Information security & citizen's rights: It's a journey not a destination



CASEScontact.org

Urs E. Gattiker

CyTRAP Labs & CASEScontact.org

Awareness raising and prevention

Secure electronic transactions



Our message today is:

- Iteration is the key to success start and improve continuously to realize success
- Infrastructure is becoming ever
 - more critical,
 - more vulnerable
 - The key to success is the user at work, home and on-the-road
- Challenge: Starting prevention today, instead of talking about it tomorrow.
- Cybercrime is open 365 or 366 days x 24 hours
 - But when it is a Public Holiday some people believe the evil guys are on vacation, they are not ⁽³⁾

Overview helping citizens and SMEs achieve better information security



- 1) What should a citizen know about information security?
- 2) How do we move from awareness to prevention?
- 3) How can European Member States create synergies for their efforts to improve prevention for citizens?
- 4) How can awareness raising and prevention efforts add value or who is your target audience?
- 5) Conclusion what we can do to help citizens/SMEs



Part 1 - What should a citizen know about information security



- Wash your hands frequently
- Saturday night at dance bar – do not accept a drink from a stranger (what is in it – drug?)
- Don't sit in a stranger's car

- Scan against viruses frequently
- Don't open a file attachment unless you are sure your friend sent it-check first if she really did
- Don't visit strange websites (trust)

What happens INSTEAD Nyxem virus 2006-01-16 Monday

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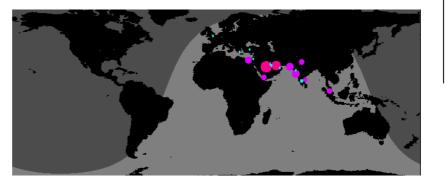
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- we replaced a critical infrastructure with something not designed to be critical infrastructure
 - THE INTERNET
- Nyxem virus is a 95 kb Visual Basic executable that infects a computer when an unwary user runs an executable email attachment
 - the virus also contained a malicious payload designed to overwrite files with certain extensions on the 3rd of every month (beginning February 3, 2006).
 - Affected file types include:
 - .doc, .xls, .mdb, .mde, .ppt, .pps, .zip, .rar, .pdf, .psd, and .dmp.

Nyxem virus 2006-01-16 Monday

2006 CAITA initiative UC Calif.

09:00 GMT Monday

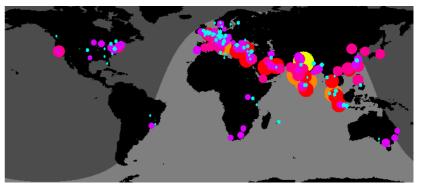


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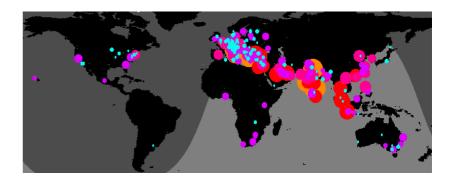


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09:00 GMT Tuesday



09:00 GMT Wednesday





Part 2 - How do we move from awareness to prevention

prevention success





Strategic Domains:

Awareness Raising

Prevention (passive defense)

Opposition (active defense)

- Communication & Dissemination of Info
- Developing Indicators from Users
- Developing Measures
 - Detecting and Patching Vulnerabilities
 - Managing and Minimising Risks

- Counter Measures
- Enhancing Privacy and Improving Regulatory Compliance
- Incident Management

3 steps to prevention success

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	Fire	AIDS	InfoSec
Awareness	Information from fire marshall, insurance company, etc.	Information (e.g., advertising and media campaigns) against AIDS	Information about malware in the media, updates by firm, others
Prevention	Training or Seminars	Training or Seminars	Training or Seminars
	Fire Drill	Don't have unprotected sex	Attack or other types of simulation exercises
	Don't smoke in bed	Abstain	- Employees make sure the originating person sent you the attachment and after getting the answer, scan it first against viruses and only then open it
			 Firewall, anti-virus and anti-spyware software installed and updated regularly at work and home PCs

Three level strategy for information security

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Support for Helping Yourself - Self-Assessment leads to Know-How

Active Defense Industry Standards or what is considered Best Practice

Regulatory Framework and the Law

Putting it into practice

Industry standards and best practice – saving energy

Building code

Smoke detectors increase the chances of people leaving the building without harm in case of a starting fire Using natural light, materials, energy etc. will reduce energy consumption

Distribution of condoms to teenagers – free or subsidized including education is becoming a best practice standard in the public health field

Public Health regulations

Viral therapy for pregnant and Aids infected women increases the chance of a the newborn not being infected.

Best Practice regarding anti-virus, spyware and other programs is being followed by, for instance, having such security tools installed on all PCs and mobile phones, thereby reducing the risk of infections and disasters.

- Security, E-Commerce and Privacy Regulations, etc.
- Multi-layered security architecture put in place (e.g., intrusion detection systems, network traffic sniffers, etc.)

Police Compliance is being monitored

- Regulatory Compliance is maintained with the help of Audits
- Disaster Mgmt & Recovery Planning in place



Part 3 - How can European Member States create synergies for their efforts to improve prevention for citizens?

Launching Field Test

|| E-Security Platform (Belgium)

May 6, 2000 Minister Rik Daems

|| CASES - Pan-European Effort (Belgium Promotor - BIPT/IBPT)

Launched – July 4 2002 Minister Rik Daems

| Preparation for CASES Field Test

Launched - April 2003 CASES TEAM

| Launch of CASES Field Test - Pilot

Launch Date – Summer/Fall 2003 Duration: 4 – 6 months BIPT/IBPT, GR LU, I, UK

| Launch of CASES Field Test

Launch Date – Spring/Summer 2004 Duration: 6 – 12 months LUx, BIPT/IBPT, BRD,

| Launch of Formal Collaboration

Spring/Summer 2005 LU, CH, BRD, CASEScontact BE,

UK?

|| Budget is or has been earmarked to finance field test:

- MCN Belgium or Italy
- National Node
 - Belgium
 - GR
 - LU
 - UK still to be determined
 - others

|| Collecting information

- do sources work
- how well does structure of communication work:
 - * amongst CASES nodes?
- || Testing of communication channels between national nodes and data suppliers (e.g., ISPs) or recipients of findings

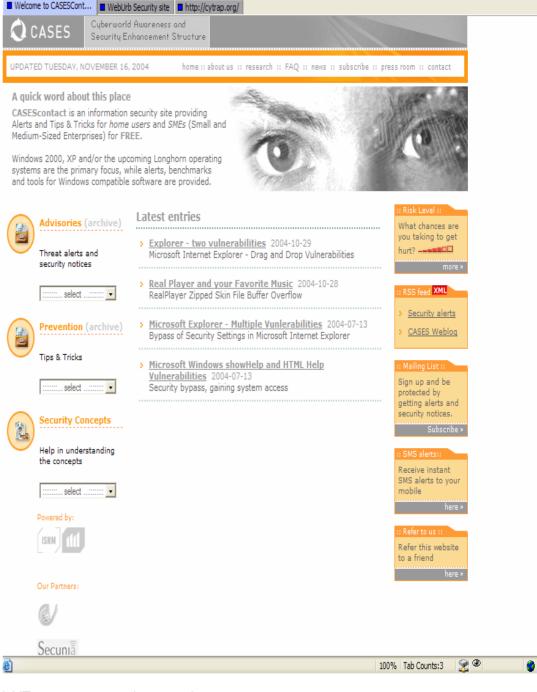
|| Fine- tuning of tasks and performance of Technical Advisory Committee (TAC)

- || CASEScontact is becoming a source for information (advisory)
 - Alerts not virus ones Vulnerabilities & Threats CVE collaborator
 - Tips & Tricks Firewall, settin up wireless network at home, dialers, spyware

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CASES - Worum geht es?

- Cyberworld Awareness and Security
 Enhancement System
 - Rick Daems Belgian Minister for Telecom – Juli 2002
 - awareness raising
 - better prevention
 - citizens home users
 - SMEs & self-employed people





Cyberworld Awareness and Security Enhancement Structure

UPDATED THURSDAY, OCTOBER 20, 2005

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A quick word about this place

CASEScontact is an information security site providing Alerts and Tips & Tricks for home users and SMEs (Small and Medium-Sized Enterprises) for FREE.

Windows 2000, XP and/or the upcoming Windows Vista operating systems are the primary focus, while alerts, benchmarks and tools for Windows compatible software are provided.



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Advisories (archive)

Complete list of Threat Advisories and Security Tips





Prevention (archive)

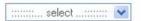
Tools & Training





Security Concepts

Help in understanding the concepts



Powered by:



Our Partners:



Latest Threat Advisories (ISSN: 1603-9858)

CT110027: MS Patch Tuesday - October 2005 - #1 -Microsoft Windows - CRITICAL MSDTC and COM+ Vulnerabilities 2005-10-11

CT110029: MS Patch Tuesday - October 2005 - #2 -CRITICAL - Vulnerability in the Microsoft Collaboration Data Objects 2005-10-11

CT110028: <u>CRITICAL - RED ALERT - Firefox and Mozilla Suite - Several Vulnerabilities</u> 2005-09-23

CT110026: <u>UPDATE 2 - Firefox/Mozilla Suite AND Netscape</u> <u>URL Domain Name Buffer Overflow</u> 2005-09-21

more>>

Latest Security Tips (ISSN: 1603-9866)

 CT210012: UPDATE 2 - MS tool - Yes Virginia - phishing attacks are on the rise and getting meaner - we tell you how to surf safer 2005-09-30

> CT210007: UPDATE 1 - Windows XP 101 - PART 1 -Grandma's Tricks - Regular Service & Tune Up ==> Turbo Charge XP 2005-08-30

CT210008: Rather 100 SPAM Msqs Than ... Check Grandpa's 101 on Avoiding & Getting Rid of Spam 2005-08-23

Risk Level ::

What chances are you taking to get hurt?

more

: RSS feed XML

Content can fly to your desktop.

Get RSS feeds »

: Mailing List :

Sign up and be protected by getting alerts and security notices.

Subscribe »

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Receive instant SMS alerts to your mobile

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UPDATED TUESDAY, MAY 23, 2006

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A quick word about this place

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Advisories (archive)

Complete list of Threat Advisories and Security Tips





Prevention (archive)

Tools & Training





Security Concepts

Help in understanding the concepts



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Latest Threat Advisories (ISSN: 1603-9858)

- CT110050: CASEScontact.org advisory zero-day exploit -Microsoft Word has unspecified vulnerability that could result in code execution 2006-05-20
- CT110049: CASEScontact.org MS Patch Tuesday May 2006 - 2 Security Bulletins - MS Exchange and Macromedia Flash Player 2006-05-09
- CT110048: CASEScontact.org advisory Microsoft Internet Explorer - remote code execution vulnerability - NO patch available 2006-04-25
- CT110047: CASEScontact.org advisory Mozilla Firefox and Sea Monkey - HIGHLY CRITICAL vulnerabilities 2006-04-14

Latest Security Tips (ISSN: 1603-9866)

- CT210002: CASES contact.org guide: the best ways for getting rid of spyware and stealthware 2006-05-17
- CT210018: CASEScontact.org guide protecting data confidentiality and privacy by disposing of an old notebook, iPod, smartphpone & memory stick the smart way 2006-04-05

Alerts and Tips now at your doorstep

Better Risk Management.

More >

Better Web Marketing.

The CASEScontact Weblog.

Educational programs for IT users at all levels.

Sign up and be

How the countries try to collaborate

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- Luxemburg CASES.lu → ENISA
- Germany/Switzerland CASEScontact.org → CyTRAP Labs
 - Associated Partners
 - Unabhängigen Landeszentrum für Datenschutz (ULD) Schleswig Holstein
 - EICAR Europe's Information Security Experts
 - CASES.lu
 - Melani CH
- Switzerland Melani Informatikstrategieorgan Bund Meldeund Analysestelle Informationssicherheit → CASES.lu, etc.



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Part 4 -

How can such services add value?

What is CASEScontact's focus and rational? Market niche is key



- Focus, focus, focus do not duplicate what is already done well:
 - CERT Cert.DK clear target market
 - independent (semi-government)
 - does some techie work
 - focuses on
 - large organizsations
 - government departments
 - virus alerts done well by vendors such as Bullguard.com, Kaspersky, etc.
 - Providing a service for techies working at large organizations
 - SANS, Secunia, Outpost, eEye, etc.
 - pay and you get great service



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- who takes care of:
 - citizens OECD broadband 25% & up
 - Which age group
 - Teenies or pensioners?
 - SMEs
 - limited technical knowledge
 - home businesses
 - self-employed

Public-private partnerships - service target audience - younger people

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Younger people are taking greater risks than retired people with mobile phones & notebooks Teenager puts family at risk but if he does take preventive measures – family benefits

Subscribe	1
Please complete the details below to subscribe to the CASEScontact mailing list:	
All information with asterisk (*) are required.	
*Login Name (for creating your profile):	
*Password:	
×Your e-Mail address:	
*Please confirm your e-Mail:	
×Your First Name:	
*Your Family Name:	
Version:	
● Text	
Language:	
OI have read the <u>Terms and Conditions of Use</u> and agree to abide by them.)
No, I do not agree with the <u>Terms and Conditions of Use</u> Clear Subscribe	

C CASES	CASEScontact.org Security Tips
Just the Facts	
Title	CASEScontact.org guide: the best ways for getting rid of spyware and
Description	stealthware Weeding out spies with CASEScontact.org's spyware removal guide that tells you how to:
	check if you have spyware, get rid of what might be on your system (free tools to do so - see Tips 1-3), and minimize the risk for future spyware infections
CyTRAP lab ID Date Effected Systems	Get through the above three steps in 15 minutes or less at no cost to you CT210002 2006-05-17 • Windows/2000/NT/XP etc.
Version Number	Mac OS 10.xx (Jaguar, Panther) 1.3
ISSN	1603-9866
Verify Tip	http://casescontact.org/tips/210002
Risk Assessment	High
Impact/Severity	High
Audio/Podcast files	CyTRAP PodCast show - Protecting your digital assets - Wednesday, May 17, 2006
Update - Change	2006-05-17 - Update 2
	Tool added to catch spyware running under stealth mode - tried and tested by CyTRAP.eu/RisklT Labs technical terms linked to glossary section,
	two more free spyware removers added 8 steps checklist for removing spyware from WinCurity - CASEScontact.org's blog has also been added.
Why not get new tips	by e-mail directly to your in-box? Its much more convenient:
Your email:	subscribe

Try to be timely AND helpful Who is your audience? Young, old or ...?

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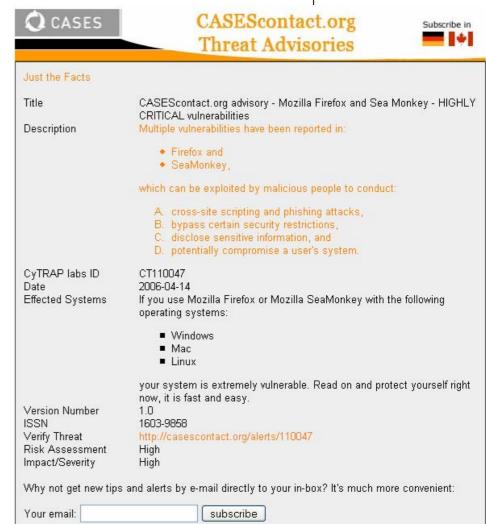


- CASEScontact.org advisory Friday
 19:00 2006-04-14 → citizens, SMEs
 → with work around=how to fix the
 problem until patch gets released
- Secunia 3 hours later → techies
- US-CERT Easter Monday = work-day in U.S. 21:42 CET or 15:42 local time – Pittsburgh → citizens
- AusCERT Tuesday → subscribers & citizens
- Neither
 - itsafe.gov.uk (NISCC) nor
 - BSI Buerger-CERT

released a warning about this highly critical threat.

- Some estimates claim
 - 30% of home users and
 - 40% of SMEs

use Firefox browser





Part 6 - Conclusion Our message today was...

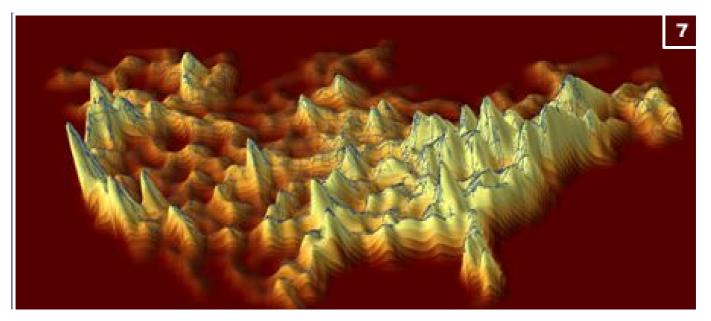
We are getting ever more dependent on infrastructure - fiber and power

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This map combines the fiber and power grids to analyze where there are common geographic interdependencies between the two critical infrastructures.

By **Sean P. Gorman**



First we take your RiskIT measurements, then we take measures

Blackouts - Internet - Outsourcing

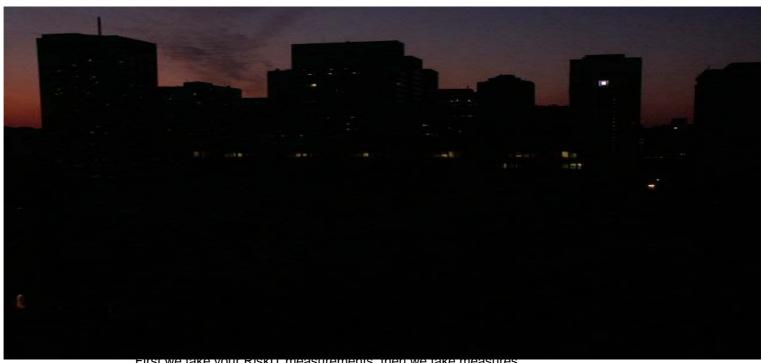
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- 2003-08-13 North American Blackout Toronto by Night (picture)
- 2003-09-27 White Night Carnival in Rome Early Sunday morning (03:00 hours) Italy (except Sardinia), Geneva, part of France – no power
 - Wireless networks
 - Radio & TV networks,
 - Public transport etc. ALL down

A night out -- Toronto



Protect the weakest link in your infrastructure - be effective & save



- You have to provide info to calm the public:
 - ...CERT personnel answer during Queensland business hours which are GMT+10:00 (AEST)
 - Above means malicious hackers or cybercriminals love it if security staff keep office hours... so instead they attack:
 - during Easter Weekend, Pentecost Weekend,
 - great times for attacking the infrastructure
 - public agencies and employees are off on a holiday

Protect the weakest link in your infrastructure - be effective & save

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- Alerts are great because media & decision-makers care about possible disasters...but:
 - Do you care if one tells me:
 - a new worm is spreading on the Internet
 - a new string regarding the bird flue (H5N1) virus is on the losse:
 - can I be infected eating chicken or eggs?
 - CASEScontact
 What is the level of risk and
 - 1) if you get hit, what it means for you and your friends' mobile phone and notebook
 - 2) ... how can I fix it in my sleep...
 - Prevention is the key on the road to a safer Internet
 - fire alarms can get people's attention (don't cry Wolf too often), however
 - they are of little use if you want to protect your children from being exposed to pornography on the Internet

Protect the weakest link in your infrastructure - be focused





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- CERTs and vendors focus on clients who pay & have techies:
 - Larger organizations
- CASEScontact, CASES.lu and CyTRAP Labs
 - the weakest link who has little incentive to change, neither willing to pay nor to put much effort into it:
 - home users
 - SMEs
 - self-employed single or two-person business are growing rapidly
 - graphic designers
 - artists
 - farmer
 - Teachers all work from home

Many thanks

CyTRAP Labs



Professor <u>Urs E. Gattiker</u>, Ph.D. Founder and Chief Technology Officer

CyTRAP Labs / CASEScontact.org Zurich, Luebeck & Copenhagen

You can get the slides here:

http://CASEScontact.org/euist_view.php?newsID=4013

If you need more info, pass me your business card:

- this way you will secure yourself the electronic delivery of the latest version of this
 presentation and a white paper on this topic in pdf format
- e-mailed to you within 72 hours



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Appendix

Additional information

More Info for you



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- The above slides have hyperlinks, making it it easy to follow the links to obtain additional information such as ,White Papers'
- Additional information can be obtained:
 - <u>CASEScontact.org</u> security, virus and threat alerts, tips, weekly newsletter
 - <u>CyTRAP Labs</u> better risk management on the way to improved shareholder value– tips, check-lists, white papers
 - <u>CASEScontact.org</u> <u>WinCurity</u> the weblog that helps users improve security with Windows, with freeware, guides and tricks for readers

What we do NOT want to happen

From: MAILER-DAEMON <>

Message-Id: <6.2.1.2.0.20060504230132.03c945f0@pop.gmail.com>

Subject: **Message you sent blocked by our bulk email filter**
Content-Type: multipart/report; report-type=delivery-status;

charset=utf-8;

boundary="------1146776821-16301-161"

To: <weburs@..... >

Date: Thu, 4 May 2006 14:07:01 -0700 (PDT)

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Your message to: Saludos@athens.king.com Was blocked by our Spam Firewasent with the following subject has NOT BEEN DELIVERED: Subject: Re: Invitation as a spea Athens - Technical Group of Standards (TCG) Reporting-MTA: dns; Sasha.atmel.com Received-From-MTA: smtp; sasha1.atmel.com ([127.0.0.1]) Arrival-Date: Thu, 4 May 2006 14:06:59 -0700 (PDT)

Final-Recipient: rfc822; saludos@athens.atmel.com

Action: failed Status: 5.7.1

Diagnostic-Code: smtp; 550 5.7.1 **Message content rejected**, UBE, id=16301-01

Last-Attempt-Date: Thu, 4 May 2006 14:07:01 -0700 (PDT)

Received: from ug-out-1314.google.com (ug-out-1314.google.com [66.249.92.175]) by sasha1.king.com (Spam Firewall) with ESMTP id 4A4046BD05 for <saludos@athens.kingl.com>; Thu, 4 May 2006 14:06:58 -0700 (PDT)

Received: by ug-out-1314.google.com with SMTP id u40so580004ugc for <saludos@athens.kingl.com>; Thu, 04 May 2006 14:06:57 -0700 (PDT)

DomainKey-Signature: a=rsa-šha1; q=dns; c=nofws; s=beta; d=gmail.com;

h=received:message-id:x-mailer:date:to:from:subject:cc:in-reply-to:references:mime-ver type:sender;

Date: Thu, 04 May 2006 23:06:34 +0200

To: "Welcome to Greece" <Saludos@athens.king.com>,<weburs@From: "Urs E. Gattiker, Ph.D. - CASEScontact.org & CyTRAP.org/<WebUrs@CyTRAP.org>

Subject: Re: Space tour in Athens - Technical Group for Standards

Cc: "Welcome to Greece" <Saludos@gmail.com>

Misconfigured spam filter/firewall

This results in office mail being sent via gmail → so the employee gets what the client sends

- Is this e-mail archived as required by law for 12-15 years

Result is that to serve customer & because of misconfigured firewall:

employee has
to be non-compliant, break the rules,
violate policy or the firm has no policy
also not according to regulation

How late is early enough? The story repeats itself - Red alert - extremely critical Word vulnerability

- Secunia 2006-05-19 22:00 → techies
- US-CERT 2006-05-20 Pittsburgh → citizens
- CASEScontact.org advisory Saturday 19:00 - 2006-05-20 → citizens, SMEs
- eEye security Tuesday 2006-05-23 –CET → techies
- **Neither**
 - AusCERT,
 - WAARSCHUWINGSDIENST NL (Gov-CERT),
 - IT-Safe UK (NISCC), nor
 - BSI Buerger-CERT (small write-up 2006-05-26 in their weekly newsletter to subscribers)

released a warning about this extremely critical vulnerability

- Trust means user depends on us to get an alert if its important:
 - CASEScontact.org is it important for Windows, MS Office, etc users? If yes →alert goes out NOW



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CASES CASEScontact.org Threat Advisories



Just the Facts

Title

Description

CASEScontact.org advisory - zero-day exploit -Microsoft Word has unspecified vulnerability that could result in code execution

CRITICAL Microsoft Word vulnerability - Zero Day - being exploited as you

- A. affecting Microsoft Office (business, general as well as other
- B. affecting Microsoft Word (Risk High)
- Sign-up to CASEScontact.org and be alerted when Microsoft releases the patch - instantly

CyTRAP labs ID Effected Systems CT110050

- Microsoft Office 2003 (standard, business, student/teacher editions).
- · Microsoft XP,
- Microsoft Word 2003 & 2003

Below we tell you what you have to watch out for not to get caught... its easy, if you are not careful, its a pain (we explain the pain under Impact below... so be careful out there)

- Mac users YES, if they use Word
- Linux NOT

Version Number ISSN

Verify Threat

Risk Assessment Impact/Severity

1.0 1603-9858

http://casescontact.org/alerts/110050

Severe/Red Alert

High

Why not get new tips and alerts by e-mail directly to your in-box? It's much more convenient:

subscribe

2006-06-01

First we take your RiskIT measu Your email: