

BEST PRACTICES IN DATA & IP PROTECTION

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TOM MCELROY HOSPITALITY SECURITY CONSULTING GROUP



- Served as Director for the Enterprise Information Security Office Incident Response Team for Hilton Hotels.
- Served as the Manager, Loss Prevention Investigations and Research for Hilton Hotels
- Accumulated several years of practical experience in a wide variety of law enforcement operations, investigations, and safety/security management disciplines while serving in the US Air Force







GEORGE JOHNSON - CISSP CHIEF SECURITY OFFICER - NC4





- Extensive travel while conducting sensitive business
- 15 years cyber security expertise
- Extensive cyber threat/mitigation research





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PRESENTATION OVERVIEW



- In today's global economy, intellectual property (IP) is the key to competitive advantage and growth. And this makes it enticing to thieves. In fact, The United States International Trade Commission recently reported that "a record number of new intellectual property-related investigations were filed at the USITC during FY 2011."
- What can you do to decrease your risk of IP theft? You can file patents, copyrights and trademarks, but that won't necessarily stop thieves from stealing your IP online.
- Security of your data and intellectual property is the responsibility of everyone in your company. With this in mind, the steps and tips provided in this segment of the session will assist in keeping you, your colleagues and your business data and intellectual property safe.





TRAVELER THREATS



- Physical
 - Possessions
 - Personal danger
- Cyber
 - Corporate
 - Privacy





THE BASICS



- Make a copy of your:
 - Passport and Visa
 - Credit cards (numbers, expirations, and contact info)
 - Critical contact information:
 - Family or friends
 - Corporate security
 - State Department (STEP program)
- Check your overseas medical coverage
 - Check for vaccinations or other medical issues in the area
 - Identify hospital or emergency support for areas you are traveling in
- Check the local laws and ordinances





CYBER THREATS



- What are the threats?
 - Countries that you visit
 - "hacktavists" that want to embarrass you
- Minimize your exposure based on your requirements
- Information or value of your:
 - Online account access (personal and work accounts)
 - Phone
 - Tablet
 - Laptop

http://www.europeaninstitute.org/EA-November-2011/main-cyber-threats-now-coming-from-governments-as-state-actors.html





STORIES



- When Kenneth G. Lieberthal, a China expert at the Brookings Institution, travels to that country, he follows a routine that seems straight from a spy film.
- A traveler awoke in his hotel room and realized he was late for a meeting with his team members. On the way out of his room, he saw an unidentified male standing in the open doorway of a team member's room. The male turned toward the traveler and said something in the native language to someone else in the room. Immediately, a woman stepped out of the room and into the hall. Both individuals appeared very surprised and nervous about being discovered. The traveler relayed this incident to the team, none of whom had experienced any problems. The team member whose room had been entered possessed all the financial data that the U.S. team was going to use in the negotiations. The host country would be very interested in obtaining that information.
- Traveler laptops are being targeted via hotel networks to inject malicious software.
- A traveler reported that a colleague placed something in his suitcase that would alert him if the suitcase was searched during his absence. Later, the suitcase was searched, but nothing was taken from it.





EMAIL & ACCOUNTS



- Access to your email can:
 - Reveal more than you know
 - Allow your adversary to act "as you".
- Use a throw-away account and leave a forwarding message on your normal email system that says something like this:

"TRAVEL ALERT - I am currently traveling in [Foreign Country] and WILL NOT be accessing this email account to ensure security of our Corporate systems. If you would like to communicate with me while I am traveling, please send any NON-SENSITIVE email to xyz@me.com as I will be checking that email account throughout the trip. I will be back in the US on the 19th, but traveling thru the 24th.

Thank you. "

Promptly change the password to the temporary account when you return





PHONE



- Consider renting an unlocked GSM phone for use during the trip (or purchase prepaid SIM chips)
- If you take a phone, keep it with you 24x7
- If you take your phone be very careful about what you do with it while on travel:
 - Don't load new apps
 - Don't visit any web pages whose links are pushed to you while on travel
 - Turn off blue-tooth and wifi connections if possible





LAPTOP/TABLET PROTECTION



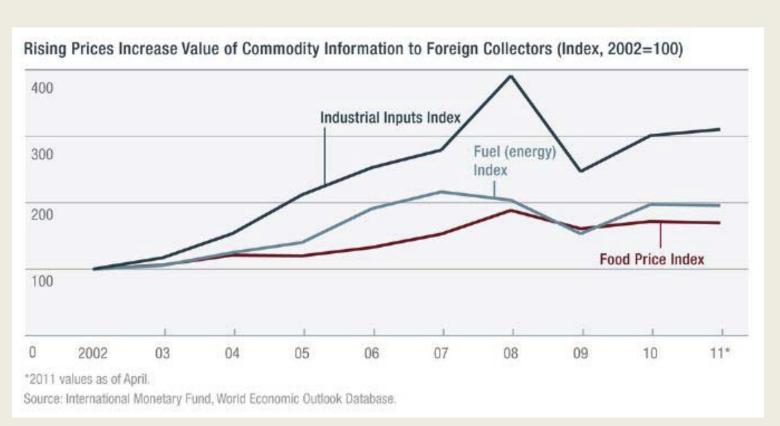
- If you absolutely MUST... consider that all data will be copied if you leave it alone or that it will be stolen
- If taking a laptop take a "clean" laptop brand new hard drive
- If you MUST take a laptop with corporate or private data use full disk encryption
- If you must connect to your office environment, always use a VPN that terminates all the way back at your office
- Consider other safer options as well...





INFORMATION VALUE





Report by the Office of the National Counterintelligence Executive http://www.ncix.gov/publications/reports/fecie_all/Foreign_Economic_Collection_2011.pdf





Securing Your Travel



Threat Rating of the Environment

- ·Rule of law
- Physical loss

- ·Target of "hacktivism" or
- •Industrial espionage potential
- State supported or encouraged
- ·Large scale hacking activity
- •Industrial espionage potential
- State sponsored
- Calls intercepted
- Voice conversations monitored
- ·Hotel rooms entered

What resources does this system contain?

·User Info

- Personal identifiable information
- Identity credentials
- ·Financial
- •Legal
- ·Sales pricing/forecasting
- Strategy

- •Mergers & acquisitions
- •Industrial Process info
- Corporate IP
- -R&D
- Classified

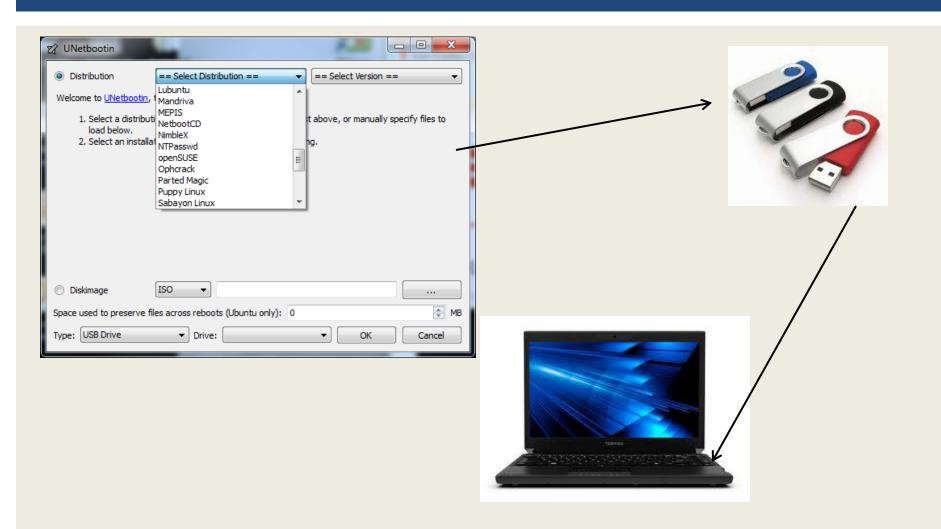
Mitigations to Consider

- Laptop
- Tablet
- Phone

- Phone only
- Use webmail
- Computer with Full Disk Encryption
- •Rental phone
- •Temporary email account
- No direct access to corporate systems
- Computer with full disk encryption + certgate
- No electronics
- •Or
- Small footprint secure bootable devices with isolated communication channels, your
- conversations and phone calls are monitored



MY COMPUTING ENVIRONMENT



PARTING ADVICE



- All security relies on you
- You could be the target of black-mail, be careful of your activities
- Understand your corporate policies
- Understand the local laws and customs
- If you deviate from your travel plan inform your corporate security and travel dept.
- Inform corporate security and IT prior to travel
- Good governance is good protection





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