RSAConference2020

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HUMAN ELEMENT

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Implementing the Perfect Travel Laptop Program

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Learning Objectives

- Understand critical vulnerabilities within the international travel threat landscape
- Consider the limitations of “domestic” solutions
- Craft solutions tailored to the risks
- Build a team-based compliance program

An employee takes her encrypted laptop overseas…

What is she transporting?


The connecting flight at an airport not on her original travel itinerary…

The Anticipated Threat.

The Unanticipated Threat.

Case Studies

- Steve the IT Professional visits China
- A doctor vacations in exotic places
- A research professor lectures at a foreign conference
- Video:

HotelRoomIncursion.mp4

The Challenge

"Security teams must ensure business travelers understand they have no inherent right to privacy while traveling, that most network operators conduct at least superficial surveillance campaigns on all foreign travelers, and the use of certain applications and websites will trigger in-depth surveillance for travelers."

- Aaron Turner, IANS -Ensure Traveling Users Understand and Mitigate Potential Infosec Risks

Triage Concerns

- Is the data and information contained within the device worth more than the device itself?
- What are the local laws in the country being entered?
- What is the result to both the individual and the organization if All DATA on the device were compromised or released?
- What is the effect of device encryption?

Encryption Vulnerabilities Exposed at the Border

- Forced decryption and drive backup
- Restrictions against importing encryption into foreign country
- License required for export from U.S. for certain high powered encryption/cryptography
- Controlled technology taken out of the country while encrypted, is STILL controlled!

International Case Studies

- UK
- Australia
- Canada
- Russia
- China
- Cuba
- Iran

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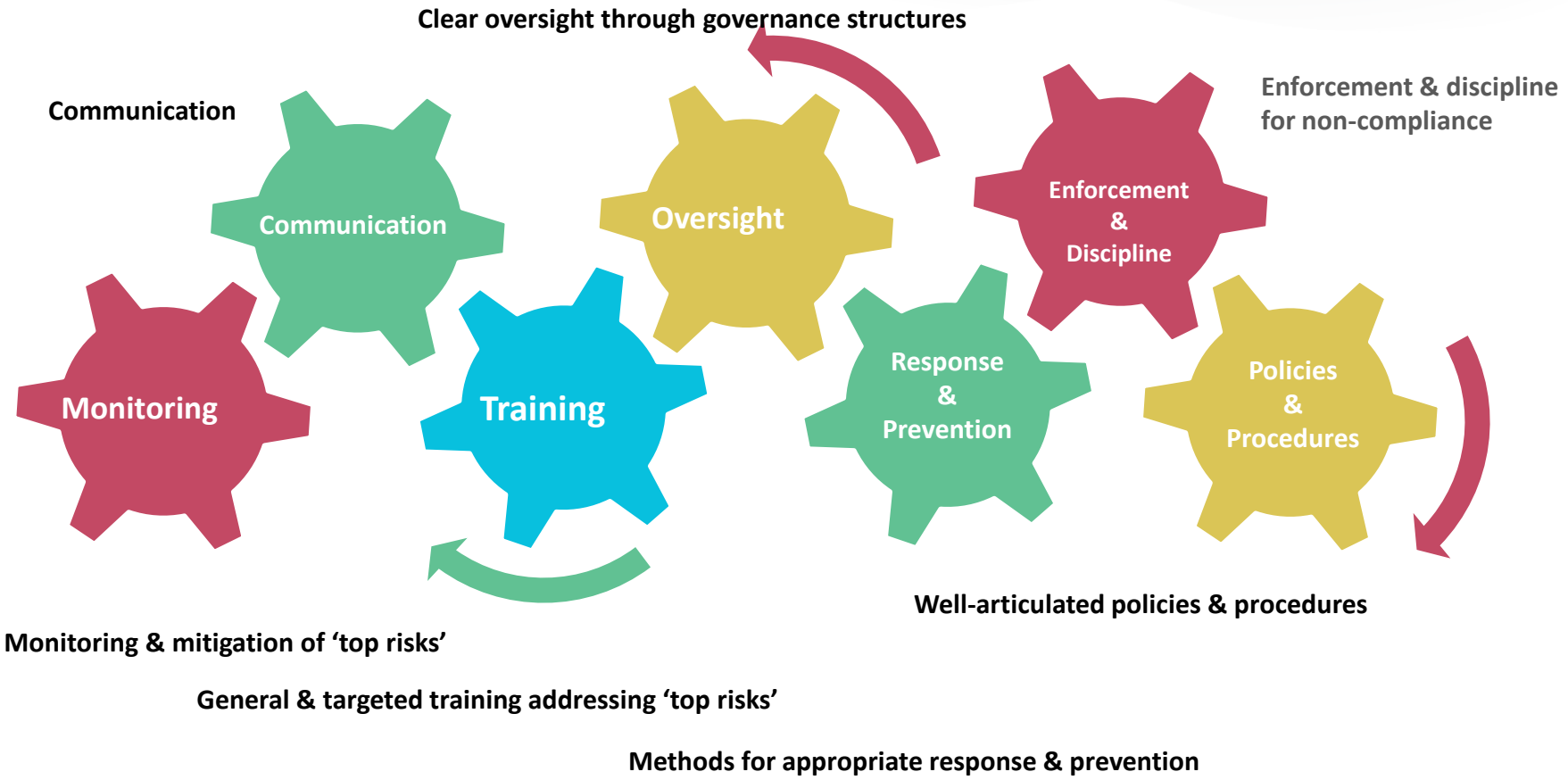
Developing the “Perfect” Risk-Based Laptop Travel Program Tailored for the Organization

Implementing a Compliance-Based Solution

- Form a cross functional compliance team
- Identify highest risks
- Mitigate with the 7 Elements of an “Effective” Compliance Program (US Sent. Guidelines §8B2.1)
- Monitor and adjust as laws and risks evolve

Building a Compliance Team

7 Elements of an Effective Compliance Program



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Practical Risk-Based Solutions

5 Risk-Based Questions

- What is on the device?
- Who owns it?
- How is it being used and secured?
- Why is it needed overseas?
- Where will it be located and for how long?

What is on It?

- PCI
- PHI
- PII
- Unpublished research data
- Export controlled technology
- Encryption
- NDA's and 3rd party data

What is on the Device and Why?

- Commercial Off the Shelf Software (COTS) OR proprietary/unreleased software
- Unpublished Research Data
- Adjusted Peak Performance (APP)
- Hardware - Specialty laptops and equipment may require a license
- Radiation hardened or protected from extreme elements
- High performance computers
- Software and Encryption – may need a license
- Encryption software with symmetric key length of 64-bits or higher
- Controlled Software
- Military support applications
- Export-controlled technical data
- Best to back-up on a secure system and remove from laptop prior to travel

Technology Review Steps

- Classify the technology or goods involved (ITAR, EAR, OFAC, other?)
- Determine if license is needed for the technology/end user/end use
- Determine if license exception is available
- Document the use of the exception

US Commerce Control List

- Laptops, iPhones, Blackberries: 5A992
- Mass market software (Windows, OS X, Office, Adobe products, Visual Studio): 5D992
- Open source software (Linux, Apache): 5D002

Are Licenses for Import OR Export Required?

- Is a license required for taking this information out of the country?
- Is a license required for taking this hardware out of the country?
- Do I know the rules for entering my destination country as well as planned and potential layover countries?

Who is Traveling and Why Do They Need It?

- Must document the need
- Only for convenience?
- What is the minimum they need for that purpose?
- What mitigating alternatives are available?
- Pre-travel steps including surveys and training

Where is it Going? (Planned and Unplanned)

- If you must travel to one of the five embargoed countries, you may be able to obtain the appropriate export license, but the process can take, on average, a ninety days for review.
- The Department of Commerce's Bureau of Industry and Security and the Office of Foreign Assets Control (OFAC) within Dept. of Treasury accept applications for licenses to export encryption products and technologies.

Pre-Travel Briefings

- Pre-Travel Surveys
- Guides
- Notice forms
- Signed acknowledgement forms
- Travel Letters
- Classify data and hardware

Training the Traveler

- A bulletproof program fails if no one uses it
- Organizations providing “solutions” result in travelers reaching out in advance with questions
- Inconvenience provides an opportunity to train on new devices
- Awareness sometimes begin with non-technical questions
- A travelogue on sites to see and photo tips can lead to a travel device

Benefits of Inconvenience

- Linux
- Chromebook
- iPad
- Custom OS
- Security through Obscurity

Outreach and Training

Cloud Considerations

- Alternative for local storage
- Secure access online
- New intrusion access by border agents
- Plan for countries which outlaw VPN

Additional Considerations

- Privacy screen
- Burner destruction
- Poison Pills
- USB OSs
- Password training
- Jetpack/Hotspot
- Camera covers
- Battery removal

Takeaways

- Understand the rights limitations at international border crossings
- Classify all technology to be exported
- Only physically carry that which you can afford to compromise
- Know the rules at all potential destinations
- Craft solutions tailored to the risks

Building Blocks

Questions?

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