

# Milestone moment for 5G as Broadband Forum delivers recommendations for converged 5G core network to 3GPP

Broadband Forum-orchestrated feedback from major global operators and vendors will open doors for the leveraging of fixed and mobile networks to unlock new service capabilities

**A milestone moment in developing a converged 5G core network, addressing both fixed and mobile networks, has been reached after Broadband Forum delivered detailed recommendations to 3GPP.**

However, as new approaches and technologies evolve, a reexamination of existing networks is needed to ensure a more responsive, agile ecosystem, capable of encouraging new revenue opportunities while reducing operational costs.

The proposals made by Broadband Forum were created at the request of carriers that participate in both Broadband Forum and 3GPP and were developed after a comprehensive cycle of iterative feedback between the two organizations. The suggestions address the common interfaces for access networks and 5G core networks to support the convergence of wireline and wireless networks. Detailed recommendations on a number of interfaces in the context of fixed 5G have been passed on to 3GPP, which will allow its members to evaluate the interfaces that run between the 5G core and the fixed network. In addition to this, recommendations on signaling changes and enhancements were also provided, addressing how wireless access can be fully integrated into the 5G core.

David Aders, (Acting) Executive Converged Control Plane Engineering at Telstra Corporation, one of the operators which contributed significantly to the recommendations, said: "The Fixed Mobile Convergence vision is an important enabler for Telstra in line with our Network Technology vision to provide our customers with services that can span all access technologies in a consistent and unified manner.

The alignment and collaboration between Broadband Forum and 3GPP are essential to delivering an ecosystem that is truly game changing and providing a globally supported framework for operators such as ourselves to develop many next generation services."

Alex Jinsung Choi, Senior Vice President Strategy and Technology Innovation at Deutsche Telekom Group, another operator that contributed significantly, said: "Our vision for 5G is to deliver a seamless experience for our customers across all their devices, whatever the access type. Implementing a converged and integrated core network is the key to unlock this converged services approach. We welcome this important contribution to ensure a globally standardized approach to achieve Fixed Mobile Convergence."

As part of its efforts to drive Fixed Mobile Convergence (FMC), Broadband Forum is also developing a specification for a 5G Access Gateway Function (AGF) that adapts fixed access onto the 5G core, specifications for 5G-capable Customer Premises Equipment (CPE), and specifications which address the interworking of existing fixed access subscribers and deployed equipment into a 5G core that encompass a variety of deployment scenarios. This will enable the integration of wireless and wireline technologies, empowering operators to create powerful new converged service offerings.

"This is an exciting moment for the 5G market, as well as for Broadband Forum, 3GPP and their memberships," said Dave Allan, Broadband Forum's Wireless and Wireline

Convergence Work Area Director. "As we reach this milestone in our work on Fixed Mobile Convergence, we are able to deliver the detailed feedback and recommendations which will drive the core convergence of fixed and mobile networks. In many ways this is just the beginning and, as Release 16 progresses and 5G further expands, our work with 3GPP will continue to ensure standardization of this new technology is successful. With 5G promising a variety of new and innovative applications such as autonomous driving and healthcare, this work is crucial to enabling converged operators to unlock these opportunities – empowering them to deliver a uniform experience to their customers irrespective of the access media type, technology, or appliance they are using."

The scope of the work in cooperation with 3GPP forms the backbone of a converged network, which will enable the efficient delivery of 5G services over various access networks, including fixed broadband access, WLAN, 3GPP-defined radios, Bluetooth and many more. This unlocks capabilities to access services provided by the 5G network using non-3GPP access – ensuring users can seamlessly switch between fixed and mobile networks without compromising their connectivity.

"Through our work on 5G, we are delivering a network for enhanced user experiences - enabled by ultra-fast data connections, an open and flexible architecture and mobility," said Georg Mayer, 3GPP Core Networks and Terminals Group Chair. "The recommendations from Broadband Forum allow us to develop a truly access agnostic and common 5G core network, which will allow seamless user and service mobility between 3GPP and non-3GPP accesses."

The new specifications developed by 3GPP and Broadband Forum – which will either form a part of or complement 3GPP's Release 16 specifications, due for publication at the end of 2019 – marks the important role of the fixed network in supporting 5G. The joint work of the two organizations will continue in the run up to and following the publication of 3GPP's Release 16 specifications and will expand as 5G networks are built out and start to evolve.

Within Broadband Forum, further work has been carried out to address the design requirements of 5G and the technology enablers which will drive both mobile and fixed developments, as well as liaison with other industry alliances, including NGMN, which aims to address the

functionality and performance of next generation mobile networks.

"Two years ago, ten of the world's biggest operators came to us with their concerns that the 5G infrastructure which was being developed would not let them take advantage of both their wireless and wireline networks," said Geoff Burke, CMO of Broadband Forum. "Today, we are able to deliver a set of recommendations which will not only address how the 5G core can be evolved to support the fixed networks of these operators but provide them with the capabilities to launch new innovative combined subscriber offerings."

For a summary of Broadband Forum activities in 5G fixed-mobile convergence, watch this video from Broadband Forum's Wireless and Wireline Convergence Work Area Director Dave Allan.

To find out more about Broadband Forum, please visit: [www.broadband-forum.org](http://www.broadband-forum.org)

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*A non-profit industry organization composed of the industry's leading broadband operators, vendors, and thought leaders, our work to date has been the foundation for broadband's global proliferation and innovation. For example, the Forum's flagship TR-069 CPE WAN Management Protocol has nearly 1 billion installations worldwide.*

*Broadband Forum working groups collaborate to define best practices for global networks, enable new revenue-generating service and content delivery, establish technology migration strategies, and engineer critical device, service & development management tools in the home and business IP networking infrastructure. We develop multi-service broadband packet networking specifications addressing architecture, device and service management, software data models, interoperability and certification in the broadband market.*

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