



Committed to cybersecurity

# CyberSecurity: Cooperation as a way of defense

EIN2016 – April, 29<sup>th</sup> 2016 (Academia Militar, Lisboa)



**16 YEARS**  
experience  
in the  
business of  
cybersecurity.

# DELIVERING INNOVATION AND QUALITY AS A STANDARD



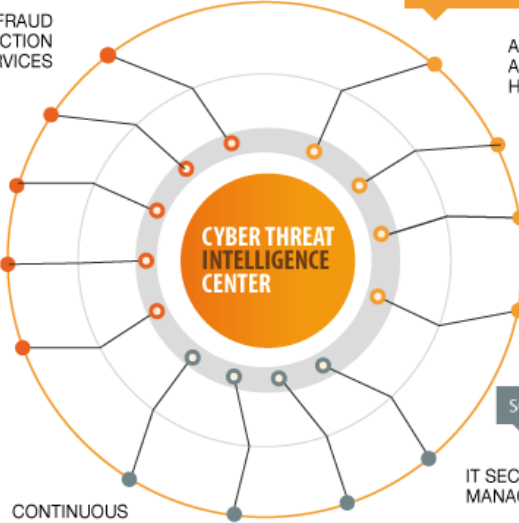
# CYBER THREAT INTELLIGENCE CENTER

PURE PLAY CYBERSECURITY COMPANY

100%  
CYBERSECURITY

## ADVANCED CYBERSECURITY SERVICES

## PROFESSIONAL SERVICES



- WEB FRAUD PROTECTION SERVICES
- DATALEAK DETECTION
- ADVANCED SECURITY FEEDS
- MALWARE DEEP ANALYSIS
- CYBER THREATS EARLY WARNING

- AUDITING & ADVANCED HACKING
- IT SECURITY CONSULTING & COMPLIANCE
- SECURITY SOLUTIONS INTEGRATION
- S21SEC ACADEMY

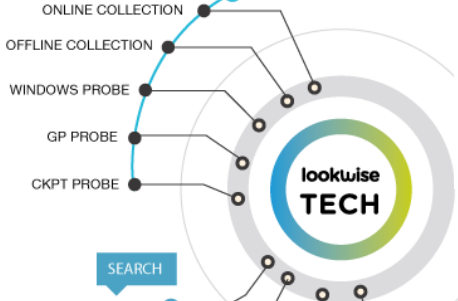
## SOC / CERT SERVICES

- CONTINUOUS VULNERABILITY SCANNING
- ADAPTATIVE DEFENSE CENTER
- SECURITY INFORMATION AND EVENT MANAGEMENT
- IT SECURITY MANAGEMENT



lookwise  
ENTERPRISE  
MANAGER EM

## COLLECTION



- ONLINE COLLECTION
- OFFLINE COLLECTION
- WINDOWS PROBE
- GP PROBE
- CKPT PROBE

## SEARCH

- SEARCH ENGINE
- INDEXER
- ONLINE CORRELATION
- NOTIFICATIONS

## CORRELATION

lookwise  
DEVICE  
MANAGER DM

## PROTECTION

- APPLICATION WHITELISTING
- HARDWARE PROTECTION
- FILE SYSTEM PROTECTION

## CONTROL

- REMOTE ACTIONS
- FORENSICS

## MONITORING

- HARDWARE INVENTORY
- SOFTWARE INVENTORY
- USER MONITOR
- SECURITY


We collaborate with Governmental and Public Sector Institutions

We are involved in International Forums dedicated to Cyber

We also work on EU projects



**S21sec**



**Cooperation  
with the EC3**

## BRIEF HISTORY OF THE COOPERATION OF S21SEC WITH THE POLICE AUTHORITIES AND DEFENSE ORGANISMS.

In 2015 **S21sec** signs a **MoU** with **EC3**. S21sec becomes the first Spanish enterprise (and one of two in the Iberian Peninsula) who has signed this type of agreement in order to fight against European and worldwide cybercrime.

### EUROPOL AND S21SEC START COOPERATION TO COMBAT CYBERCRIME

11 February 2015

Europol's European Cybercrime Centre (EC3) has signed a Memorandum Of Understanding with S21sec, allowing for cooperation in the joint fight against cybercrime. The two organisations will start to exchange knowledge and expertise on cybercrime, and will cooperate to combat online fraud and make the Internet a safer space.



# In 2016 S21sec agrees to take part of the Internet Security Advisory Group from Europol EC3.

#### EC3 ADVISORY GROUPS

Established by the EC3 Programme Board and reporting to it, dedicated advisory groups have been created in order to foster closer cooperation with its leading non-law enforcement partners. They help to strengthen practical cooperation between law enforcement and key domains, such as internet security and financial services.

#### INTERNET SECURITY

##### Mandate:

With a view of getting a clear overview of the needs and priorities for internet security in the context of the cross-border fight against cybercrime, the purpose of the Group is to:

- bring knowledge and expertise to the Programme Board on matters related to internet security;
- update and share all relevant information and expertise on developments in the area of internet security;
- assist the Programme Board in defining priorities for the work of the EC3 in this area, including advising on the cooperation with CERTs and other relevant partners and on developing concepts for enhanced prevention of cybercrime;
- assist the EC3 Programme Board in striking the right balance between disruption and prevention on the one hand and investigation and prosecution on the other.

#### Members

Akamai, Anubis Networks, Belgacom group, Bitdefender, Blackberry, Check Point, Cisco, CSIS – Norwegian Center for Cyber and Information Security, ENISA, FireEye, Fortune 500, Fox-IT, GroupIB, Hewlett Packard Enterprise, IRISCCERT, Kaspersky, McAfee, Microsoft, Mnemonic, Trend Micro, UNICRI, SSH Communications Security, Stuart Hyde Associates, Symantec, S21Sec, the Shadowserver Foundation EU and a representative from the European Commission (DG Home)



## **Needs identified by the police authorities**



**Training  
Tools  
R&D**

## WHAT CAN PRIVATE COMPANIES GIVE TO POLICE AUTHORITIES AND SECURITY ENTITIES?

- Training:
  - From the most common topics that every company can adopt, up to highly specialized courses.
  - Local and online training, with a high demand nowadays from multiple entities, not only the ones that work directly with cybercrime and actively fighting it.
  - What drives others and inspire trust are persons and not the companies itself.

- CNEC:



SPANISH NATIONAL CENTRE OF EXCELLENCE ON CYBERSECURITY  
Final Project results  
European Cybercrime Training and Education Group  
Europol, The Hague

- 2 year project: Nov 2012 – Nov 2014
- Beneficiaries
  - Universidad Autónoma de Madrid
  - S21sec
- Associate partners
  - Guardia Civil
  - Cuerpo Nacional de Policia



## WHAT CAN PRIVATE COMPANIES GIVE TO POLICIE AUTHORITIES AND SECURITY ENTITIES?

- Tools:
  - Publicly available tolos rarely cover 100% the needs of policial authorities and other security entities.
  - There is an highly demand for tools that can help, and ease, day-to-day tasks as well as the work of policial investigation.
  - At a regional level (Iberia), the main constraint is the lack of budget and financial resources within public administration.

- ## Digital Surveillance



## WHAT CAN PRIVATE COMPANIES GIVE TO POLICE AUTHORITIES AND SECURITY ENTITIES?

- R&D:
  - Collaborative projects are the most advantageous format for both parties, private and public sector.
  - Public sector are extremely keen for this type of collaborations.
  - Good opportunities to reach european funds.
  - CAPER:



**Success story**

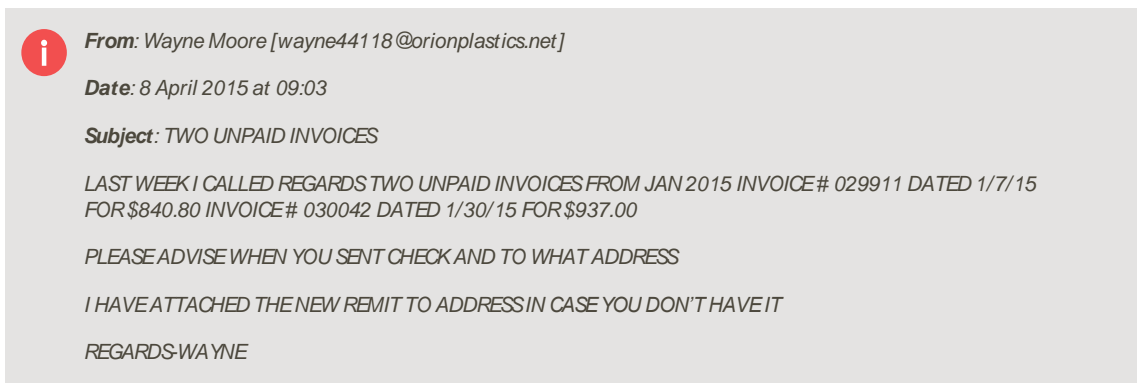


**Dridex**

## Success story: DRIDEX

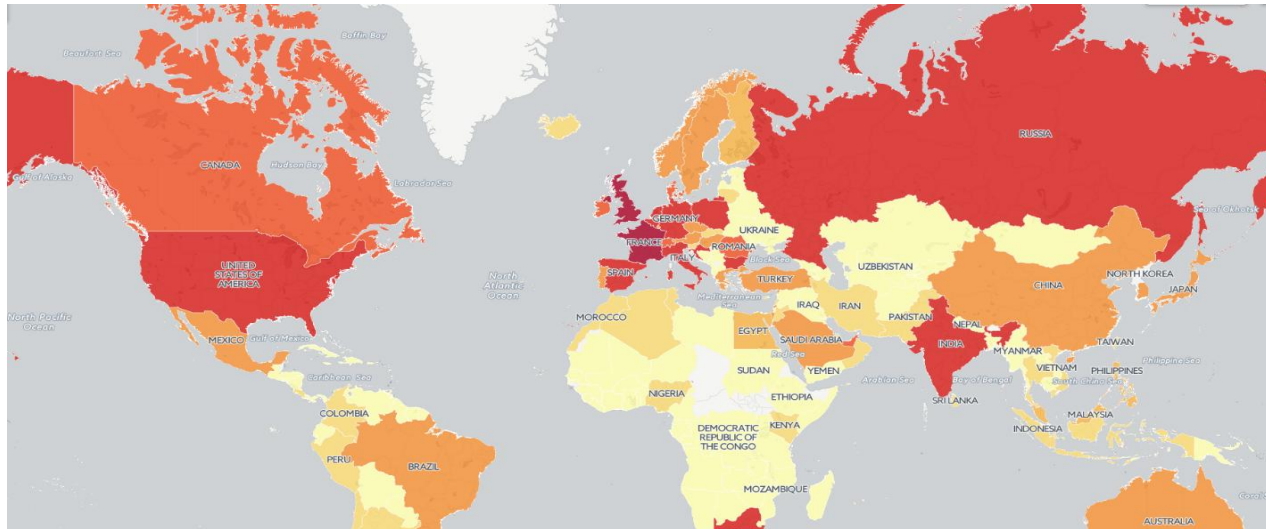
---

- **Dridex** is a banking malware that first appeared in July 2014. It's main propagation strategy is by using e-mail, with the use of stolen account or changed in the source.



### Success story: DRIDEX

- **Dridex** major impacts was mainly in Europe and United States of America, through the use of two distinct malicious networks. The European network strongly attacked United Kingdom and France. During it's peak phase, there were roughly 344.000 infected devices.



| COUNTRY | INFECTIONS |
|---------|------------|
| GB      | 46833      |
| FR      | 22524      |
| US      | 13350      |
| IT      | 10924      |
| BG      | 9268       |
| HR      | 5066       |
| BE      | 4508       |
| PL      | 4012       |
| IN      | 2969       |
| ZA      | 2876       |

**Success story: DRIDEX**

---

- In October 2015, a joint operation between the **FBI**, **NCA** and **Europol** dismantled the Dridex infrastructure, which had an estimation of, at least, 50 Millions of dollars stolen. **S21sec** was a key player by adding its knowledge and experience to the investigation.

**Forbes** / Security

Cops Knock Down Dridex Malware That Earned 'Evil Corp'  
Cybercriminals At Least \$50 Million

## **FBI and UK cops smash Dridex high-stakes bank-raiding botnet**

The days may be numbered for an eastern European hacking gang and their banking malware botnet Dridex.



## Success story: DRIDEX

- *During the last months of 2015 Dridex comes back.*  
**S21sec** still is collaborating with Europol nowadays.



THE UNITED STATES DEPARTMENT OF JUSTICE

ESPAÑOL

HOME ABOUT AGENCIES BUSINESS RESOURCES NEWS CAREERS CONTACT

Home » Office of Public Affairs » Briefing Room » Justice News

### JUSTICE NEWS

Department of Justice  
Office of Public Affairs

FOR IMMEDIATE RELEASE Tuesday, October 13, 2015

#### Bugat Botnet Administrator Arrested and Malware Disabled

A sophisticated malware package designed to steal banking and other credentials from infected computers has been disrupted, and charges have been filed in the Western District of Pennsylvania against a Moldovan administrator of the botnet known as "Bugat," "Cridex" or "Dridex." Actions taken by the U.K. and the U.S. substantially disrupted the botnet.

Assistant Attorney General Leslie R. Caldwell of the Justice Department's Criminal Division, U.S. Attorney David J. Hickton of the Western District of Pennsylvania and Special Agent in Charge Scott S. Smith of the FBI's Pittsburgh Division made the announcement today.

Audrey Ghinhal, aka Andrei Ghinical and Smiley, 30, of Moldova, was charged in a nine-count indictment unsealed today in the Western District of Pennsylvania with criminal conspiracy, unauthorized computer access with intent to defraud, damaging a computer, wire fraud and bank fraud. Ghinhal was arrested on Aug. 28, 2015 in Cyprus. The United States is seeking his extradition.

"The steps announced today are another example of our global and innovative approach to combating cybercrimes," said Assistant Attorney General Caldwell. "Our relationships with counterparts all around the world are helping us go after both malicious hackers and their malware. The Bugat/Dridex botnet, run by criminals in Moldova and elsewhere, harmed American citizens and entities. With our partners here and overseas, we will shut down these cross-border criminal schemes."

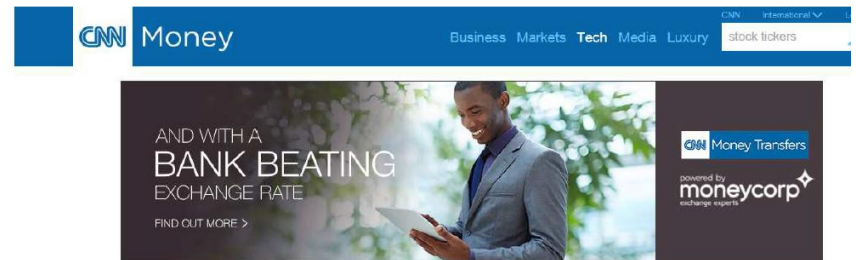
"Through a technical disruption and criminal indictment we have struck a blow to one of the most pernicious malware threats in the world," said U.S. Attorney Hickton.

DEPARTMENT OF JUSTICE ACTION CENTER

Report a Crime

Get a Job

Locate a Prison, Inmate, or Sex Offender



CNN Money

Business Markets Tech Media Luxury

AND WITH A BANK BEATING EXCHANGE RATE

FIND OUT MORE >

Money Transfers

powered by moneycorp

### Cyber-Safe

## FBI teams up with hackers to bust bank robbing botnet

By Jose Pagliery @Jose\_Pag

Report a Crime

Get a Job

Locate a Prison, Inmate, or Sex Offender

Recommend 5/14

Social Surge - What's Trending

Anheuser-Busch InBev agrees to be SABMiller in biggest beer deal ever

Playboy to eliminate nude photos from the magazine

## Other collaborations

- ENISA
- ECSG
- INCIBE
- Others...





## Smart Grid Security



Published December 10, 2013  
Authors

• Adrian Pauna, ENISA, • Konstantinos Monreal Ibañez, S21sec, • Luis Tarrafel S21sec, • Jairo Alonso Ortiz, S21sec, • Goicoechea, S21sec

**social and corporate virtual worlds".**

Este es el segundo estudio en el que S21sec colabora con ENISA como fuente de datos, como ya hiciera el pasado año con el Estudio sobre Botnets, la amenaza silenciosa.

## 1sec y ENISA abogan por coordinar estrategias conjuntas para mejorar la seguridad industrial en la Unión Europea

/ 2014

1sec ha realizado el trabajo de campo y ha colaborado con ENISA en la elaboración del estudio sobre Testing nation Capability

En los principales riesgos de los mundos

virtuales, la información y redes, ENISA ha publicado un nuevo estudio sobre la seguridad en los mundos virtuales. Este estudio pone a la cabeza como el principal riesgo que perciben los usuarios de los mundos virtuales.

El estudio, publicado por ENISA, pone a la cabeza como el principal riesgo que perciben los usuarios de los mundos virtuales.

El estudio, publicado por ENISA, pone a la cabeza como el principal riesgo que perciben los usuarios de los mundos virtuales.

Este estudio pone a la cabeza como el principal riesgo que perciben los usuarios de los mundos virtuales.

- ECSI MEMBERS



## EUROPE'S LARGEST AND MOST AGILE PROVIDER OF CERT EXPERTISE

The ECSG is an expert consortium of like-minded, independent cyber security firms across Europe dedicated to reducing cyber risk and improving cyber defense through direct services and expert advocacy. The ECSG is a not for profit foundation based in the Netherlands. Cyber security is what we breathe and live every day; it's not work, but a way of life. As independents, the only people we serve are our clients, whose security we take as seriously as our own.

Seeing the cyber security threat horizon morph and accelerate, while helping organizations both public and private as they struggle to respond, we decided to join forces for the common good. With more than 600 experts, the ECSG is now effectively the largest European provider of CERT Computer Emergency Response – services. By working together, we each bring our own firms' uniqueness to the table to deliver faster and more complete solutions in agile ways that a single, large organization simply cannot.

MORE THAN 1 MILLION PEOPLE **BECOME VICTIMS OF CYBER CRIME EVERY DAY**

- Identify and analyze the source of the breach
- Assess of the extent of the damage and the depth of the intrusion
- Develop a containment strategy to ensure that no further harm results from the initial breach
- Communicate effectively with customers, regulators, law enforcement, media, and other key stakeholders
- Deliver post-incident reporting with specific recommendations to improve your future security
- Liaise with law enforcement and assist with investigation, attribution, and prosecution



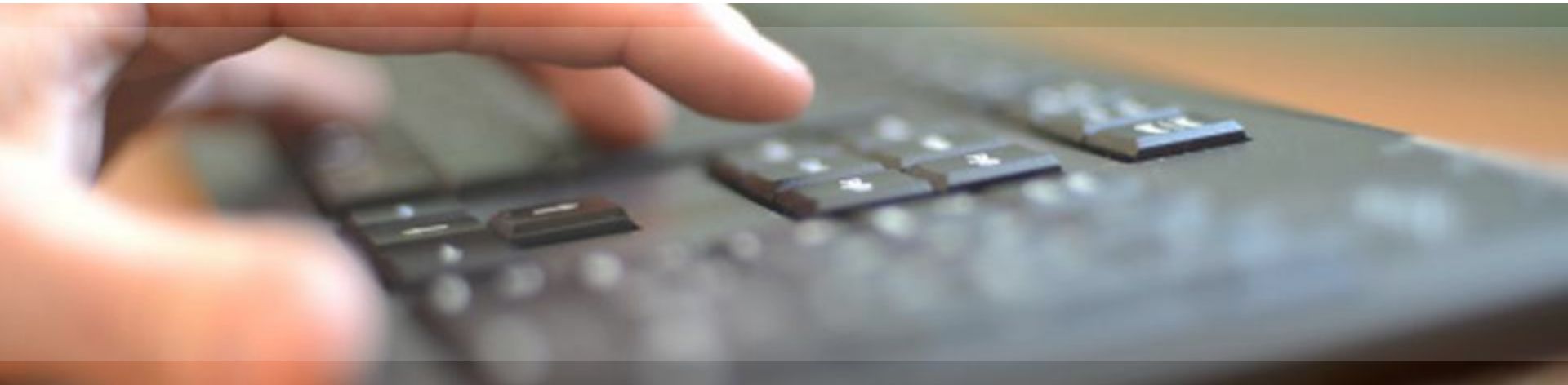
## REFLECTIONS - CONCLUSIONS

---

- The collaboration between police authorities and private companies working of these fields of knowledge is of outmost importance
- Multiple opportunities with distinct scopes and objectives
- Working with local, regional and european authorities
- Private sector = €€€, but...
  - There are **common interests** (internet security, fraud prevention, social engagement and compromise, etc)
  - **Other benefits** taken from this collaboration (reputation, visibility, internally positioning)
  - **Complementarity** with comercial activity
- There is the need to involve other entities from the privately held sector
  - Search for a common ground that motivates other to participate
  - Collaborative Social Responsibility (CSR) inclusion?



NOMBRE: Carlos Silva  
ENTIDAD: S21sec  
CONTACTO: csilva@s21sec.com







## SPAIN

### MADRID

C/ Valgrande, 6  
C.P. 28108  
Alcobendas  
Tel.: +34 902 222 521  
Fax: +34 91 6616679

### BARCELONA

Passeig de Gracia,  
56 - 4.D  
C.P. 08007  
Tel.: +34 902 222 521  
Fax: +34 91 6616679

### SAN SEBASTIÁN

P.E. Zuatzu.  
Ed. Urgull, 2º  
C.P. 20018  
Tel.: +34 902 222 521  
Fax: +34 91 6616679

### PAMPLONA

PE. La Muga, 11-1  
C.P. 31160  
Orcoyen  
Tel.: +34 902 222 521  
Fax: +34 91 6616679

### LEÓN

Avda. José Aguado, 41  
Ed. INTECO  
C.P. 24005  
Tel.: +34 902 222 521  
Fax: +34 91 6616679

## PORTUGAL

### LISBOA

Rua do Viriato, 13B,  
4º andar  
1050-233 Lisboa  
Portugal  
+351 220 107 120  
+351 220 107 121

### OPORTO

Lugar do Espido  
-Via Norte  
4470-177 Maia  
Portugal  
+351 220 107 120  
+351 220 107 121

## MEXICO

### MÉXICO DF

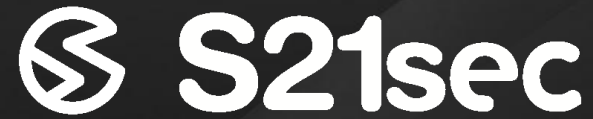
Mariano Escobedo 510, planta alta  
Colonia anzures  
Delegación Miguel Hidalgo  
11590 México D.F.  
T +52 55 33 00 52 00

## UK

### READING

Davidson House  
Forbury Square  
Reading  
RG1 3EU  
United Kingdom

# THANKS



Committed to cybersecurity