

SCI Semiconductor & ResQuant announce partnership for PQC algorithm acceleration on advanced CHERI-enabled devices

SCI Semiconductor & ResQuant announce partnership to advance NIST post-quantum cryptography algorithm acceleration on advanced CHERI-enabled processor devices

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EINPresswire.com/ -- Cambridge,
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11th November 2024 – [SCI](#)

[Semiconductor](#), a UK-based developer of [CHERI](#) enabled high-integrity silicon devices and [ResQuant](#), a leader in advanced PQC accelerators, today announced the signing of a memorandum of understanding (MoU) to develop joint solutions targeting low-power high-security microprocessor and microcontroller devices.



SCI Semiconductor & ResQuant are developing PQC and CHERI-enabled secure processors

This MoU reflects their shared vision to develop joint solutions to target advanced security systems – Safe IoT – across sectors with high-integrity, high-confidentiality & low-power requirements, including smart energy and critical infrastructure, aerospace and defense, telecommunications, automotive, industry 4.0, and medical domains.

Under the MoU, SCI Semiconductor & ResQuant will collaborate on long-lifetime, high-integrity, and high-availability post-quantum cryptographic enabled solutions built to endure and protect in a rapidly evolving global landscape.

This partnership will leverage ResQuants' innovative customizable PQC accelerator technology, supporting the recently announced US NIST (National Institute of Standards and Technology) algorithms, taking cryptography and protection of critical data to a new level. By integrating this technology with SCI Semiconductor's deep expertise in high-integrity silicon design and CHERI (Capability Hardware Enhanced RISC Instructions) technology, the partnership will create secure, memory-safe semiconductor solutions tailored for long-term, robust protection in industries with the highest security demands.



Systems based on Memory Safe CHERI technology, and the ICENI device family based on the Microsoft CHERIOT-Ibex processor core, are central to resolving over 70% of critical vulnerabilities & exploits”

Haydn Povey, CEO SCI Semiconductor

Haydn Povey, Chief Executive of SCI Semiconductor, said: “The partnership of SCI and ResQuant is very exciting to us, as it enables the development of high-integrity, high-confidentiality, and high-availability digital systems for next generation critical infrastructure, and beyond. Systems based on Memory Safe CHERI technology, and the ICENI device family based on the Microsoft CHERIOT-Ibex processor core, are central to resolving over 70% of critical vulnerabilities & exploits (CVE). With the additional integration of high-grade PQC accelerators we believe the industry now stands on the edge of providing long-term security resolutions for a raft of operational technologies

that will underpin net-zero smart energy distribution and consumption; next-generation defense applications; and future autonomous automotive platforms.”

Sven Zagala, CEO and Co-Founder of ResQuant, said: “The continuing and increasing threat of “harvest now and decrypt later” echoes around the industry. The rapid adoption and rollout of post-quantum cryptographic algorithms in next generation systems is paramount to protect critical infrastructure, medical and industrial appliances, and our collective defence needs. We are excited to be working with the experts at SCI Semiconductor to take this conversation to the next level and bring combined PQC and memory-safe security solutions to the market”.

About SCI Semiconductors

SCI Semiconductors is a founder member of the CHERI Alliance and was formed to lead the commercialization of CHERI technologies through their ICENI device family, leveraging the Microsoft CHERIOT-Ibex core. With a strong focus on secure and high-integrity computing, the organization has built a team of recognized industry leaders, with decades of leadership in security, processor IP and chip design, and high-integrity software.

For more information, visit <https://www.scisemi.com>

About ResQuant

ResQuant, founded in Poland in 2020, has been developing hardware Post Quantum Cryptography: in FPGA plug-in cards today and silicon chips for Secure IoT devices of tomorrow. Growing out of the Cryptography Department of the Warsaw Military University, ResQuant focuses on Safe IoT and dual-use of embedded security systems.

For more information, visit <https://www.resquant.com>

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