

Far EasTone Telecommunications Partners with GENEViSiO and NXP to Develop Next-Generation 5G Fronthaul Solution

Far EasTone Telecommunications Partners with GENEViSiO and NXP Layerscape Processor to Develop Next-Generation 5G Fronthaul Switching Solution

TAIPEI, TAIWAN, March 6, 2025 /EINPresswire.com/ -- Taipei, Taiwan – [2025/3/4] – Far EasTone Telecommunications (FET) and GENEViSiO have partnered with global semiconductor leader NXP to introduce a software-defined fronthaul switching technology designed on the NXP Layerscape® LX-2160 multi-core ARM® SoC platform. This high-performance, telecom-grade networking technology will significantly enhance the scalability of 5G networks and address challenges in network deployment.

FET stated that, in addition to the traditional backhaul architecture used in mobile communication networks, the original 5G network design also introduced the eCPRI architecture to further simplify the equipment used at base stations. By utilizing fiber-optic networks, computationally intensive Baseband Units (BBUs) can be centralized in a data-center-like environment, forming what is known as a Baseband Hotel, which optimizes network management and reduces operational costs. However, due to constraints in fiber-optic network resources and environmental limitations, the Baseband Hotel architecture has not been widely adopted in most 5G networks. Instead, most base stations continue to operate independently with their own BBUs, leading to resource fragmentation and suboptimal efficiency.

Nevertheless, if existing Baseband Units serve as core nodes and 5G fronthaul technology is leveraged to extend 5G Remote Radio Units (RRUs), it remains a cost-effective approach to expanding 5G signal coverage. This is the key motivation behind FET's continuous exploration of fronthaul technology.

GENEViSiO, utilizing NXP LX2160-DPAA2 telecom-grade Ethernet and acceleration systems along with its leading IEEE 1588 precision time synchronization technology, has achieved the following key technical breakthroughs:

- Overcoming the 50km Fiber Distance Limitation with Packet Delay Control: Through advanced time synchronization techniques, this solution ensures stable and precise network performance over long fiber transmission distances, making it ideal for suburban and remote deployments.
- Maximizing Utilization of Existing Fiber Resources: Particularly beneficial in urban environments, this technology reduces excavation requirements, lowers deployment costs, and

improves fiber utilization efficiency.

- Simplifying Radio Unit (RU) Expansion: Operators can seamlessly expand 5G radio networks without replacing existing Baseband Units (BBUs), reducing upgrade costs and technical barriers.

As a leader in Taiwan's 5G technology innovation, FET remains committed to advancing telecommunications technology and fostering a more flexible and open telecom ecosystem. This software-defined fronthaul switching solution will further enhance the efficiency, reliability, and scalability of 5G networks.

About Far EastTone Telecommunications (FET)

Far EastTone Telecommunications (FET) is a leading telecommunications service provider in Taiwan, dedicated to driving innovation in mobile communications and digital transformation. FET continues to invest in 5G, IoT, and AI technologies, providing a solid foundation for future smart applications.

□ Learn more at <https://www.fetnet.net>

About GENEViSiO

GENEViSiO is a 5G product brand under GVTel Co., Ltd., specializing in inline acceleration cards, open-fronthaul small cells, and fronthaul transmission technology. By integrating the latest network acceleration innovations, GENEViSiO continues to drive the development of next-generation high-performance 5G networks.

□ Learn more at <https://www.genevisio.com>

About NXP Semiconductors

NXP Semiconductors (NASDAQ: NXPI) is committed to providing secure connectivity and infrastructure solutions for a smarter world. With over 60 years of experience and expertise, NXP continues to drive a more connected, efficient, and secure society.

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