Bill Wear
VirtualVault
Product Manager
Internet Banking Case Study
A Swedish bank wants an Internet Branch.

Make the security barrier high enough . . .

. . . but not TOO high.

And by the way, they ADORE security by obscurity.
Intranets and Extranets are converging into ONE NETWORK

What do you mean “Internet Branch”? 

... AND BLOCK ACCESS TO THE IMPOSTERS
What are your economic drivers?

Demand for improved customer service
  => Direct access to “internal” applications

Cost savings & business focus
  => Outsourcing services outside core competency

More efficient business models
  => Participate in trading exchanges

Increased competition
  => Expanding partner collaboration
What do you perceive to be the risks?

Computer Security Breaches Are on the Rise...
Has your company had an unauthorized use of computer systems within the last 12 months?

And the Most Popular Route In Is the Internet...

...Adding Up to Bigger Losses.

Cost of Computer Crime

Is it really just money at risk?

- Privacy
- Confidentiality
- Data Integrity
- Availability
- Non-monetary Resources
- Swedish laws imposing penalties for inadequate security
The “How-To” List

• In order to get this bank off the bricks, we had to figure out:

  1. How to provide “outsider” access without jeopardizing the enterprise.
  2. How to add appropriate security without modifying existing applications.
  3. How to authorize access to the right people.
  4. How to delegate security administration to content owners, partners and customers.
The Toughest How-To: Securing Applications without Modification

VirtualVault

Monitoring & Audit Trail

Outside

Web Server

Trusted Gateway

Inside

Applications & Services

Internal Web Server

HTML Pages

Operating System

Internet
Oh, BTW, everyone has these phones...

- Nokia or Tantau WAP on VV
- Trusted Operating System
  - Trusted IPC
  - Outside partition
  - Inside partition
    - Gateway
    - Gateway
    - Nokia or Tantau WAP Server
  - Back-end applications & data

nokia or tantau WAP onVV
...and some apps don’t run on HP-UX...
...and there’s a lot of NT boxes…

1. security analysis
2. security fixes
3. security maintenance
   - monitor
   - detect
   - enforce

WebEnforcer

NT Web server

HS Web server
index server
transaction server
data access components
script hosting
Internet explorer

complete Microsoft server environment

un-trusted zone
boundary zone
trusted zone

the enterprise
An Easier How-To: Authorizing Access to the Right People

- Define rights to specific Web objects
- Easy, browser-based administration
  - Delegated administration
  - Role-based access control
- Easily integrates with existing systems
  - LDAP, HTML, Java, CGI
- Multi-platform support on HP-UX, Solaris, NT

back-end applications

team role
- membership
- access rights

employee role
- membership
- access rights

customer/partner role
- membership
- access rights

contractor role
- membership
- access rights

» membership
» access rights

» Define rights to specific Web objects
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only authorized transactions pass this point
The Easiest How-To: Providing Access for Outsiders

Boundary Zone → Un-trusted Zone → Boundary Zone

- Public Key Infrastructure
  - Encrypted Messages
  - Digital Certificates

VPN

Public Key

Qm1jbT10T2cwS1RFR1NVMD1PDQpJR1JJVDAxQ1V5Q1FRV1JTU1

Private Key
It took a little more than products to pull it off...

- risk assessment
- penetration testing
- intrusion mgt.
- security dashboard
- trust center
- expressvault
- vaulting
- express e-firewall
- e-security readiness
- security policy and awareness
The Customer
Objectives

- Banking services diversification, e.g., payments, mutual fund transactions, account transfers, customer convenience, strong security

Benefits

- Cost reduction to customers and bank
- High value services can be offered
- 500,000 customers currently
- Safeguards more than 20 banking applications
- Can handle 700,000 customer transactions per day

“If HP had not been able to offer a secure Internet solution, S-E-Banken would not have even considered launching an Internet service at this time.” - Anders Lindqvist, Director Internet Service, S-E-Banken
Your $7.0 Trillion Web Security Blanket.

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