

## Russian cybercrime Intelligence





## **Group-IB**

→ONE OF THE LEADING
INTERNATIONAL COMPANIES
DEALING WITH PREVENTION
AND INVESTIGATION OF CYBER
CRIME COMMITTED USING IT

#### Main activities:



→ Monitoring and cyber threats prevention



→ Investigation of cybercrime and theft committed using IT



→ Computer forensic and malware research

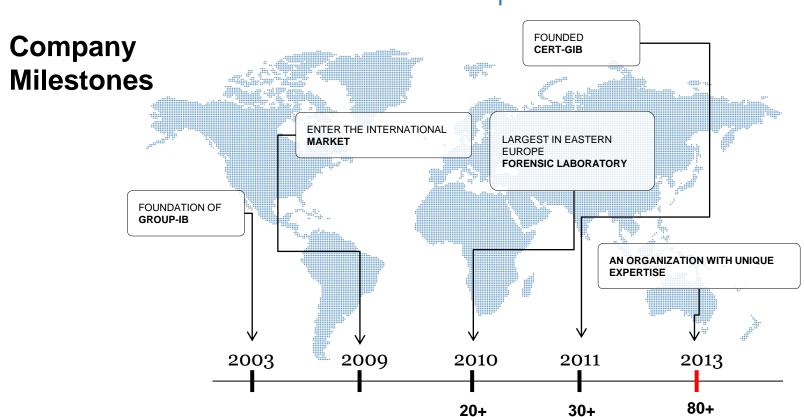


→ Information security audit



→ Development of innovative information security products



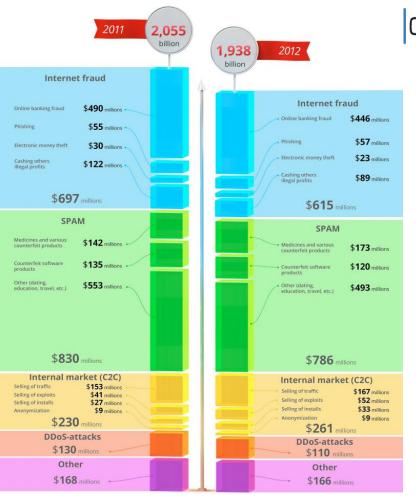


**WORKERS** 



## **Trends**

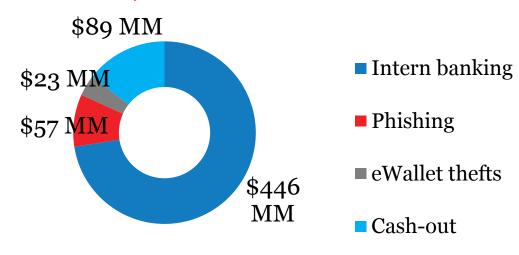
- → Internet-banking theft decrease
- → Automatic payments (autoloads)
- → Attacks on trading systems
- → Attacks on POS-terminals
- → Mobile threats
- → Bank robbery





#### report2013.group-ib.com

### **12%** Internet fraud

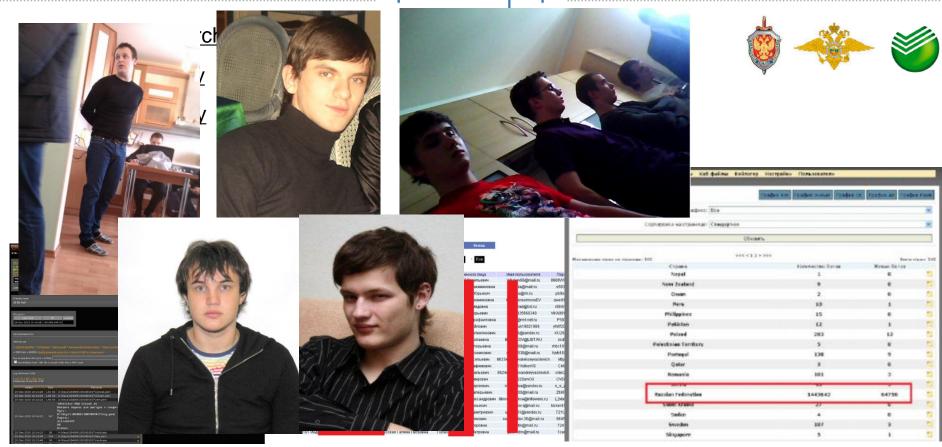




# Internet-banking theft decrease

- → Successful cybercriminals arrests
- → Interbank list of "money mules"
- → Antifraud system implementation in banks
- → Botnet data interception
- → Modest newcomers

## GROUP IB





# **Automatic payments**

#### **Portable Executable:**

- → System infection
- → Process injection
- → CommandLine interception

#### Java Agent:

- → Modifying java banking software on the fly
- → Java banking software full data control
- → Automatic creation of payment documents (Autoloads)

**Trends 2012-2013** 



#### 837 banks in Russia:

- 650 000 companies
- 450 000 private persons

#### 180 bank in Ukraine:

- 300 000 companies
- 145 000 private persons



### Attack on Ibank2

Interception of login/password

Шаблоны

**∓** C

123 000.00

1 496.00

1 758.00

4 688.00

177.00

849.00

3 809.00

403 560.00

по

Ваши счета: Счет

Дата и время

19.02.2013 16:49

Последние сеансы работы (скрыть)

Получатель

Обновить

Назначение платежа:

НДФЛ, НДС не облагается

- Screenshots creation
- **Automatic payments**

Исполненные

любые

N док. ▼2 Дата док. ▼1 Сумма

13.02.2013

13.02.2013

13.02.2013

13.02.2013

13.02.2013

13.02.2013

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Рабочие

Документы

166

165

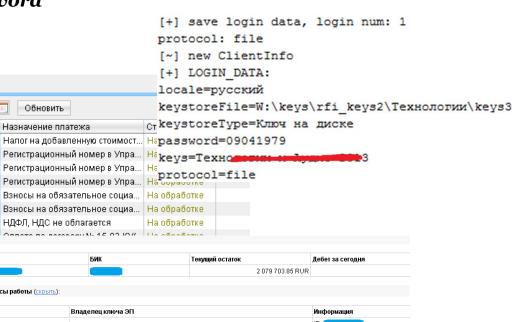
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Регион:Russian Federation.

Moscow City, Moscow

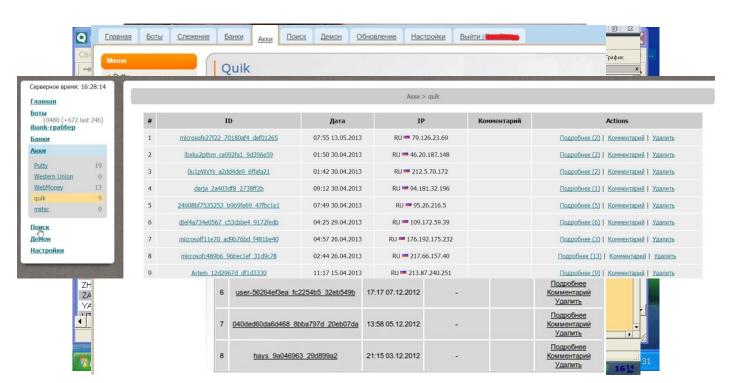
Группа подписи: 1



Ва	ank	Bots	Clients Session	s Bills M	ules Do	ocuments "Sear	<b>с</b> фправка	<b>O Company</b>
+	-	offset	0 limit 50	total 306	order by	ID v	order_dir ASC	Show
ID	Бот	БИК	Номер	Баланс	Валюта	Получен	Обновлен	Клиент
1	292	044525976	40802810522000039174	483 481.01	RUR	2013-07-15 14:48:24	2013-07-16 15:54:45	ип сл
4	191	044525219	40702810600670000771	34 038.22	RUR	2013-07-15 14:50:06	2013-07-19 14:31:54	000
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12	321	046568941	40702810816000000425	75 324.04	RUR	2013-07-15 14:50:26	2013-07-15 14:50:26	Обще "Ваго
13	276	044525976	40702810322000037418	3 931.53	RUR	2013-07-15 14:50:28	2013-07-19 08:46:42	000
16	276	044525976	40702810622000038816	1 802 339.57	RUR	2013-07-15 14:55:16	2013-07-19 17:02:43	000
19	127	044030881	40702810604040000072	447 181.66	RUR	2013-07-15 14:57:36	2013-07-15 18:07:01	000
24	148	048073855	40702810400010007006	381 142.87	RUR	2013-07-15 14:58:20	2013-07-17 08:56:02	000
25	304	048073855	40802810600100000464	962.31	RUR	2013-07-15 15:00:34	2013-07-15 15:02:48	ип ш
26	388	042748705	40702810700000073807	595 241.40	RUR	2013-07-15 15:01:21	2013-07-19 11:28:11	000
27	380	044525219	40702810100880000252	231 138.44	RUR	2013-07-15 15:03:40	2013-07-19 14:03:25	000
33	304	048073855	40802810400100000457	969.64	RUR	2013-07-15 15:05:18	2013-07-15 15:05:18	ИП Би
34	142	042282832	40702810100490003523	6 378.22	RUR	2013-07-15 15:05:21	2013-07-19 09:13:06	000
35	310	044583679	40702810400004665001	351.87	RUR	2013-07-15 15:13:55	2013-07-19 10:18:42	000
36	321	046568941	40702810016000000445	242 793.80	RUR	2013-07-15 15:14:56	2013-07-17 08:35:04	000
37	262	044525976	40802810900000003036	237 731.08	RUR	2013-07-15 15:16:29	2013-07-16 08:47:00	ИП Не
41	204	047003729	40802810300000002158	626 049.13	RUR	2013-07-15 15:16:49	2013-07-19 16:14:44	Камер
42	372	048073855	40702810500090000185	29 787.86	RUR	2013-07-15 15:20:04	2013-07-18 15:20:07	000
43	225	040349841	40702810022680000827	48 115.25	RUR	2013-07-15 15:20:53	2013-07-18 14:04:37	000
46	191	044525521	40702810401260017223	33 143.07	RUR	2013-07-15 15:27:21	2013-07-15 15:27:21	Обще "Горо,
47	262	049205916	40701810500000000057	695 677.06	RUR	2013-07-15 15:30:09	2013-07-19 14:43:31	000
48	350	044525205	40702810900450000186	1 424 737.80	RUR	2013-07-15 15:31:11	2013-07-19 15:45:40	000



# Online trading and stock brokerage





## **Attacks on POS-terminals**

- → December, 2012 «**Dexter**», Seculert
- → March, 2013 «vSkimmer», McAfee Labs
- → March, 2013 «Dump Memory Grabber» Group-IB





This trojan is written on pure C++ without any additional libraries, for grabbing of dumps of CC from RAM memory of all processes

Works on any version of OS Windows including x64. Very stable.

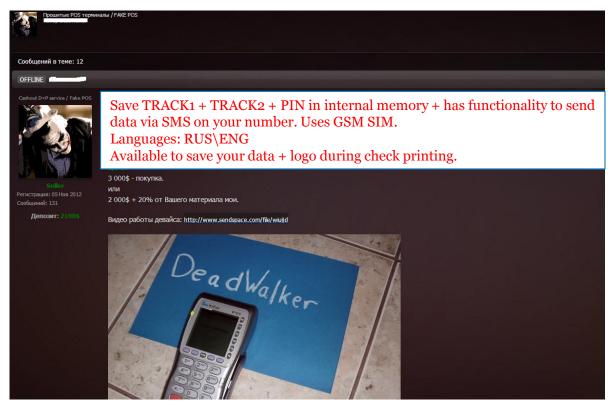
Uses mmon.exe to scan memory.

Very silent on the host, add itself to Autorun, timeout of auto start is 3 hours (can be changed)

Re-launch grabbing of dumps. Log sends to the gate via FTP. Every log has date of sending, like 1.09.56-16.02.2013.txt Can be changed to send to email



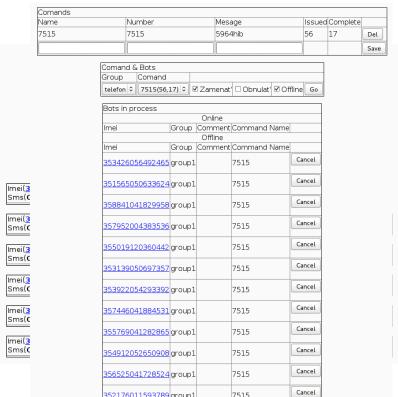
# Attacks on POS-terminals





# Attacks on mobile platforms

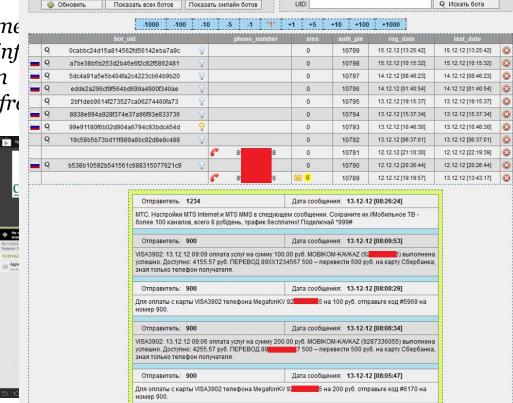
- → Android trojans
- SMS on premium numbers
- Evolution to the banking theft in 2013

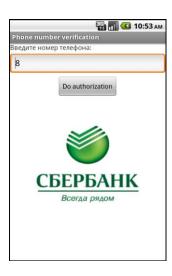




## Attacks on mobile platform's

- Developme
- → Start of inf
   → Detection
   → Remove free







# Attacks on mobile platform's

- ightarrow Sending via MMS SPAM
- → Search for SMS from banks
- → Transfer money from bank to you phone balance
- → Transfer money from phone balance to eWallet
- → Cash-out





# Why rob banks, not customers?

- → Facts of successful compromise of banks
- → Websites and Web resources of banks successfully "hacked"
- → Criminal have necessary experience and skills
- → Banks are not ready to withstand against such threats
- → Steal 100 million at a time is easier, rather than steal a hundred times by 1 million



## Types of robberies

- Robbery as a result of insider
- Robbery as a result of vulnerabilities exploitation in the banking systems
- Robbery as a result of penetration of the banking network with the use of Trojans

#### Sources of rebberies



■ Уязвимость в банковском ПО

Инсайл

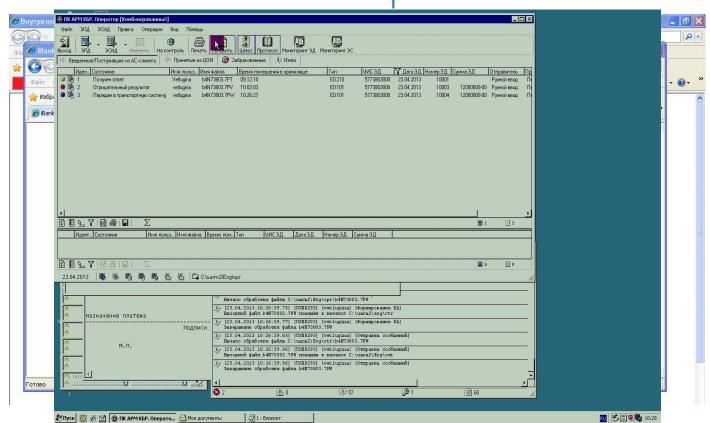


# The use of Trojans

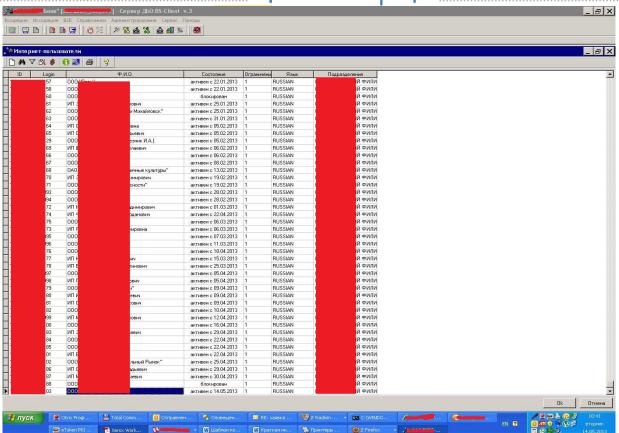
- 1 The process of compromise
- → Infecting computer in bank network
- → Installing Trojan RDPdoor
- → Installing legal remote management tools, Ammy Admin, TeamViewer
- → Compromising the domain and mail server
- → Search for servers with banking services
- → Removing Malware
- → Preparing to cash out

- How to Rob
- $\rightarrow$  Selecting rich clients
- → Generate new bank digital signature
- → Reset passwords to internet-banking
- $\rightarrow$  Transfer money

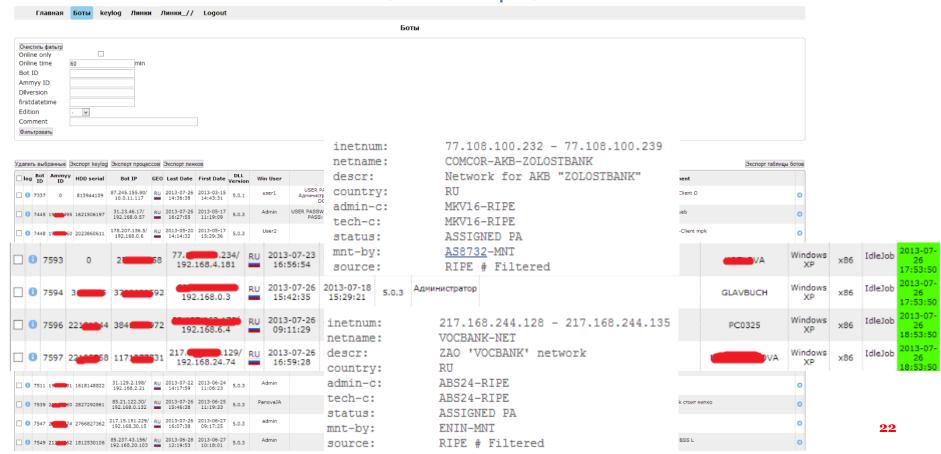


















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