

Baltimore City's Phase 1 Plan for Municipal Fiber Infrastructure

The plan for Phase 1 of Baltimore City's Municipal Fiber Infrastructure represents a transformational first step towards eliminating the digital divide. This initial phase will cost an estimated \$80 million, and will:

- Create a citywide backbone fiber utility capable of addressing all of the City's broadband and related connectivity needs well into the future;
- Deliver Fiber-to-the-Premises (FTTP) connectivity to approximately 11,000 addresses encompassing all existing public housing, enabling best-in-class broadband services to the most vulnerable residents;
- Establish approximately 170 Community Broadband Nodes at City schools, recreational centers, libraries, and other community anchors, each functioning as an access point to the municipal fiber network for delivery of citywide FTTP services, delivering public Wi-Fi, and facilitating connections to community partners supporting digital literacy efforts; and
- Deliver public Wi-Fi in publicly accessible spaces from Community Broadband Nodes strategically located in the heart of nearly every neighborhood.

In total, Phase 1 will place new fiber infrastructure along nearly 270 route miles throughout the City. In addition to delivering robust fiber connectivity to public housing and community anchor targets, the Phase 1 deployment will be configured to support the City's vision for citywide FTTP to every home and business. Each foot of construction anticipated for Phase 1 will be designed with this citywide vision in mind in terms of fiber and conduit capacity, specific selection of routes, and the overall network architecture – the objective is for each phase of deployment to build cost-effectively on the previous without requiring overbuild of previous phases, allowing each subsequent phase to be completed in an increasingly cost-effective and expeditious manner.

The City's municipal fiber network is being designed purposefully to promote competition among providers to deliver innovative and affordable services and anticipates private-sector collaboration spanning multiple markets. This translates to specific design attributes of the fiber infrastructure in each phase, such as the placement of cabinets in which multiple providers can collocate active network equipment and gain access to dedicated fiber strands reaching each home and business. Its overall architecture will allow providers to deliver resilient services over diversely routed redundant connections and includes spare capacity to allow wireless carriers and internet service providers to cost-effectively extend their networks throughout the City.



