IT Portfolio Management
Week 9
ISACA’s Risk IT Framework
ISACA’s Risk IT Framework

1. What is IT Risk?
2. What are the three types of IT Risk?
3. What are the three risk processes that an enterprise ought to have?
4. What is risk appetite?
5. What is risk tolerance?
6. What are the three parts of a risk culture?
Risk Evaluation

• What are some ways you might express IT risk in business terms?
  – COBIT
  – COSO ERM

• What is a risk scenario?

• What is a risk factor?

• What are the four types of risk response and when would you use them?
ISACA’s Risk IT Framework

- Part of Enterprise Risk Management
- Look at the breadth of IT risk, not just cyber-security
- Should align to business strategy

Risk IT Framework
- Risk Governance
  How much risk can you stand?
- Risk Evaluation
  What risks do you actually face?
- Risk Response
  How can you make these risks acceptable?
How much risk can you stand?

### 12. Has your board of directors considered IT risks?

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<thead>
<tr>
<th>Response</th>
<th>Response Percent</th>
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<tbody>
<tr>
<td>Yes</td>
<td>39.3%</td>
<td>11</td>
</tr>
<tr>
<td>No</td>
<td>60.7%</td>
<td>17</td>
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</table>
What risks do you actually face?

9. Have you had a cyber-security risk assessment performed?

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<tbody>
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answered question: 28
skipped question: 0
How can you make these risks acceptable?

- Accept it
- Avoid it
- Share or Transfer it
- Mitigate it with controls
  - Make it less likely
  - Make it less impactful

5. Is cyber security the responsibility of a single designated person?

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answered question 28
skipped question 0
Two views of cyber-security controls

<table>
<thead>
<tr>
<th>ISACA</th>
<th>SANS</th>
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<tbody>
<tr>
<td>Preventive</td>
<td>Getting In</td>
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<tr>
<td>Detective</td>
<td>Staying In</td>
</tr>
<tr>
<td>Corrective</td>
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SANS Control # 3: Secure Configurations of HW & SW

– Utah Department of Health – 701,000 records
  • Policy to delete information not followed
  • Old configuration gave hacker access

– St. Joseph’s Health System - 32,000 records
  • “…security settings incorrect.”

– SANs quick wins: Standard, hardened builds, preferably put on by vendors, no variations unless specifically approved
SANS Control # 3: Controlled Access Based on Need to Know

- Memorial Healthcare System – 10,000 records
  - Two employees “...improper access”
  - Intended to file fraudulent tax returns

- South Carolina Department of Health – 228,000 records
  - Employee moved 17 spreadsheets by email

- SANS quick wins: multi-level data classification with access allowed to minimally acceptable authorized users
SANS Control # 17:
Data Loss Prevention Data-at-rest

<table>
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<tr>
<th>11. Do all desktops and laptops use data encryption by default?</th>
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<tbody>
<tr>
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<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
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</table>

answered question 28
skipped question 0

– SANS quick win: deploy hard drive encryption
SANS Control # 17: Data Loss Prevention Data-in-motion

- South Carolina Department of Health – 228,000 records
  - Employee moved 17 spreadsheets by email

- CA In-home support Services – 701,000 records
  - Unencrypted microfiche lost on way to insurance company

- SANS: Monitor outbound transactions for anomalies, move data using secure, authenticated, encrypted mechanisms
The All World Airlines Case

• Take 45 minutes
• Your team has been requested to compile a list of risks for each of five areas identified by the CFO for the risk assessment.
  – Group your thoughts by section, using the details that Don has provided, your understanding of the COBIT risk management issues and your understanding of IT issues.
  – How would you perform a risk assessment of the risks identified in question 1 to provide an objective and subjective assessment for management’s consideration?
  – Identify what role the retained organization should have in its interactions with the vendor for the outsourced IT function.