

# Self-organizing network software support for QorIQ Qonverge base station-on-chip portfolio

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Wireless infrastructure technology leaders Freescale Semiconductor and AirHop Communications are establishing solutions that integrate Freescale's high-performance QorIQ Qonverge processors with AirHop's eSON advanced self-organizing network (SON) software to speed deployment of heterogeneous networks (HetNets) around the world.

While adding small cell base stations to the world's networks increases capacity and complements traditional macrocell base stations, it challenges service providers to coordinate and manage interaction between growing numbers of network cells. AirHop eSON software support for QorIQ Qonverge processors is designed to facilitate the coordination of macrocell [base stations](#) and small cells, optimizing mobile traffic via dynamic load balancing and inter-cell interference management. This allows QorIQ Qonverge customers to accelerate 4G system deployment and optimize broadband coverage of HetNets.

"Leading [wireless infrastructure](#) equipment OEMs worldwide are leveraging the performance, scalability and energy efficiency of Freescale's QorIQ Qonverge base station-on-chip portfolio to create world-class products for the rollout of heterogeneous 4G LTE networks," said Tareq Bustami, vice president of Product Management for Freescale's Digital Networking business. "Combining QorIQ Qonverge processors with highly advanced SON software from AirHop will help our customers get to market sooner, maximize ease of use and

take performance to new levels."

The QorIQ Qonverge portfolio is comprised of integrated base station-on-[chip devices](#) built on advanced heterogeneous multicore technology. The broad family of products addresses multi-standard requirements scaling from residential femto to macro cells with a common architecture.

AirHop's advanced RAN Intelligence solutions manage interference and optimize system capacity in multi-cell and multi-layer network configurations. AirHop's eSON software suite provides real-time optimization of available radio resources via multi-cell coordination to effectively provide coverage, capacity and quality of service (QoS) for each cell and individual user. This is especially critical in HetNet deployments where a large number of supplemental small cells can exist within a macrocell coverage area.

AirHop's eSON software enables carriers to deploy small cells on an as-needed basis, leading to significant opex savings. It also improves network capacity by utilizing real-time, multi-cell coordination and optimization. This continuous optimization is performed in hundreds of millisecond intervals and can improve overall data throughput by 10 to 40 percent. AirHop's eSON software can be deployed in fully distributed, centralized or hybrid architectures and, for maximum flexibility, can be located in the cloud and in a variety of network edge devices.

"Freescale's highly advanced QorIQ Qonverge base station-on-chip portfolio provides an excellent platform for our real-time optimization [software](#)," said Hanson On, co-founder and vice president of Engineering for AirHop. "Upon completion of the integration, we will be able to offer our customers a best-in-class solution and enable large-scale HetNet deployments."

**More information:** [www.freescale.com/webapp/sps/s...  
tid=vanqoriqqonverge](http://www.freescale.com/webapp/sps/s...tid=vanqoriqqonverge)

Provided by Freescale Semiconductor

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