Update on Global Efforts to fight Cyber Crime

Foy Shiver
APWG.ORG

Jordi Aguilà
APWG.EU / CaixaBank

APWG Spheres of Influence

- Tracking Trends and Activities
- eCrime Research
- Cyber Policy
- Education / User Awareness
- Data Logistics

APWG: 11 years of Statistics

APWG Phishing Activity Trends Report

- Published since February 2004
- Initially monthly, now quarterly or semi-annually
- An in-depth review of the ongoing state of Phishing

Global Phishing Survey: Trends and Domain Name Use

- Published since 2H 2007
- Semi-annual attempt to understand trends and their significances by quantifying the scope of attacks with a focus on DNS

Mobile Threats and the Underground Marketplace

- New for 2013
- Attempt to defines the malware markets and demonstrates the modus operandi of an industry that is self-funding, prosperous, vertically stratified and agile.

Online Cybersafety Awareness Messaging

- Problem: How do you raise awareness in the largest number of people without heroic effort or cost
- Logistics imperative: Reach customers and citizen where they are – and through channels they already trust
- Solution: Unify messaging across trusted-parties with shared, and therefore unified, messaging instruments

Campaign Genesis

- The STOP. THINK. CONNECT.™ cybersecurity public-awareness suite, **first proposed by the APWG to its members in 2009**, is the only year-round, globally coordinated messaging scheme to help all digital citizens stay safer and more secure online

STOP | THINK | CONNECT™

- The slogan and logo was created by an unprecedented coalition of private companies, nonprofits and government agencies in 2009 and 2010 who recognized the power of a **unified** cybersecurity awareness campaign compared to an uncountable number of uncoordinated efforts

Engines of Mass Behavior Upgrade

- The STOP. THINK. CONNECT.™ campaign travels on two rails:

- Shared cybersecurity messaging assets: the logo, slogan and advisory suite are free for all to use – everywhere – for forever and a day

ARRÊTE-TOI | RÉFLÉCHIS | CONNECTE-TOI ™

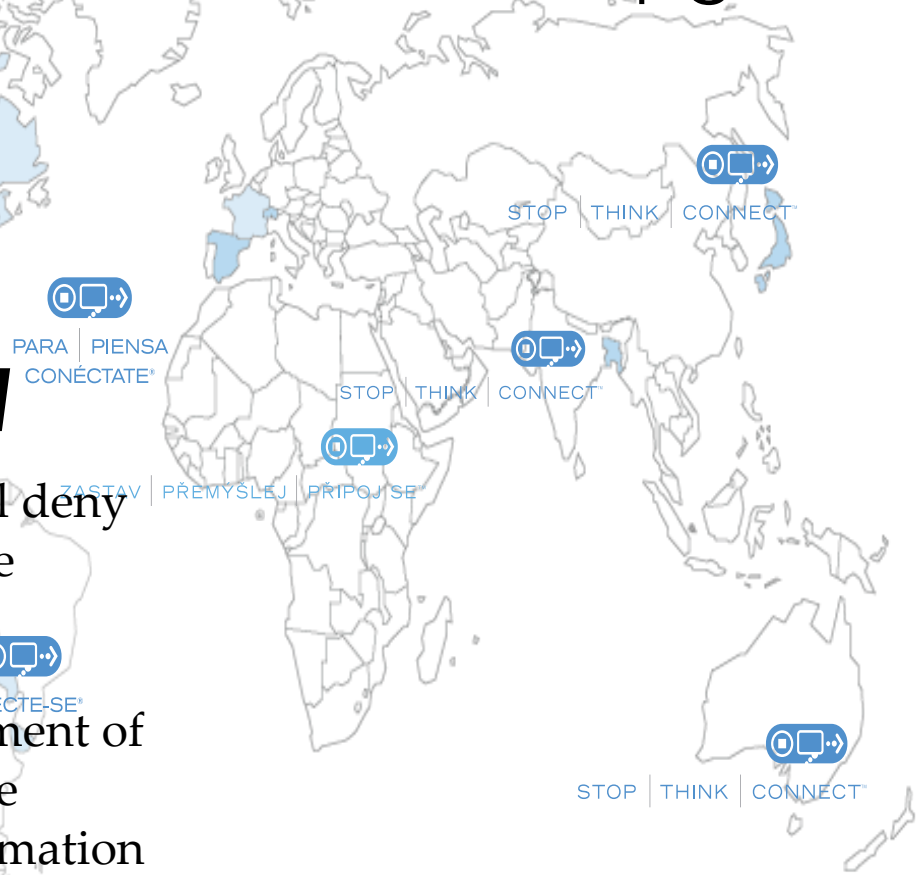
ZASTAV | PŘEMÝŠLEJ | PŘIPOJ SE™

ΣΤΑΣΟΥ | ΣΚΕΨΟΥ | ΣΥΝΔΕΣΟΥ

- Ubiquitous deployment: Every enterprise, government and NGO can deploy the campaign, providing global resonance required for users to retain the principles imparted by the campaign's messaging assets

End Game: National Campaigns Merge Into Global Program of *Measurable* User Upgrade

- Transborder
  - Transcultural
    - Translingual
- ***Transformational***



- Self-possessed, resilient users will deny cybergangs the easy returns of the cybercrime era's early days
- Campaign is first step in a global program to make ***users*** an instrument of network maintenance and defense
- Join us and a part of that transformation in user posture and participation

National Memorandums of Cooperation

- **Bangladesh** – Bangladesh Computer Council
- **Canada** – Public Safety Canada
- **Dominica** - Ministry of Information Science Telecommunications and Technology
- **France** – CECyF (Ministère de l'intérieur / Ministère des finances)
- **Japan** – Council of Anti-Phishing Japan (JP CERT)
- **Jamaica** – Ministry of Science, Technology, Energy and Mining
- **Spain** – Instituto Nacional de Ciberseguridad de España, S.A.
- **Panama** – Autoridad Nacional para la Innovación Gubernamental
- **Paraguay** – Secretaría Nacional de Tecnologías de la Información y Comunicación (SENATICS)
- **Poland** – NASK
- **Switzerland** – Swiss Internet Security Alliance (SWITCH/SwissPost)
- **USA** – NCSA (Department of Homeland Security)
- **Uruguay** – Agencia para el Desarrollo del Gobierno de Gestión Electrónica y la Sociedad de la Información y del Conocimiento (AGESIC)

- The public-private partnership is the prevailing model in national campaign deployments to date
  - Of the 13 national campaigns under MoU, curators that were not governmental entities have substantial national ministry involvement

National Deployments to Date

The national deployments to date have been launched by a mix of national government agencies, NGOs and trade associations

Jamaica – MSTEM, government ministry and national banking consortium + Jamaica Bankers Assocation

Japan – Council of Anti-Phishing Japan

Spain – Cibervolunteros + INCIBE

Switzerland – SISA Swiss banks and tech companies + SWITCH and Post Finance

USA – NCSA (NGO underwritten by DHS and industry)

- Jamaica
- Japan
- Spain
- Switzerland
- USA

Step Up and Help Everyone

- The Messaging Convention Empowers Three Primary Roles
  - Commercial Licensee
    - No-cost license for commercial enterprises who want to integrate Stop. Think. Connect. Messaging Convention messaging instruments into their own online safety education programs
  - Non-commercial STC Messaging Convention Content User
    - Pre-packaged Stop. Think. Connect. online safety education materials for educational agencies and ministries and NGOs to instruct their constituencies
  - **International Program Partners**
    - National and regional governments, multilateral treaty organizations, NGOs who recruit licensees and users within an industrial sector or polity
- Find your own best-fitting role to get your organization involved

  http://www.stopthinkconnect.org/get-involved/overview/

eCrime Researcher Program

- Founded in 2006
- Only peer reviewed electronic crime research program
- Accepted papers are published through IEEE
  - 80+ papers published to date
- Unique blend of Academia and Industry
  - Research Track
  - Industry Track

eCrime 2016

Symposium on Electronic Crime Research

Sponsors / Partners

PayPal™

MarkMonitor®
PART OF THOMSON REUTERS

Interac®

EASYSOLUTIONS

serene risc
SMART CYBERSECURITY NETWORK

IEEE

APWG eCrime Exchange:
A Member Network
For Collaborative eForensics

Phishing Repository and URL Block List

- APWG Phishing Attack Data Repository
  - 10+ million historical entries
  - Informs research and development of counter-eCrime technology
- Phishing URL Block List (UBL)
  - Updated constantly
  - Informs browser warning systems and anti-phishing tool bars
  - Signaling systems for security teams
  - CERTs, brand-holders, telecom companies, security companies, software developers and the public

New REST-based API

- Implemented on all feeds
  - URL Block List
  - Facebook external block list
  - malicious IP database (beta rolling out soon)
    - each IP had an unknown type of bad actor of some sort behind it
    - bad actor is/was pushing the system at the IP in question to attack a top level online financial institution
- Provide new access to the data
  - sorting, filtering, and searching options
  - support for new submissions and updates to existing phish

Other eCX Updates
(rolling out now)

- Expand shorteners to (all) their endpoints
- Grabbing and store more details
  - screenshots in pdf
  - page source
  - any viral payloads
- Ability to mark interest in a phish/url/ip the all threat modules
  - that data goes out with the api data so people can see who else is interested in something that they are interested in
- New front end to the dashboard
  - lots of metrics to see what is happening within the data at a glance

APWG Malicious Domain Suspension Process (AMDoS)

World's First and Only Auditable, Scalable Malicious Domain Name Suspension Request System for Professional Interveners and the Registrys

AMDoS Goals

- Complement (not circumvent) court orders or legal instruments to allow
  - Responsible (and transparent) action in a timeframe measured by hours rather than days, weeks, or months
  - Hold reporting parties to a standard of practice and accountability
- Replace ad hoc processes used to suspend domains with a uniform, auditable process based on signed attestations

AMDoS: Goals

- Mediates formal correspondence between an **Accredited Intervener** and a **Registry Authority**
  - trusted-introducer/trusted-channel system
  - a medium for transmission of suspension requests for abusive domains
- Benefits to Interveners
  - Credibility. Your trustworthiness is not questioned
  - Your suspension requests are taken seriously
  - Fair, equitable evaluation process
- Benefits to Registry/Regisrar Authorities
  - Confidence: Suspension requests are from party with capacity to judge **criminality** of domains
  - Competitive advantage (trustworthy operator)

Domains Eligible for Suspension

- AMDoS is for maliciously registered domains
  - Domains registered with the intent to perpetrate phishing, malware distribution, financial fraud
- What is criteria for domain to be considered "criminally abusive"?
  - Use of a domain name exclusively for the animation of fraud to steal or coopt funds or personal data in order to further a fraud or theft

Registry Authority owns process

- Registry Authorities participate voluntarily
  - Under no obligation to participate or act
  - Registry can assess request against explicit criteria before making a decision to suspend
- Expectation is that
  - A signed attestation from
  - A vetted reporting party with
  - Documentation that demonstrates criminal use will be persuasive

Thank You

APWG Internet Safety Engineering

Foy Shiver
foy@apwg.org

Jordi Aguilà
jaguila@lacaixa.es