


Kudelski Labs – Device Advisory & Design Services

Expert Security Guidance to Support the Design of Secure, Compliant Connected Products and Systems

 Kudelski Labs' Device Advisory & Design Services provide high-level security expertise to engineering teams designing connected products and systems. Through a white-box, security-by-design approach, we help organizations proactively manage cyber risks, strengthen architectures, and meet regulatory expectations.

Our experts deliver clear, actionable recommendations across threat analysis, secure architecture, code review, cryptographic design, hardware BOM, and AI security, ensuring products are secure, resilient, and ready for market.

Enable Secure-by-Design Product Development

- Ensure cyber risks are identified and addressed early
- Strengthen architecture decisions with white-box expert analysis
- Support regulatory compliance and go-to-market readiness

Expert Guidance for Secure-by-Design Development

- White-box architectural and code-level analysis
- Strengthens security from concept to deployment
- Supports regulatory compliance and market readiness

Our Advisory Framework

Kudelski Labs provides deep security expertise across your architecture, source code, cryptographic design, and system interactions. This high-level advisory support helps engineering teams build secure foundations, avoid costly redesigns, and align with evolving cybersecurity regulations.



UNDERSTAND

- Review system objectives, documentation, architecture and business context
- Identify critical assets, dependencies, and risk exposure



ANALYZE

- Perform white-box hardware and software analysis
- Evaluate architecture, interfaces, code, cryptography, and AI components
- Identify weaknesses, gaps, and compliance challenges



DESIGN

- Recommend security mechanisms, controls, and architectural improvements
- Advise on critical features design and device lifecycle
- Provide secure-by-design enhancements and transition roadmaps



SUPPORT

- Validate updated designs
- Assist with regulatory compliance and secure development practices
- Enable teams with training and expert guidance

Kudelski Labs delivers clear, actionable guidance to strengthen system architecture and accelerate secure product development.



Key Services

Our Device Advisory & Design Services cover the full spectrum of security-by-design needs.

- **Threat Analysis and Risk Assessment (TARA)** – Identify threats, assess risk, and define appropriate mitigations.
- **Secure System Architecture Review** – Assess hardware, software and system architecture for robustness.
- **Security-by-Design Review** – Identify design weaknesses and recommend improvements aligned to best practices.
- **Secure Code Review** – Manual and tool-assisted analysis to uncover vulnerabilities and insecure coding patterns.
- **Cryptographic Design & Quantum Resistance** – Review key management, crypto implementation, and QRC readiness.
 - **Exposure & Risk Assessment** – Evaluate attack surface and potential exploitation scenarios.
 - **QRC Transition Design & Roadmaps** – Define progressive security strategy to adopt Quantum Resistant Cryptography and architectural evolution paths.
- **Regulations Compliance Guidance** – Align design to cybersecurity regulations and certification frameworks.
- **AI Security Assessment** – Assess defences to protect ML models and AI components.

Where This Service Delivers Value

Our advisory services help organizations:

- Strengthen design decisions from the start
- Reduce costly late-stage redesigns
- Meet global cybersecurity compliance requirements
- Support business-critical and long-lifecycle product development
- Build secure, resilient architectures across hardware, software and AI
- Bring secure products to market with confidence

Strategic Intelligence. Impactful Action.



Our embedded security expertise is rooted in more than three decades of hardware, software and cybersecurity experience. We use our expertise and technology to protect all key assets - devices, identity, data, decisions, commands and actions throughout the lifetime of the device and its ecosystem.

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