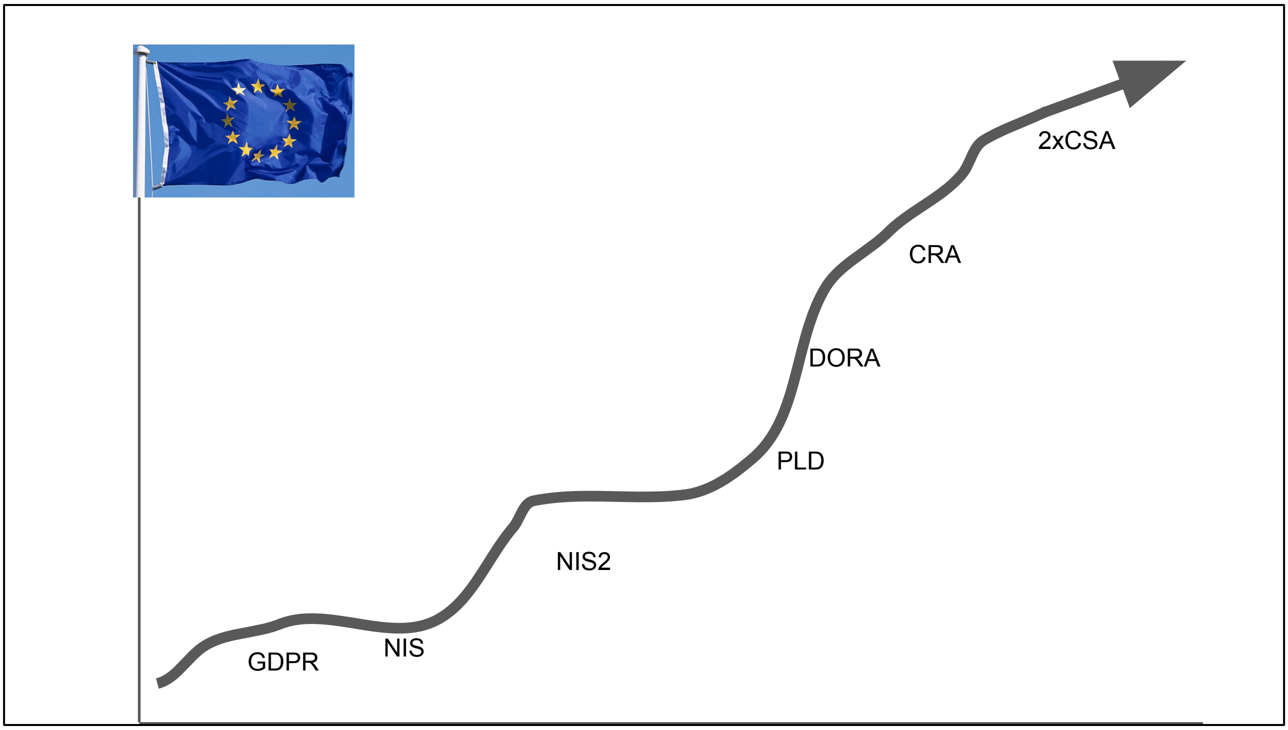
EU and You: Upcoming regulation

bert@hubertnet.nl / https://berthub.eu/

Governments are coming to help us make more secure stuff!



GDPR

NIS

NIS2

PLD

DORA

CRA

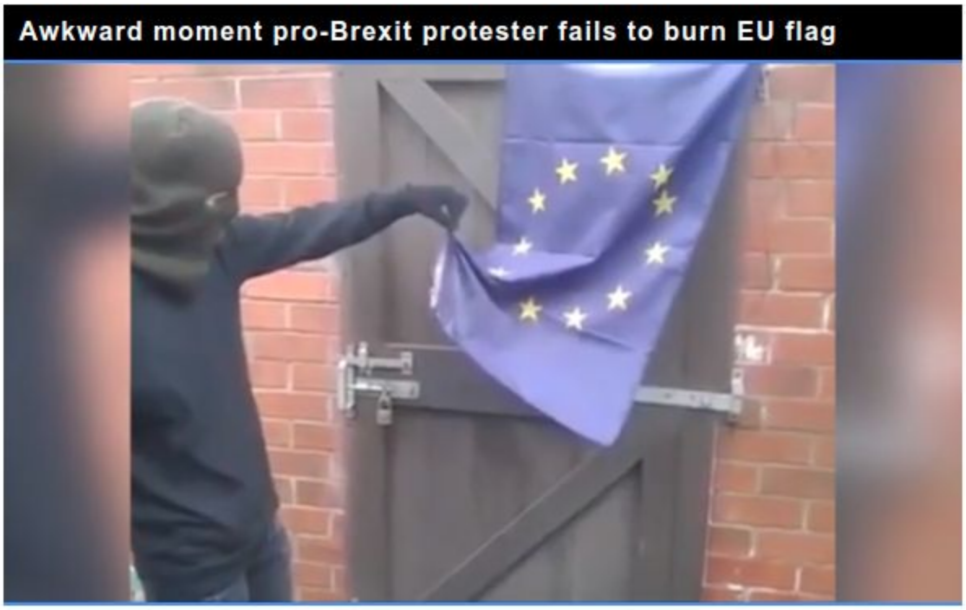
2xCSA

[redacted] Not Available in the EU?

© picture-alliance/dpa/T. Bozuglu

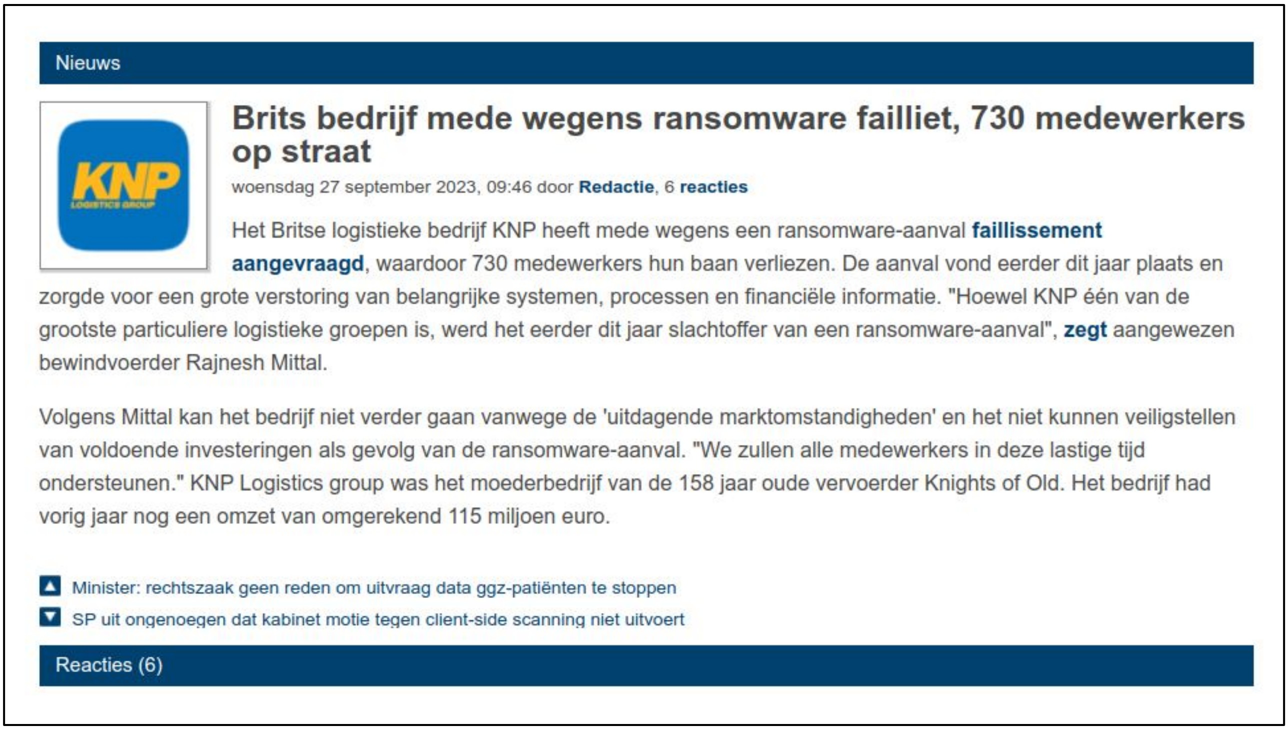
If at this point you are angry, I get it

Thanks to BS EN 13772:2011, EN 1021:1994, EN 1021-1, EN 1021-2



Awkward moment pro-Brexit protester fails to burn EU flag

https://skeptics.stackexchange.com/questions/33150/is-there-an-eu-regulation-which-says-flags-must-be-from-non-flamable-material



Nieuws

Brits bedrijf mede wegens ransomware failliet, 730 medewerkers op straat

woensdag 27 september 2023, 09:46 door **Redactie**, 6 **reacties**

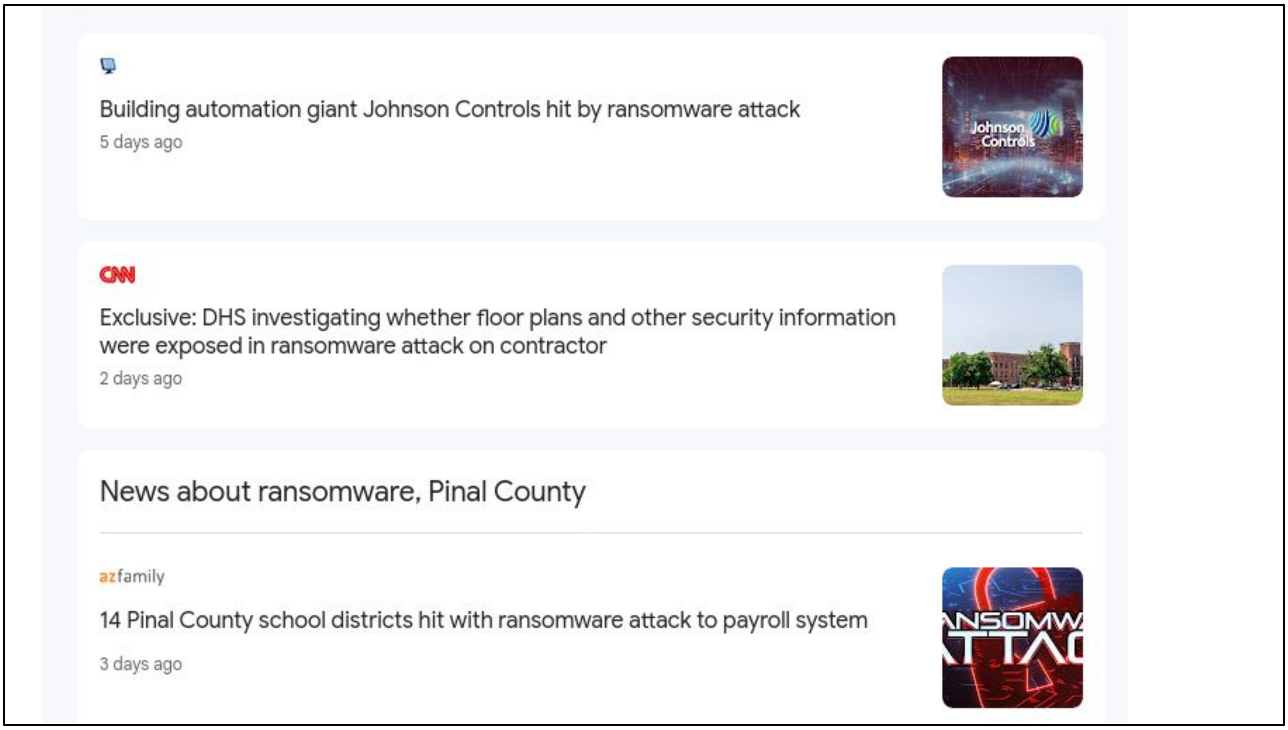
Het Britse logistieke bedrijf KNP heeft mede wegens een ransomware-aanval **faillissement aangevraagd**, waardoor 730 medewerkers hun baan verliezen. De aanval vond eerder dit jaar plaats en zorgde voor een grote verstoring van belangrijke systemen, processen en financiële informatie. "Hoewel KNP één van de grootste particuliere logistieke groepen is, werd het eerder dit jaar slachtoffer van een ransomware-aanval", **zegt** aangewezen bewindvoerder Rajnesh Mittal.

Volgens Mittal kan het bedrijf niet verder gaan vanwege de 'uitdagende marktomstandigheden' en het niet kunnen veiligstellen van voldoende investeringen als gevolg van de ransomware-aanval. "We zullen alle medewerkers in deze lastige tijd ondersteunen." KNP Logistics group was het moederbedrijf van de 158 jaar oude vervoerder Knights of Old. Het bedrijf had vorig jaar nog een omzet van omgerekend 115 miljoen euro.

▲ Minister: rechtszaak geen reden om uitvraag data ggz-patiënten te stoppen

▼ SP uit ongenoegen dat kabinet motie tegen client-side scanning niet uitvoert

Reacties (6)



Building automation giant Johnson Controls hit by ransomware attack

5 days ago

CNN

Exclusive: DHS investigating whether floor plans and other security information were exposed in ransomware attack on contractor

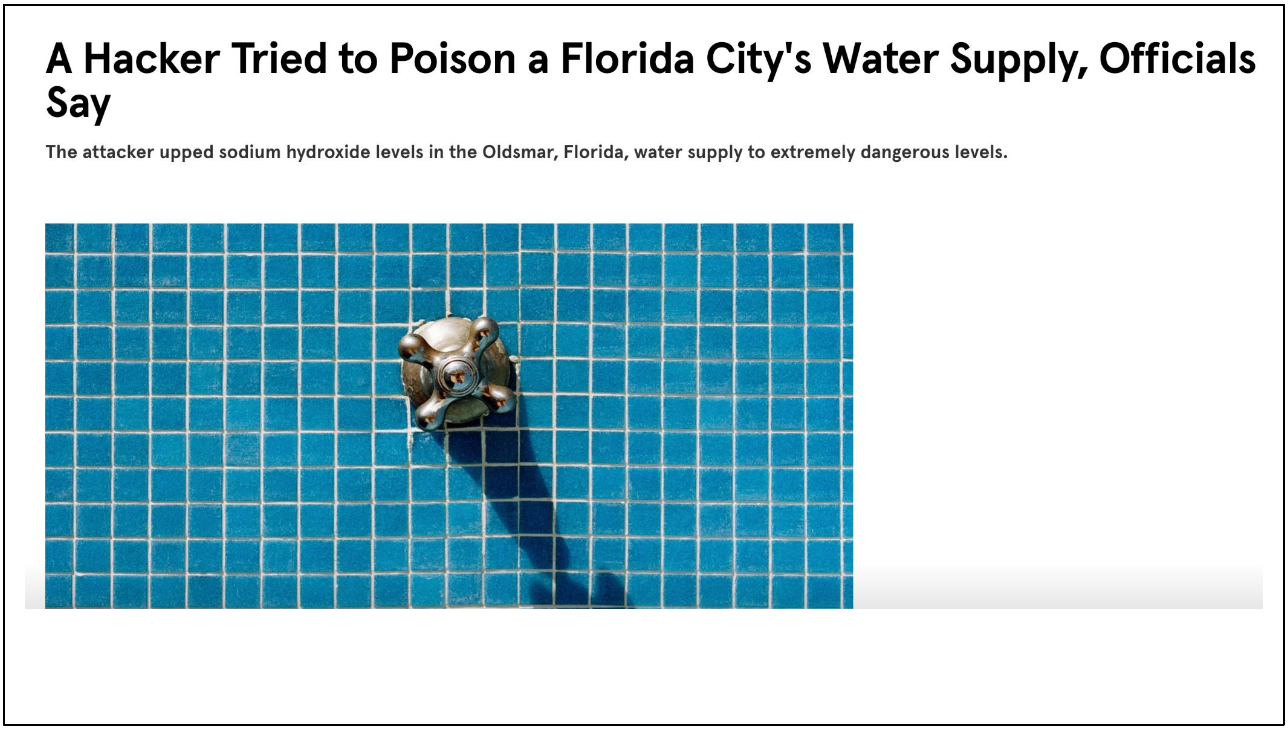
2 days ago

News about ransomware, Pinal County

azfamily

14 Pinal County school districts hit with ransomware attack to payroll system

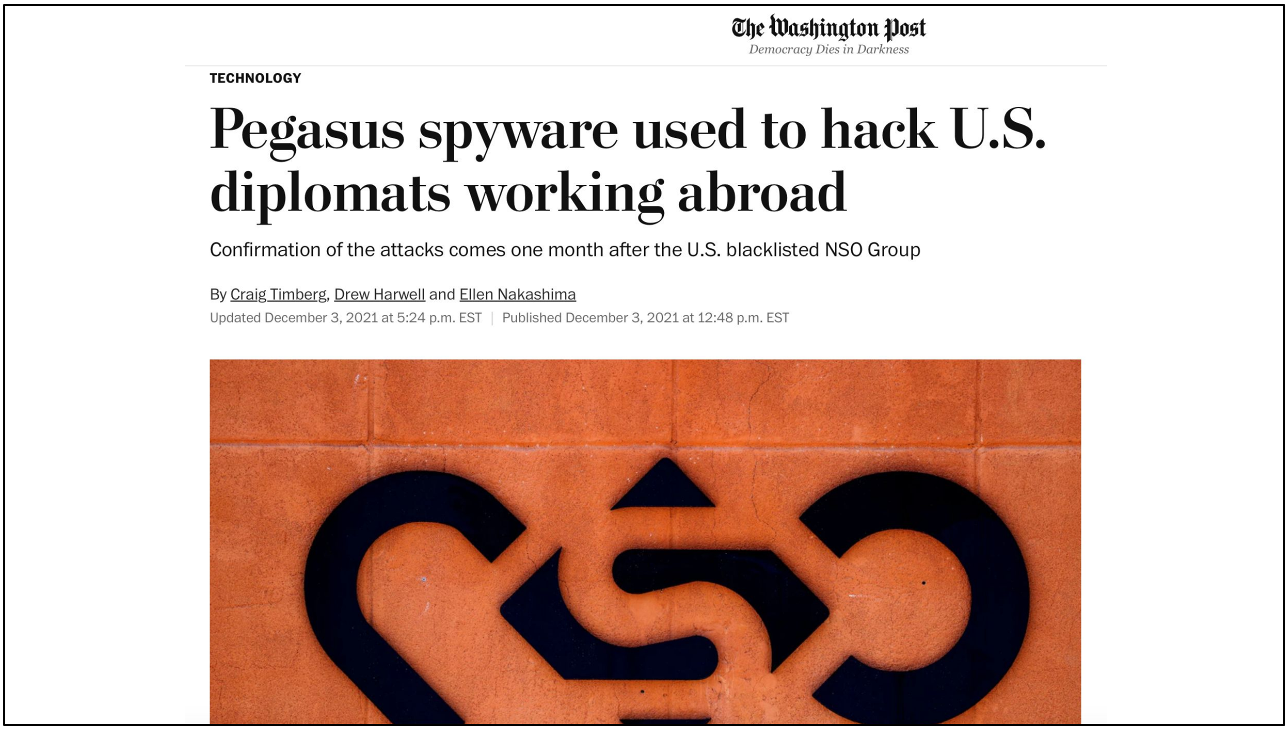
3 days ago



A Hacker Tried to Poison a Florida City's Water Supply, Officials Say

The attacker upped sodium hydroxide levels in the Oldsmar, Florida, water supply to extremely dangerous levels.

https://www.wired.com/story/oldsmar-florida-water-utility-hack/



The Washington Post
Democracy Dies in Darkness

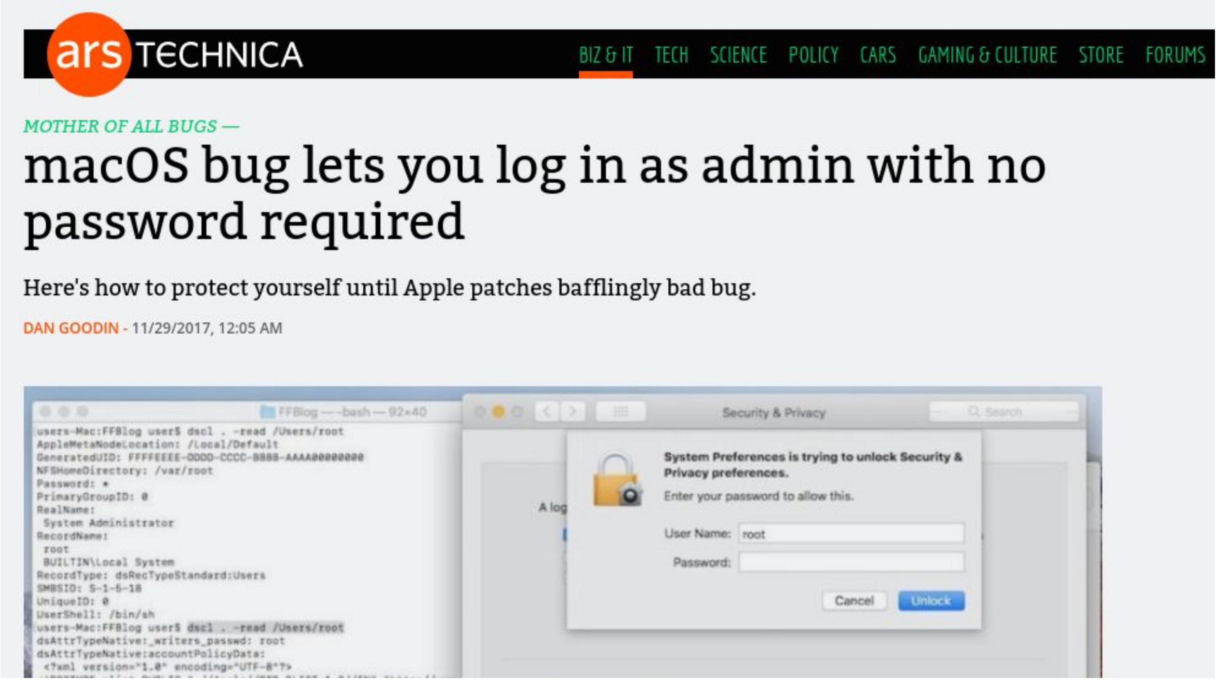
TECHNOLOGY

Pegasus spyware used to hack U.S. diplomats working abroad

Confirmation of the attacks comes one month after the U.S. blacklisted NSO Group

By Craig Timberg, Drew Harwell and Ellen Nakashima
Updated December 3, 2021 at 5:24 p.m. EST | Published December 3, 2021 at 12:48 p.m. EST

https://googleprojectzero.blogspot.com/2022/03/forcedentry-sandbox-escape.html
https://googleprojectzero.blogspot.com/2021/12/a-deep-dive-into-nso-zero-click.html



MOTHER OF ALL BUGS —

macOS bug lets you log in as admin with no password required

Here's how to protect yourself until Apple patches bafflingly bad bug.

DAN GOODIN - 11/29/2017, 12:05 AM

```
users-Mac:FFBlog user$ dscl . -read /Users/root
AppleMetaNodeLocation: /Local/Default
GeneratedUID: FFFFEEEE-DDDD-CCCC-BBBB-AAAA00000000
NFSHomeDirectory: /var/root
Password: *
PrimaryGroupID: 0
RealName:
 System Administrator
RecordName:
 root
 BUILTIN\Local System
RecordType: dsRecTypeStandard:Users
SMBSID: S-1-5-18
UniqueID: 0
UserShell: /bin/sh
users-Mac:FFBlog user$ dscl . -read /Users/root
dsAttrTypeNative:_writers_passwd: root
dsAttrTypeNative:accountPolicyData:
 <?xml version="1.0" encoding="UTF-8"?>
```

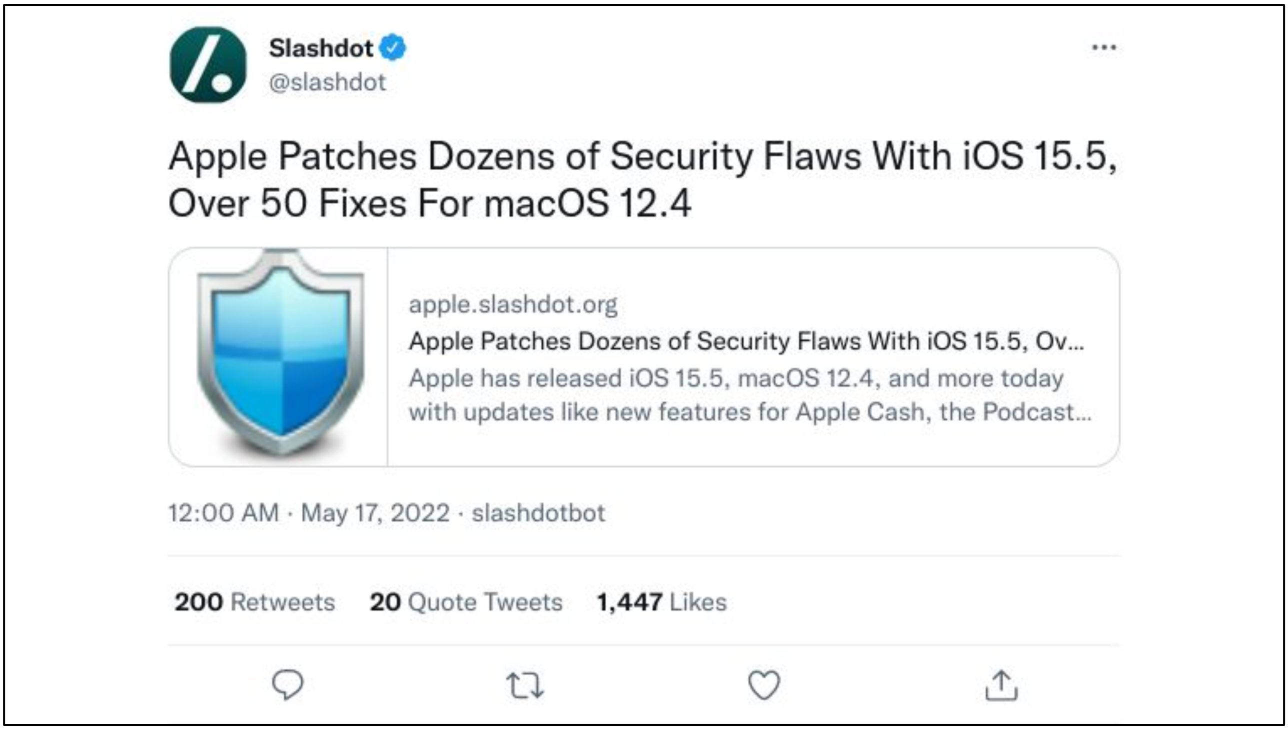
System Preferences is trying to unlock Security & Privacy preferences.

Enter your password to allow this.

User Name: root

Password:

Politician’s view: it is like there is a huge arson problem, houses keep burning down



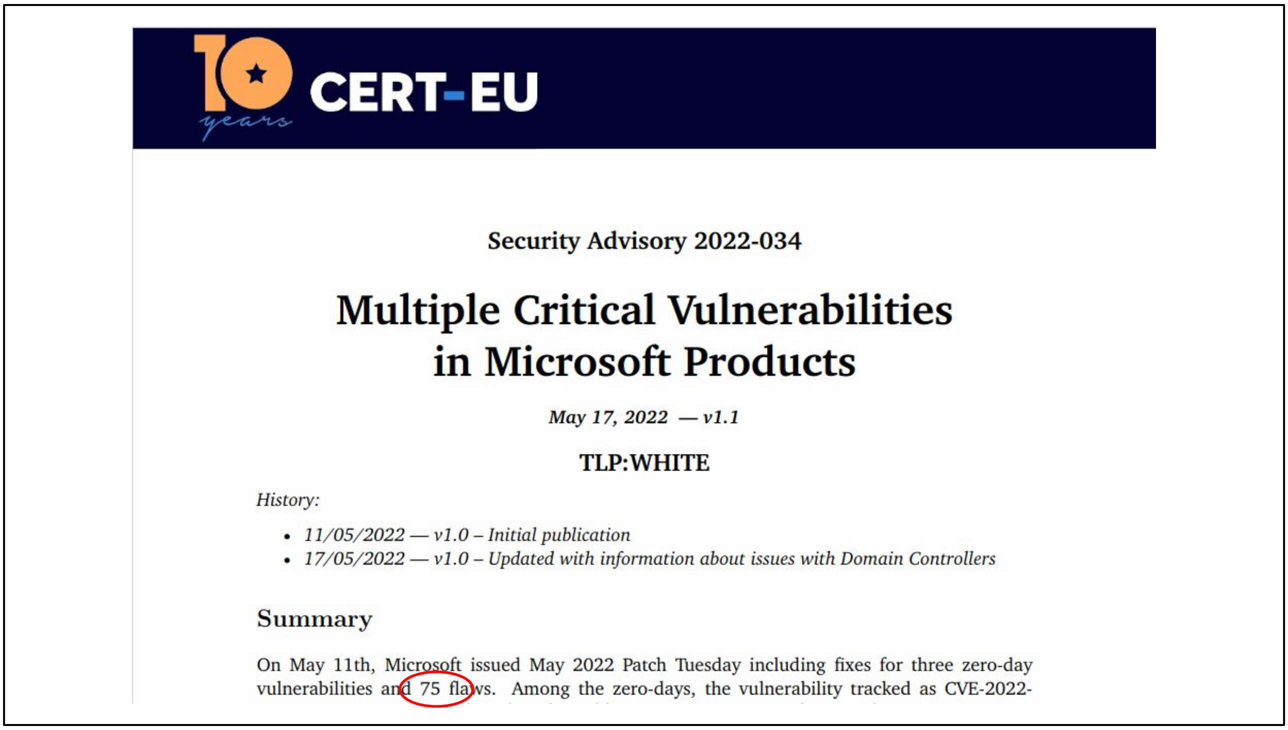
Slashdot
@slashdot

Apple Patches Dozens of Security Flaws With iOS 15.5, Over 50 Fixes For macOS 12.4

apple.slashdot.org
Apple Patches Dozens of Security Flaws With iOS 15.5, Ov...
Apple has released iOS 15.5, macOS 12.4, and more today with updates like new features for Apple Cash, the Podcast...

12:00 AM · May 17, 2022 · slashdotbot

200 Retweets **20** Quote Tweets **1,447** Likes



CERT-EU

Security Advisory 2022-034

Multiple Critical Vulnerabilities in Microsoft Products

May 17, 2022 — v1.1

TLP:WHITE

History:

- *11/05/2022 — v1.0 – Initial publication*
- *17/05/2022 — v1.0 – Updated with information about issues with Domain Controllers*

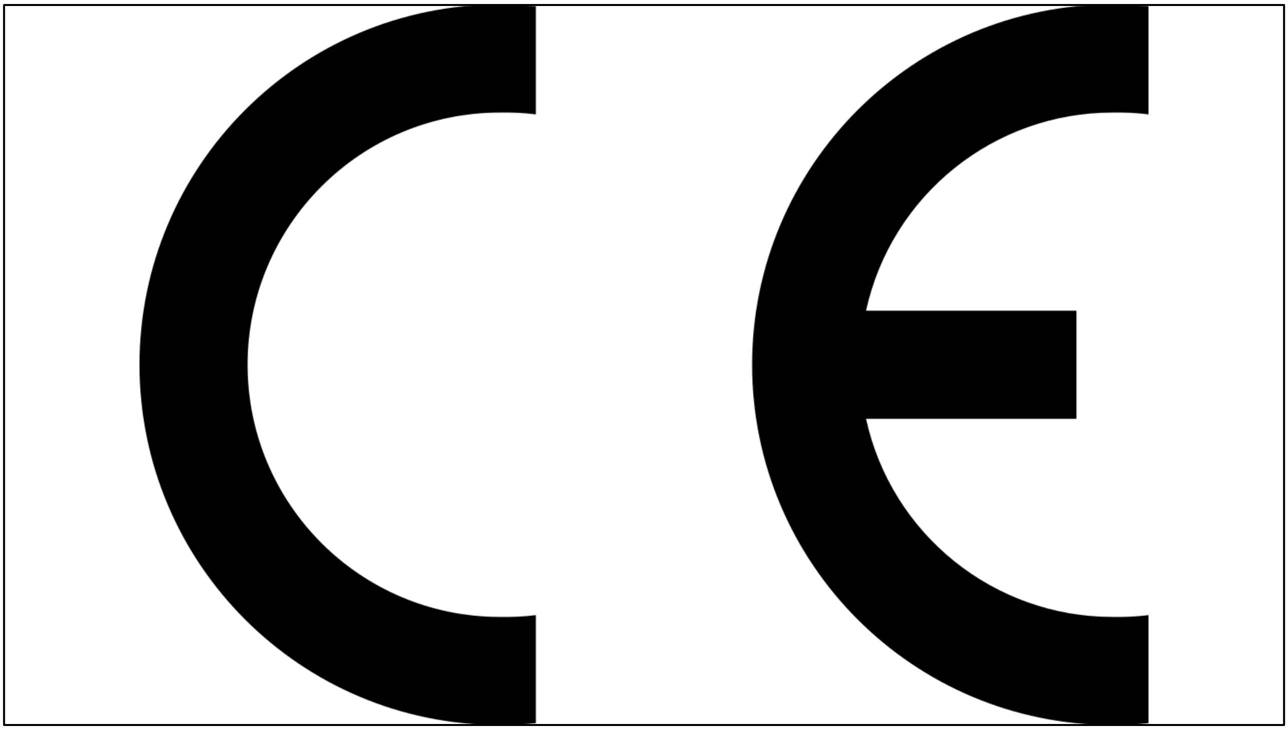
Summary

On May 11th, Microsoft issued May 2022 Patch Tuesday including fixes for three zero-day vulnerabilities and 75 flaws. Among the zero-days, the vulnerability tracked as CVE-2022-

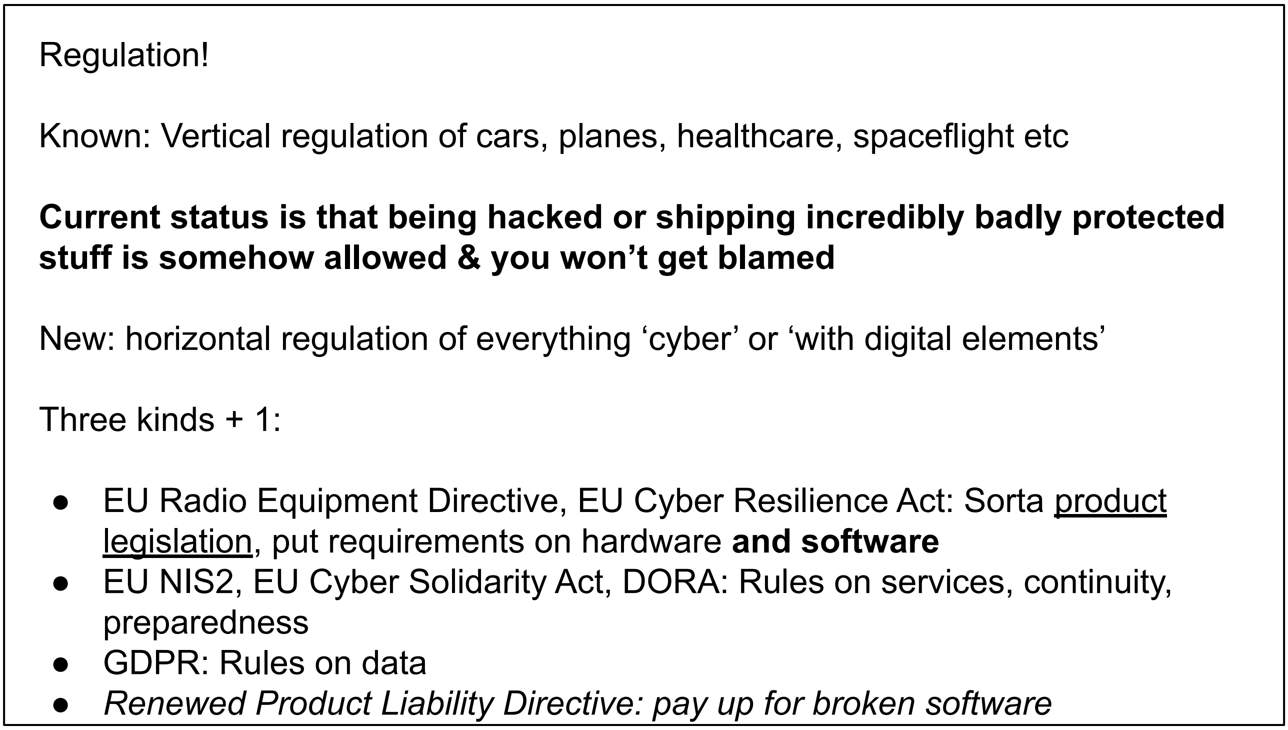
We can’t credibly claim things are going well. “Cyber” must become more secure.

“Everything is on fire and we admittedly ship **highly flammable** products”

Governments are coming for us.



RoHS



Regulation!

Known: Vertical regulation of cars, planes, healthcare, spaceflight etc

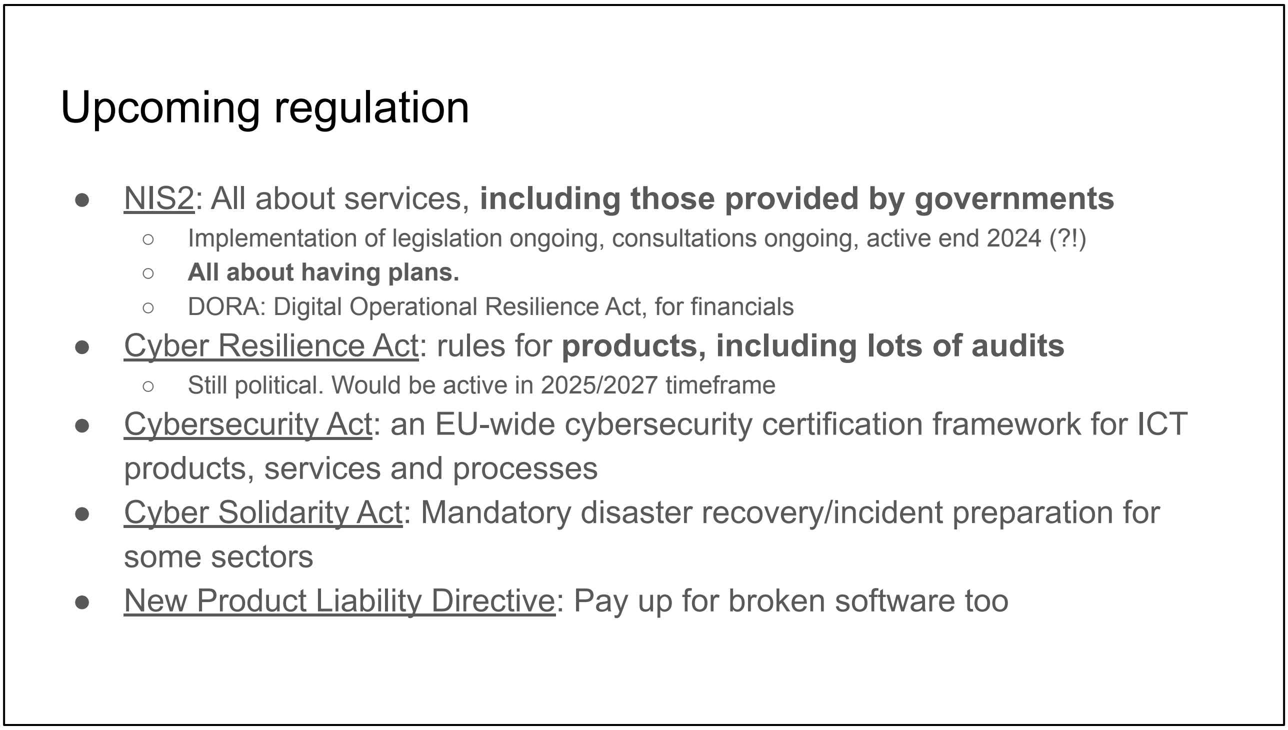
Current status is that being hacked or shipping incredibly badly protected stuff is somehow allowed & you won’t get blamed

New: horizontal regulation of everything ‘cyber’ or ‘with digital elements’

Three kinds + 1:

- EU Radio Equipment Directive, EU Cyber Resilience Act: Sorta product legislation, put requirements on hardware **and software**
- EU NIS2, EU Cyber Solidarity Act, DORA: Rules on services, continuity, preparedness
- GDPR: Rules on data
- *Renewed Product Liability Directive: pay up for broken software*

https://www.euractiv.com/section/digital/news/european-parliament-tries-to-accelerate-on-product-liability-rulebook/



Upcoming regulation

- NIS2: All about services, **including those provided by governments**
  - Implementation of legislation ongoing, consultations ongoing, active end 2024 (?!)
  - **All about having plans.**
  - DORA: Digital Operational Resilience Act, for financials
- Cyber Resilience Act: rules for **products, including lots of audits**
  - Still political. Would be active in 2025/2027 timeframe
- Cybersecurity Act: an EU-wide cybersecurity certification framework for ICT products, services and processes
- Cyber Solidarity Act: Mandatory disaster recovery/incident preparation for some sectors
- New Product Liability Directive: Pay up for broken software too

https://digital-strategy.ec.europa.eu/en/policies/cyber-solidarity

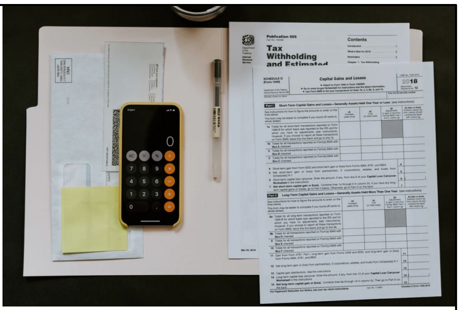
NIS 2: THE RETURN OF BRUSSELS

- Big changes:
  - “Brussels” determines rules that say who NIS 2 will apply to:
  - Simpler criteria:
    - If you provide Important Services, you will be an Important Entity
    - If you provide Essential Services, you will be an Essential Entity
  - Some explicit listings:
    - Internet Exchanges
    - ccTLD operators
    - Large scale authoritative servers
    - Large scale DNS resolvers
    - Data center service providers
    - Content Delivery Networks
    - **Government services**
- **In short: this will apply to many of you**
  - **Even if you are not in the EU!**

NOT YET SURE WHAT THE REQUIREMENTS ARE!

What does it mean?

- Must report incidents Pretty Damn Quickly
- Implement the following measures:
  - Risk analysis, security policies
  - Incident handling
  - Business continuity & crisis management plan
  - Know dependencies on your service suppliers, **be sure they also have a plan**
  - Plan for vulnerability handling & disclosure
  - Testing & audits of effectiveness of cybersecurity measures
  - Use cryptography and encryption
- If you don’t, there can be: Warnings, Orders to fix, Fines, **Criminal Procedures, Orders to cease doing business, Bans on persons from management (!!)**
  - There can also be on-site inspections, even unannounced, in case of problems
- If you are **essential** you need to have these plans ready for inspection. If you are **important** you’d better have had these plans ready if you had an incident.



Interaction!

- Existing **vertical** regulations get you presumption of conformity in EU CRA
  - Medical, cars, planes etc

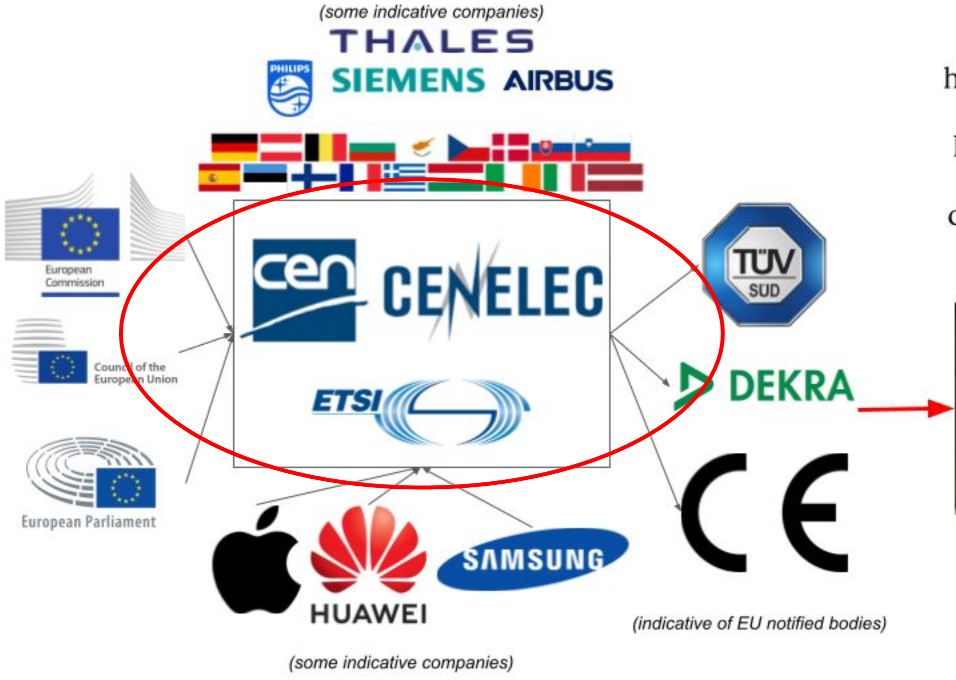
- Complying with NIS2 continuity requirements means **having** to use EU CRA certified equipment/software

- EU CRA attempts to “bake in” GDPR into your hardware software: can only log and process data required for **actual operation**

- For product liability, you would be in a **bad place** if your products/services did not adhere to NIS2/CRA etc

What the EU Cyber Resilience Act covers

- Any connected piece of hardware, almost every piece of software sold for **money OR DATA.**
- Either the producer is compliant, or the importer/distributor/seller has to validate compliance
- Producer is 100% on the hook for its own code
- Must perform due-diligence on sourced components
  - Intensity of due-diligence is variable but not precisely known
- Critical products (definition is not very useful) most undergo third party audits by “notified bodies” (think Tüv etc)
- *Does NOT cover services themselves directly*
- **Industry must write a standard for compliance, until that time ALL products must undergo third party audits**
  - **(in flux)**



(some indicative companies)

(indicative of EU notified bodies)

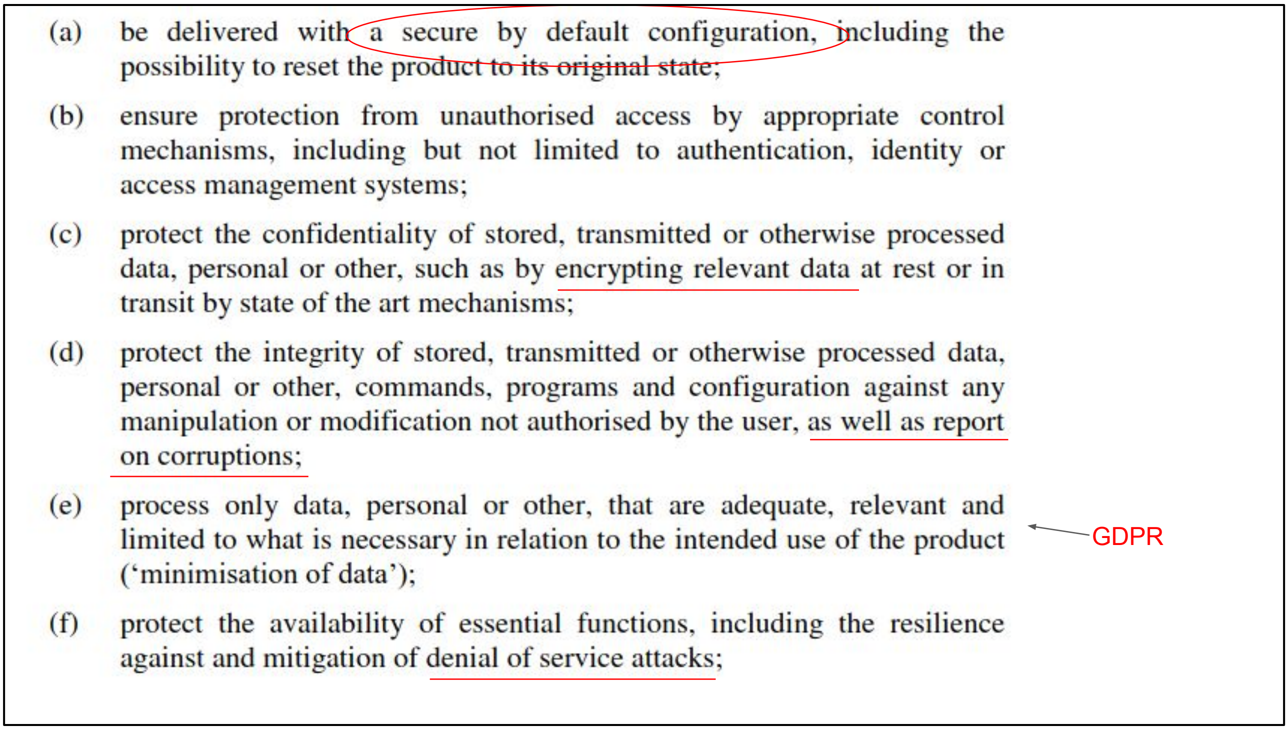
(some indicative companies)

"And this is how you have to code, according to the EU and its harmonised standards organizations, to be checked by EU notified bodies."

You will not be able to **buy** non-compliant products.

People will not **sell** you non-compliant products.

For NIS2, you **must** buy compliant products



(a) be delivered with a secure by default configuration, including the possibility to reset the product to its original state;

(b) ensure protection from unauthorised access by appropriate control mechanisms, including but not limited to authentication, identity or access management systems;

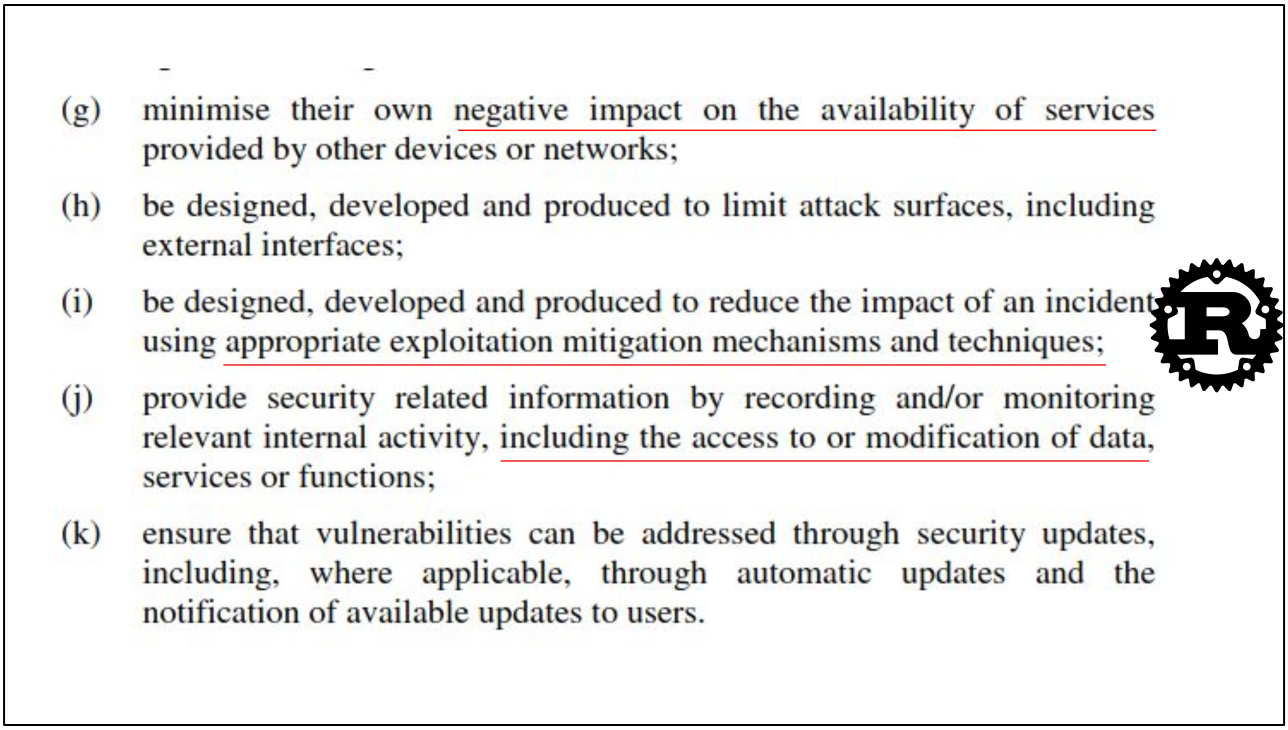
(c) protect the confidentiality of stored, transmitted or otherwise processed data, personal or other, such as by encrypting relevant data at rest or in transit by state of the art mechanisms;

(d) protect the integrity of stored, transmitted or otherwise processed data, personal or other, commands, programs and configuration against any manipulation or modification not authorised by the user, as well as report on corruptions;

(e) process only data, personal or other, that are adequate, relevant and limited to what is necessary in relation to the intended use of the product ('minimisation of data');

GDPR

(f) protect the availability of essential functions, including the resilience against and mitigation of denial of service attacks;



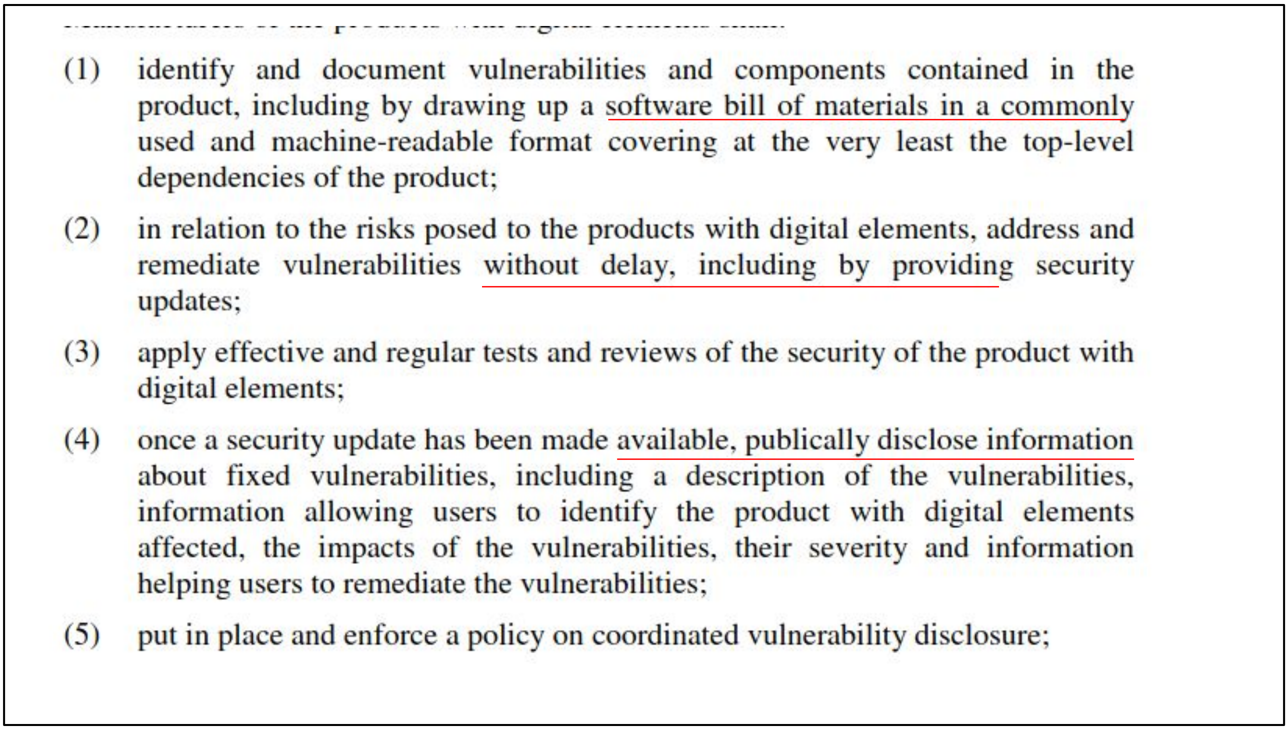
(g) minimise their own negative impact on the availability of services provided by other devices or networks;

(h) be designed, developed and produced to limit attack surfaces, including external interfaces;

(i) be designed, developed and produced to reduce the impact of an incident using appropriate exploitation mitigation mechanisms and techniques;

(j) provide security related information by recording and/or monitoring relevant internal activity, including the access to or modification of data, services or functions;

(k) ensure that vulnerabilities can be addressed through security updates, including, where applicable, through automatic updates and the notification of available updates to users.



Manufacturers of the products with digital elements shall:

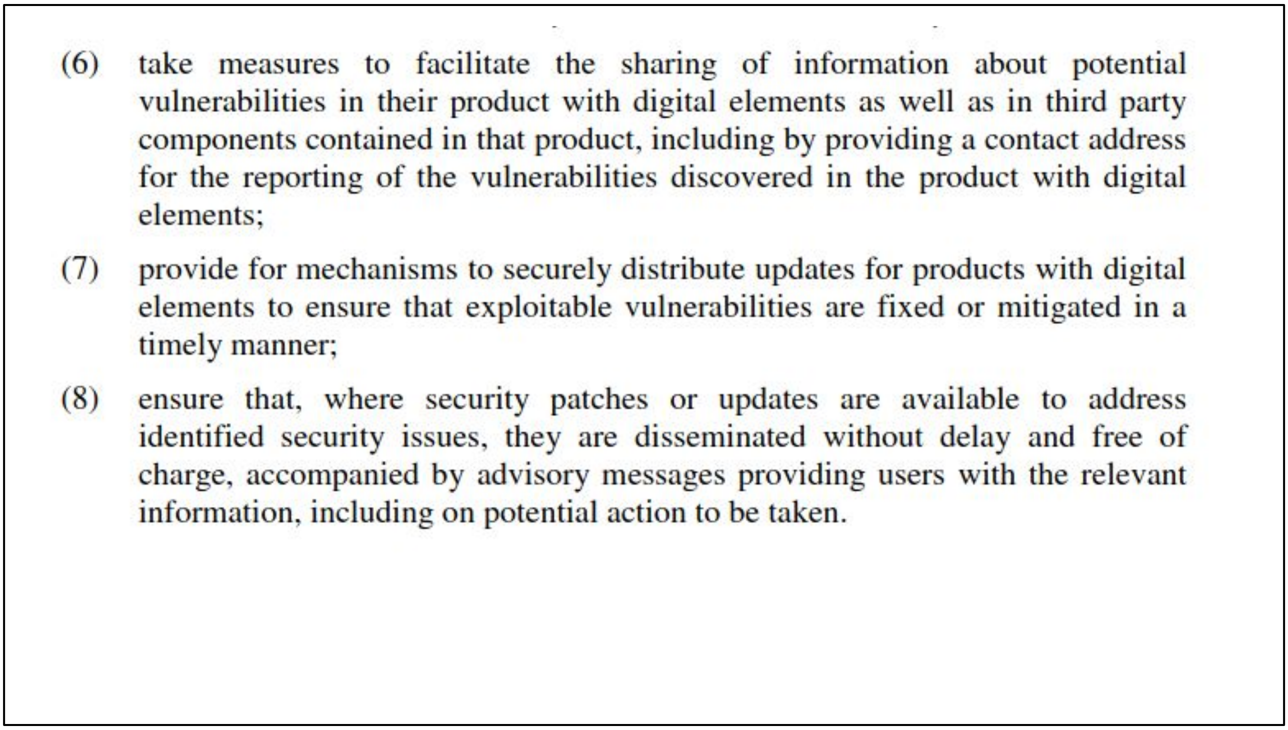
(1) identify and document vulnerabilities and components contained in the product, including by drawing up a software bill of materials in a commonly used and machine-readable format covering at the very least the top-level dependencies of the product;

(2) in relation to the risks posed to the products with digital elements, address and remediate vulnerabilities without delay, including by providing security updates;

(3) apply effective and regular tests and reviews of the security of the product with digital elements;

(4) once a security update has been made available, publically disclose information about fixed vulnerabilities, including a description of the vulnerabilities, information allowing users to identify the product with digital elements affected, the impacts of the vulnerabilities, their severity and information helping users to remediate the vulnerabilities;

(5) put in place and enforce a policy on coordinated vulnerability disclosure;



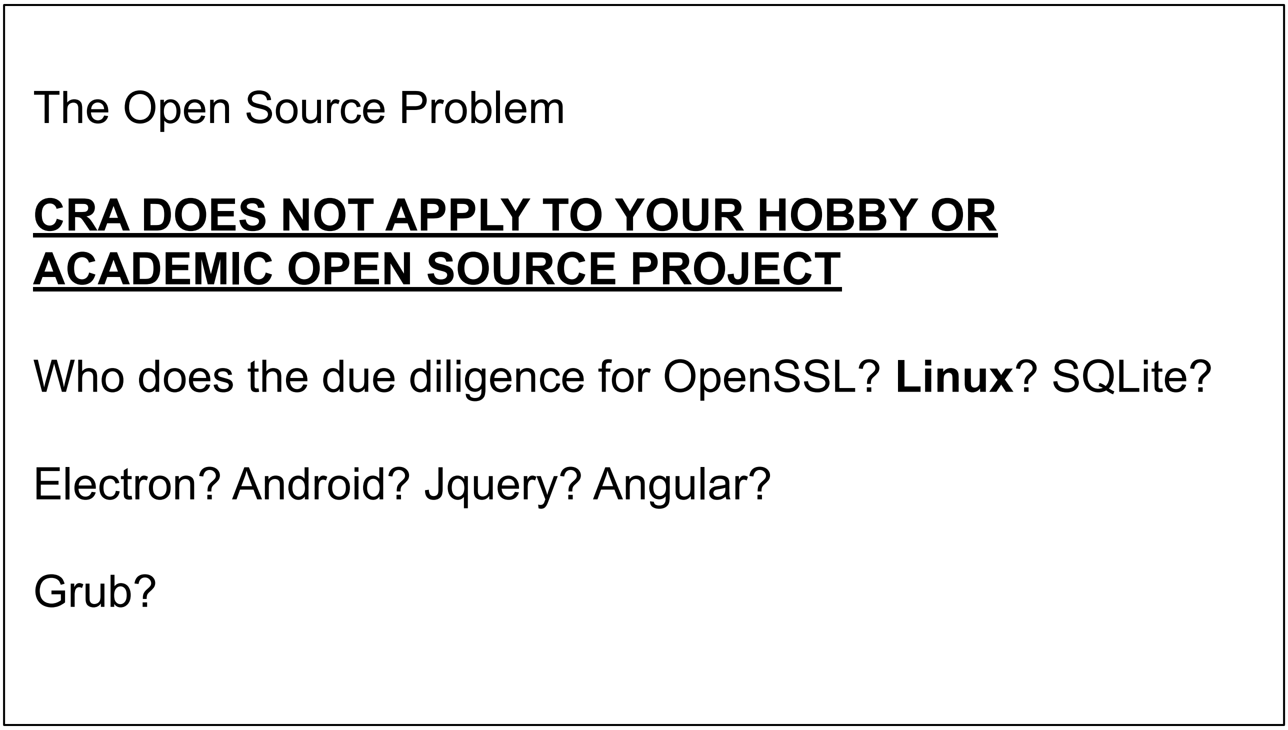
(6) take measures to facilitate the sharing of information about potential vulnerabilities in their product with digital elements as well as in third party components contained in that product, including by providing a contact address for the reporting of the vulnerabilities discovered in the product with digital elements;

(7) provide for mechanisms to securely distribute updates for products with digital elements to ensure that exploitable vulnerabilities are fixed or mitigated in a timely manner;

(8) ensure that, where security patches or updates are available to address identified security issues, they are disseminated without delay and free of charge, accompanied by advisory messages providing users with the relevant information, including on potential action to be taken.

Further things

- 3? 5? Longer? Years of security support
  - Maybe 10 years for some products
  - **Would be nice!**
- Reporting vulnerabilities to governments
  - Not all of them friendly
  - **Not all of them known reliable at keeping secrets**
  - Worrying
- Reporting ongoing exploitation to governments
  - Again - issues where you might HAVE to report to government X which is not allowed by government Y.



The Open Source Problem

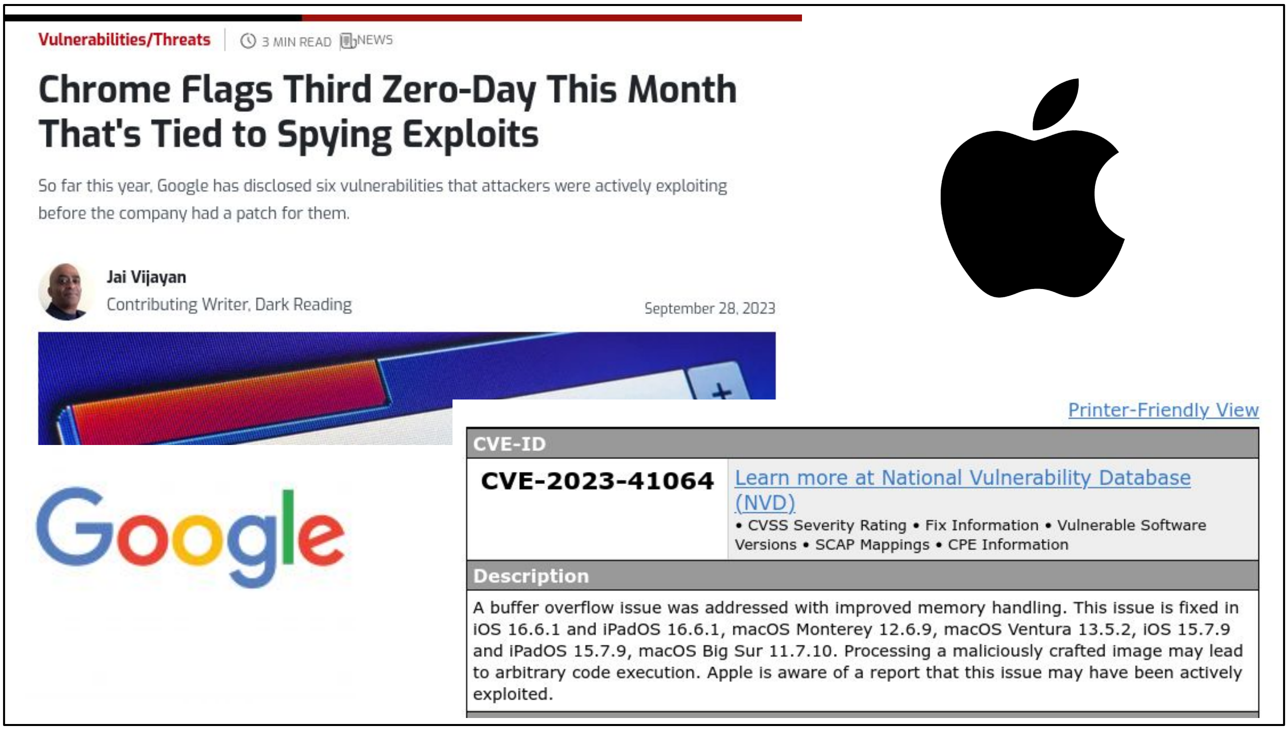
CRA DOES NOT APPLY TO YOUR HOBBY OR ACADEMIC OPEN SOURCE PROJECT

Who does the due diligence for OpenSSL? **Linux**? SQLite?

Electron? Android? Jquery? Angular?

Grub?

Will it help? Is the lack of rules the problem?



Vulnerabilities/Threats | 3 MIN READ NEWS

Chrome Flags Third Zero-Day This Month That's Tied to Spying Exploits

So far this year, Google has disclosed six vulnerabilities that attackers were actively exploiting before the company had a patch for them.

Jai Vijayan
Contributing Writer, Dark Reading

September 28, 2023

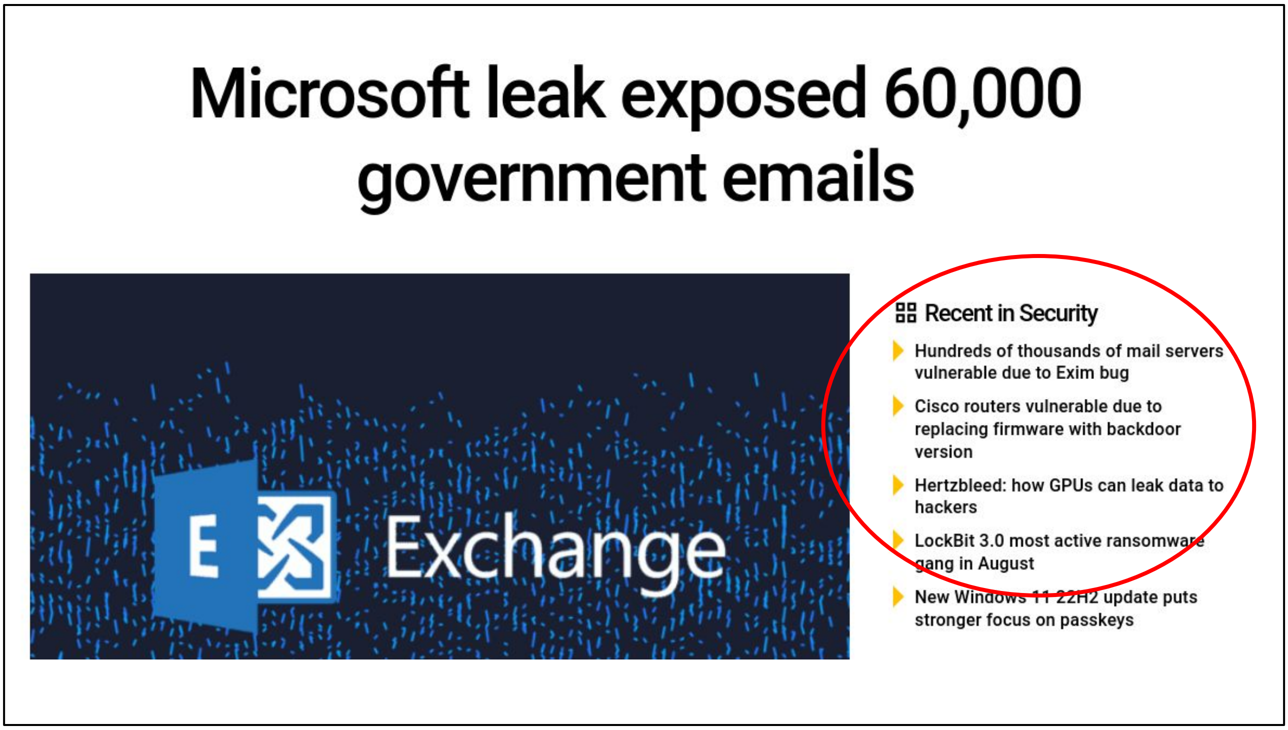
Printer-Friendly View

CVE-ID	
CVE-2023-41064	Learn more at National Vulnerability Database (NVD) • CVSS Severity Rating • Fix Information • Vulnerable Software Versions • SCAP Mappings • CPE Information

Description

A buffer overflow issue was addressed with improved memory handling. This issue is fixed in iOS 16.6.1 and iPadOS 16.6.1, macOS Monterey 12.6.9, macOS Ventura 13.5.2, iOS 15.7.9 and iPadOS 15.7.9, macOS Big Sur 11.7.10. Processing a maliciously crafted image may lead to arbitrary code execution. Apple is aware of a report that this issue may have been actively exploited.

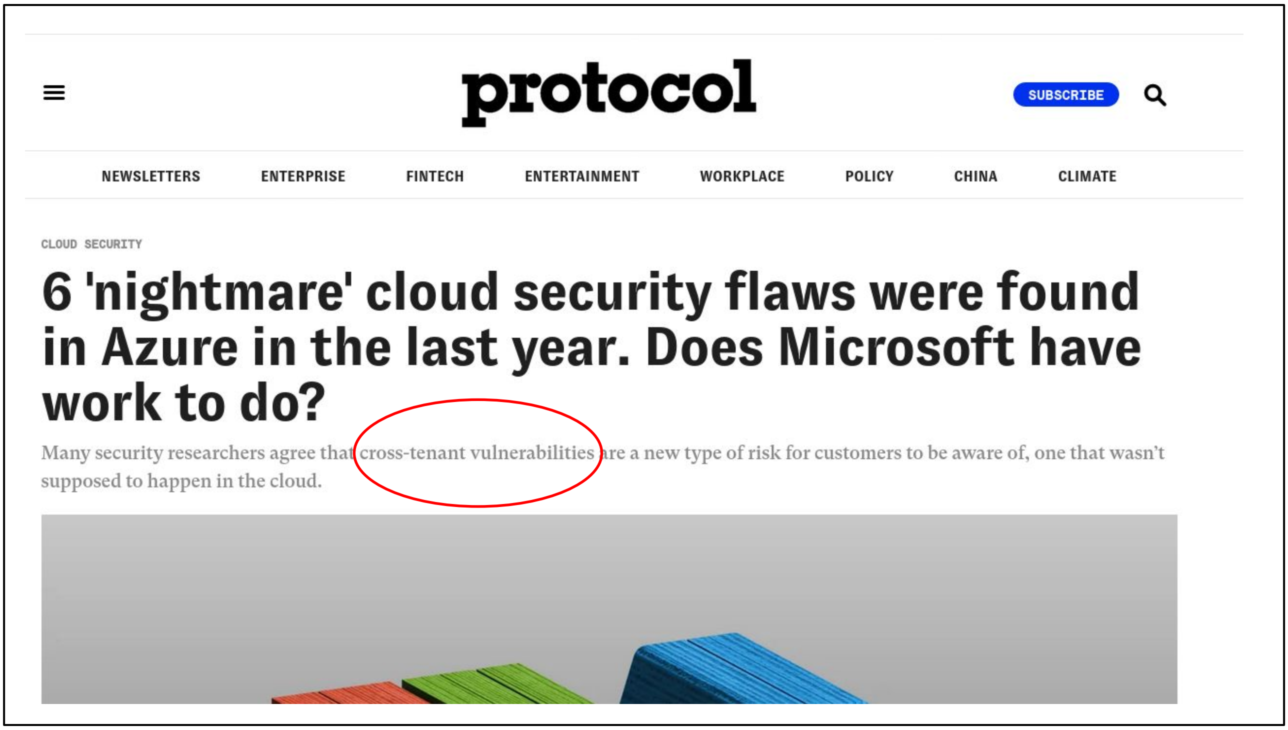
This was a dumb 1990s security bug



Microsoft leak exposed 60,000 government emails

Recent in Security

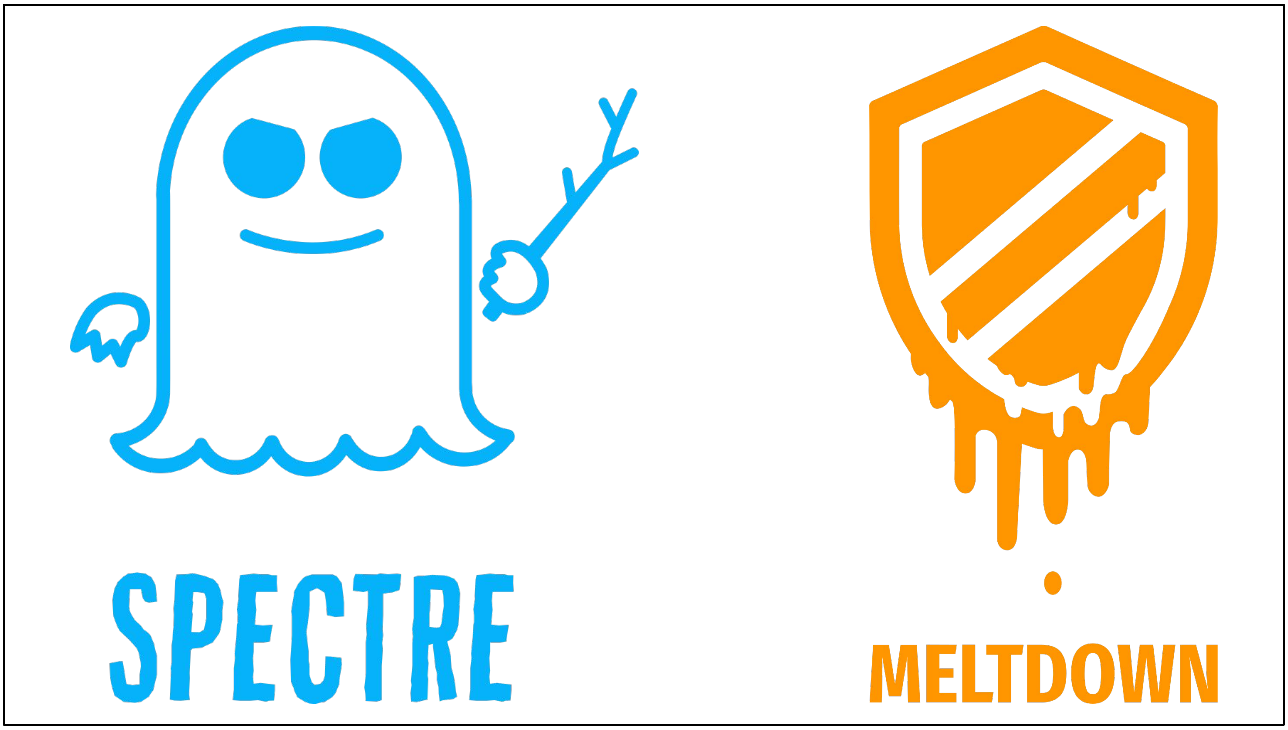
- Hundreds of thousands of mail servers vulnerable due to Exim bug
- Cisco routers vulnerable due to replacing firmware with backdoor version
- Hertzbleed: how GPUs can leak data to hackers
- LockBit 3.0 most active ransomware gang in August
- New Windows 11 22H2 update puts stronger focus on passkeys



6 'nightmare' cloud security flaws were found in Azure in the last year. Does Microsoft have work to do?

Many security researchers agree that cross-tenant vulnerabilities are a new type of risk for customers to be aware of, one that wasn't supposed to happen in the cloud.

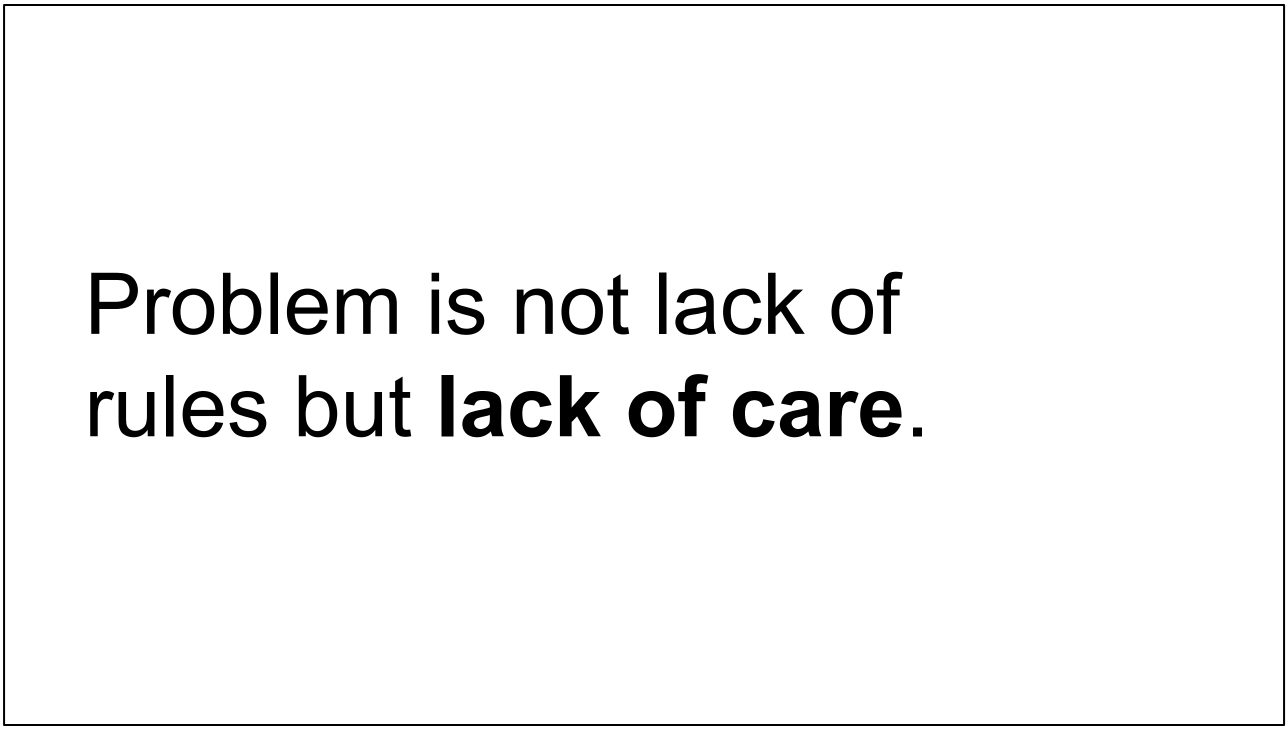
As another example, it is widely known among security professionals that the security of the Microsoft Azure cloud is balls. See for example https://www.lastweekinaws.com/blog/azures-terrible-security-posture-comes-home-to-roost/ - but clearly this does not matter to anyone. Azure is a very popular destination with big enterprise. Put all your secrets on there! The cognitive dissonance is so huge that news of Azure's terrible security is widely ignored. We'd rather not talk about it.



In 2018, we learned that if you share CPUs with other people, it is entirely possible to retrieve secrets from those other processes. Since 2018, the Spectre and Meltdown vulnerabilities have been joined by loads of additional ways of eavesdropping on other tenants. It appears fundamentally impossible to share CPUs among different users without leaking data. Yet we do not talk about this. See https://en.wikipedia.org/wiki/Side-channel_attack

FORTINET®

EU CRA will HURT Fortinet, as will PLD



Problem is not lack of rules but **lack of care**.

New regulations will:

- Make your life more difficult
- Give you greater leverage on your management
- **Make it possible for management to be prosecuted / fired if they ignore security (!!)**
- Allow you to kick vendors where it hurts

It will be painful:

- **Too much regulation at the same time**
    - Not enough auditing capacity, not enough learning/tuning
- Quality of implementation is worrying or at least a challenge

But: I think you can use this to effectively improve security

https://berthub.eu/articles/posts/eu-cra-secure-coding-solution/

More EU regulation:
Tomorrow 11:45,
“We need better regulatory tools for cyber resilience”
Yangtze track

Angeline van Dijk, Ludo Baauw, Michiel Steltman, Jacco Jacobs

EU and You: Upcoming regulation

bert@hubertnet.nl / https://berthub.eu/