hive
- The mass market leader:
 - Microsoft - through the Connectix acquisition
- The remote desktop leader:
 - Citrix - through the Xen acquisition
- The oldest brand name:
 - IBM
- The network name:
 - SUN Microsystems
- The virus scanning, prevention and intrusion detection:
 - Expect these vendors to enter the market too

Vendors: the challengers: small

- In most cases based upon organisations like:
 - Portableapps
 - U3
- Or having their own technology:
 - Ceedo
 - Mojopack
 - Encryptakey
 - Ironkey
 - Becrypt
 - Secuware
- Most focus on the portability
- Few focus on the security

Is virtualization more secure ?

- Isolated environment between
 - Operating system and application
 - Applications
- Isolated environment will allow:
 - Only applications from a white-list
 - Controlled data access
- It will be harder to break into
 - More hurdles to take
- Additionally the marketing will generate:
 - Increased feeling of security

Threats

- Username/Password are still required
 - For using the applications within the virtualization
 - For accessing the data within the virtualization
 - => Thus still venerable
- Malware
 - Can steal username/passwords
 -
- The same solution remains:
 - Username / One Time Password

VASCO is the **FULL OPTION, ALL-TERRAIN** authentication company



VACMAN



Core authentication platform

Combines all authentication technologies on one unique platform



IDENTIKEY



Authentication server

Combines the VACMAN core authentication platform with full server functionalities



aXs GUARD



Authentication appliances

Combines Identikey with a wide variety of Internet communication solutions;



DIGIPASS



Client e-signature software

Combines a complete set of client e-signature and user authentication functionalities on a wide variety of platforms



DIGIPASS PLUS



Authentication Services

Combines all VASCO products and solutions in an outsourced service offering.

- Thank you for your attention
- Any questions ?