Managing cybersecurity risks in a complex digital society

July 2018

Olabode Olaoke
The world we live in today is Digital

The internet is the first thing invented by mankind that we do not truly understand

Our economic and social future is mortgaged to the internet
Our [revised] needs as humans...
Your digital world just got bigger and the new business ecosystem must remain protected.
Digital comes with some risks

Digital

Risk

MAJOR LEAK SUGGESTS NSA WAS DEEP IN MIDDLE EAST BANKING SYSTEM

attacked
Question...

Why are organizations getting breached?
Video...

YouTube Video: https://www.youtube.com/watch?v=IEAtGkbq5Y
Day: 4
Mon, May 15, 2017 21:27:00

Total Cities Infected: 1,475
Malware detected at Omaha, United States
<table>
<thead>
<tr>
<th>TOTAL RESULTS</th>
<th>848</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOP COUNTRIES</td>
<td></td>
</tr>
<tr>
<td>Nigeria</td>
<td>848</td>
</tr>
<tr>
<td>TOP CITIES</td>
<td></td>
</tr>
<tr>
<td>Lagos</td>
<td>341</td>
</tr>
<tr>
<td>Abuja</td>
<td>86</td>
</tr>
<tr>
<td>Lekki</td>
<td>22</td>
</tr>
<tr>
<td>Enugu</td>
<td>16</td>
</tr>
<tr>
<td>Ikeja</td>
<td>10</td>
</tr>
<tr>
<td>TOP SERVICES</td>
<td></td>
</tr>
<tr>
<td>SMB</td>
<td>846</td>
</tr>
<tr>
<td>HTTP (8080)</td>
<td>1</td>
</tr>
<tr>
<td>MTR</td>
<td>1</td>
</tr>
</tbody>
</table>

**82.101.146.233**
Windows 7 Ultimate 7600,
Usmanu Danfodiyo University
Added on 2018-07-23 18:59:01 GMT
- **Details**
  - **SMB Status**
  - **Authentication**: enabled
  - **SMB Version**: 1
  - **Capabilities**: unicode, large-files, nt-smb, rpc-remote-api, nt-status, level2-oplocks, lock-and-read, nt-find, infolevel-passthru, large-readx, large-writex, lwio, extended-security

**197.149.191.78**
Windows Server 2012 R2 Datacenter 9600
Vdt Communications Limited
Added on 2018-07-23 18:50:48 GMT
- **Details**
  - **SMB Status**
  - **Authentication**: enabled
  - **SMB Version**: 1
  - **Capabilities**: unicode, large-files, nt-smb, rpc-remote-api, nt-status, level2-oplocks, lock-and-read, nt-find, infolevel-passthru, large-readx, large-writex, lwio, extended-security
Food for thought...

“If you think technology can solve your security problems, then you don’t understand the problems and you don’t understand the technology.”

— Bruce Schneier
**Strengthening the digital society against cyber shocks**

Key findings from The Global State of Information Security® Survey 2018

Business leaders understand new risks tied to emerging technologies

- Disruption of operations or manufacturing: 40%
- The loss or compromise of sensitive data: 39%
- Harm to the quality of products produced: 32%
- Damage to physical property: 29%
- Harm to human life: 22%

Have an IoT security strategy in place or are currently implementing one (+5% YoY)

Key processes for uncovering cyber risks in business systems include:

- Penetration tests: 42%
- Threat assessments: 45%
- Vulnerability assessments: 45%
- Active monitoring of information security intelligence: 48%

GSISS respondents report adoption of many cybersecurity and privacy leading practices:

- Overall information security strategy: 56%
- Employee security awareness training program: 52%
- Security standards for external partners & 3rd parties: 50%
- Teams regularly meet to coordinate information security issues: 46%

28% Cite mobile device exploitation as the cause of the security incident, overtaking phishing attacks as the top threat vector

59% Say digital transformation has increased information security spending

Source: The Global State of Information Security® Survey 2018
“Yesterday’s mindset”

“Cyber security risk is an IT issue”

“We are rushing for the deadline, no time for us to consider security in system development”

“Our system vendors will take care cyber security risk for us”

“We have not been hacked before – do we need security?”

“We have complied to relevant regulatory guidelines, so we will not get hacked!”

“There is no regulatory pressure on cyber security risk”

“We are not a bank – too small to be a target of hackers, right?”

“We have a firewall in place – we are protected.”
Financial services of the future

Secure Digital Financial Services

Mobility  Real time  Universal  Analytics  Social  Cloud

Integration fabric

- User experience
- Process and rules integration
- Application and service integration
- Data integration
- Master data integration
- Infrastructure integration
- Security and management
Critical areas to address – high level

Strategy and Transformation
Develop business-focused strategies that support growth by making security and privacy an enterprise-wide priority.

Privacy and Consumer Protection
Understand data lifecycles to protect data, help meet the privacy expectations of consumers, and applicable privacy regulations.

Incident & Threat Management
Confidently prepare, identify, respond, investigate and remediate threats.

Cyber as a Service
Provide the support needed to manage, support, and enhance cybersecurity operations.

Implementation & Operations
Architect, design, implement, and enhance the use of technology.
Critical elements to address – low level

- Poor IT Asset Management
- Poorly managed Access Controls
- Inadequate Vulnerability and Configuration Management
- Insufficient Threat Detection and Incident response
- Poor levels of awareness
- Poorly managed 3rd party risk
“Better a little which is done well than a great deal imperfectly”

- Anonymous
Thank you for listening