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Custom software for smart device manufactures

EU Cyber Resilience Act – new insights

- EU CRA challenges for device manufacturers

- Solutions for device security

Terry London

Device security specialist

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What is an EU CRA?

European Cyber
Resilience Act unifies EU
cybersecurity rules for
more secure hardware
and software products.

https://digital-strategy.ec.europa.eu/en/library/cyber-resilience-act

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Currently among device manufacturers

7/10

are aware of EU CRA

3/10

develop next
generation hardware
security compatibility

1/10

develop software
infrastructure to apply
higher security

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Latest update

- Interview with Cyber and Digital Affairs Councilor at European Commission

New insights about EU CRA

- Released spring 2024 + 36 month transition time

- Vulnerability reporting

- Applies for new products released after transition time

- Out of focus: SaaS; Open-source software; automotive & medical devices

- Different product criticality levels

EU Cyber Resilience Act

For safer & more secure digital products

#DigitalEU #CyberSecEU

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Criticality levels of products

1. Common product

Requires self-assessment

- Smart home devices

- Toys

2. Critical product

Requires 3rd party validation

- Microcontrollers & processors

- General purpose operating systems

- Anti-virus software

- Firewalls

- VPN servers & clients

- Public key infrastructures

3. Highly critical product

Requires certification

- Smart cards

- Hardware devices with security boxes

- Smart meter gateways

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Requirements for Device manufacturers

Get products certified

- Self assessment

- 3rd party validation

- Certification

Compile Software Bills of Materials (SBOM)

- Define software suppliers

- Define who is responsible of software modules & stages

Ensure security updates

- Define intended purpose and requirements of the product

- Provide security updates over product lifetime

Report product vulnerabilities

- Yet to be defined

Our suggestions today

For certification audits

- Map and document your product functionalities and requirements

For SBOM

- Keep track which 3rd party libraries your device software uses

- Use modern software development principles and tools such as: version control systems, code review & testing tools

For security updates

- Perform device security assessment and decide required protection measures

- Decide the delivery process of the security updates (OTA, locally)

Additional recommendations

- Keep an eye out for EU product compliance-testing programmes for SMEs

- Plan ahead how to prepare for EU CRA

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How can Proekspert help?

Consulting

- We are up to date with EU CRA

- We have been building secure software solutions for 30 years

Solutions

Secure FW update

Solution for device security on embedded level

Remote device connectivity

Solution for managing remote devices over the internet

Device identity management

Solution for managing devices with unique identities + PKI integration

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Take a soda & let's talk!

Terry London

CRA & secure
firmware update

Jukka Antero Halttunen

Embedded software
development

Tiina Kalju

Device remote
control & cloud
integration

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We develop secure custom software solutions

- Industrial embedded software

- Device management over Internet

- Applications and service tools

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