Cybersecurity, Trade, and Economic Development

G7 ICT Priorities: Technology, Innovation, and the Global Economy
UNCTAD E-Commerce Week

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Delivering the next-generation security platform
Palo Alto Networks at-a-glance

CORPORATE HIGHLIGHTS

- Founded in 2005; first customer shipment in 2007
- Safely enabling applications and preventing cyber threats
- Able to address all enterprise cybersecurity needs
- Exceptional ability to support global customers
- Experienced team of 3,300+ employees
- Q2 FY16: $334.7M revenue

REVENUES

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue (in $MM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY09</td>
<td>$13</td>
</tr>
<tr>
<td>FY10</td>
<td>$49</td>
</tr>
<tr>
<td>FY11</td>
<td>$119</td>
</tr>
<tr>
<td>FY12</td>
<td>$255</td>
</tr>
<tr>
<td>FY13</td>
<td>$396</td>
</tr>
<tr>
<td>FY14</td>
<td>$598</td>
</tr>
<tr>
<td>FY15</td>
<td>$928</td>
</tr>
</tbody>
</table>

ENTERPRISE CUSTOMERS

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul-11</td>
<td>4,700</td>
</tr>
<tr>
<td>Jul-12</td>
<td>9,000</td>
</tr>
<tr>
<td>Jul-13</td>
<td>13,500</td>
</tr>
<tr>
<td>Jul-14</td>
<td>19,000</td>
</tr>
<tr>
<td>Jul-15</td>
<td>26,000</td>
</tr>
</tbody>
</table>
G7 Recommendation - Cybersecurity

“The G7 can demonstrate global leadership on ICT priorities if it agrees on the following outcomes in 2016:

Cybersecurity. Ensuring that measures they take to enhance cybersecurity reflect the global nature of cyberspace, rely on risk management-based approaches that avoid prescribed standards for individual technologies, and incorporate meaningful consultation with the private sector to encourage innovative, flexible, and cost-effective solutions.”

Why is this approach important?
Cybersecurity measures should ...

...reflect the global nature of cyberspace

- **Cyberspace is global**
  - Global Internet – technologies must interconnect
  - Companies need to work online across borders
  - People need to communicate across borders (using an iPhone in Switzerland to call a friend on an Android phone in Mozambique)

- **Threats are global**
  - Cyber criminals do not respect national borders
  - Threats cross borders in real time
  - Countries (their businesses and citizens) face many of the same threats

- **Security measures must also be global**
Cybersecurity measures should ...  

...rely on risk management-based approaches

- Organizations often have different risks from each other
  - Can depend on their industry, location, sophistication, size, and assets
  - They may have different things of value that criminals want
  - They could be targeted for other reasons (e.g. political reasons)
  - They use various technologies, infrastructure, applications

- And these risks change over time
  - Items of value change
  - Companies enter new lines of business, get new customers or partners
  - Cyber criminals change tactics
  - Technologies change
Cybersecurity measures should ...

...incorporate meaningful consultation with the private sector

- Expertise exists everywhere
  - Knowledge about threats, technologies- much of this is in private industry

- Governments and the private sector have the same goal: better cybersecurity and resilience
  - Governments want to protect their citizens, businesses, and economies
  - Companies want to conduct business securely, protect their IP, and protect their customers’ data
  - In many countries, private companies own or operate critical infrastructure

- Companies have significant experience with cybersecurity
CYBERSECURITY IS A COMPLEX POLICY ISSUE
What’s changed?

THE EVOLUTION OF THE ATTACKER

CYBERCRIME NOW
US$445 billion industry

CYBER WARFARE
100+ nations
What’s changed?

THE EVOLUTION OF THE ATTACK

- Mobility threat
- Identity compromise
- Zero-day exploits / vulnerabilities
- Unknown & polymorphic malware
- Evasive command-and-control
- Known threats

Organizational risk
Economics of Attackers: Prevention Challenge

Increase in adversary skills and use of specialized tools

Innovation driving improved attack toolkits

Increase in number of vulnerabilities & exploits

Source: Ponemon Institute
THANK YOU!

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