Opening Shots

"China-based Hackers Target Law Firms to Get Secret Deal Data"
Bloomberg, January 31 2012

"… hackers view law firms as "soft targets""
The FBI, 2011

"ABA passes cybersecurity for lawyers resolution""
ABA September 2013

"76% increase with the number of breaches in small and medium size firms"
DBIS/PWC, 2013

GOOD CYBERSUCURITY IS A BUSINESS REQUIREMENT

HAVING CYBERSECURITY IS A LEGAL REQUIREMENT

The Reality of Cybercrime

- It is a business
- It is a weapon

IT IS ALSO CRIME AS USUAL!

What is different is its mass appeal, and relative simplicity

- It is difficult to trace
  - It is delocated

Then, You Can't Escape

- You can't just disconnect
- Firms must and will adopt cloud based solutions
  - To remain competitive;
  - To remain efficient;
  - To respond to customer demands;
  - Because of legislations

Know Your Ennemy: WHO is behind cybercrime?

Evolution of Cybercrime

"Today's cybercriminals do not necessarily require considerable technical expertise to get the job done, nor, in certain cases, do they even need to own a computer.

All they need is a credit card"

Troels Oerting
Head of EC3 European
Cybercrime Centre

Cybercrime Eco-System

Categories of Services

Attack Components (insourced or outsourced)

Hacking-as-a-Service

Research-as-a-Service

Availability includes

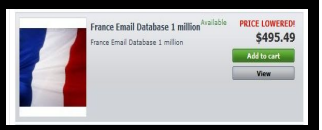
- Sale of Vulnerabilities
- Personal data

Table 1. Prices for zero-day vulnerabilities.

Adobe Reader	$5,000–$30,000
Mac OS X	$20,000–$50,000
Android	$30,000–$60,000
Flash or Java Browser Plug-ins	$40,000–$100,000
Microsoft Word	$50,000–$100,000
Windows	$60,000–$120,000
Firefox or Safari	$60,000–$150,000
Chrome or Internet Explorer	$80,000–$200,000
IOS	$100,000–$250,000

Research-as-a-Service

By Country



By profession

Crimeware-as-a-Service

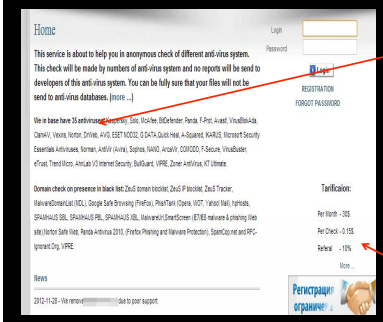
Many products and services available

Crimeware-as-a-Service: Exploits

Damage = Cost

LOW = $200
MEDIUM = $400
HIGH = $600

Crimeware-as-a-Service: Ancillary Services



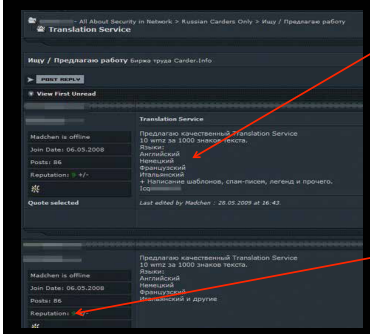
Service:

35 AV Products

Tarrif:

Per month = $30
Per Check = $0.15

Crimeware-as-a-Service: Professional Services



Services on offer

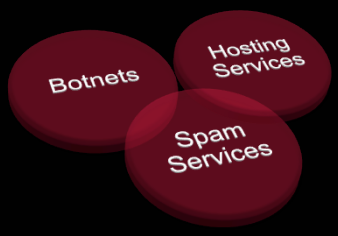
Reputation:

+ 9 Reputation

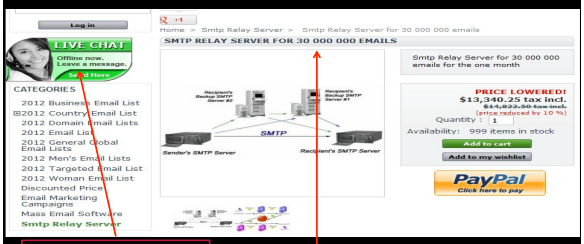
Cybercrime Infrastructure-as-a-Service

Cybercrime Infrastructure-as-a-Service

Many products and services available



Crimeware-as-a-Service: Professional Services

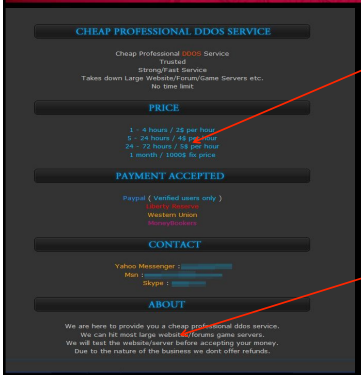


Reputation:

Live Customer Service Chat

Send 30 million emails

Crimeware-as-a-Service: Botnets



Price:

1-4 hours/$2 per hour
5-24 hours/$4 per hour
1 month/$1000

Guarantee

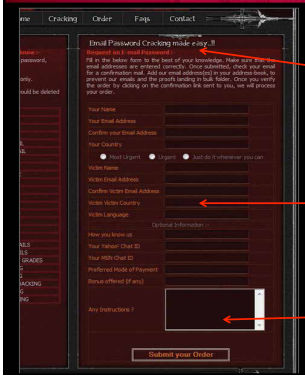
We can hit most large websites.

No Refunds!

Hacking-as-a-Service

Many products and services available

Hacking-as-a-Service: Password cracking Services



Email Cracking Made EASY

Victim Name
Victim email address
Victim country
Victim language

Submit Your Order

Hacking-as-a-Service: Password cracking Services

Table 2. Prices for stolen credit card numbers.

Dumps	Estimate of Prices (without PIN, with PIN, PIN and good balance)											
	US			EU			CA, AU			Asia		
Visa Classic	$15	$80		$40	$150		$25	$150		$50	$150	
Master Card Standard		$90			$140			$150			$140	
Visa Gold/Premier	$25	$100	$200	$45	$160	$250	$30	$160		$55	$150	
Visa Platinum	$30	$110		$50	$170		$35	$170		$60	$170	
Business/Corporate	$40	$130		$60	$170		$45	$175		$70	$170	
Purchasing/Signature	$50	$120		$70			$55			$80		
Infinite				$130	$190		$60	$200			$190	
Master Card World		$140										
AMEX	$40			$60			$45			$70		
AMEX Gold	$70			$90			$75			$100		
AMEX Platinum	$50											

Without PIN	With PIN	With PIN + balance
$25	$100	$200

You Are Particularly Exposed

According to the most recent DBIS(UK)/PWC *Information Security Breaches Survey* (2013):

- 76% increase with the number of breaches in small and medium size firms;
- 63% were attacked by outsiders in the last year;
- 23% were hit by denial-of-service attacks;
- 15% confirmed unathorised incursions;
- 9% admit that intellectual property was stolen.

You Operate Under a Stringent Regulatory Regime

- Sox; Data Protection;
- Statutory and professional compliance; Confidentiality;
- Criminal and civil liabilities

Obligations to deliver in the cloud:

- Filings; case submission; discovery.

YOUR BUSINESS IS ALL ABOUT INFORMATION!

YOUR REPUTATION

YOUR LIABILITIES

YOUR SURVIVAL AS A BUSINESS

THIS IS NOT AN IT PROBLEM

RISK MANAGEMENT

One Approach

1. Collate every bit of legislation, regulation, guidelines, best practices; compliance requirements for every territory you operate in;
2. Make sense of that:
   THERE IS NO HOMOGENEOUS CYBER"stuff" LAW!
3. Dump that sutff onto your IT folks;
4. Hope for the best …

Much Better To Do

1. Appoint a real operational risk manager (law firms: the compliance officer for legal practice?)
2. Categorise and assess risk:
   1. Business continuity
   2. IP protection
   3. Confidentiality
   4. Sector specific compliance requirements
3. Maintain a risk assessment schedule
4. Identify gaps and mitigating actions: IMPLEMENT
5. EDUCATE; EDUCATE; EDUCATE

A Good Start:

The American Bar Association (USA) and its Cybersecurity Legal Task Force
(also note the evolution of ABA Model rules, like Model Rule 1.6 on Confidentiality, or Model Rule 4.4 on Professional Conduct)

The Law Society (UK) Information Security Guidelines

Bundesamt für Sicherheit in der Informationstechnik: guideline for IS audits

IFAC guidelines

TRAIN
EDUCATE
ADVOCATE

It is a PEOPLE PROBLEM!
My passwords; My encryption; My funny clicking

Keeping Safe Online – do the basics well

- Create strong passwords
- Don't give out personal information
- Be careful when using IM & Email
- Only shop form secure sites
- Watch out for 'Phishing' sites
- Keep safe whilst gaming
- Monitor children's online activities
- Looks to good to be true – it will be

YOUR REPUTATION
YOUR BUSINESS
YOUR PERSONAL LIFE

THANK YOU FOR LISTENING!

Examples