# Vertexcom Strengthens Security Protection of IoT Communication

*Vertexcom Strengthens Security Protection of IoT Communication Provide a proven Wi-SUN FAN 1000 node mesh network encryption architecture for networking*

ZHUBEI CITY, HSINCHU COUNTY, TAIWAN, March 20, 2020 /EINPresswire.com/ -- Vertexcom Technologies, a world-class fabless semiconductor company delivering smart grid and IoT communication solutions, is committed to expanding the scale and reliability of Wi-SUN FAN networks and strengthening information security protection, deploying 1,000 Wi-SUN FAN node mesh network in Vertexcom office area, and integration through the local public-key infrastructure (PKI), to provide security authentication for each device on the network to ensure that the device will not be maliciously modified to provide customers with enterprise-level information security protection.

Vertexcom completed the mesh network of 1000 Wi-SUN FAN nodes in 2019, and the networking time only takes 30 minutes. In order to improve the security protection of IoT communication, Vertexcom continuously optimizes the mesh network and strengthens the security protection. Under the encryption architecture based on IPv6 identity authentication, it provides a verified network security authentication mechanism.

The key is that Wi-SUN FAN uses the powerful AES (Advanced Encryption Standard) link layer security function of IEEE 802.15.4 to provide packet encryption, and uses IETF EAP-TLS for network authentication, and IEEE 802.11i for key management. It means that each node of the Wi-SUN FAN mesh network not only has message
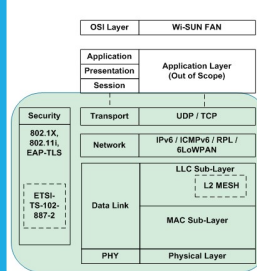


Wi-SUN technology has long-distance transmission and low power consumption to meet the demand of smart grid and IoT market



Vertexcom Technologies is a chip design company that provides communications solutions for IoT and smart grids.



Wi-SUN FAN Stack Overview

encryption and authenticity check but also needs authentication before entering the network.

Dr. HH Li, President of Vertexcom Technologies. said that due to the large number of IoT nodes, which are vulnerable to external attacks, the Wi-SUN FAN feature supports the IPv6 protocol, which can realize IP based device authentication and encrypted communication. Each node stores a trusted encrypted digital credential to prove that the node is indeed authorized to communicate with other devices on the network. The strict inspection process can ensure that the network is not deliberately installed by the hacker, or the equipment is not tampered or installed with malicious software, which effectively improves the network security and effectively solves the problem that every connected device is security leaked node.

IoT communication requires an excellent security solution. Wi-SUN Alliance proposes a mesh network topology, open standard, and certification, which are three important factors of an information security solution.
A mesh network can maintain continuous connections between nodes in the network and can reduce deployment interruptions and security vulnerabilities. The open standards are carefully designed and reviewed by many experts. Through continuous analysis of vulnerabilities and updates if necessary, experts can help improve their security instantly; on the other hand, if a proprietary protocol created by a company, it cannot learn from the expertise and experience of many experts.

Wi-SUN FAN is based on the certification of IEEE 802.15.4g, IEEE 802 and IETF IPv6 open standards, which makes the certified products must be strictly tested by independent third-party test laboratory to ensure that all devices can be interconnected and work together safely.

About Vertexcom Technologies
Vertexcom Technologies, is a long range, large scale, auto network of IoT and smart grid communication chip and networking software design company. It provides low-cost Wi-SUN, PLC and integrated dual-mode communication solutions. www.vertexcom.com

About the Wi-SUN Alliance
Wi-SUN Alliance was established in 2012 and is a global non-profit organization. The vision of Wi-SUN Alliance is based on the mesh network protocol IEEE 802.15.4g specifications, providing strong product connectivity through testing and certification programs, developing Wi-SUN ecosystem, and achieving the interoperability of communication networks in smart cities and smart utilities. https://www.wi-sun.org/

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