



Renesas Technology Europe Ltd.

Service: Smart Card Security Testing



Company

Renesas Technology Corp. designs and manufactures highly integrated semiconductor system solutions for mobile, automotive and PC/AV markets. Established on April 1, 2003 as a joint venture between Hitachi, Ltd. (TSE:6501, NYSE:HIT) and Mitsubishi Electric Corporation (TSE:6503) and headquartered in Tokyo, Japan, Renesas Technology is one of the largest semiconductor companies in the world and world leading microcontroller supplier globally. Besides microcontrollers, Renesas Technology offers system-on-chip devices, Smart Card ICs, mixed-signal products, flash memories, SRAMs, and more.

Renesas Technology Europe is a wholly owned subsidiary of Renesas Technology Corp.

Business Issue

Developing and testing semiconductors for today's marketplace is increasingly complex, particularly where the requirement for the high security of smart card components is concerned.

As a major player in the global smart card market, Renesas has invested significant resources in its Smart Card IC design, development and manufacturing capabilities to ensure that the functionality, quality, reliability - and security - of its devices meet the market's most demanding requirements.

Smart Card systems are now being introduced into many different application areas around the world. Particularly where government projects (such as health, ID, passport) are concerned, the need for stringent security assessment is mandatory. This has led to the increased use of independent security evaluation schemes such as the Common Criteria, as well as the proprietary ones used by various financial organizations.

In order to complement Renesas' own extensive security testing, there is a need for independent verification of the security capabilities of its Smart Card ICs - in order to provide the necessary security assurance to Renesas' customers and to the marketplace. One of the ways that Renesas seeks to do this is through the use of a third party consultant with leading edge security expertise and test equipment.

SiVenture's Solution

SiVenture was selected by Renesas to provide specific security testing of Smart Card ICs, based on a number of key factors: the skills and expertise of their security analysts; their access to leading edge test and analysis equipment; their experience of many evaluation and certification schemes; and their people's experience of Renesas ICs.

As Mike Paterson, Security Manager for Renesas Technology's European Mobile Security Group, comments "Trust and leading-edge capabilities are fundamental in our day-to-day working relationship with the team at SiVenture and these are the basis of our successful and ongoing partnership. Members of our AE-4 series of Smart Card devices have already achieved the highest possible resistance to attack rating in the international Common Criteria evaluation scheme. With SiVenture's assistance, we intend to build on this success to continue to meet our customers' security requirements."



Benefits

Renesas benefits from SiVenture providing a concentration of relevant skills and experience and a comprehensive range of tools and equipment dedicated to security analysis, together with a flexible and cost-effective approach to managing investigations where the findings cannot always be predicted.

Renesas receives an independent assessment of specific aspects of its Smart Card chips' security performance. This feedback from SiVenture is used both to demonstrate ICs' security capabilities and to refine Renesas' product designs.

Mike concludes that, "Renesas continues to promote 'appropriate and verifiable' security for its Smart Card ICs, and, as a partner in our ongoing security testing and analysis programme, SiVenture can continue to play a key role in this as we develop new leading-edge technologies and new products."

About SiVenture

For more details about SiVenture and our complete portfolio of smart card consulting and laboratory services, please contact us at: www.siventure.com

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