Secure Mobile Communication

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• Agenda

- Secure Mobile Communication
  - Situation until 2013
  - Tender for New Solution 2012
  - Challenge

- SecuSUITE for BlackBerry® 10
  - Our message
  - Framework of our Solution
  - Approval & Rollout

- SecuSUITE Infrastructure
  - Requirements and 1st Steps
  - Secure Voice: SecuGATE LV and High Availability (n+1)
  - Secure Data
Secure Mobile Communication

• Secure Mobile Voice: Secusmart SecuVOICE SNS
  • End-2-end GSM-CSD encryption of voice for Nokia Series 60 devices
  • SNS Standard for E2E voice encryption based on SCIP-210 signaling and smartcard-based BOS cryptography
  • Approved by BSI for German RESTRICTED (VS-NfD)
  • Approved for NATO RESTRICTED (BSI, NBV, NATO) & Restreint UE
  • More than 6000 SecuVOICE SNS terminals delivered to German Federal Authorities

• Secure Mobile Data: T-Systems SiMKo 2
  • Locked-Down Device based on hardened Windows Mobile 6.5
  • 2nd factor authentication based on external smartcard
  • Secure mobile data synchronization (E-Mail, Calendar, Contacts & Intranet Access) via VPN
  • Encryption of all data resting on the device (data-at-rest encryption)
  • Approved by BSI for German RESTRICTED (VS-NfD)
  • ~1500 SiMKo 2 devices delivered to German Federal Authorities
• Situation in Germany until 2013

... and the real situation was...

1 Nokia Phone
Secure Voice with 1-2 sec delay

1 Windows Mobile device
Locked-down to Secure Data only

1 iPhone
Full featured personal smartphone
• End of 2012: Tender for New Solution

Secure Voice (over-IP) + Secure Data + personal Smartphone
• The Challenge

Governmental grade mobile security solutions are
- Third party solutions on the back of a mobile platform
- Tied to a specific mobile device platform
- Run on outdated devices
  -> typically lagging 1 or 2 generations behind the latest devices
- Expensive / pricey

After making a smartphone secure...
...it remains to be a “phone” but no longer “smart”

A solution which is truly used by the end user needs to be **both secure and smart**
### SecuSUITE for BlackBerry® 10

#### Requirements from different Groups

<table>
<thead>
<tr>
<th>Security Authorities &amp; Evaluation Bodies</th>
<th>Locked-Down (fully regulated) Device:</th>
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<tbody>
<tr>
<td></td>
<td>Secure mobile data: E-Mail, Calendar, Contacts, Intranet access</td>
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<td>Secure mobile voice: end-to-end encrypted mobile calls, full PBX integration</td>
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<td>Enterprise mobility management: full regulated device, full compliance</td>
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<th>Customers: IT decision makes &amp; Admins</th>
<th>Viable Mobile Security Solution:</th>
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<tr>
<td></td>
<td>Approved for NATO-Restricted (needs to have the official stamp)</td>
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<td>Cost effective to allow for a large roll-out with given budget</td>
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<td>Satisfies end users: attractive devices, unchanged experience</td>
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<tr>
<th>End Users: Public Officers &amp; VIPs</th>
<th>Full featured “non-crippled” Smartphone</th>
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<td>Solution always available on latest devices</td>
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<td>Work just works and is secure, but...</td>
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<td>Personal experience shall be unchanged</td>
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Our message

SecuSUITE for BlackBerry® 10 is the only solution worldwide, that provides

- Hardware-based security and unlimited private use in one, smart device
- Security for voice AND data
- Approved German VS-NfD and NATO-Restricted security classification and other non EU Countries.
- In use by the German Federal Government since Go-Live in Sept. 2013
Why BlackBerry?

- BlackBerry is the only company offering an innovative and secure classification between private and business area on a smartphone.
- BlackBerry is the only manufacturer who has always cared about the topic of security.
- Easy administration with BES 10 and BDM (BlackBerry Device Manager).
- It's possible to run SecuSUITE for BlackBerry 10 without using BlackBerry infrastructure.
- Secusmart and BlackBerry are having a strategic partnership, allowing us to develop on a new device long time before commercial launch.
- All necessary preconditions for our solution are integrated in the standard BlackBerry 10-OS.
• **BlackBerry Balance**

- **Work space**
  - Secure Data sync: Email, Contact, Calendar
  - Secure Browsing: Intranet
  - Secure Voice
  - Secure SMS

- **Private space**
  - Internet browsing
  - unlimited BB World appstore
  - Social media
• The Secusmart Security Card (SSC)

- The basis of all Secusmart solutions is the Secusmart Security Card. It contains a tamper-proof crypto-building block which enables the highest level of security and non-ambiguous identification.

- Mobile communication has never been so secure: Hardware solution using Elliptic Curve Cryptography Certificate-based authentication of call participants End-to-end encryption with 128 Bit AES.
• Secusmart Security Card (SSC)
  - MicroSD-Card with secure Flash-Storage
  - Secure Key storage (protected against foreign access)
  - PKI Co-Processor
  - High Speed AES Co-Processor
  - Energy saving design
  - In use inside Authorities and institutions worldwide
• Strictly separated perimeters in the mobile device

- Official vs. Private

- Personal perimeter for private usage

- Work perimeter for official usage (restricted level)
SecuVOICE – Deep Integration in native Phone App

- SecuVOICE Phone Line
  - Seamless integration
  - Easy to use
  - Modular deployment
  - Presented in Phone UI alongside standard cellular phone line
• No extra App, just select the SecuVOICE Line!
• Roll-Out in Germany

- Frame Contract with German Federal Authorities (Q1/2013)
  - Delivery, installation & operation of a system for secure mobile voice & data communication

- Pilot Installation of SecuSUITE in Federal Government Network (Q2/2013)
  - Selected Federal Ministries with limited quantities

- Go-Live of SecuSUITE production system (Q3/2013)
  - All German Federal Ministries and other Federal Agencies
  - Central SINA VPN HA-Cluster for mobile data access to Government network
  - Central Secure Voice HA-Infrastructure for up to 10,000 users

- More than 2500 SecuSUITE solutions & more than 30 BES 10 have been deployed within German Federal Government since Go-Live in Sept. 2013!
Approval

- Planned Approval: German RESTRICTED (VS-NfD) for Secure data & voice

- Since Sept. 2013: Preliminary approval for German RESTRICTED (VS-NfD). Approval covers both secure voice & data

- July 2014: SecuVOICE approval for NATO Restricted by BSI & NATO
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SecuSUITE for BlackBerry® 10 – Requirements

• Setup of the infrastructure

- Setup of a BES 10
  - BES 10 is the BlackBerry Mobile Device Management solution which is needed to setup the Balance function. Balance is needed because the SecuVOICE solution will be installed within the secure work perimeter.

- It has to be decided if
  - a) the BlackBerry infrastructure shall be utilized (standard BlackBerry solution)
  - or b) a dedicated VPN gateway shall be implemented. BlackBerry 10 supports most popular VPN gateways (Cisco, Checkpoint, ...).

- After the decision between these two options the data will be transferred between the Mail Server and the work perimeter of the mobile BlackBerry 10 device.
Secure Voice backend Scenarios

- Operation within Customer premises
  - Single unit solution – SecuGATE LV & SecuBRIDGE
  - Redundant / high availability architecture (n+1)

- Hosting by Secusmart in Germany
  - Redundant / high availability System
• SecuGATE LV

- Single Appliance

- Supported Services:
  - Secure Client Authentication
  - Secure Call Mobile to Mobile
  - PBX Integration: Mobile to/from PBX
  - Secure Landing: Breakout to PSTN
SecuSUITE for BlackBerry® 10

•SecuGATE LV – Client Authentication

SecuGATE LV

Secure Client Authentication

Session Border Controller

SCA

SIP

RTP Proxy

Crypto
GW incl.
MKK

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• SecuGATE LV
– Session Initiation / Call Setup
SecuSUITE for BlackBerry® 10

• SecuGATE LV – SNS Voice over RTP

SecuGATE LV

Session Border Controller

SCA
SIP
RTP Proxy
Crypto
GW incl.
MKK

SNS Voice over RTP
SecuSUITE for BlackBerry® 10

**SecuGATE LV – PBX Integration**

- Customer Telephone Network
- PBX
- Session Border Controller
  - SCA
  - SIP
  - RTP Proxy
- Crypto GW incl. MKK
- Decrypted call forwarding
- SNS Voice over RTP
SecuSUITE for BlackBerry® 10

*SecuGATE LV – Secure Landing*

- Customer Telephone Network
- PBX
- Decrypted call forwarding
- PSTN
- SNS Voice over RTP

SecuGATE LV

- SCA
- SIP
- RTP Proxy
- Crypto
- GW incl.
- MKK

A Subsidiary of BlackBerry
SecuBRIDGE

- Secure Conferencing - Optional
  - Ability to join a conference Bridge is based on the SSC identity authentication (Digital fingerprint)

- Available factors
  - Standalone System
  - Service integrated in the HA solution as an optional module
SecuBRIDGE

SecuGATE LV

Session Border Controller

- SCA
- SIP
- RTP Proxy

Secure Conferencing

Crypto
GW incl.
MKK

SNS Voice over RTP

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• SecuGATE High Availability (n+1)

- Fully redundant network and server farm deployment
- Scalable architecture due virtualization
- Support of all Services available on SecuGATE LV and SecuBRIDGE
• Secure Data – Optional

- Alternative to standard BlackBerry Infrastructure
- Required Components and Systems
  - VPN Gateway
  - BES 10 for Mobile Device Management not connected to BlackBerry Infrastructure (“Dark Site” deployment scheme)
  - BlackBerry 10 devices with our Secusmart Security Card
  - Implementation of customer-related infrastructure components (such as Mail Server, PIM, etc.)
SecuSUITE for BlackBerry® 10 Questions?

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THANK YOU
LUCKY DRAW PRIZES

Please proceed to Track A Room for Lucky Draw NOW

2 x Apple Watch
4 x Trend Micro PC-cillin Maximum Security
2 x Microsoft Surface 3