International Cooperation in Cybercrime Investigations

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Romanian agents discover attack came from Vancouver
Canadian agents make the arrest
A Criminal Intrudes into a Bank in Bangkok
Argentinean investigators discover attack came from Bucharest
Thai investigators discover attack came from computer in Buenos Aires

The Challenges of International Cybercrime Investigations

- Countries must:
  - Enact laws to **criminalize computer abuses**
  - Commit adequate **personnel and resources**
  - Improve abilities to **locate and identify** criminals
  - Improve abilities to **collect and share evidence internationally**

CHALLENGE:

Enacting Laws to Criminalize Computer Abuses

The Need to Make Attacks on Computer Networks a Crime

- "Dual Criminality" usually necessary for two countries to cooperate on a particular criminal matter

- Dual Criminality forms the basis for:
  - Extradition treaties
  - Mutual Legal Assistance Treaties

Overcoming the Dual Criminality Divide

- Countries must agree on what to criminalize
  - OAS Cybersecurity Strategy
  - UN General Assembly Resolution 55/63
- Effort to do so: Cybercrime Convention
  - A baseline for substantive law
- Countries must amend their laws to implement

CHALLENGE:

Committing Adequate Personnel and Resources

Law Enforcement Needs

- Experts dedicated to high-tech crime
- Experts available 24 hours a day
- Continuous training
- Continuously updated equipment
  - no longer a “flashlight and a gun”

- **Each country** needs this expertise

Solutions Are Not Always Easy

- Cyber security strategy must be formulated
- Difficult budget issues arise (even in the US)
- Requires commitment from senior officials
- Cooperation with the private sector can help

CHALLENGE:

Improve Ability to Locate and Identify Criminals

The Problem of Locating and Identifying Criminals

- Primary investigative step is to locate source of the attack or communication
  - What occurred may be relatively easy to discover
  - Identifying the person responsible is very difficult
- Applies to hacking crimes as well as other crimes facilitated by computer networks

Tracing a Communication

- Only 2 ways to trace a communication:

1. While it is actually occurring
2. Using data stored by communications providers

Tracing a Communication

- Infrastructure must generate traffic data
- Carriers must keep sufficient data to allow tracing
- Laws and procedures must allow for timely access by law enforcement that does not alert customer
- Information must be shared quickly

Solving the Tracing Dilemma I: Traffic Data

- Countries should encourage providers to generate and retain critical traffic data
- Law enforcement's ability to identify criminals is enhanced by access to traffic data
  - Countries have taken different approaches to balancing this need against other societal concerns
  - Industry will have views about appropriate retention periods

Solving the Tracing Dilemma II: Law Enforcement Access

- Legal systems must give law enforcement authority to access traffic data
  - For example: access to stored log files and to traffic information in real-time

- Preservation of evidence by law enforcement
  - Critical because international legal assistance procedures are slow
  - Must be possible without “dual criminality”
  - Convention on Cybercrime, Article 29

Solving the Tracing Dilemma III: Sharing Evidence

- Countries must improve their ability to share data **quickly**

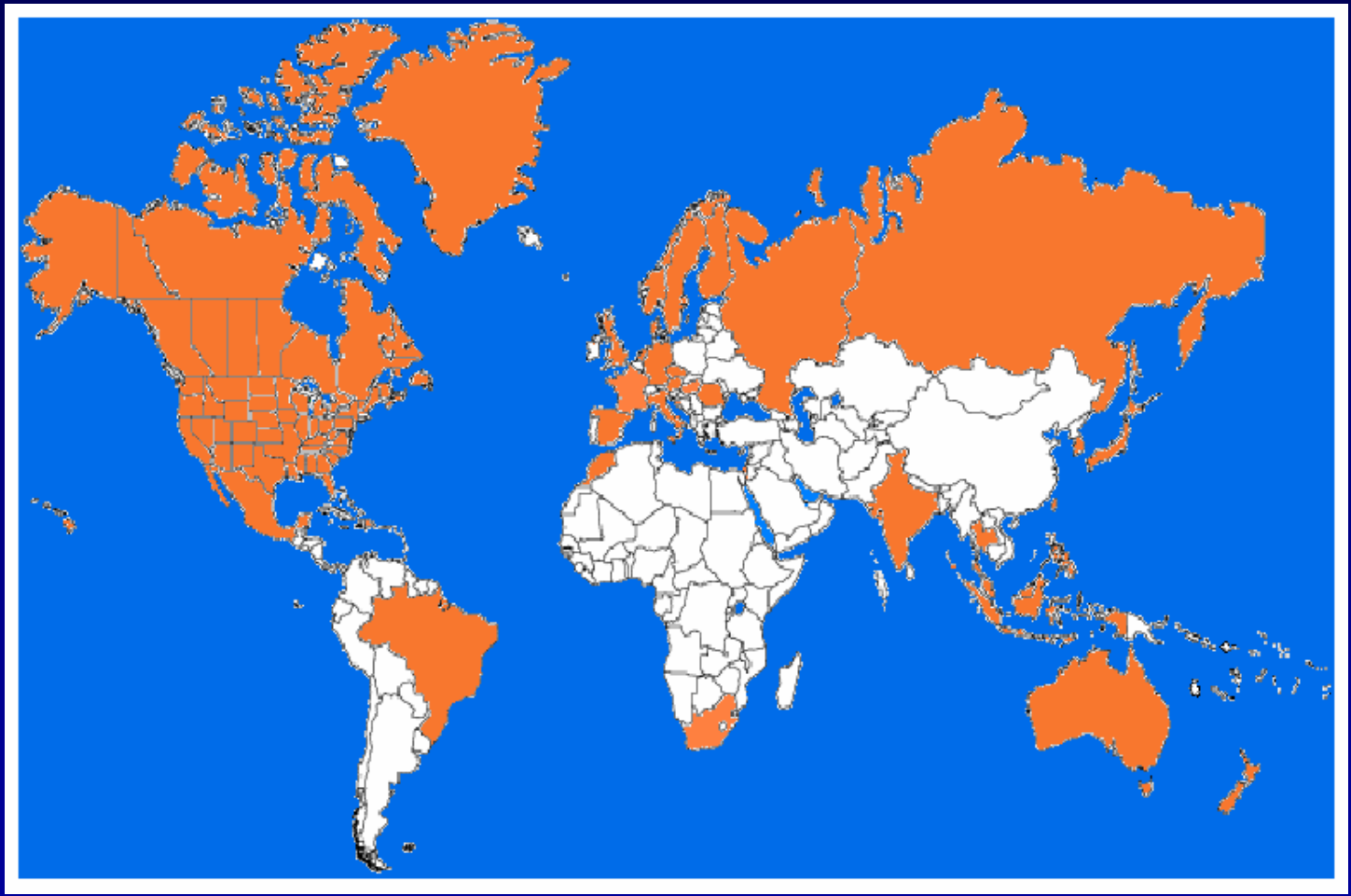
- If not done quickly, the electronic "trail" will disappear
  - Most cooperation mechanisms take months (or years!), not minutes
  - Convention on Cybercrime, Article 30: expedited disclosure of traffic data

Solving the Tracing Dilemma III: Sharing Evidence

- When law enforcement gets a request, it should be able to:
  1. Preserve all domestic traffic data
  2. Notify the requesting country if the trace leads back to a third country
  3. Provide sufficient data to the requesting country to allow it to request assistance from the third country

- Countries must be able to do this for each other quickly, and on a 24/7 basis

G-8 24/7 High Tech Crime Network



CHALLENGE:

Improve Abilities to Collect and Share Evidence Internationally

Collecting and Sharing Evidence

- Will evidence collected in one country be admissible in another country's courts?
- Potential for evidentiary problems
  - Collection of digital evidence
  - Tracing electronic communications across the globe
  - Computer forensics
- Current mutual legal assistance treaties may not accommodate electronic evidence

Solutions for Collecting and Sharing Evidence

- Convention on Cybercrime
  - Acts as a Mutual Legal Assistance Treaty where countries do not have one
  - Parties agree to provide assistance to other countries to obtain and disclose electronic evidence
- Developing international technical standards
  - International Organization for Computer Evidence

Unilateral Evidence Collection

- Publicly available information
- Obtaining electronic evidence with consent of owner
  - G-8 and Council of Europe acceptance

Informal Cooperative Measures

- Investigator to investigator
- Advantage: fast
- Disadvantages:
  - Frequent domestic legal restrictions on providing assistance
  - May be difficult to locate an investigator who can and will provide assistance

Other Cooperative Measures

- Joint investigation
- Some US points of contact in your country
  - FBI Legal Attaché (LEGATT), an FBI agent
  - Department of Justice Legal Attaché, a prosecutor
  - Immigration & Customs Enforcement (ICE)
  - Secret Service (USSS)
- INTERPOL and similar organizations

FOR MORE INFORMATION

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