Mobile Strategy

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Mobile Strategy Presentation Outline

Security  Competition  Strategy  Application
Mobile Threats

- There are numerous attack vectors
- The targets are high-value

<table>
<thead>
<tr>
<th>Attack Vectors</th>
<th>Targets</th>
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<tbody>
<tr>
<td>• SMS</td>
<td>• Message forwarding</td>
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<tr>
<td>• Email</td>
<td>• Credential acquisition</td>
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<tr>
<td>• Web browser</td>
<td>• Recording or listening to conversations</td>
</tr>
<tr>
<td>• 3rd party apps*</td>
<td>• Malware propagation</td>
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<tr>
<td>• “Jail-Broken” phones</td>
<td>• User tracking (GPS)</td>
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<td>• Operating system vulnerabilities</td>
<td>• Data collection</td>
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<tr>
<td>• Physical Access</td>
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*10.9B mobile apps downloaded in 2011, 76.9B projected by 2014 (IDC)

Source: Verizon Mobile Devices and Organizational Security Risk
Mobile Controls

• There are a litany of controls that organizations can employ:
  – Force encryption of data at rest
  – Force secure connectivity on unsecured public networks
  – Confirm unauthorized mobile devices do not have access to corporate LAN
  – Confirm mobile user spending is in-line with mobile security policy
  – Implement over-the-air decommissioning of lost or stolen devices
  – Set the device to auto-lock
  – Set limit for unauthorized login attempts
  – Handheld devices should be enterprise property
  – Before an employee departs, obtain device and remove corporate data
  – Classify data according to sensitivity of data being carried

• But there will still be residual risk...

Source: Verizon Mobile Devices and Organizational Security Risk
Competitive Considerations

• In security, we face a multi-faceted competitive landscape
  – Adversaries: nation states, organized crime, activists, etc
  – Rivals: marketplace competitors, industry peers, etc

• You **cannot** stop the sophisticated adversary
  – Extremely skilled
  – Heavily funded
  – Highly determined

• You **can** perform better than rivals
  – Improve situational awareness
  – Reduce attack surface
  – Mature coding practices
Basis of Competitive Security Positioning

- Your goal is to find the balance between the potential economic value of mobile and the associated cost of controls (EEI, 2009)
  - Understand business strategy (vision)
  - Identify business processes (value creation)
  - Map supporting IT services (risk origination)
  - Calculate risk to the business (value at risk)
  - Define risk relative to the competitive landscape (risk tolerance)
Competitive Positioning Example

• Sophisticated adversary with a targeted attack
  – Establish initial beachhead
  – Direct extensive resources to control key assets
  – Defenses track activity for intelligence gathering
  – At pre-determined level of progression (risk acceptance), adversary is denied

• Adversary re-directs activities toward peer organization
  – Learned lesson from previous activity and adapts approach
  – Multiplied resources toward new target
Strategic Process

• **Strategy is about creating competitive advantage by leveraging resources to exploit opportunities**

• There are three basic steps to strategic development (Rumelt, 2011):
  – Diagnosis
  – Approach
  – Actions

• **Example: US Cold War Strategy**
  – Diagnosis: USSR heavily motivated to compete militarily but cannot invest dollar for dollar with the US
  – Approach: Invest in offensive capabilities for which defensive counter-measures offer no complementary offensive capabilities
  – Actions:
    • Modify investment process
    • Promote offensive capabilities
Characteristics of Good Strategy

• Good strategy:
  – Is about what not to do (Porter, 1996)
    • The problem should be simpler when a good strategy is applied
    • Financial/Operational/etc targets are not strategy, they are goals
  – Views situations from unique perspectives (Levitt, 1960)
    • Industry: Holcim (Zack, 2003)
    • Mobile: Consumers and Creators of data
  – Leverages an organizations’ strengths (Wernerfelt, 1984)
    • Industry: Honda Engines
    • Mobile: User Experience
  – “fits” in such a way that activities are complementary
    • Industry: Google – search, ads, applications, etc “fit” with “organize the world’s information and make it universally accessible and useful”
    • Mobile: logging, risk, data loss prevention, monitoring “fit” with data-driven decisions
Business Strategy: 3 Horizons of Growth

HORIZON ONE

Core Revenue

- Business Strategy
- Demand-side benefits of scale
- Service delivery
- • Standardization
  • Process improvement

HORIZON TWO

Emerging Growth

- Technology Approach
- Growth through acquisition
- Service integration
- • Virtualization
  • Service consolidation

HORIZON THREE

Embryonic Opportunities

- Technology Actions
- Value chain expansion
- Service development
- • Software development
  • Usability

Mobile Strategy

• Mobile is a “point” strategy – a subset of business, IT and security strategies

• Each organization should have a unique strategy
  – A great strategy for one organization may be terrible for another
  – Don’t succumb to competitive convergence
# Information Touch Points

## Security Program

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<th>Security Capabilities</th>
<th>Stakeholders</th>
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<td>SSDLC</td>
<td>M&amp;A</td>
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<td>IAM</td>
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<td>EPP</td>
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<td>SIEM</td>
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<td>Risk</td>
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<td>Crypto</td>
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## Capability Horizontals

## Business Verticals

## Application
Mobile Strategy - Diagnosis

• **External Environment:**
  - 102 million tablets will ship in 2012
  - 630 million smartphones in 2012
  - 4G networks will be 10x faster than 3G
  - 52% of 18-27 year olds consider technology when selecting an employer
  - 54% of 18-22 year olds expect to access their own tech in the workplace

• **Internal Environment:** (1) infrastructure, (2) hardware refresh cycle, (3) spending levels, (4) information sensitivity, (5) new acquisitions, (6) compliance requirements, (7) risk profile

• **Threats:** (see slide 3)

• **Opportunities:** (1) reduce costs, (2) reduce energy consumption, (3) attract new talent, (4) strengthen brand, (5) support complementary initiatives, (6) happy users, (7) risk reduction, (8) productivity, etc.

Source: Mobile: Gartner. Millennial Users: Accenture
Mobile Strategy - Approach

• The guiding approach will provide overarching direction for all stakeholders to base their decisions

• Business Approach
  – “Low Cost Airline” – Southwest Airlines

• General Security Approaches
  – Opportunistic – “minimal security footprint”
  – Relative Value – “perform equal or incrementally better than rivals”
  – Absolute Value – “do what creates the most value”
  – Compliance – “good compliance means good security”
  – Risk to Zero – “accept as little risk as possible”
Mobile Strategy - Actions

• Strategic actions support execution and delivery of the strategy
• Examples of actions include:
  – Accelerate VDI implementation
  – Sandbox mobile devices
  – Segment network to support BYOD
  – Develop mobile risk scenarios to characterize exposure
  – Define data classification requirements
  – Develop social network and mobile training program
Mobile Strategy - Example

**Technology Actions**
- Standardization
- Process improvement
- Virtualization
- Service consolidation
- Software development
- Usability

**Security Actions**
- White-listing (profile)
- Mobile sandboxing
- Mature DLP services
- Enclave environments
- Marketplace app testing
- User experience

**Challenges**
- Data classification
- Device selection
- Risk acceptance
- Compliance
- Technology maturity
- User training

**Benefits**
- Establish foundation
- Quick wins
- Strategic alignment
- Scalability
- Full BYOD support
- Risk reduction

**Approach**
- “Manage data and applications – not devices”
Complementary Drivers

• Complementary initiatives provide drivers for a mobile strategy
  – Unified Collaboration/Communication – Accenture, Cognizant
  – Mobile Field Services – ADP
  – Disaster Recovery/Emergency Response – Interstate Transport
  – Enterprise/Web 2.0 – Booz Allen Hamilton, Cognizant, Juniper Networks
  – Virtualized Desktop Infrastructure - SaveMart
  – Mobile Application Development – Google, Wells Fargo
  – Electronic Records Management – Univ. of Chicago, Goodwin Procter
  – Wireless Infrastructure/Security – USD, GWU, Halifax Health Systems
  – Social Media Employee Collaboration – J&J
  – Mobile Claims Management – Reliance General Insurance
  – Intellectual Property Workflow Automation – Thomson Reuters

Source: Network World, Top 100 IT Projects
Next Steps

• View your organization and capabilities from the perspective of competitive positioning
  – Differentiate
  – Create competitive advantage
• Build your strategy based on diagnosis, approach and actions
• Use characteristics of good strategy:
  – Focused
  – Unique perspective
  – Utilize strengths
  – Complementary
• Doing this right will make users happy and improve security
Questions?

Mobile Strategy

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