



JOINT PRESS RELEASE

INSTITUTE OF MICROELECTRONICS AND WATCHDATA TECHNOLOGIES PTE LTD SEALED A RESEARCH COLLABORATION TO DEVELOP ON MOBILE PAYMENT SOLUTIONS

Singapore, 19 May 2010 - The Institute of Microelectronics (IME), a research institute of the Agency for Science, Technology and Research (A*STAR), and Watchdata Technologies Pte. Ltd., a pioneer in data security and smart card technology solutions, today announced their partnership to develop on mobile payment solutions.

Mobile phones have gained an increased importance in the sector of Information and Communication technologies for development in the 2000s. The options to purchase goods and services over the internet are now made available on mobile phones. Mobile payment is a new and rapidly-adopting alternative payment method. Consumers can now pay for their transactions of goods and services with their mobile phones without the use of cash or payment cards.

Near Field Communication (NFC) is one of the primary models for mobile payments. It consists of a NFC component, an antenna and the secure element (SIM card) where host applications (e.g. payment application) are stored. The current solution is restricted to specific mobile phones and cannot be widely adopted. Recognising this limitation, IME and Watchdata work together for a unified solution.

The research development will leverage on IME's innovative ASIC solution and Watchdata's expertise in system implementation to develop a contactless ASIC for use in SIM card along with SIM IC and microcontroller for contactless payment application. This solution can be implemented and universally used in any mobile phone. Users will be able to use his or her mobile phone to launch contactless applications in order to perform a payment. Through the contact interface, the SIM acts as a standard SIM card to execute subscriber's identity authentication to the mobile phone.

The contactless feature can be used for services such as transportation, movie ticketing, mobile banking, access control and even retail outlets.

Said Professor Dim-Lee Kwong, Executive Director of IME, "The NFC-based contactless technology that IME is co-developing with Watchdata will provide a major breakthrough in the mobile payments market because of the convenience it offers to the industry and consumers. This development is set to be an extension of existing

options available in the mobile payments market which is expected to soar to \$630 billion¹ in value by 2014.”

Michael Yu, President of Watchdata International Business Operations, said: “The collaboration with IME is a clear indication that Watchdata is committed in providing innovative mobile payment solution that will enable the mobile phone to become a powerful payment device. This also brings us one step closer in providing an interoperable platform that bridges multiple sectors. Ultimately, consumers can look forward to do banking, transit, retail payment and mobile telecom transactions via their mobile phone.”

¹ According to Juniper Research: *Mobile Payment Markets: Strategies & Forecasts 2010-2014*, April 2010.

About the Agency for Science, Technology and Research (A*STAR)

The Agency for Science, Technology and Research (A*STAR) is the lead agency for fostering world-class scientific research and talent for a vibrant knowledge-based and innovation-driven Singapore. A*STAR oversees 14 biomedical sciences, and physical sciences and engineering research institutes, and nine consortia & centre, which are located in Biopolis and Fusionopolis, as well as their immediate vicinity.

A*STAR supports Singapore's key economic clusters by providing intellectual, human and industrial capital to its partners in industry. It also supports extramural research in the universities, hospitals, research centres, and with other local and international partners.

For more information about A*STAR, please visit www.a-star.edu.sg.

About the Institute of Microelectronics (IME)

The Institute of Microelectronics (IME) is a research institute of the Science and Engineering Research Council of the Agency for Science, Technology and Research (A*STAR). Positioned to bridge the R&D between academia and industry, IME's mission is to add value to Singapore's semiconductor industry by developing strategic competencies, innovative technologies and intellectual property; enabling enterprises to be technologically competitive; and cultivating a technology talent pool to inject new knowledge to the industry. Its key research areas are in integrated circuits design, advanced packaging, bioelectronics and medical devices, MEMS, nanoelectronics, and Silicon photonics.

For more information, visit IME on the Internet: <http://www.ime.a-star.edu.sg>.

About Watchdata Technologies Pte Ltd

Watchdata is a well-established and recognized pioneer in data security and smart card technology solutions. Watchdata offerings include SIMpass™ mobile payment solution, digital signature and authentication solutions, embedded security access module and the award winning TimeCOS® operating system that is widely used in the fields of cashless payment, e-commerce, health and social services. Watchdata serves numerous markets including mobile telecommunication, transportation, social security, finance, identification, public utilities and e-government.

Watchdata currently operates in Asia-Pacific, Europe, Latin America, Africa and the Middle East.

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