
The IoT Security Center of Excellence will provide guidance and technology to help companies across all industries secure their IoT innovations over entire product lifecycles.

Services provided reach beyond hardware and software assessment and evaluations to include recommendations and implementation of effective design & control frameworks, countermeasures to mitigate risks and protect investments, as well as legal services. Further details include:

- **IoT Security Design & Assessment**: While IoT devices have a well-developed and strong functional architecture enabling business operation, the security architecture has its own rules and methods to reach the required level of reliability and security, creating constraints that are potentially not aligned with functional requirements. Thanks to their extensive know-how in optimizing security without restraining functional possibilities the Kudelski Group’s experts help increase device security to lower risks and enhance performance early in the design cycle, using hybrid architectures.

  For existing products, in-depth evaluations are performed in the Group’s state-of-the-art laboratory to assess the security of chipsets, hardware and software components used in IoT devices and ecosystems. The analysis may result in identifying vulnerabilities that could have led to service theft, device cloning or breach of hardware security features to gain control over a system, or in reassuring the client that the device is secure.

- **IoT Security Posture Improvement**: Once vulnerabilities, flaws and weaknesses are identified, best-in-class technologies are implemented to ensure security controls in embedded systems, software/firmware, communication protocols, platforms and applications. Key management, endpoint authentication, data encryption and hardware-based roots of trust are combined with the latest methods for software security including application code obfuscation and white-box cryptography techniques designed to resist even the most advanced threats.

- **IoT Cybercrime Countermeasures**: If a system comes under a sustained attack or emerging threat, the IoT Security Center of Excellence has the ability to provide prompt advice and services. Proactively, it can embed sleeper countermeasures into devices which can be activated against threats and carry out rapid prototyping powered by threat intelligence from the Kudelski Security Cyber Fusion Center. In the event intellectual property is infringed upon, Kudelski Group's legal teams can provide support for litigation in almost any court of law globally.

A long-term partnership approach offers product developers in all industries the ability to focus on their core products while being assured that security is maintained over time. Key to success is a focus on establishing the right balance between security measures, risk and cost; a strategy that can accelerate time-to-market, as well as protect and provide competitive advantage.
The IoT landscape is expanding rapidly with analysts such as Gartner, Inc. anticipating 25 billion connected devices by 2020\(^1\). Yet, while driving innovation and growth, serious concerns have arisen over the security of the devices, IoT ecosystems and privacy and integrity of data transmitted. Recently, a massive denial of service attack choked Internet access to popular websites, carried out in part by common IoT devices hijacked by the Mirai botnet.

Today, there’s a real need for proven security tactics and technology for the IoT space. The Kudelski Group is able to leverage a long history in digital content protection, and experience securing more than 400 million Pay TV devices globally, to guide customers to success in the nascent Internet connected devices marketplace.

More information about Kudelski Group’s IoT Security Center of Excellence may be found by visiting: [https://www.kudelskisecurity.com/sites/default/files/files/kudelski_IoT_brochure.pdf](https://www.kudelskisecurity.com/sites/default/files/files/kudelski_IoT_brochure.pdf)

### About the Kudelski Group

The Kudelski Group is listed on the Swiss Stock Exchange (SIX:KUD:S). It is a world leader in digital security; its technologies are used in a wide range of services and applications requiring access control and rights management to secure the revenues of content owners and service providers for digital television. The Group also offers cyber security solutions and services focused on helping companies assess risks and vulnerabilities and protect their data and systems. The Kudelski Group is also a technology leader in the area of access control and management of people or vehicles to sites and events. The Kudelski Group is headquartered in Cheseaux-sur-Lausanne, Switzerland, and Phoenix, USA. For more information, please visit [www.nagra.com](http://www.nagra.com).

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\(^1\) Gartner Forecast: IoT Security, Worldwide, April 2016