

BEAD's new tech-neutral rules open the door to smarter last-mile broadband solutions

For years, the dominant belief in U.S. broadband was simple, fiber was the only way forward. It was fast, future-proof, and received strong federal backing. If you wanted to deliver reliable high-speed internet, you laid fiber - regardless of cost, disruption, delays, or feasibility inside older buildings.

But policy shift on June 6, 2025, has upended that assumption.

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Performance and cost now matter more than the pipe

Through a major update to the \$42.5 billion BEAD (Broadband Equity, Access, and Deployment) program, the U.S. government officially removed its preference for fiber as the default infrastructure. That change opens the door to smarter, faster, and more cost-effective solutions, especially in places where fiber is difficult to deploy. It invites the industry to reconsider what's already available in the multi-dwelling units (MDUs) we live in today.

In-building access, the overlooked bottleneck

Much of the national broadband funding so far has focused on the middle mile such as fiber rollouts, tower builds, and wireless coverage. But many projects hit a wall, quite literally, when trying to deliver broadband from the basement or rooftop to the living room.

In MDUs and older residential buildings, running new fiber or CAT6 cables through floors and walls is time-consuming, expensive, and disruptive. It often requires permission from tenants or landlords, and construction work inside people's homes. As a result, while broadband may reach the building, it doesn't always reach the end user. That's where the last mile becomes the real challenge and a clear opportunity.

High-speed broadband, already in the walls

What if there was already a high-performance, fiber-like network inside most MDUs just waiting to be activated. That's what InCoax's MoCA Access 2.5 technology delivers. Based on the MoCA Access™ standard, the solution re-purposes in-building coaxial cable originally installed for cable or satellite TV, and transforms it into a multigigabit-ready broadband network.

With physical layer speeds of up to 2.5 Gbps and sub-3 millisecond one-way latency, MoCA Access 2.5 offers fiber-like performance without rewiring. Network nodes integrate seamlessly with IP services, and deployments can happen in a matter of days with no tenant disruption.

"In most deployments," notes InCoax Field Application Engineer Mikael Ovesson, "it's the middle-mile that becomes the limiting factor. The MoCA Access 2.5 standard and InCoax's products can be deployed in days once there is fiber or FWA access to the MDU."

Works with any middle-mile, performs like fiber

The value of the InCoax solution lies not only in its performance, but in its flexibility.

The technology works with any type of middle-mile infrastructure, whether it's fiber, fixed wireless access (FWA), or a hybrid approach. That means operators don't need to rethink their networks.

They just need a better way to complete the last connection to each unit.

Cost, speed, and reach

BEAD's updated guidelines ask states and subgrantees to prioritize broadband solutions that meet certain benchmarks. To perform at or above 100 Mbps down and 20 Mbps up, deliver low latency, low cost per location, and rapid deployment.

The InCoax technology solution meets these expectations and exceeds them by far. Not only does it deliver multigigabit speed performance, but it is far faster to install than rewiring a building with fiber or CAT6 cables. Deployment typically takes just a few days per site. Costs per connected apartment are significantly lower, in many cases less than half the cost of new fiber installs. That means BEAD funds stretch further, covering more households, and making a bigger impact throughout the community. This is especially powerful in underserved buildings such as public housing, aging apartments, and hard-to-wire MDUs where fiber re-cabling is slow, expensive, or simply not feasible.

A sustainable broadband choice with shorter time to revenue

Beyond performance and cost, InCoax's MoCA Access 2.5 technology offers clear sustainability benefits. By re-purposing in-building infrastructure and avoiding heavy construction, the solution minimizes the use of new materials and avoids unnecessary waste. It significantly reduces carbon emissions related to transport and deployment, as well as the energy footprint of producing and installing new cables.

There's also a strong business case. Faster installations lead to faster service activations. That translates to shorter time to revenue and an earlier return on investment for service providers. Customers can be connected and billed within days (not months), helping operators improve cash flow and reduce project risk. In other words, it's not just a greener model, it's a smarter one, economically and operationally.

Rethinking the last mile

For too long, the last mile has been a blind spot in broadband strategy. But as BEAD shifts the conversation from *fiber-only* to *results first*, it's becoming clear. The last mile is where digital progress is either unlocked or stalled.

The InCoax MoCA Access technology is not a workaround. It is a practical, future-proof, standards-based investment that delivers fiber-like broadband through infrastructure already in place. It offers faster deployment, lower costs, greater environmental efficiency, and a broader path to inclusion. Because when it comes to bridging the digital divide, the last mile should be the first place we look.

Supporting whitepaper "*Smarter last-mile broadband with InCoax and MoCA Access™ 2.5*" can be downloaded at incoax.com

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Robert Morau leads global marketing and communications at InCoax Networks, a pioneer in MoCA Access™-based fiber and fixed wireless access (FWA) extension solutions. He represents the company in the Multimedia over Coax Alliance (MoCA®) marketing group and is an active contributor within the Broadband Forum (BBF).

With an extensive background in executive marketing and communications roles, Robert has co-authored numerous thought leadership articles in leading broadband industry publications over the past five years, highlighting the role of pragmatic, high-performance technologies in accelerating digital inclusion.

About InCoax Networks

InCoax Networks AB (publ) re-purposes existing property coaxial networks in fiber and fixed wireless access (FWA) extension deployments for Communication Service Providers (CSP) globally.

The technology is a high performance, future proof, reliable and cost-effective complement, that reduces installation time and improves take-up rate, to boost digital inclusion and internet access for all.

<https://incoax.com>

Multimedia over Coax Alliance (MoCA®)

MoCA®, the coax standards for managed networks, lets people work, learn, stream and game over existing coax cables available in homes, apartments, flats, hotels, and buildings worldwide. MoCA® is a global, member-driven, non-profit trade association that creates access and connectivity coax standards for managed networks. MoCA member companies consist of global service providers (MSOs, Telco/IPTV), OEM, ODM, and semiconductor companies.

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