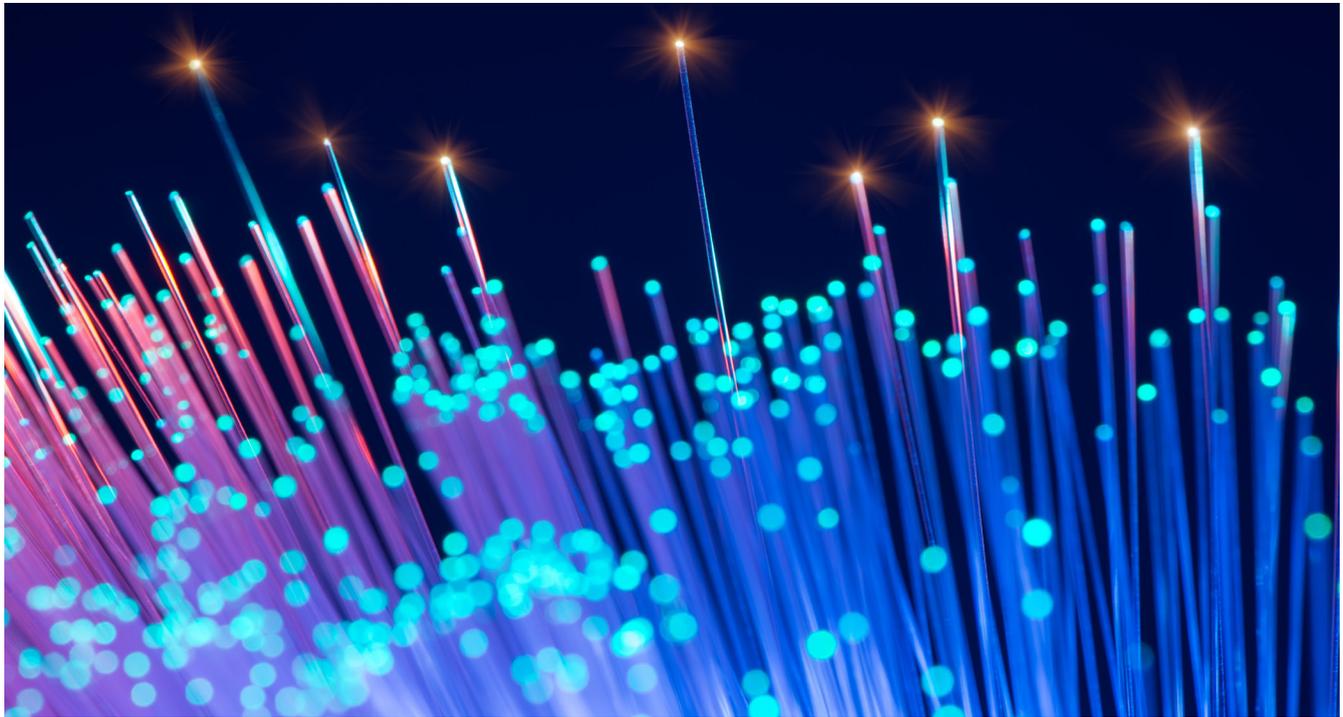


FIBER-DEEP: BRINGING CABLE MSOs INTO THE GIGABIT AGE

Written by Ryan McCowan



As cable MSOs plot their technology future, the concept of fiber deep takes on more prominence. Fiber deep has many benefits, all centered around giving cable MSOs the technology architecture required for relevancy in the Gigabit age. ([Watch Video](#))

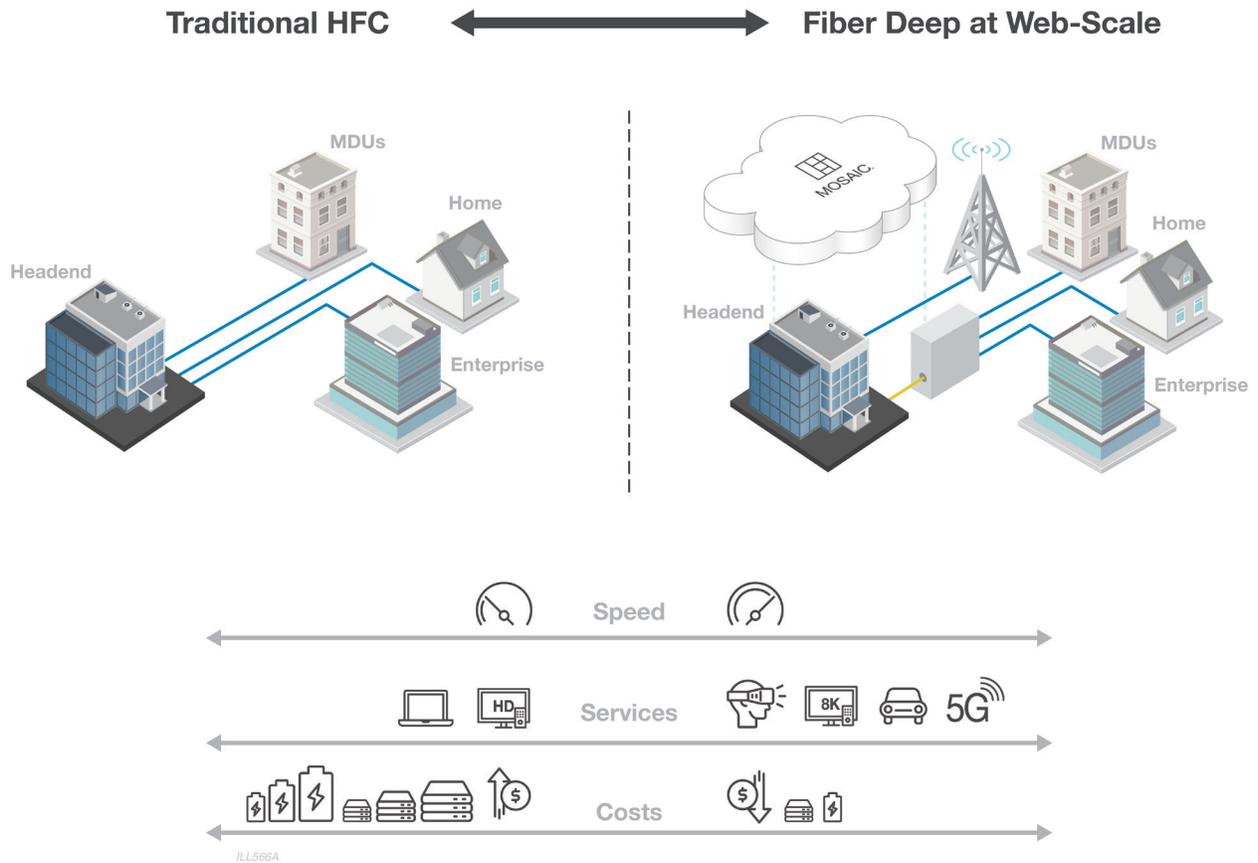
A deep-fiber architecture removes electronics from the headend and places them at the network edge, closer to the customer. In so doing, cable MSOs can better deliver Gigabit-capable broadband to a smaller subset of customers than if delivered from the headend, enabling a much better broadband experience – one that will be increasingly necessary.

Competition from FTTH-equipped telcos is on the rise. AT&T just announced that its [FTTH footprint now reaches 5.5 million locations](#), and it now has close to two million FTTH subscribers. It will eventually reach 12.5 million locations, and perhaps more. Verizon is ramping up aggressive FiOS promotions as well and is potentially looking to expand its FiOS footprint through its One Fiber program. ([Learn More](#))

Additionally, the ongoing evolution to 5G will only accelerate FTTH interest, creating a more competitive environment for cable operators. By embracing a fiber-deep approach, cable MSOs are positioning their networks to meet the growing expectations for faster and better broadband by end users.

A Network for the Future

Fiber deep provides even more incentives for cable operators. Today's headend can be quite congested, thanks to rapid customer growth and the introduction of new services and applications. Headend real estate, power, and cooling are at a premium as a result. Fiber deep can free up space in the headend, as electronics are moved closer to the customer. By moving electronics to the edge, cable MSOs are also better positioned to embrace a software-defined access architectures, where broadband access platforms are disaggregated from the headend. These fiber-deep benefits will help position cable MSOs for the network of the future, where SDN and NFV add the efficiency, flexibility, and agility needed to compete effectively, while also exceeding growing customer expectations.



The benefits are clear. A fiber deep approach allows cable MSOs to deliver a better broadband experience, delighting customers in the process. It also frees up valuable headend space, eases deployment of more revenue generating applications, and lays the path to a software-defined future.

Ryan McCowan is a seasoned telecom professional with over 15 years in the industry. He currently serves as Director, Portfolio Management for ADTRAN's Fiber Access and Aggregation solutions inclusive of all 10G PON technologies and associated open SDN deployment models. Prior to joining ADTRAN, Ryan served in engineering and technology management roles with Paradyne and AMD. He holds a Bachelor's degree in Electrical Engineering from Tennessee Tech University and a Master's degree in electrical engineering from Georgia Tech.