Cyber Security

Helping secure one network at a time

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THE GLOBAL INTERNET POPULATION
2.3 Billion World Wide
33% of Pop. (End of 2011)

Region	Percentage of Internet Penetration Of Population	Percentage of WWW Usage
Asia	26 Percent	45 Percent
Europe	61 Percent	22 Percent
North America	79 Percent	12 Percent
Latin America/Caribbean	40 Percent	11 Percent
Africa	14 Percent	6 Percent
Middle East	36 Percent	3 Percent
Oceania/Australia	68 Percent	1 Percent

Garden Variety Hacker

@UGBrazil
open computer ofc fbi computer name 23 acees with ssh open scan ok open #Leaked #FBI #Computer #23 (205.128.71.87) [1000 ports] Discovered open port 80/tcp on 205.128.71.87 Discovered open port 443/tcp on 205.128.71.87

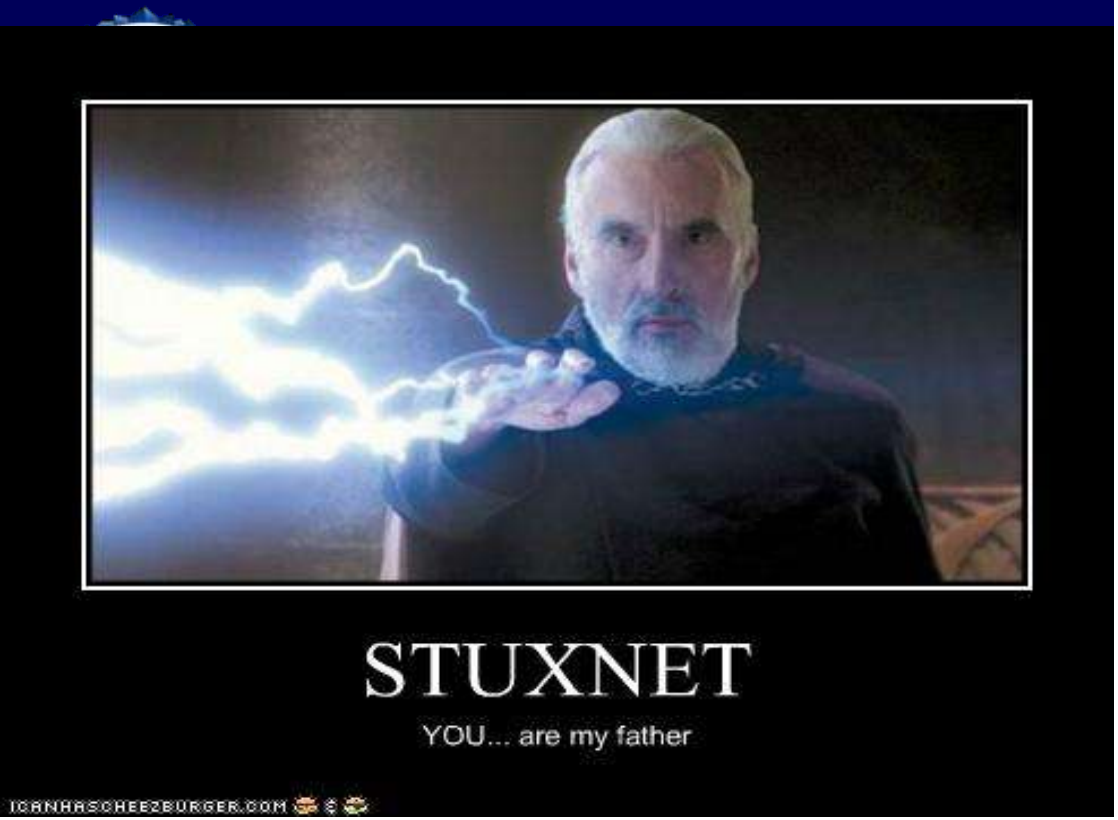
Professional Hackers
Organized Crime – Mercenary
Largest Group in Numbers

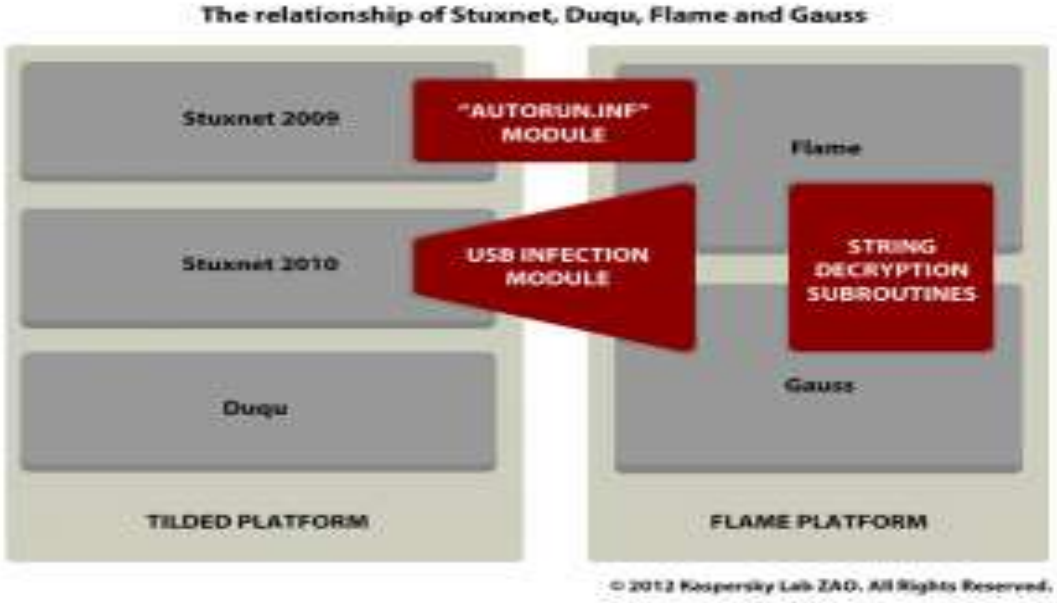
Advance Persistent Threat
State Sponsored

IRANIAN CYBER ARMY


INFRAGARD
PARTNERSHIP FOR PROTECTION


Symantec
Hacking
DUMMIES
McAfee


STUXNET
YOU... are my father
ICANHASCHEEZBURGER.COM


The relationship of Stuxnet, Duqu, Flame and Gauss
Stuxnet 2009
Stuxnet 2010
Duqu
TILDED PLATFORM
"AUTORUN.INF" MODULE
USB INFECTION MODULE
Flame
STRING DECRYPTION SUBROUTINES
Gauss
FLAME PLATFORM
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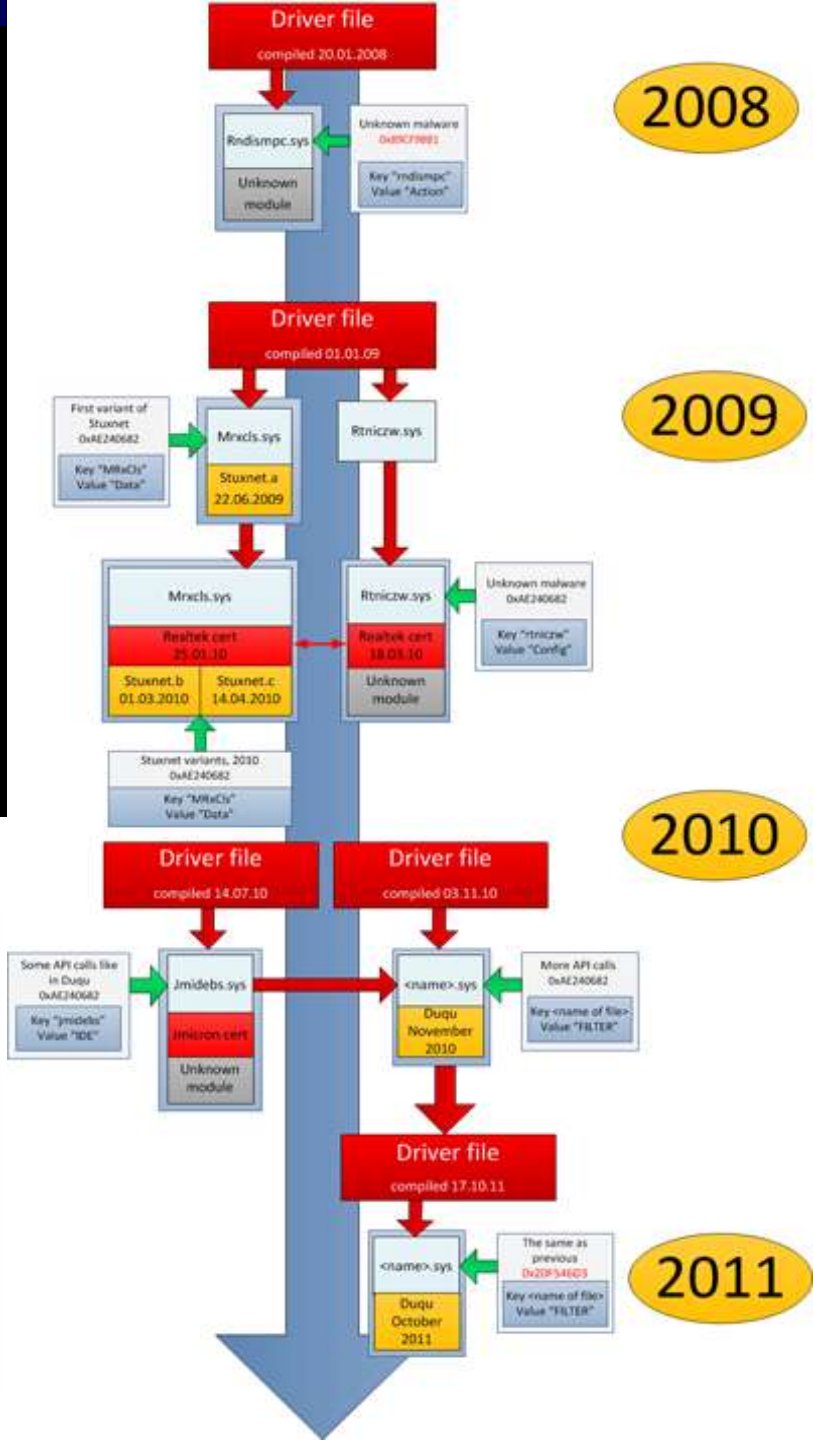
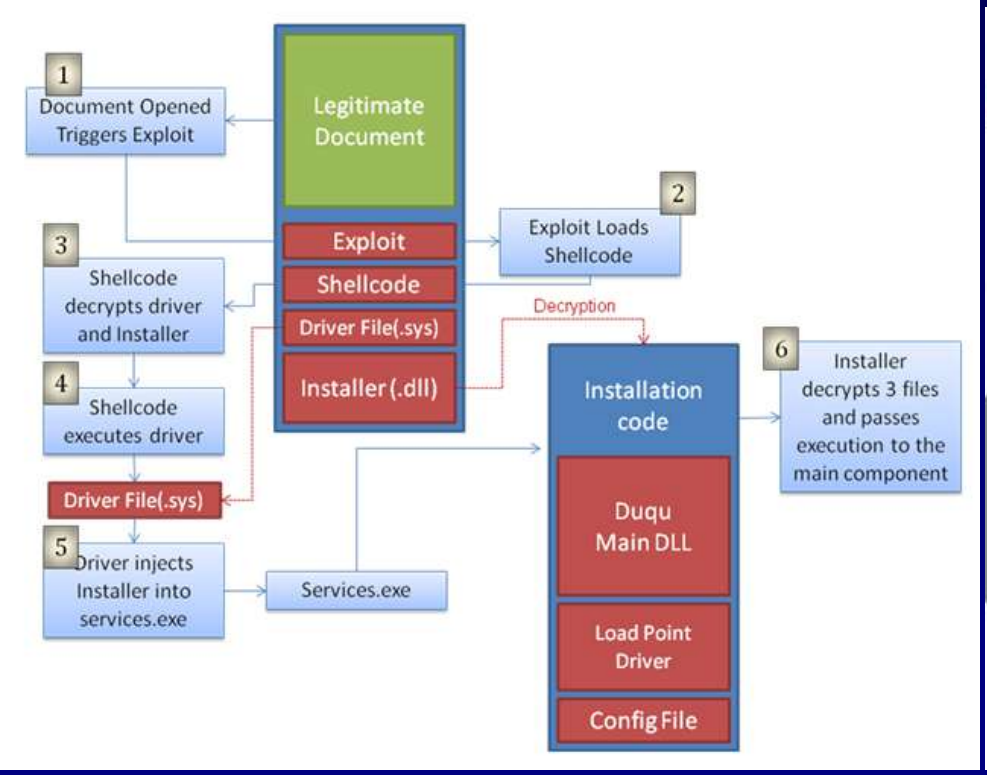

2008
Driver file
compiled 20.01.2008
Rndismpc.sys
Unknown module
Unknown malware
Key "rndismpc"
Value "Action"
2009
Driver file
compiled 01.01.09
First variant of Stuxnet
0xAE240682
Key "MRxCls"
Value "Data"
Mrxcls.sys
Stuxnet.a
22.06.2009
Rtniczw.sys
Mrxcls.sys
Realtek cert
25.01.10
Stuxnet.b
01.03.2010
Stuxnet.c
14.04.2010
Rtniczw.sys
Realtek cert
18.03.10
Unknown module
Unknown malware
0xAE240682
Key "rtniczw"
Value "Config"
Stuxnet variants, 2010
0xAE240682
Key "MRxCls"
Value "Data"
2010
Driver file
compiled 14.07.10
Driver file
compiled 03.11.10
Some API calls like in Duqu
0xAE240682
Key "jmidebs"
Value "IDE"
Jmidebs.sys
Jmicron cert
Unknown module
<name>.sys
Duqu
November
2010
More API calls
0xAE240682
Key <name of file>
Value "FILTER"
Driver file
compiled 17.10.11
<name>.sys
Duqu
October
2011
The same as previous
0x20F54E03
Key <name of file>
Value "FILTER"
2011


DUQU
Gusano Duqu
www.ne


duqu



"The attackers intend to use this capability to gather intelligence from a private entity to aid future attacks on a third party. While suspected, no similar precursor files have been recovered that predate the Stuxnet attacks."

Key points:

- Executables using the Stuxnet source code have been discovered. They appear to have been developed since the last Stuxnet file was recovered.
- The executables are designed to capture information such as keystrokes and system information.
- Current analysis shows no code related to industrial control systems, exploits, or self-replication.
- The executables have been found in a limited number of organizations, including those involved in the manufacturing of industrial control systems.
- The exfiltrated data may be used to enable a future Stuxnet-like attack.

'FLAME' WARS HOW ESPIONAGE WENT VIRAL

The Flame virus has been dubbed the world's most sophisticated piece of malware. How does it work?

1 Infection begins with a computer in a high-security network. How it gets there is unknown; the virus could be delivered by USB stick, via an email or through an internet hack attack.

2 Virus scans for other networks and accounts to infect. Rather than being virulent, it carefully chooses its targets and communicates with 'control and command' for advice.

Hidden servers are used by cyber attackers to talk with virus and access the data.

3 Flame is masterful in sweeping for data, listening in to microphones, monitoring instant messenger chats, taking screen shots and hacking connected Bluetooth devices.

4 Gathered information is broken down into small pieces and smuggled out in normal network traffic. It is reassembled and placed in a 'drop box' on the internet.

GRAPHIC: JOHN BRADLEY

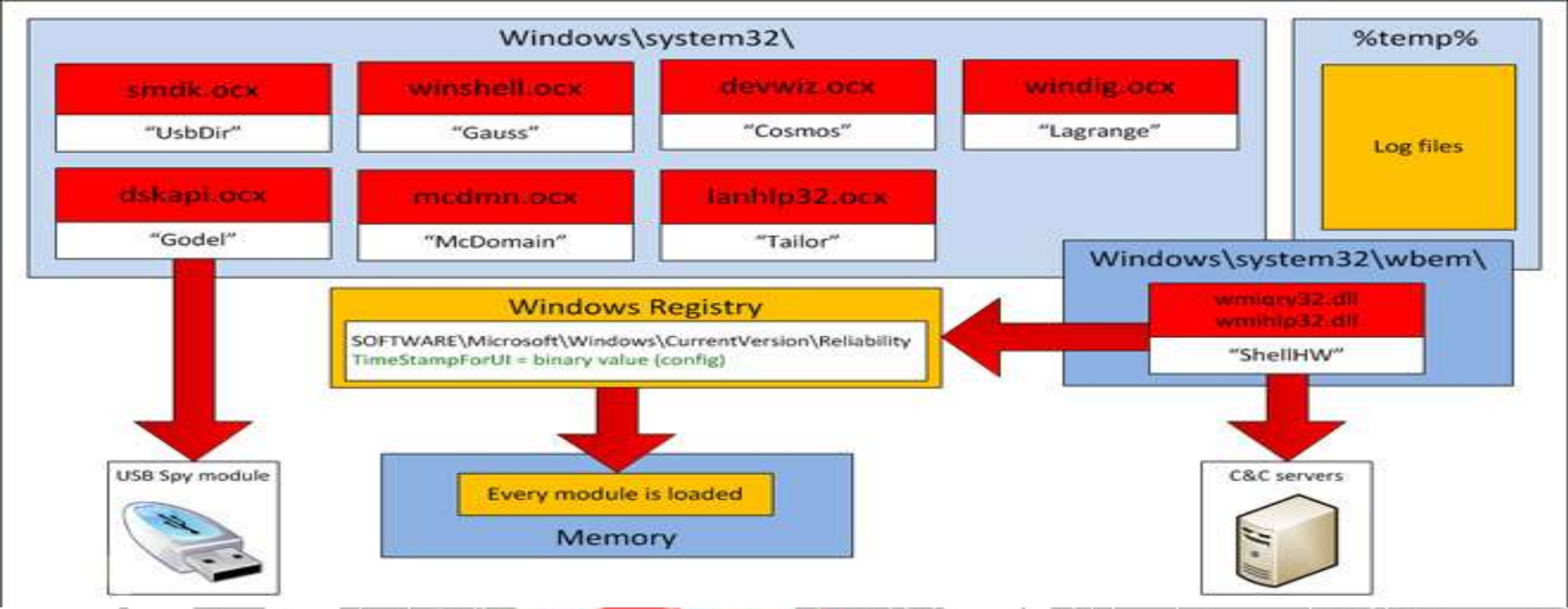
COUNTRIES INVOLVED

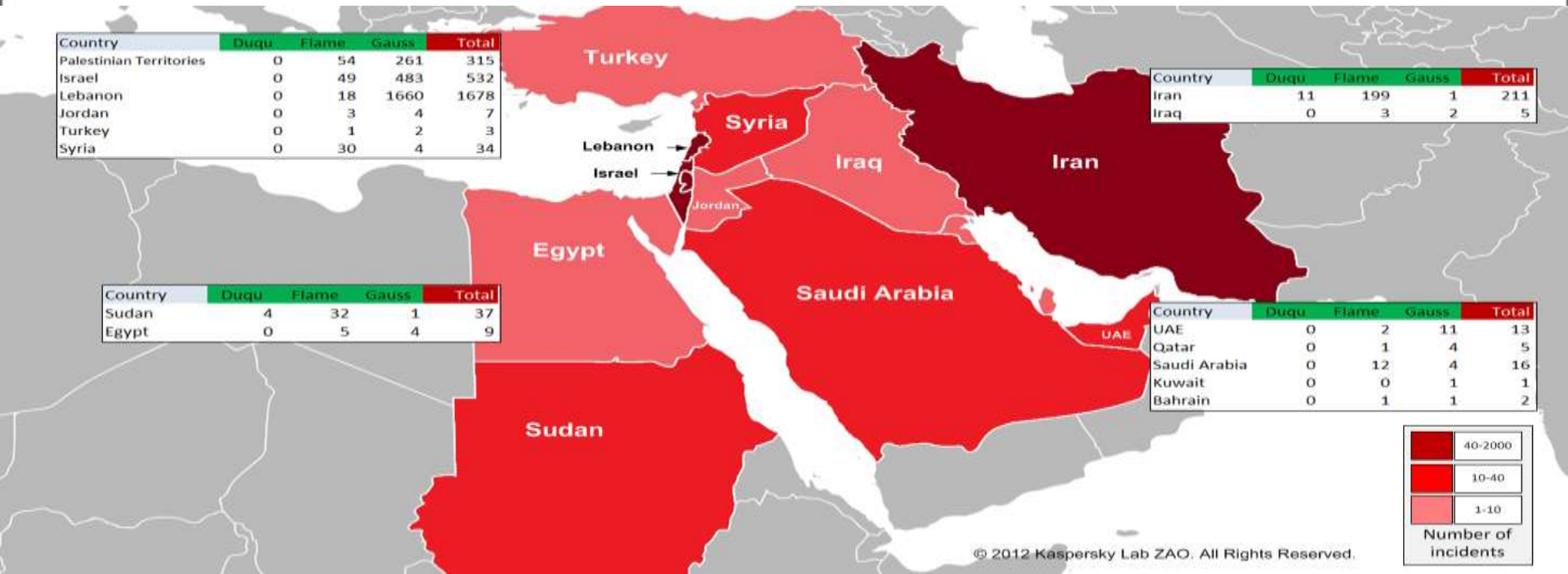
IRAN

The country with the largest number of infections, though they have also been found in Sudan, Syria, Lebanon and Egypt. President Mahmoud Ahmadinejad (right) has warned of the dangerous new threat.

ISRAEL

The government of Benjamin Netanyahu (right) hinted they might be behind the virus, even though computers also infected in Israel.





Country	Duqu	Flame	Gauss	Total
Palestinian Territories	0	54	261	315
Israel	0	49	483	532
Lebanon	0	18	1660	1678
Jordan	0	3	4	7
Turkey	0	1	2	3
Syria	0	30	4	34

Country	Duqu	Flame	Gauss	Total
Iran	11	199	1	211
Iraq	0	3	2	5

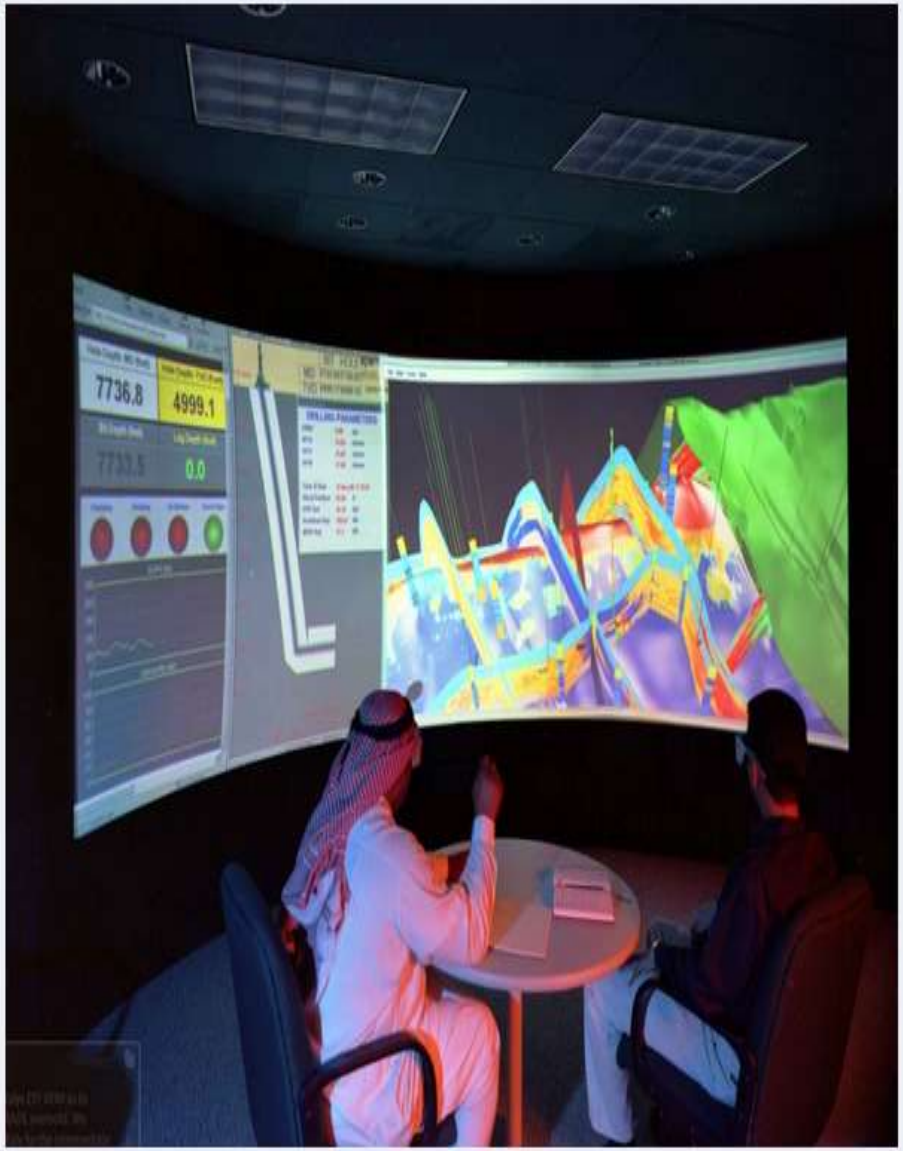
Country	Duqu	Flame	Gauss	Total
Sudan	4	32	1	37
Egypt	0	5	4	9

Country	Duqu	Flame	Gauss	Total
UAE	0	2	11	13
Qatar	0	1	4	5
Saudi Arabia	0	12	4	16
Kuwait	0	0	1	1
Bahrain	0	1	1	2

SHAMOON

C:**Shamoon**\ArabianGulf\wiper\release\wiper.pdb

Saudi Aramco geoscientists and petroleum engineers



NEXT TARGET?


INFRAGARD
PARTNERSHIP FOR PROTECTION


MONSANTO
"Control the food supply, and you control the people."


HOMELAND SECURITY
EMERGENCY PREPAREDNESS
STATE OF LOUISIANA
LOUISIANA


U.S. DEPARTMENT OF HOMELAND SECURITY


SECATS
SE
Cyber
Anti-Terrorism
and Security

BYOD
Bring Your Own Disaster

MINI - FLAME

Cyber security experts say uncovered a new powerful espionage virus in the Middle East that's reserved for high-value targets….

Lebanese banks that U.S. officials say are suspected of laundering money for Iran and Hezbollah, its powerful Lebanese proxy, have also been hit in recent weeks.

Read more: http://www.upi.com/Business_News/Security-Industry/2012/10/16/Mini-Flame-virus-hikes-Mideast-cyberwar/UPI-72041350405555/#ixzz29aIDeFpc

Footnotes

1. http://blog.thomsonreuters.com/index.php/deconstructing-the-flame-virus/
2. http://www.techypod.com/2012/07/flame-virus-usisrael-trying-hard-to.html
3. http://rt.com/news/gauss-virus-stuxnet-flame-276/
4. http://www.livehacking.com/tag/stuxnet/
5. http://www.hardwarezone.com.sg/tech-news-duqu-trojan-james-bond-cyberattacks
6. http://www.aftershell.com/2011/11/03/w32-duqu-analysis/
7. http://www.securelist.com/en/blog/208193795/Shamoon_the_Wiper_in_details
8. http://www.securelist.com/en/blog/208193808/What_was_that_Wiper_thing#page_top
9. https://www.securelist.com/en/blog/208193786/Shamoon_the_Wiper_Copycats_at_Work
10. http://www.upi.com/Business_News/Security-Industry/2012/10/16/Mini-Flame-virus-hikes-Mideast-cyberwar/UPI-72041350405555/#ixzz29alDeFpc
11. usa.kaspersky.com