Managing Security as an Innovation Driver


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Continental Corporation
Our Vision

- We make individual mobility safer, more comfortable, and more sustainable
- Performance is our passion
- Creating value is our driving force
Continental Corporation
193 Production and R&D Locations in 37 Countries

Europa
- Austria
- Belgium
- Finland
- France
- Germany*
- Greece
- Italy
- Portugal
- Spain
- Sweden
- Switzerland
- UK
- Czech Republic
- Hungary
- Romania
- Russia
- Serbia
- Slovakia
- Turkey

North America
- Canada
- Mexico
- USA

South America
- Brazil
- Chile
- Ecuador

Asia
- China
- India
- Japan
- Malaysia
- Philippines
- Singapore
- South Korea
- Sri Lanka
- Thailand
- Australia

Africa
- South Africa
- Tunesia

*Headquarters in Hanover

Status: January 1, 2011
Managing Security as an Innovation Driver – Overview

- Continental – we make individual mobility safer, more comfortable, and more sustainable
- “What do you mean – Innovation Driver?“: Positioning IT Security
- A change of perspective: From Threat view to Business view
- Discussion of examples from past to future
- How to make Security effective as Innovator / Enabler
What Do you Mean - Innovation Driver?

- IT Security was invented to **protect** – CIA (C – Confidentiality, I – Integrity, A – Availability)
- IT Security is highly valued, in principle, but perceived as **nuisance** when the user is exposed to protection measures
- Careful protection is more often than not experienced as **blocking** the dynamic business

▸ How can IT Security be an **Innovation Driver**?

- **Drive Innovation**
- **Enable Innovation**
- **Protect – C I A**
  
  • IT Security was invented to **protect**
  • Is perceived as a **nuisance**
  • Is **Blocking** business
How Can IS be an Innovation Driver? - A Change of Perspective

After all, IS is not only about Protection – IS is about Technology, too

- Drive Innovation
- Enable Innovation
- Protect – C I A
- Business Development
- Business Demands
- Business Threats
Pretty Abstract – What About Examples?

An example from the past (the 90’s): **IPSec / VPN**

- **Protection Technology**: VPN techniques were developed in IT Security to protect data streams on their way through public, unencrypted networks
- **Use**: VPN created a burst in home office and mobile use
- **Business Impact**: VPN created an attractive alternative to join (new) company locations to the company network, or partners, customers to company resources

As it happened, IPSec / VPN became a major business innovation driver.
IS Innovation Driver – More Examples, Even from the Future

Digital Identity

- Protection Technology: PKI, Digital Signature, Secure Authentication…..
- Use: One, officially granted, ID rather than many spread over devices and sources
- Business Impact: Business over Internet, Cloud Service consumption, Community access

Private use / Business use

- Protection Technology: Encryption, Device Management (e.g. uniform security settings), Client Virtualization, Sandboxing…
- Use: Use same device, or any device, for private and for business application
- Business Impact: Business-Life-Balance integration, Business mobilization

Next stop: De-perimetrisation ?
IS - The world we know (Perimeters in the CIAS Model)

- Firewall
- Content filtering
- VPN
- Basic protection
- No protection against advanced threats

“Security Belt”

Internet

Internet

Internet

Intranet

Basic protection
Limited protection against insider threats
No protection against advanced threats
Traditionally, our information assets and compute resources are “fenced in” around the outer perimeter of our network.

There are “inner perimeters“ and fences as well (shell model of security).

Today’s business requirements for the flow of data between customers, suppliers, roadwarriors and business partners, is leading to the erosion of the (classical) network perimeter concept.

Advanced attacks are already tunneled through the network perimeter.
So … Tear Down the Walls? – The De-perimeterized Network

- Data-level
  - Authentication
  - Encryption
  - Open and secure protocols
  - Secure system with trust monitor
  - Risk Management
- Identity & Access Management

DRM

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So … Tear Down the Walls? – The De-perimeterized Network

- De-Perimetrization, a new Security paradigm:
  - It is easier to protect data the closer we get to them
  - Right where they reside and where they are used
  - Decrease the “surface” of threat exposure
De-Perimetrization - An Innovation Driver?

- Imagine a world with a de-perimeterized collaboration oriented architecture, where
  - Carve-in/carve-out-activities are no longer excessive projects
  - Joint ventures are not held back by IT integration and Security issues
  - Business partner integration is not a big project anymore
  - Makes a Collaboration Oriented Business Architecture much easier to implement

- And at the same time lets the CSO sleep well, i.e., WITHOUT compromising security
How to Make Security an Effective Enabler / Innovator

Three roads to manage IS as an effective Business Enabler / Innovator – at a glance

- IS built-in into top level IT Processes
- IS embedded in Service Architecture
- IS integrated into Service Life Cycle

Remember, IS is not only about Protection & Policies – IS is about Technology, too
IS Embedded in Service Architecture

- Operational security defined as (Infrastructure) Services
  - Part of Service Architecture, hence have “Consumers“
  - Subject to Service Life Cycle Management
  - Security technology part of / turned into Service

- Security Management embedded in other Services
  - Security technologies as part of the employed technology
  - Security metrics defined and measured, similar to SLs / KPIs, per Service
  - Subject to Service Life Cycle Management
  - Service specific security screening for Risk Management
## Service Description: Sec Metrics in Managed DB - MSSQL

### Service Level / KPI (3 Service Elements)

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability</td>
<td>99.99</td>
<td>SLA Servicehours Availability per month max. Downtime</td>
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<tr>
<td>Av in %</td>
<td>Hrs-Main-Out)/(Hrs-Main)</td>
<td>2h</td>
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</tbody>
</table>

### Security Metrics (6 Service Elements)

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security Item: Database Backup</td>
<td>Type: Coverage</td>
<td></td>
</tr>
<tr>
<td>Units of Measure: Percentage of Systems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Objective:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source: Monitoring by database script and analysis</td>
<td>Reporting Services</td>
<td></td>
</tr>
<tr>
<td>Frequency of measurement:</td>
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<td></td>
</tr>
<tr>
<td>Owner Security Officer: Marianne Trombke</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coverage</td>
<td>100%</td>
<td></td>
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<tr>
<td>Security Item: Public Account Security</td>
<td>Type: Coverage</td>
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<td>Units of Measure: Percentage of Systems</td>
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Innovation Ahead! Drive safely!

Thank you