Every Product is a Security Product

Session 103-A: Security In a Flash!

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Every Product is a Security Product

99% *

of all devices that may some day join the network are still unconnected

Source: Cisco, Rob Soderbury 2013

70% **

of the most commonly used IoT devices contain vulnerabilities.

HP study reveals 70% of Internet of Things devices vulnerable to attack. (n.d.). Retrieved from http://h30499.www3.hp.com/t5/Fortify-Application-Security/HP-Study-Reveals-70-Percent-of-Internet-of-Things-Devices/ba-p/6556284#.VHMpw4uUfVc

The cloud provides a platform for IoT to flourish, however, there are still many challenges. With the plethora of data that they will hold, storage servers will have to be updated and secured all the time. **

- Every product has hardware, code, & data storage – all potential hacks
- We must protect the devices, the things they connect to, and all the data
- Data Storage Products are at the heart of it all and must be secured

* Ernst & Young: Global Information Security Survey - 2015

** Ernst & Young: Cybersecurity and the Internet of Things

Scary Product Cybersecurity World Out There

SEAGATE

What is Security ?

Security – A feeling of being adequately safe from threat or danger.

It is a Feeling!

But we have to Take Action – What to Do?

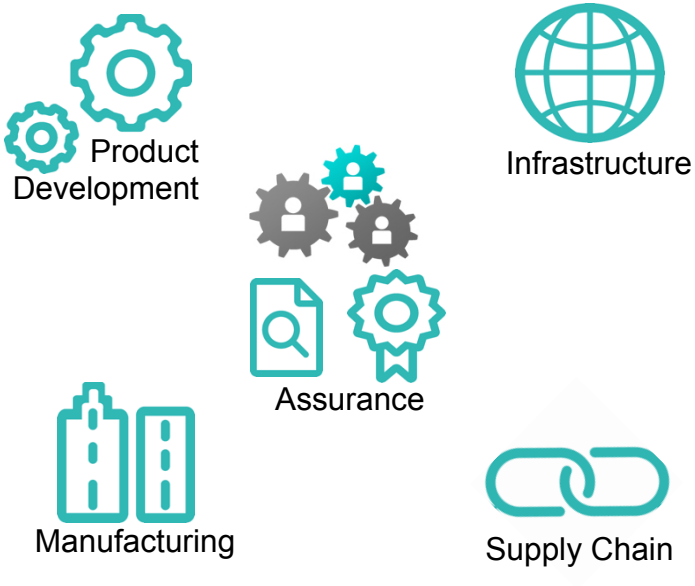
Secure Products AND Product Security

Secure Products:
Increasing Security Policies, Capability, & Cyber Protections in All Products

AND

Product Security:
Increasing Assurance All Products are Secure, Authentic, and Unaltered

The security of the "thing" is only as secure as the network in which it resides: this includes the people, processes and technologies involved in its development and delivery. *

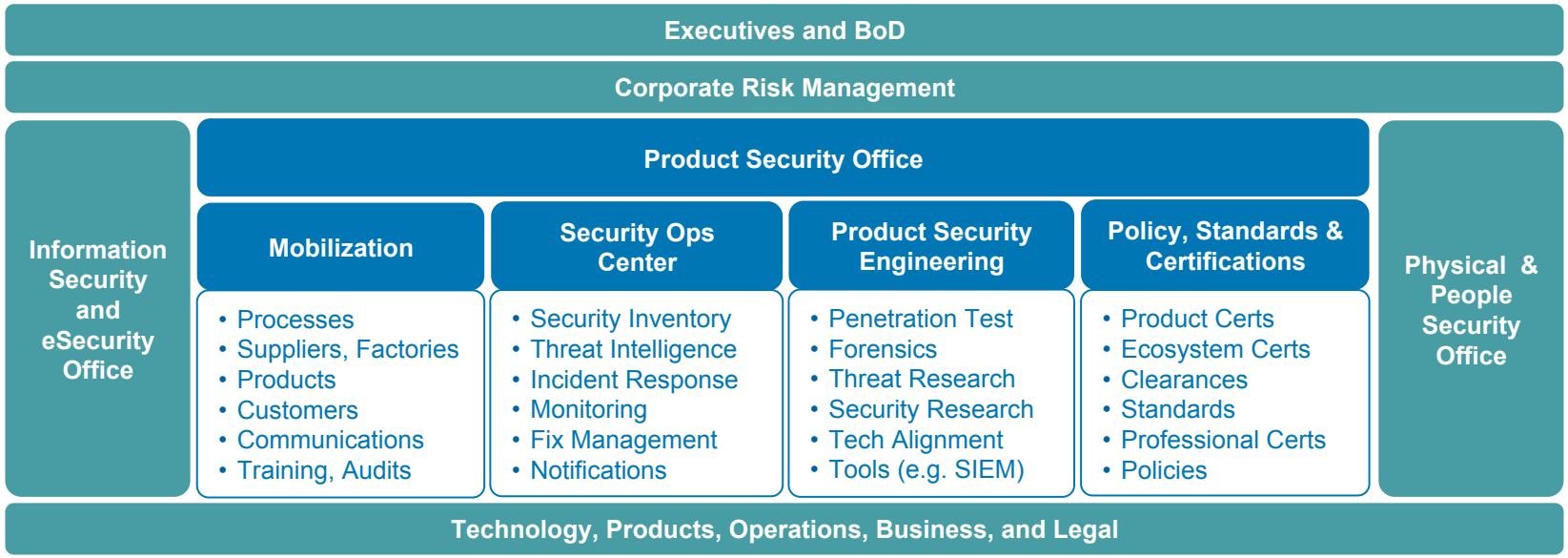


* Ernst & Young: "Cybersecurity and The Internet of Things"

Organization & Governance

Concept of Product Security Office – From Research

From the back office to the forefront of service quality and business development, security is now embedded in the core strategies of a leading business. *



* Ernst & Young: Cybersecurity and the Internet of Things

Standards Can Help Us

NIST Cybersecurity Framework

- Common Corporate & Industry Language for Security and Cybersecurity
- Vast Support Resources

Identify → Protect → Detect → Respond → Recover

THE Open GROUP

Open - Trusted Technology Provider Standard (O-TTPS)

Comprehensive Open Security Provider Standard:
- Technology Development Section
- Supply Chain Section
- Option for Certification

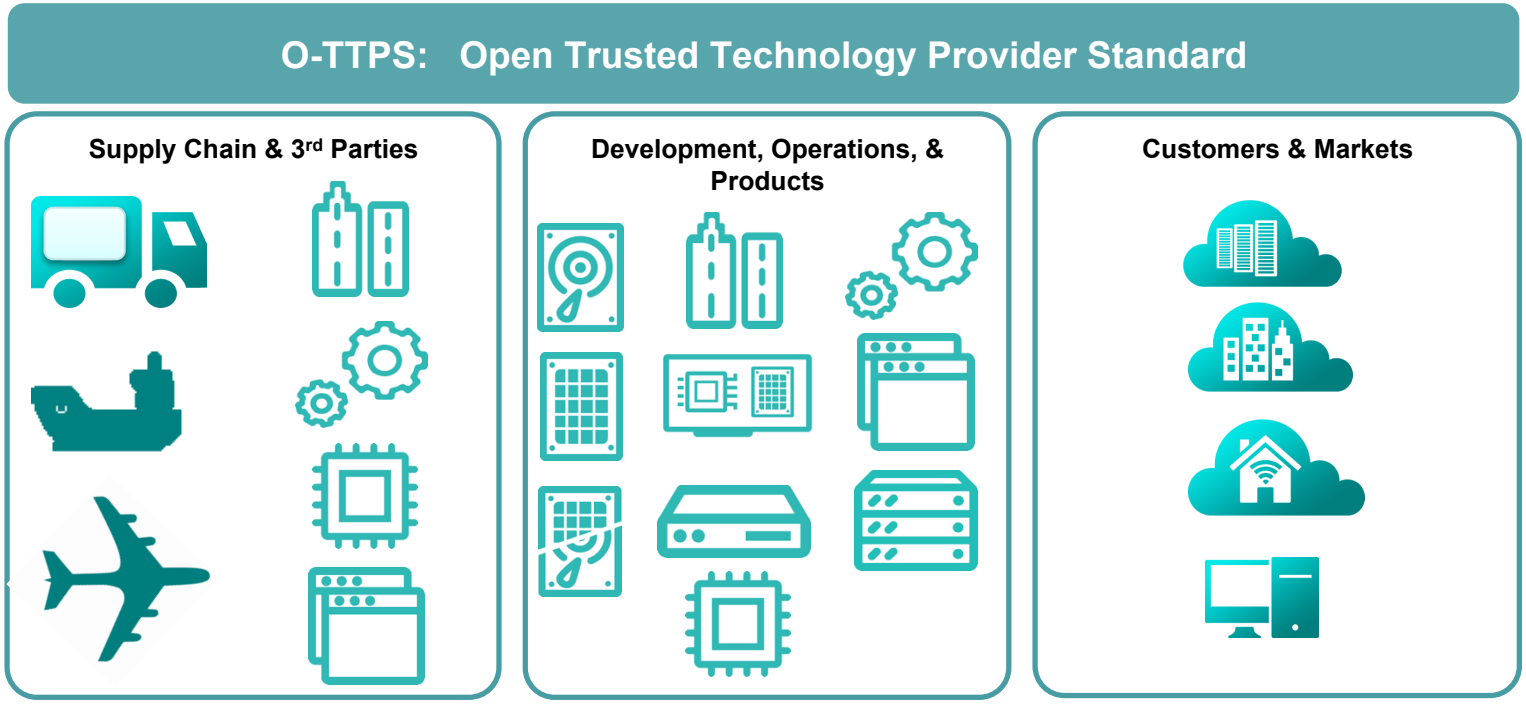
From these we can build language, policies, and procedures that can be deployed broadly

O-TTPS : Comprehensive Standard

- 84 Total Requirements
- Good Product and Security Development Practices
- Good Supply Chain Security Practices
- General enough to interpreted broadly internally & across the industry

Category	Section	Subsection
Technology Development	Product Development / Engineering Method	Software / Firmware / Hardware Design Process
		Configuration Management
		Well-Defined Development / Engineering Method Process and Practices
		Quality and Test Management
		Product Sustainment Management
	Secure Development / Engineering Method	Threat Analysis and Mitigation
		Run-time Protection Techniques
		Vulnerability Analysis and Response
		Product Patching and Remediation
		Secure Engineering Practices
		Monitor and Assess the Impact of Changes in the Threat Landscape
Supply Chain	Supply Chain Security	Risk Management
		Physical Security
		Access Controls
		Employee and Supplier Security and Integrity
		Business Partner Security
		Supply Chain Security Training
		Information Systems Security
		Trusted Technology Components
		Secure Transmission and Handling
		Open Source Handling
		Counterfeit Mitigation
		Malware Detection

A Feeling of Organization & Security ?



Product Security : Key Take-Aways

- Every Product & Process is a Cyber Risk
- Need Secure Products and Product Security Assurance Industry-wide
- Need Organization, Governance and Standards

Thank You! Questions?

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