Riscure and Amlogic Partner to Integrate Quantum-Safe Security in S905X5

SANTA CLARA, CA, UNITED STATES, September 11, 2024 /EINPresswire.com/ -- Riscure, the leading global provider of security testing services, and Amlogic, a world leading fabless semiconductor company, announce their collaboration on the security evaluation of a post-quantum cryptography (PQC) algorithm implementation in Amlogic's latest chipset solutions. This strategic partnership aims to safeguard next-generation devices against future threats posed by quantum computing.

With the advent of quantum computing, conventional cryptographic algorithms are increasingly vulnerable to new forms of cyber-attacks. Post-quantum cryptography (PQC) represents the forefront of cryptographic research designed to withstand the power of quantum computers. By embedding NIST standardized CRYTSTALS-Dilithium post-quantum cryptography (PQC) algorithm into 6nm Flagship SoC for Next-Gen 4K Ultra-HD Smart Set-Top Boxes, the Amlogic S905X5, the collaboration ensures that connected devices, including smart Set-top Boxes, TVs, and IoT applications, will remain secure well into the quantum era.

The secure implementation of a PQC algorithm is a crucial step in the process of introducing PQC into a solution. The evaluation project involved a comprehensive design review, source code analysis, penetration testing, and reporting, all aimed at enhancing the product's security and verifying the robust integration of CRYSTALS-Dilithium, particularly its resilience against single glitch fault attacks.

Durga Ramachandran, Innovation Director at Riscure, commented: "The need to secure embedded systems has never been more critical. These systems, which are integral to applications ranging from automotive to IoT devices, face significant risks due to their long service life and exposure to physical attacks. Implementing post-quantum cryptography in such constrained environments presents unique challenges, particularly where processing power, memory, and energy are limited. At Riscure, we are committed to overcoming these challenges, supporting vendors in building robust and resilient security solutions for the future."

The Amlogic's S905X5 chipset, renowned for its high performance and energy efficiency, also features enhanced security mechanisms. The integration includes state-of-the-art cryptographic algorithms, resilient against quantum attacks, ensuring device integrity and confidentiality for users worldwide.

"We are thrilled to partner with Riscure in fortifying our products with cutting-edge PQC solutions. Amlogic always prioritizes information security in our system-on-chip (SoC) designs. As quantum computing continues to grow, we need to ensure that we will be threat-resistant when quantum computers become available to malicious actors," - said James Xie, Senior Vice President of Corporate Business Strategy at Amlogic.

The partnership leverages Riscure's extensive experience in security evaluation and Amlogic's innovation in semiconductor technology, paving the way for secure, future-proof digital ecosystems. Both companies are committed to ongoing research and development to stay ahead of the evolving cybersecurity landscape.

About Riscure
Riscure is a leading vendor of security tools and training for edge devices. Riscure tooling helps global technology leaders to build robust hardware and software solutions. Riscure security analysts bring top-notch security expertise to development teams and aim to run no-pain certification projects. Built on a wealth of security research and extensive practical experience, Riscure is well recognized for its technical leadership. Riscure serves Semiconductor, Mobile Security and Mobile Payment, Automotive and Premium Content industries as well as the Government sector.
For more information, visit www.riscure.com

About Amlogic
Amlogic is a world leading fabless semiconductor company that specializes in the design, development, and application of high-intelligence system-on-chips (SoC's). As a result of our cutting-edge technologies and best-in-class solutions, we have actively expanded into new areas including edge AI processors, wireless connectivity, and automotive electronics, ushering in a new era of smart life. By providing complete turnkey solutions in combination with industry-leading software and hardware technologies, including multimedia processing, AI accelerators, state-of-the-art security systems, advanced CPU and GPU's, customers can rapidly optimize and develop market-leading products with world class. Amlogic is dedicated to sustainability and therefore implements state of the art silicon processing techniques along with advanced power management solutions. Amlogic is founded in Silicon Valley, with R&D, support, and sales offices worldwide.
For more information: www.amlogic.com

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