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## **CableLabs Significantly Increases Internet Speeds on HFC Network**

Full Duplex DOCSIS doubles efficiency of spectrum usage for upstream and downstream traffic flows

LOUISVILLE, Colo., Oct. 11, 2017 — [CableLabs®](#), the leading innovation lab for the secure delivery of high speed data, video, voice and next generation services, today completed its [Full Duplex DOCSIS® 3.1](#) specification which significantly increases upstream capacity and enables symmetric multi-Gigabit services over existing hybrid fiber-coaxial (HFC) technology. Anticipating a change in user demand as emerging technologies require more bandwidth, CableLabs' Full Duplex DOCSIS technology will ensure that cable operators can be ready to meet future usage needs for technologies such as virtual and augmented reality.

Full Duplex DOCSIS 3.1 technology builds on the successful completion of CableLabs' [DOCSIS 3.1 specification](#), which made deployments of 10 Gbps downstream and 1 Gbps upstream broadband possible.

"In the United States, more than 90 percent of households are connected to an HFC network, and consumers typically have higher download speeds than upload speeds," said Phil McKinney, president and chief executive officer of CableLabs. "By enabling Full Duplex DOCSIS, the upstream and downstream traffic can flow at up to 10 Gigabits concurrently, doubling the efficiency of spectrum use."

In current DOCSIS networks, spectrum is typically split between the upstream and downstream, or spectrum is shared between upstream and downstream traffic. Full duplex communication enables upstream and downstream traffic to efficiently use the same spectrum simultaneously, which can be beneficial for residential and business services. For businesses in particular, symmetric services can vastly improve network efficiency, which can, in turn, improve the customer experience on business websites.

By leveraging the combination of DOCSIS 3.1 technology, passive HFC network characteristics, self-interference cancellation technology and intelligent scheduling, CableLabs – along with the collaboration of its members and other industry partners – developed this solution enabling full duplex communications over the existing HFC network. The evolution also eliminates the need and cost of deploying fiber to the home while still maintaining backward compatibility with previous generations of DOCSIS technology.

The Full Duplex DOCSIS 3.1 specification effort was [initially announced by CableLabs](#) in February 2016. The update to DOCSIS 3.1 including the complete Full Duplex DOCSIS specification will be published on the CableLabs website later this month.

### **About CableLabs**

For nearly 30 years, CableLabs has been at the forefront of innovation, transforming how humans, communities and industries connect. Dating back to the launch of HFC in 1992 to the start of DOCSIS® in 1994, CableLabs has directly impacted the landscape of tomorrow. With its in-house R&D teams and innovation teams, as well as its ecosystem of partners from both inside and outside the cable industry, CableLabs works with academia, government, private healthcare, entertainment and beyond to grow

the communities of tomorrow. The goal is to create a future that is more useful, more connected and more global, by repeatedly pushing the forefront of innovation, transforming concepts and impossibilities into practical and adoptable everyday uses. For more information, please visit <http://www.cablelabs.com>. For more information on Full Duplex DOCSIS 3.1, please visit <https://www.cablelabs.com/full-duplex-docsis/>.

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