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SAFE AND SECURE UPDATES

Secure your applications, servers, and IoT devices

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The IoT problem - causes

- **Mass production** of IoT devices ⬆️ doesn't go in pair with their **quality** ⬇️
- **IoT** devices are prone to **software errors**, **security vulnerabilities**, and **maintenance hell -** especially in large groups
- All IoT devices are **attack vectors** (data theft, removal, ransomware)
- **Difficult to update**, manual updates, expensive, problematic, and time consuming

The IoT problem - results

- **Difficult to manage**, especially when highly distributed in space with weak network connectivity
- **Difficult to update**, manual updates, expensive, problematic and time consuming,
- **Affecting manufacturers and integrators** from **all industrial branches**: robotics, sensors, Industry 4.0 devices

A Casino Gets Hacked Through a Fish-Tank Thermometer

Are your fish tanks secure?

KIM ZETTER SECURITY FEB 9, 2016 10:48 AM

How to Hack the Power Grid Through Home Air Conditioners

Researchers show how hackers can manipulate the remote on-off device installed on some air conditioners to cause a blackout.

Tools & Software Experts Services

CYBER SECURITY

Energy sector: More cyber attacks in 2022 than ever before

20.03.2023 · From Luke James · 4 min Reading Time ·

Cyber attacks on the energy industry have been rapidly rising

RELATED VENDORS

CANADA'S NATIONAL OBSERVER

Hackers claim they went after Canada's g infrastructure. Can renewables withstan same cyberattacks?

By Natasha Bulowski | News | May 29th 2023

Solution

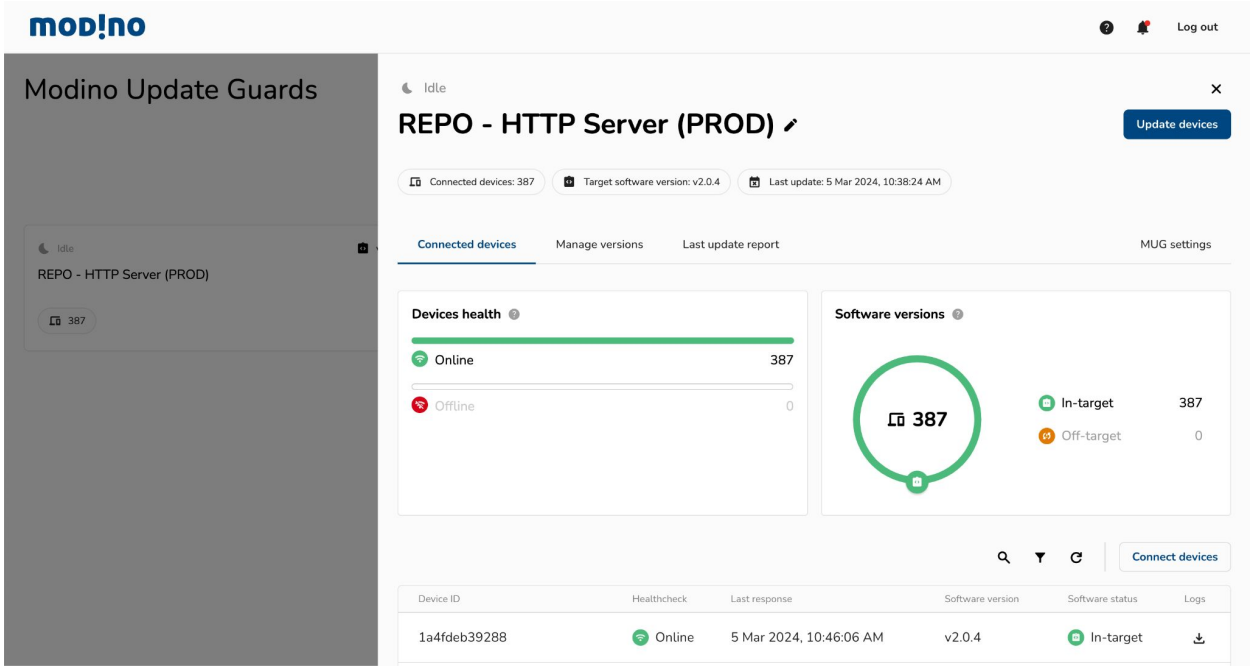
Safe and Secure updates for:

- IoT devices
- Applications
- Servers

Automation

Saving time and money

Peace of mind



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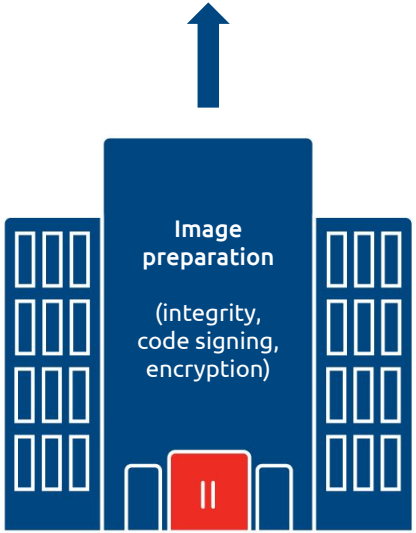
How does it work?

CELLULAR NETWORK RANGE



Management

- Security updates
- Reconfigurations
- Certificate rotation
- Anomaly detection
- Parameter monitoring
- many, many more…

Modino.io vs manual updates

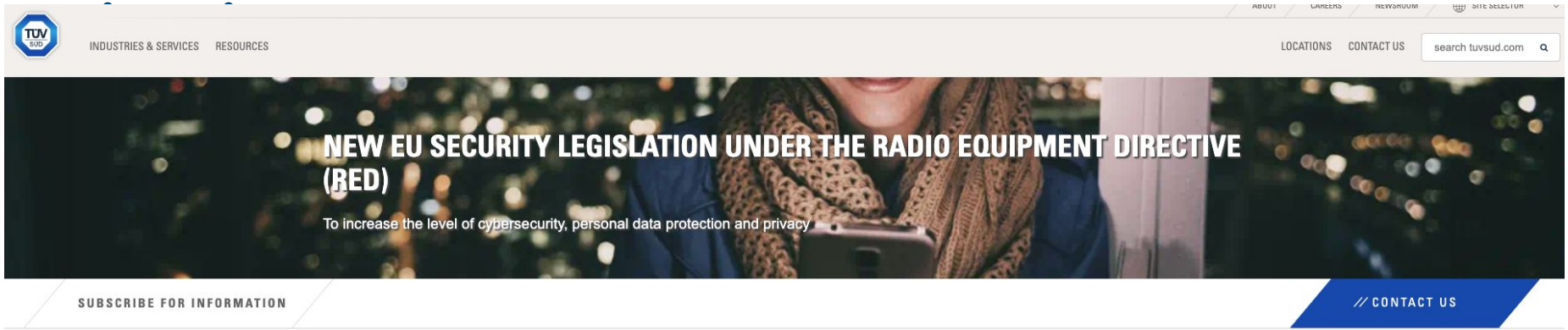
- **Use case:** Photovoltaic power station
- **Owner:** TAURON Energia (Poland), 37 MW of power, 140 inverters

	Manual update	Modino.io
Time to update 1 inverter	~30 minutes	~2 minutes
Time to update all inverters	**70 h = 9 working days (plus travel, hotel and accommodation costs of specialist)**	**~2 minutes**

- **Average attack costs** (which disables 50-100% of inverters) is **1700 - 3500 EUR / h**
- Attack costs = lack of possibility of conducting business = selling energy

Source: https://www.gramwzielone.pl/energia-sloneczna/20172690/najwieksza-farma-fotowoltaiczna-taurona-juz-dziala

We are a solution for upcoming legal changes - RED



On the 12th January 2022, the European Commission updated the Radio Equipment Directive (RED), which establishes a regulatory framework for placing radio equipment on the market, to include additional legislation related to security (2022/30/EU)[1].

The Commission adopted a Delegated Act of the Radio Equipment Directive activating Articles 3(3)(d), (e) and (f) for certain categories of radio equipment to increase the level of cybersecurity, personal data protection and privacy.

The update mandates cybersecurity, personal data and privacy protection for devices that can:

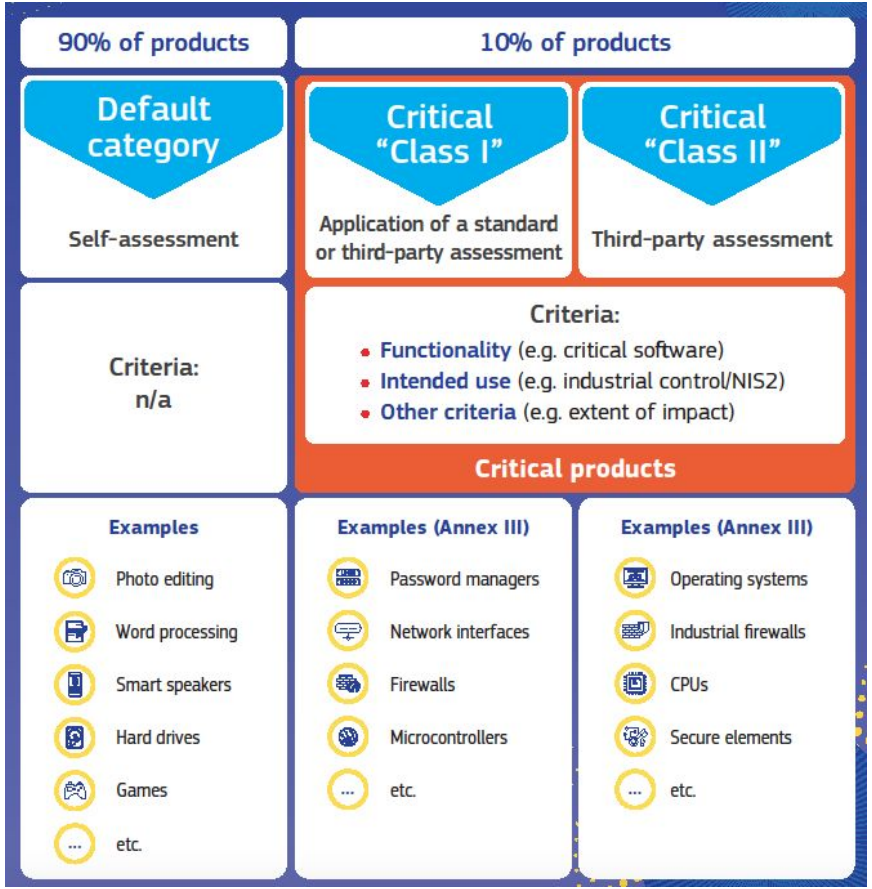
- 3.3d: communicate over the internet, either directly or via any other equipment
- 3.3e: process personal data, traffic data or location data
- 3.3f: enable users to transfer money, monetary value or virtual currency

These provisions become mandatory on the 1st August 2024 and manufacturers of radio connected devices must be compliant by that date or face potential action.

The reason behind this is that more and more products are employing radio technology in their applications and many of these devices connect to the internet which could expose these products to increasing security threats and the potential to be attacked and exploited.

Source: TUV

We are a solution for upcoming legal changes - CRA



Source: European Commission

Competitive advantages

- **Universal solution** – machines, sensors, robots, smart grid, information systems, measuring stations, IP cameras, medical devices, servers, edge cloud (with OS installed)
- **Not hardware bound** – software delivery independent of customer's hardware (for Linux based systems)
- **Strong applied cryptography** – your data is yours, Modino cannot access it since data is encrypted by client keys
- **Ensured business continuity** – devices are never offline, automatic rollback procedure in force
- **Updating 1 or 1,000 devices takes the same amount of operator time;** updates can be made either ASAP (in case of attacks) or in cohorts (minimizing business impact).

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Go to market / business model

- Initial fee for system installation (includes necessary infrastructure)
- Annual license, depending on the number of devices

- Unlimited number of updates
- On-prem/private cloud
- Integration with the client’s CI/CD pipelines
- Modino.io system updates
- Support

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Founders

Jakub Jelonek
Co-founder, CTO

Principal Software Engineer, Architect
Modino system design

Cryptography@IBM Copenhagen

Błażej Pawlak
Co-founder, CEO

Project Manager/Principal Software Engineer
Product and development supervision

Cryptography@IBM Copenhagen

Radosław Ratajczak
Co-founder, CDO

Project Manager/Business Developer
Project management and UX

CEO@SHOPA Design & Strategy

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Team

Front-end | Back-end | Design | DevOps | Management

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Awards, certificates

CYBERSECURITY MADE IN EUROPE

Date of Issue: 17 - 07 - 2023

CERTIFICATE

Polish Cybersecurity Cluster #CyberMadeinPoland approves that:

Modino.io Sp. z o.o.
Okopowa 14
10-075 Olsztyn, Poland

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IS ENTITLED TO CARRY THE LABEL
'CYBERSECURITY MADE IN EUROPE'

Issuance Number: [PL-CMIP-2023-07-0005]

Certificate Valid Until: 17-07-2024

Approved Signature:

Issuer: #Cyber Made InPoland

Partners & pilots

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Modino.io media

1. **Safe and secure IoT updates [EN version] -** https://tinyurl.com/2dx83yej

2. **Modino.io demo -** https://vimeo.com/510677701

Thank you!

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