



Kudelski Security Expands Research and Advisory Services to Quantum Security

New Report Highlights Increased Need for High-Level, Long-Term Security Assurance of Sensitive Data

Cheseaux-sur-Lausanne, Switzerland, and Phoenix (AZ), USA, December 3, 2020 – [Kudelski Security](#), the cybersecurity division within the Kudelski Group (SIX:KUD.S), announced today the launch of a new focus on quantum security, including expanded research and advisory services that enable security leaders and product and system developers to align their long-term approach to risk and data protection to the era of quantum computing. The global quantum practice for Kudelski Security is led by Dr. Tommaso Gagliardoni, who brings extensive expertise in academic and applied research in the fields of cryptography, quantum computing, and advanced mathematics.

In the freshly released publication, '[Quantum Computing, Quantum Cryptography, and Quantum Security Technology](#)', Tommaso Gagliardoni delivers an unbiased overview of these new technologies, presenting the relationship between different topics and highlighting the impact for business. Further details about the threat landscape associated with advances in quantum computing as well as the strategies business leaders need to consider adopting as part of a comprehensive approach to risk management and data security are provided in this supplementary [webcast recording](#).

As a leading voice in quantum security research and advisory services, Kudelski Security suggests that sectors such as automotive, financial, insurance, military and healthcare, should already be working to understand risks relating to quantum security and defining actions they can take to mitigate the impact on data security in the future, while keeping up with demands of regulatory compliance.

According to a recent report by Gartner¹, quantum-safe standards are well along the development path, led by the U.S. National Institute of Standards and Technology (NIST). Early standards may arrive as soon as 2020, and standards work will be mostly completed by 2023. These new standards will drive customer awareness of the need to update cryptographic systems.

“Our teams of researchers, analysts, and cryptographers are working with world-renowned universities to break new ground in applying security to quantum technology,” said Andrew Howard, CEO of Kudelski Security. “As this technology becomes more mature, government agencies and commercial organizations will need to consider the data-related implications of quantum technology as well as explore quantum-resistant measures to reinforce their assets.”

Delivered from Kudelski Security's Advanced Labs in Switzerland, quantum security services will:

- Discover, map, and analyze data that requires long-term protection, with a proposal of quantum-secure mitigation strategies
- Identify and select the quantum-resistant cryptographic schemes most relevant to each use case
- Conduct IoT device testing for side-channel vulnerabilities that can be amplified by quantum attacks
- Carry out audits on quantum-resistant cryptographic code
- Benchmark quantum security devices such as QKD and TRNG

Commenting on the cyberthreat of scalable quantum computers, Gagliardoni says: “There are certain security and privacy applications, such as genomics, military, aviation, international relations, where the life span of secrets is much longer. These sectors cannot afford to overlook the quantum threat today and wait for hackers to use this technology to break encryption schemes.”

¹ Gartner (2020) Emerging Technology Analysis: Act Now on Quantum-Safe Encryption or Risk Losing Deals

Gagliardoni will be presenting further research, 'Quantum Security and Cryptography: You Are (Probably) Doing it Wrong' at [Black Hat Europe](#), December 7-10, 2020.

Any organization investigating the potential impact of quantum computing on the long-term security and assurance of their data should [contact Kudelski Security](#) for an exploratory consultation.

About Kudelski Security

Kudelski Security is the premier advisor and cybersecurity innovator for today's most security-conscious organizations. Our long-term approach to client partnerships enables us to continuously evaluate their security posture to recommend solutions that reduce business risk, maintain compliance and increase overall security effectiveness. With clients that include Fortune 500 enterprises and government organizations in Europe and across the United States, we address the most complex environments through an unparalleled set of solution capabilities including consulting, technology, managed security services and custom innovation. For more information, visit www.kudelskisecurity.com

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