

ONEKEY

WE AUTOMATE IN MINUTES SOFTWARE SECURITY & COMPLIANCE OF CONNECTED PRODUCTS AT SCALE.

Build. Comply.
Resist. Repeat.



THE PRODUCT SECURITY & COMPLIANCE CHALLENGE DEMANDING A NEW SOLUTION!



CHALLENGE

- Security & compliance required for all products with software
- Generate & manage SBOMs from different sources
- Increasing efforts & cost for ongoing CVE matching & triage
- Manual testing often too expensive & time consuming
- Increasing regulations, EU Cyber Resilience Act, USA

Limited resources, time consuming, expensive!

DEMAND

- Continuous 24/7 visibility of IoT/IIoT/OT risks
- Auditable software supply chains (SBOM)
- Reduce cost & efforts for product cybersecurity and compliance

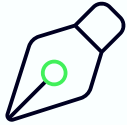
24/7 full risk visibility & compliance automation!

SOLUTION

- AI based vulnerability detection** automates SW analysis (30 min. vs. 5 days)
- Automated Software Bill Of Materials (SBOM)
- 24/7 risk monitoring
- Compliance check & automation by patent pending virtual assistant

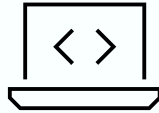
Automated,
highly scalable,
24/7/365 available!

ONEKEY COVERS MANUFACTURER'S DEMAND OVER THE ENTIRE PRODUCT LIFECYCLE.



Design

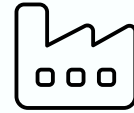
Security & compliance check of third-party (binary) components in design phase.



Development

Continuous check on compiled pre-release software security & compliance for SBOM verification and vulnerability assessment.

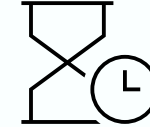
Process self-assessment or obtain certification.



Production

Combining & verify Source-code, build and deployment SBOM to one holistic SBOM.

24/7 vulnerability & compliance monitoring for PSIRT* over entire lifecycle.

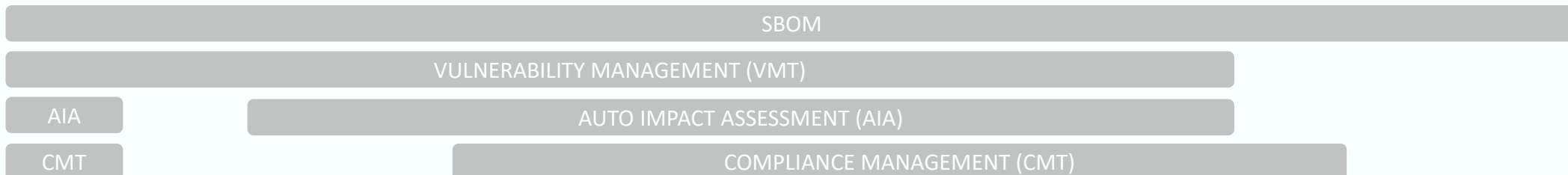


End of Life

Risk & vulnerability status information for end-of-life products.

Reduce liability exposure for EOL products.

PRODUCT LIFECYCLE - FOCUS



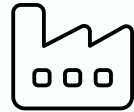
ONEKEY PROVIDES FOR DEVICE OPERATORS PREVENTIVE DETECTION, MANAGEMENT & SOLUTION ADVICE FOR VULNERABILITIES AND COMPLIANCE ISSUES.



Procurement

Preventive security & compliance check of products & components with software, **before purchasing** or integration in own infrastructure.

Enables supplier scoring with regards of cybersecurity & compliance.



Production

Ensure transparent, up to date software composition information (SBOM), even from supplied 3rd party binaries.

Preventive 24/7 vulnerability monitoring of firmware for CERT* over entire device lifecycles.



Maintenance

Preventive security & compliance check of products & components with software, **before updating** existing devices within own infrastructure.

Avoid unnecessary updates and reduce downtimes.

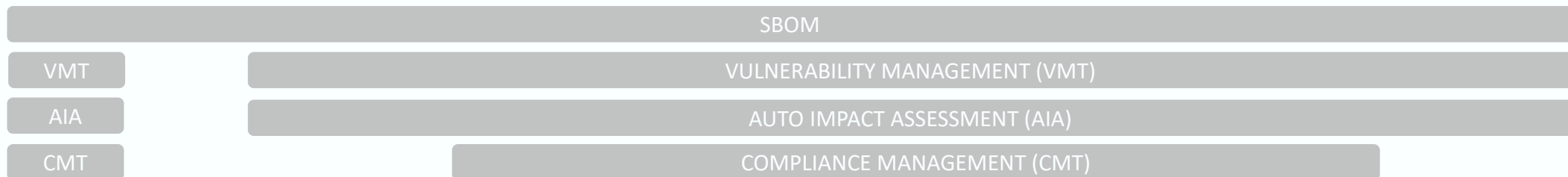


End of Life

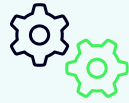
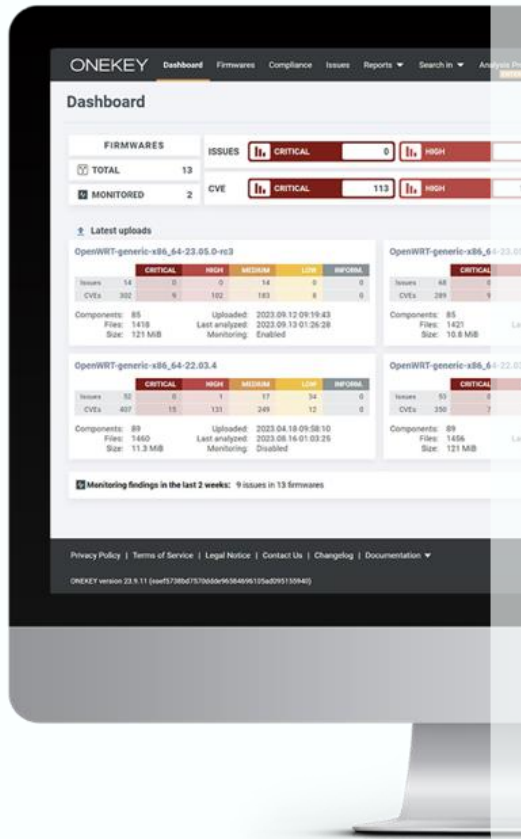
Risk & vulnerability status information for end-of-life products.

Reduce operational liability exposure from EOL products.

PRODUCT LIFECYCLE - FOCUS



INTRODUCING: ONEKEY'S SAAS PLATFORM TO AUTOMATE COMPLEX SECURITY & COMPLIANCE ANALYSIS FOR CONNECTED DEVICES



DEVICE SECURITY, AUTOMATED

- Most efficient, automated vulnerability analysis of software (operator or producer) in the market
- Lowest level of false positive vulnerabilities in testing



DESIGNED FOR FAST ROI

- Cost attractive tool and services for developers (APIs), management (dashboards) and IoT security (compliance)
- Easy check any software of 3rd party connected devices



FULLY READY FOR (CRA-) COMPLIANCE

- Guiding customers from analysis of device software to compliance readiness for CRA and other intl. regulations
- EU-funded CRA Compliance Wizard™



TRUSTED EUROPEAN TECHNOLOGY

- Analysis in EU cloud and/or local (onPremises) tenant
- Senior cyber professionals serving large to small cap
- Trusted brand with front runner advantages

ONEKEY ENABLES MANUFACTURERS AND OPERATORS OF CONNECTED DEVICES TO FOCUS ON THEIR PRODUCT NEEDS



SBOM

Automated software composition analysis

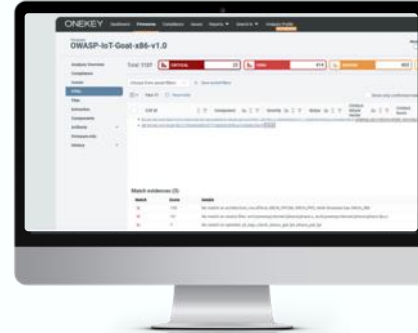
- Detailed overview of software bill of materials (SBOM) with one click.
- Ensure connected products are secure and compliant.
- No source code or network access required.



VULNERABILITY ANALYSIS

Find known & unknown weaknesses faster

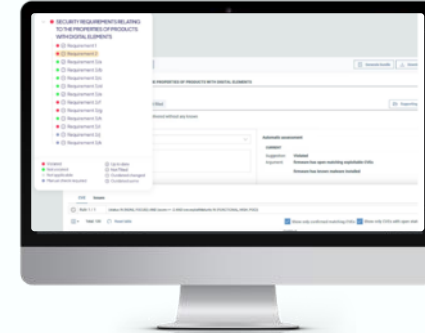
- Detect and prioritize firmware vulnerabilities.
- Maintain an overview with CVE* and Zero-Day impact assessments.
- Mitigate risks and avoid incidents quickly.



IMPACT ASSESSMENT

Faster, cost efficient risk assessments

- Automated scans cover certificates, cloud storage, attack vectors, exploitability, and dependencies.
- Severity reports with mitigation strategies.



CYBERSECURITY COMPLIANCE

Simplify compliance assessments

- Manage regulatory requirements, prioritized and automated.
- Includes a virtual assistant for regulations.
- Navigate standards: EU Cyber Resilience Act, IEC 62443, ETSI 303 645.



PLATFORM DETAILS: GENERATE AND MANAGE SBOMS

- Manage SBOMs in one place
- SBOM - from binary images to CycloneDX & SPDX format
- Import & verify SBOMs from source code & build process
- Edit, merge, enrich & correct SBOMs
- Verify third-party SBOMs
- Import source & build SBOMs to compare with production SBOMs
- Monitor SBOMs fully automated for vulnerabilities

The screenshot displays the ONEKEY dashboard for 'Gateway 2.5'. The main table lists components with columns for Component name, Version, Files affected, CPE, and Licenses. An overlay window titled 'CVE count' shows a list of CVE counts with corresponding progress bars and 'View' links.

Component name	Version	Files affected	CPE	Licenses
Dropbear SSH	2017.75	1	dropbear_ssh_project.drop...	MIT
busybox	1.28.4	4	busybox.busybox	GPL-2.0-only
dnsmasq	2.73	5	dnsmasq.dnsmasq_thekeill...	GPL-2.0-only, GPL-3.0
lua	5.1.5	7	lua.lua	MIT
minilupnpd	2.1	6	minilupnp_project.minilupnp...	BSD-3-Clause
OpenWRT	18.06.2	2	openwrt.openwrt	GPL-2.0-only
...	7.3.0	1	...	GPL-3.0-with-GCC-exception
...	2.7	1	w1.fi.wpa_supplicant	BSD-3-Clause
...	1.44.1	8	e2fsprogs_project.e2fsprogs	GPL-2.0-only, LGPL-2.0-only
...	2.32	6	kernel-util-linux_util-linux_p...	GPL-2.0-or-later, GPL-2.0-o...
...	0.1	1
...	2.4.7	10	point-to-point_protocol_pro...	BSD-3-Clause, GPL-2.0-or-l...
...	4.0	1	squashfs_project.squashfs	GPL-2.0-only
...	1.28.4	1	...	GPL-2.0-only
...	2.14.1	3	arm.mbed_tis	GPL-2.0-or-later, Apache-2.0
...	0.2	1	...	LGPL-2.1-only
...	4.0	1	gnu.sed	GPL-3.0-or-later
...	6.1.2	1	gmp.lib.gmp	LGPL-3.0-only, GPL-2.0-onl...
...	4.14.95	85	linux.kernel	GPL-2.0-only, LGPL-2.1, LG...

CVE count

5	View	<div style="width: 100%;"></div>
13	View	<div style="width: 100%;"></div>
10	View	<div style="width: 100%;"></div>
2	View	<div style="width: 100%;"></div>
5	View	<div style="width: 100%;"></div>
5	View	<div style="width: 100%;"></div>
N/A		
9	View	<div style="width: 100%;"></div>
2	View	<div style="width: 100%;"></div>
1	View	<div style="width: 100%;"></div>



PLATFORM DETAILS: VULNERABILITY MANAGEMENT

- Vulnerability detection in minutes from binaries
- SBOM - Software component analysis from Binaries
- Import & verify SBOMs from source code & build process
- Edit, enrich & correct SBOMs
- Verify third-party SBOMs
- Import source & build SBOMs to compare with production SBOMs
- Monitor SBOMs fully automated for vulnerabilities

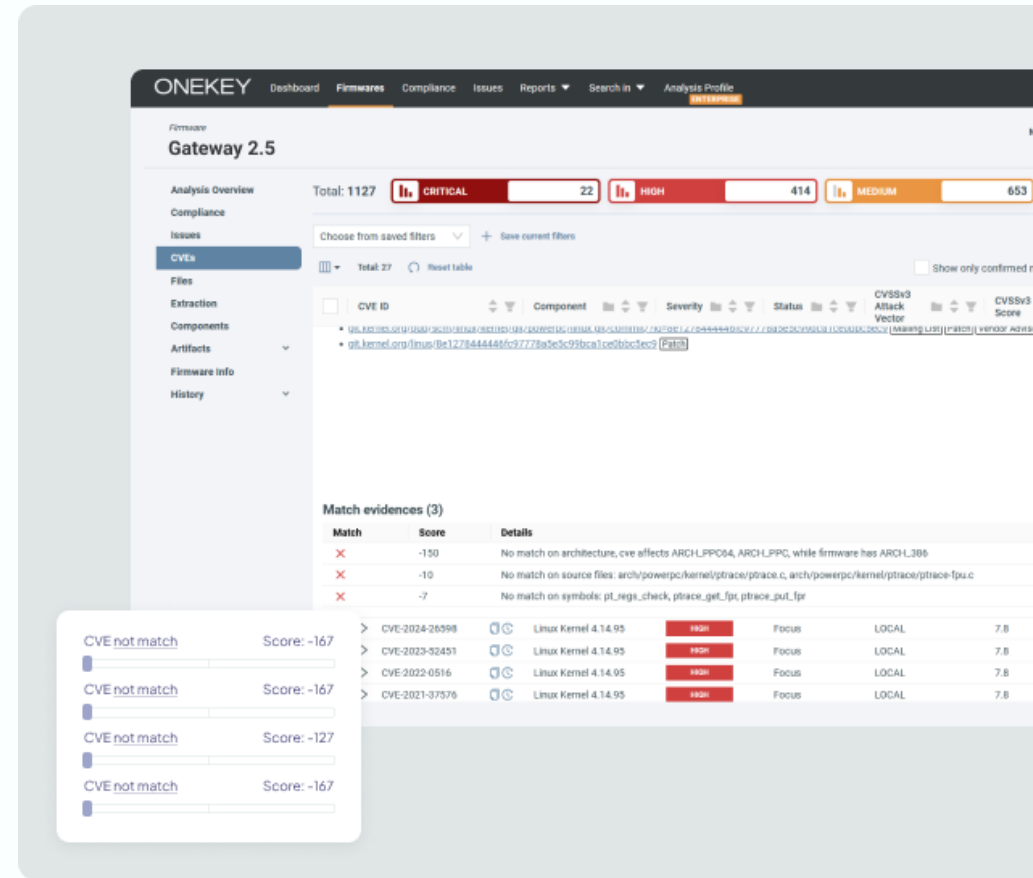
The screenshot shows the ONEKEY dashboard for 'Gateway 2.5'. The top navigation bar includes 'Dashboard', 'Firmwares', 'Compliance', 'Issues', 'Reports', 'Search in', and 'Analysis Profile'. The main content area displays a summary of 528 total issues, with 8 CRITICAL, 187 HIGH, and 313 MEDIUM severity issues. A table of CVEs is shown with columns for CVE ID, Component, Severity, Status, CVSSv3 Attack Vector, and CVSSv3 Score. A 'Match Score' overlay is visible, showing a comparison of CVEs with scores ranging from 0 to 80.

CVE ID	Component	Severity	Status	CVSSv3 Attack Vector	CVSSv3 Score
CVE-2021-44732	Mbed TLS 2.14.1	CRITICAL	None	NETWORK	9.8
CVE-2022-46393	Mbed TLS 2.14.1	CRITICAL	None	NETWORK	9.8
CVE-2018-11574	ppp 2.4.7	CRITICAL	None	NETWORK	9.8
CVE-2020-8597	ppp 2.4.7	CRITICAL	Focus	NETWORK	9.8
CVE-2020-28951	OpenWRT 18.06.2	CRITICAL	None	NETWORK	9.8
CVE-2017-14491	dnsmasq 2.73	CRITICAL	Focus	NETWORK	9.8
CVE-2022-48174	busybox 1.28.4	CRITICAL	None	NETWORK	9.8
CVE-2022-35409	Mbed TLS 2.14.1	CRITICAL	None	NETWORK	9.1
CVE-2020-29569	Linux Kernel 4.14.95	HIGH	Focus	LOCAL	8.8
CVE-2019-10220	Linux Kernel 4.14.95	HIGH	Focus	NETWORK	8.8
CVE-2021-3656	Linux Kernel 4.14.95	HIGH	Focus	LOCAL	8.8
CVE-2021-3653	Linux Kernel 4.14.95	HIGH	Focus	LOCAL	8.8
CVE-2019-14821	Linux Kernel 4.14.95	HIGH	Focus	LOCAL	8.8
CVE-2022-28391	busybox 1.28.4	HIGH	Focus	NETWORK	8.8
CVE-2019-19770	Linux Kernel 4.14.95	HIGH	Focus	NETWORK	8.2
CVE-2023-39191	Linux Kernel 4.14.95	HIGH	Focus	LOCAL	8.2
CVE-2022-1012	Linux Kernel 4.14.95	HIGH	Focus	NETWORK	8.2



PLATFORM DETAILS: AUTOMATED IMPACT ASSESSMENT

- Automated triage for CVE & Zero-Day vulnerabilities
- Transparent scoring and prioritization of critical threats
- Focus on what matters most
- Save time and resources
- Typically reduces detected vulnerabilities by more than 60%
- **Typical time saver of +3 weeks* per automated analysis & assessment**

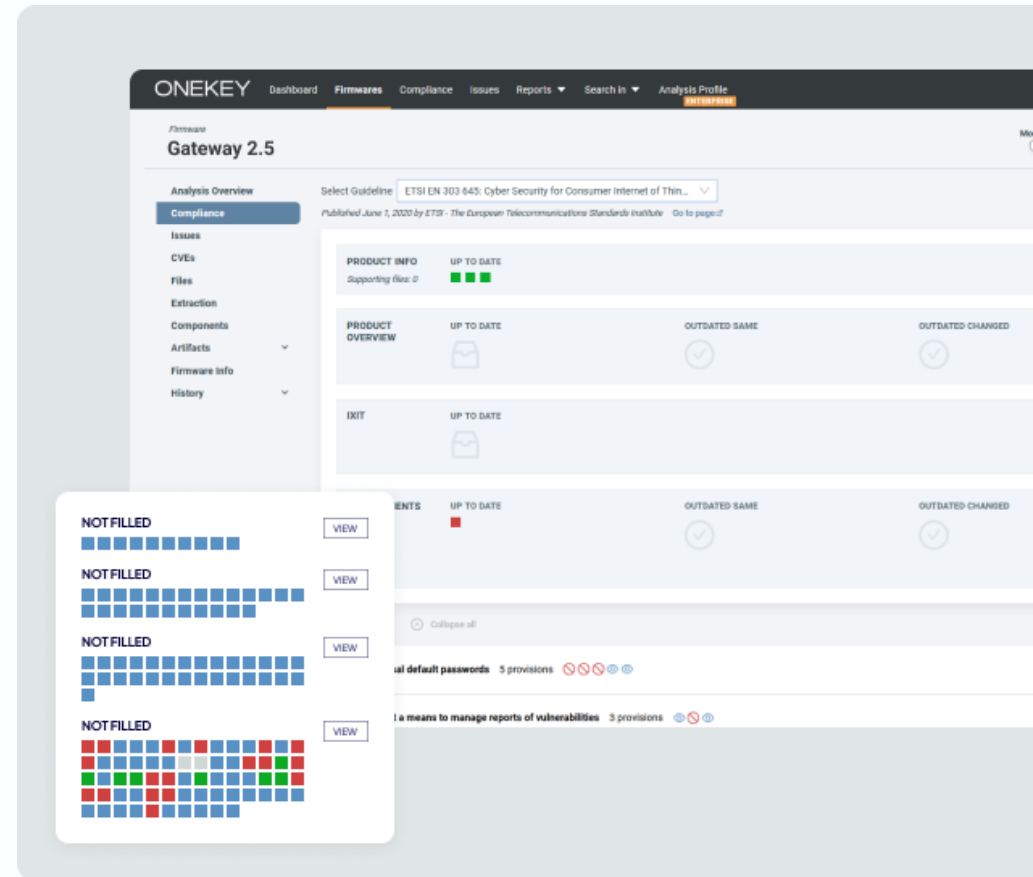


* Calculation: 1500 CVE found, reduction by 60% = 900, average time spent per CVE for manual triage = 10 minutes = 900x10=9.000 minutes = 150 hours = 18,75 workdays

PLATFORM DETAILS: COMPLIANCE WIZARD™



- Your product cybersecurity compliance management in one place
- Automated firmware compliance check in seconds
- Guides users through complex regulations, provides evidences and suggestions for each section
- Cuts time & resources for compliance, documentation, self- attestations and third-party certifications
- Supports multiple standards, i.e. CRA, RED 18031*, IEC62443-4-2, ISO303654, UK PSTI, U.S. Biden Act...

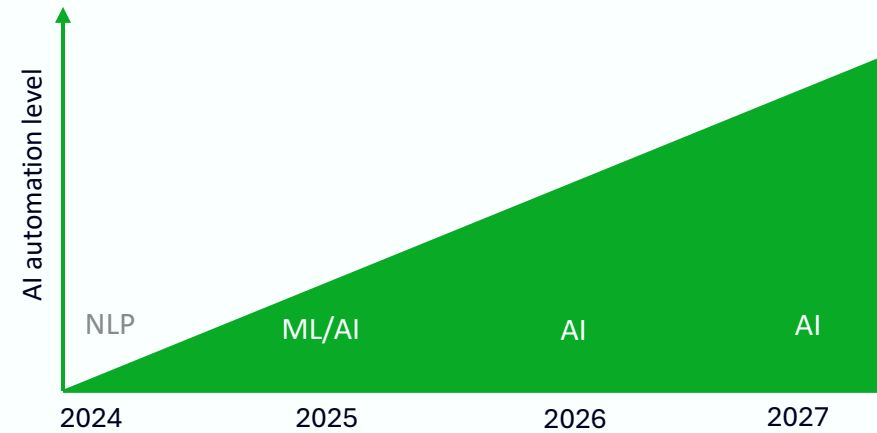


* Planned availability: March 2025

PLATFORM ROADMAP: AI POWERED COMPLIANCE

- Product roadmap includes trained AI model to simplify product cybersecurity compliance
 - Goal is to enable AI guided compliance self-services
 - Upload “what you have” and AI will fill the gaps
 - CRACOWI Research & development project supported & funded by European Union
- ✓ Start already today
your compliance automation
using the Compliance Wizard!

*CRACOWI = Cyber Resilience Act Compliance Wizard, <https://www.cracowi.eu/>



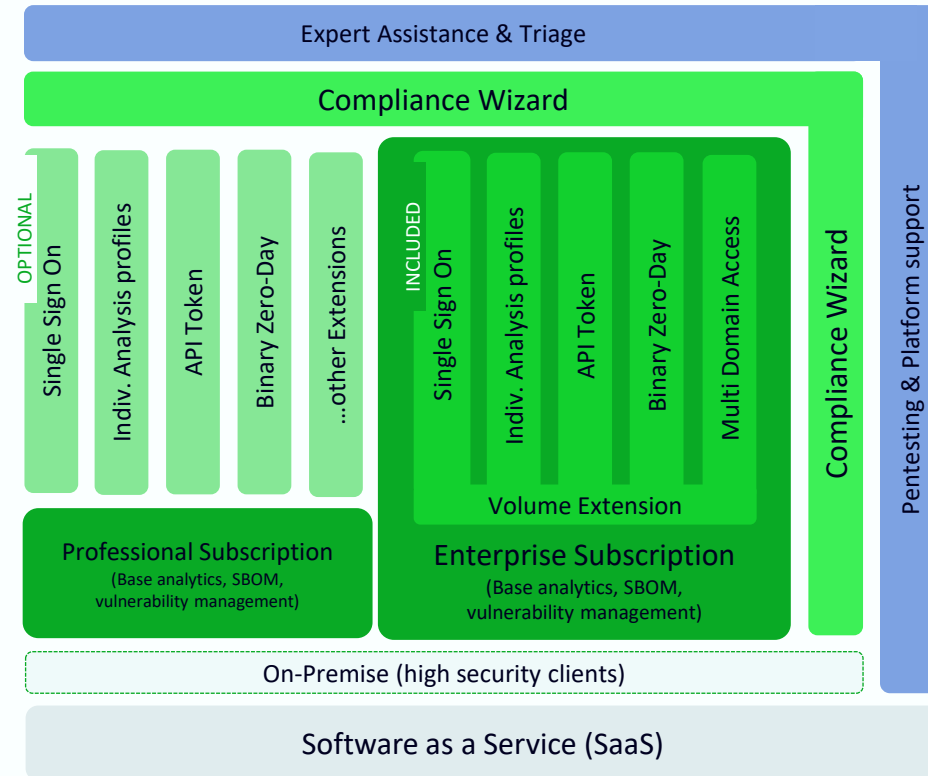
Project consortium partners:



PLATFORM LICENSING: OVERVIEW SERVICE & LICENSE STRUCTURE

Enterprise plan satisfies the requirements of large organizations

- **SaaS** provided from ISO27001 certified datacenter, located in Germany
- **On-Premise** installation upgrade option available for high-security requirements
- Flexible **annual subscription** plans available for individual needs
- Professional plan **starts at 19,950€/year**, extendable with functional, volume and service upgrades
- **Professional services** of pen-testing, technical support and cybersecurity consulting augments platform capabilities.



ONEKEY'S CLIENTS ARE INTERNATIONAL LEADING COMPANIES IN ASIA, EUROPE AND AMERICA.



Join our community of leading companies:

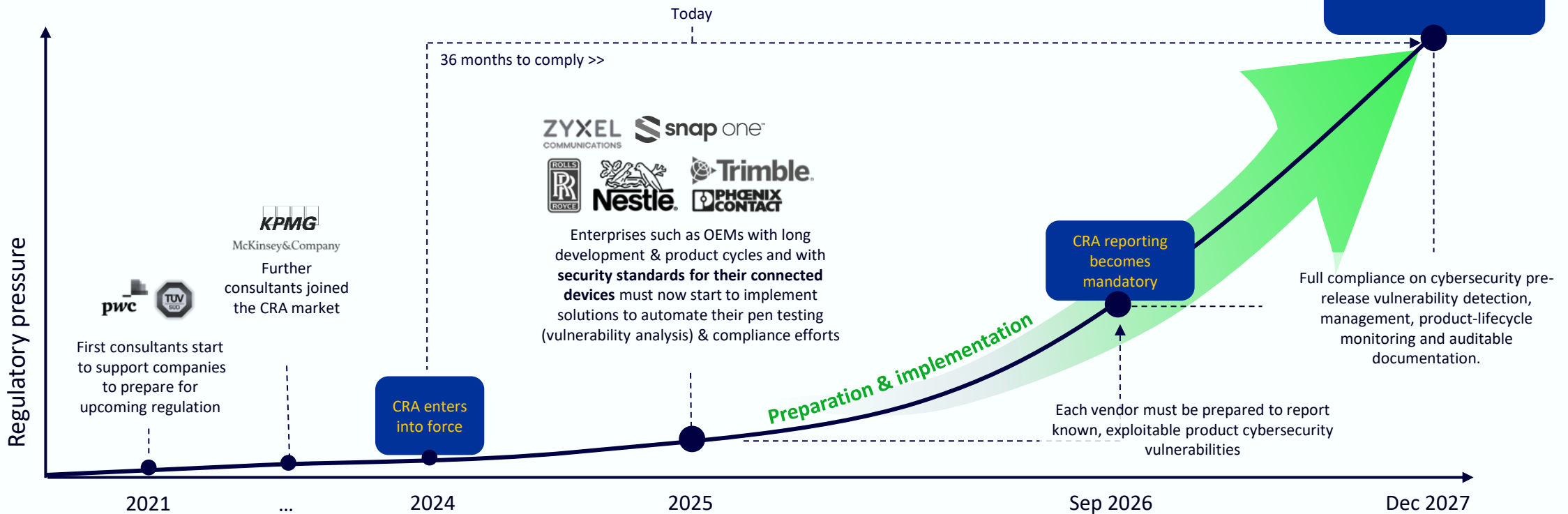
1. Start with a live demo using your binaries to see automation at work
2. Discuss use cases with our experts for your CI/CD & PSIRT workflow
3. Go live on SaaS or onPrem and scale on automation



EU-REGULATION SETS STANDARDS FOR DEVICE SECURITY AND ENFORCES SECURITY & COMPLIANCE FOR ALL VENDORS WORLDWIDE

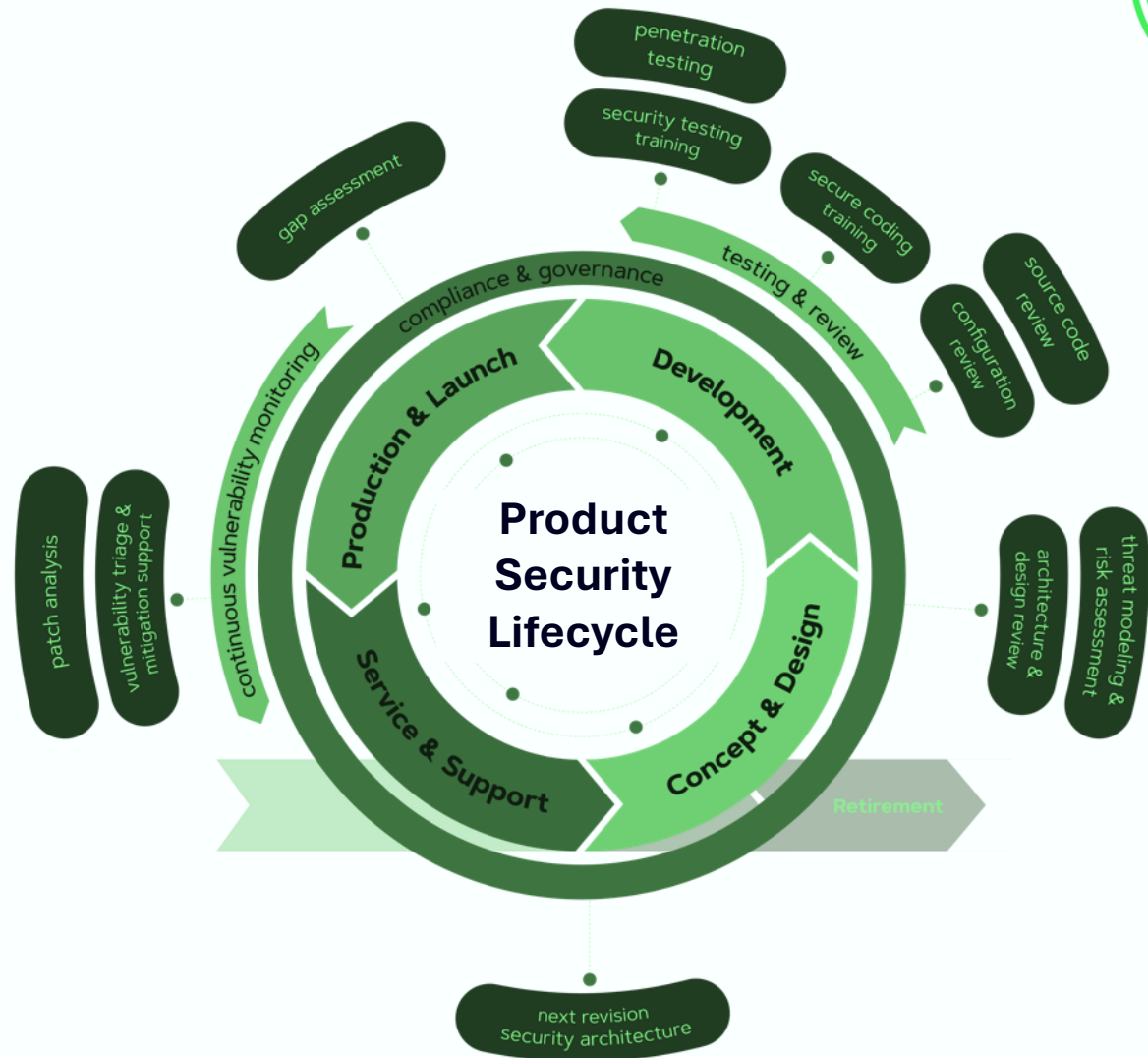


Cyber Resilience Act (CRA), a European regulation that sets a minimum level of cyber security for all connected products available on the EU market. Failure to comply with the Cyber Resilience Act can result in penalties and sanctions, such as a fine of €15 million or 2.5% of annual turnover, market access restrictions or product recalls.



EXPERT'S ADVICE AND PROFESSIONAL SERVICES

- Platform automation enhanced by a hybrid approach of automation and expert's advice
- Individual penetration testing
- Holistic expertise for product security
- International leading experts on embedded software security
- From conceptual design to operational reviews and hands-on pen-testing
- Ongoing, repeating security tasks and operations will benefit from automation



HOW CUSTOMERS BENEFIT THROUGH SIGNIFICANT COST SAVINGS AND HIGH EFFICIENCY.



Customer Testimonials

"ONEKEY's automated firmware analyses help us to deliver our services efficiently and with unparalleled quality."



"We enjoyed a smooth onboarding experience and highly recommend the excellent support from a team of experts."



"ONEKEY helps us to uncover critical vulnerabilities in embedded devices in a fully automated way."



"ONEKEY's capabilities and security expertise made it a truly eye-opening experience to work with them."



Case Study



Initial situation

- Swisscom, Switzerland's leading telco and one of the country's largest IT service providers, needed to ensure the security of IoT devices used in customer premises equipment (CPE)
- > 1.8 million devices in use, with frequent firmware rollouts requiring secure updates
- IoT device manufacturers often neglected security due to short product lifecycles and complex supply chains

ONEKEY Solution

- Integrated automated security and compliance analysis into Swisscom's firmware testing process, analyzing +80 images annually
- Identified critical vulnerabilities early, providing detailed security insights and compliance checks.
- Improved supply chain transparency by uncovering previously unknown security issues

Benefits for Swisscom



ROI

Prevented firmware rollouts with critical vulnerabilities, saving up to **USD 400,000** per avoided incident



Stronger Vendor Relations

Improved negotiation position with fact-based security data



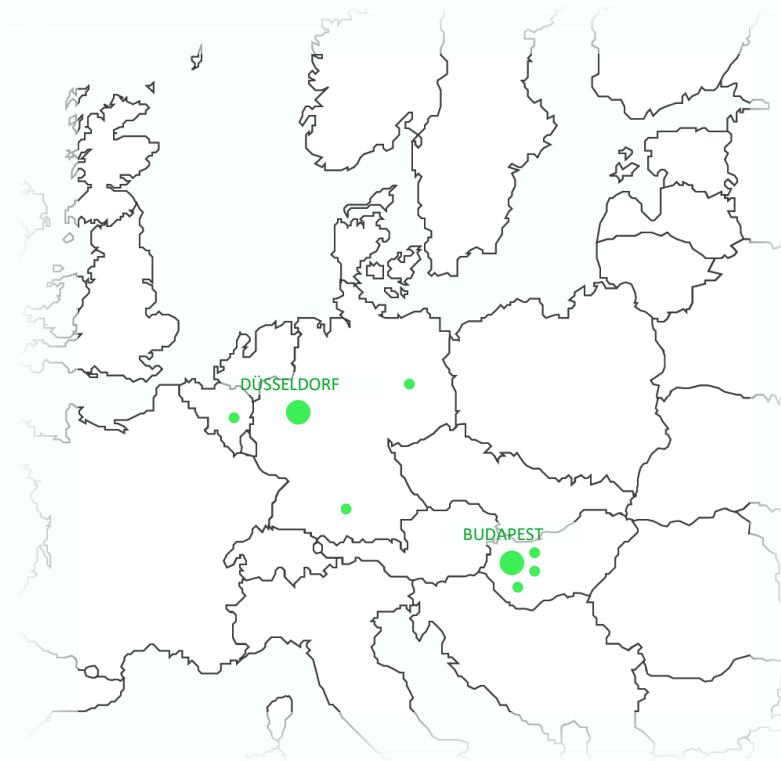
Operational Efficiency

Reduced repair and maintenance costs by identifying issues before rollout

ABOUT ONEKEY



- **Founded 2020** as carve-out from global leading pen-testing company
- **German headquarter** with offices in Dusseldorf (Germany) and Budapest (Hungary) and remote
- **+32 people**, international, multi-cultural team of more than six nations
- Global acknowledged cybersecurity experts, speaking at BLACK HAT & DEFCON
- More than 50 cybersecurity advisories published, registered CVE Numbering Authority (CNA)
- Customers in Europe, U.S., Asia
- Backed by institutional investors:



BUILD. COMPLY. RESIST. REPEAT.



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