

# Signcryption technology tightens cyber security

January 9 2012

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Signcryption is a technology that protects confidentiality and authenticity, seamlessly and simultaneously.

For example, when you log in to your online bank account, signcryption prevents your username and password from being seen by unauthorized individuals. At the same time, it confirms your identity for the bank.

UNC Charlotte professor Yuliang Zheng invented the revolutionary [new technology](#) and he continues his research in the College of Computing and Informatics. After nearly a three-year process, his research efforts have been formally recognized as an international standard by the International Organization of Standardization (ISO).

News of the ISO adoption comes amidst daily reports of [cyber attack](#) and [cyber crime](#) around the world. Zheng says the application will also enhance the security and privacy of cloud computing.

“The adoption of signcryption as an international standard is significant in several ways,” he said. “It will now be the standard worldwide for protecting [confidentiality](#) and [authenticity](#) during transmissions of digital information.”

Known as the father of the signcryption technology, Zheng is internationally recognized as an authority in cryptography and network security. He has published more than 200 scholarly articles and books on security and holds several patents in cyber security. His most recent

publication “Practical Signcryption” is currently on sale worldwide.

“This will also allow smaller devices, such as smartphones and PDAs, 3G and 4G mobile communications, as well as emerging technologies, such as radio frequency identifiers (RFID) and wireless sensor networks, to perform high-level security functions,” he said. “And, by performing these two functions simultaneously, we can save resources, be it an individual’s time or be it energy, as it will take less time to perform the task.”

Provided by University of North Carolina at Charlotte

Citation: Signcryption technology tightens cyber security (2012, January 9) retrieved 21 July 2024 from <https://phys.org/news/2012-01-signcryption-technology-tightens-cyber.html>

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