



Copper path can lead to fiber dividends says Broadband Forum

Broadband Forum's technical report TR-419 explores the integration of complementary copper technologies such as MoCA Access, G.fast, and G.hn-based Access

Fremont, California, 18 February 2021 – For telecom operators and service providers seeking to roll-out future-proofed fiber-grade services, Broadband Forum has published its latest technical report to help ensure that homes and businesses have access to faster, more reliable broadband connectivity by harnessing the copper infrastructure.

The [TR-419](#) (Fiber Access Extension over Existing Copper Infrastructure) report shows how fiber-based access can be provided to customers by utilizing existing copper infrastructure as opposed to the installation of fiber to end-users' premises, which may not be economically or physically viable. FTTEp (Fiber to the extension point) lets service providers deploy fiber-grade services by leveraging the last meters of copper to extend the fiber network without lowering quality when compared to complete FTTH (Fiber to the home) networks.

"Fiber network technology promises multi-gigabit broadband services, and investment is only set to grow as the industry looks to enhance businesses' and end-users' connected experience," said Broadband Forum's Work Area Director of the Physical Layer Transmission Work Area Herman Verbueken. "With higher costs associated with installing fiber directly to the premises, by adopting the FTTEp architecture operators and providers will be able to deliver ubiquitous connectivity to all corners of customers' homes and commercial premises."

More economic deployments, less likely to be hampered by extensive construction work, can be realized by service providers and telecom operators by integrating complementary copper technologies such as Multimedia over Coax Alliance (MoCA) Access, ITU-T G.fast, or ITU-T G.hn-based Access and reusing existing phoneline and coaxial cables. With the ability to extend the fiber network with copper-based Point-to-Point (P2P) and Point-to-Multipoint (P2MP) infrastructure, residential and business end-users will have access to multi-gigabit services.

"The collaboration on TR-419 among industry associations, such as HomeGrid Forum, MoCA and Broadband Forum, ensures service operators stay ahead of customer demands with cost-effective deployment options and managed services," said Dr. Leonard Dauphinee, Vice



President and CTO of Broadband Products at MaxLinear. "Broadband Forum's TR-419 work is agnostic of copper in building technologies, allowing vendors to choose the right technology for each deployment. I want to acknowledge Broadband Forum for incorporating G.fast, G.hn Access and MoCA Access™ 2.5 in the FTTEp architecture of TR-419."

TR-419 extends the Broadband Forum's TR-301 which defines functionality for ITU-T G.fast Distribution Point Units. It defines requirements for defining cost-effective alternative and complementary architectures to fiber networks, simplifying rollout of symmetric and asymmetric multi-gigabit services and facilitating seamless fiber deployments. TR-419 describes a number of Use Cases (UCs) and migration options that can be considered as representative deployment scenarios for the operators choosing to implement a FTTEp solution, and focuses on architectural, management and operational aspects of PON fiber access extension over different copper underlying technologies such as G.fast, G.hn Access and MoCA Access.

Download TR-419 here: <https://www.broadband-forum.org/technical/download/TR-419.pdf>.

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About the Broadband Forum

Broadband Forum is the communications industry's leading open standards development organization focused on accelerating broadband innovation, standards, and ecosystem development. Our members' passion – delivering on the promise of broadband by enabling smarter and faster broadband networks and a thriving broadband ecosystem.

Broadband Forum is an open, non-profit industry organization composed of the industry's leading broadband operators, vendors, thought leaders who are shaping the future of broadband, and observers who closely track our progress. Its 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's projects span across 5G, Connected Home, Cloud, and Access. Its 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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