



Samsung Announces Complete Portfolio of Commercial 5G Products and Solutions

Portfolio to provide foundation for the first commercial 5G network launches expected in 2018

Barcelona, Spain (February 26, 2017) – At a press conference held at the Palau de Congressos de Catalunya today, Samsung Electronics unveiled its end-to-end portfolio of 5G mobile network products and solutions for 2017. Showcased products included consumer devices for fixed wireless access connectivity, a 5G Radio Base Station (5G Access Unit), Next-Generation Core Network infrastructure and more. With pre-commercial versions of the equipment already under deployment in trial networks across the globe, Samsung's commercial 5G portfolio is backed by a continually growing foundation of experience, knowledge and concrete trial results.

"Samsung has been focused on 5G R&D for nearly half a decade, and this portfolio launch represents the culmination of a lot of hard work and industry engagement," said Paul Kyungwhoon Cheun, Executive Vice President and Head of Next Generation Communications Business Team at Samsung Electronics. "With pre-commercial deployment of our 5G products already underway in the US, we're starting to see some of the earliest evidence of the potential for new and compelling 5G-driven services – it will be exciting to see it evolve as we move forward on our roadmap."

At the Network Edge

While Samsung has been a long-time vendor of 3G and LTE home femto products, Samsung's compact 5G Home Router (Customer Premise Equipment, or CPE) represents exploration of new territory - from extending the mobile network towards planting a new fixed wireless network. The 5G Home Router will provide direct and straightforward connectivity to the wireless network, with the simple placement of the 5G Home Router in a window facing a nearby 5G Radio Base Station. A peak data rate of up to 1Gbps will allow service providers to dimension networks that provide an attractive alternative to often-costly FTTH deployments.

The 5G Radio Base Station itself is a natural extension of today's LTE small cells, designed to be installed in a dense configuration that allows for very high network capacities. The system supports 28GHz mmWave spectrum – a common frequency in leading 5G markets – and is capable of providing up to 10Gbps among devices within its coverage range. With an emphasis on compact size and easy installation, Samsung aims to make 5G network deployments less resource-intensive compared to today's LTE small cell deployments.

A Fully Virtualized Core Network

As the centralized point of control and direction for network traffic, the core network plays a critical role, and Samsung's Next-Generation Core Network infrastructure provides a significant leap in performance and flexibility in line with the requirements and demands of emerging connectivity use cases. With a shift to a software-driven architecture, the virtualized core gains the ability to flexibly split network resources, and even individual network functions, in order to maintain peak operational efficiencies. One example of this is the ability to allow data-heavy internet-bound traffic to exit the service provider's network closer to the user, reducing the potential for congestion within the operator's network, while potentially improving service responsiveness for users.

Network-wide Management Capabilities

The shift towards a virtualized, or software-driven, network architecture brings a greater degree of complexity in managing the various systems as well as the highly dynamic configuration and traffic routing potential. By leveraging similarly powerful Maintenance and Operation (MANO) systems, as well as localized virtual Element Management Systems (EMS), Samsung can ensure that each component of the network is running at peak efficiency, and in full coordination with the network overall. The network management systems are designed to handle the complexities of next-generation architectures while providing network operations staff with intuitive controls to manage and fine-tune service delivery and network performance.

From Here to Commercial Launch

With pre-commercial versions of these products and solutions already under deployment with operators in the US, Korea and Japan, Samsung's 5G product portfolio represents the final leg of the journey towards industry 5G adoption. Leveraging additional experience from trials planned for 2017, Samsung's 5G products will drive the first wave of commercial 5G deployments and will help to ensure a successful and smooth introduction of entirely new services and use cases as the mobile industry ushers in a new era of connectivity. Going forward, Samsung will focus on extending its 5G portfolio with support for Below 6GHz 5G connectivity. Adopting 3GPP Release-15 specifications is another priority, and Samsung's 5G portfolio is designed to be upgradable to 3GPP standards as they are finalized.

Samsung also showcased the launch of its 5G RFIC and ASIC modem chipsets that will power the next generation of 5G network infrastructure, including Samsung's 5G Home Router and 5G Radio Base Station products – more details on the showcase can be found [here](#).

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