

Alcatel-Lucent Unveils World's Most Powerful Broadband Infrastructure

Were you among the many Kevin Spacey fans [frustrated by streaming *House of Cards*](#)? Don't blame just Netflix; your bandwidth-hogging neighbors and your plodding broadband provider with its antiquated network are part of the problem, too.

Video now accounts for more than half of all consumer Internet traffic, which puts enormous constraints on high-speed broadband transmission lines. It's about to get a lot worse, Cisco Systems ([CSCO](#)) [predicts](#): By 2016, there will be 1.2 million minutes of video streamed or downloaded every second—the equivalent of 6 million years' worth of video traveling across the Internet every month.

The future won't necessarily be slow, however. Last week, Alcatel-Lucent ([ALU](#)) and France Télécom-Orange ([FTE](#)) announced they had successfully deployed the world's most powerful broadband infrastructure, an optical-link, 400 gigabits-per-second line between Paris and Lyon. The first users will be French researchers in need of blazing-fast Internet access. Businesses and consumers will come online later.

At 400G, it's four times faster than the current state-of-the-art, high-speed broadband network. Consumers don't access this fat, intracity fire hose; we tap into smaller lines to our homes and businesses that represent a fraction of the potential of the entire line. Even so, a slice of the French line would still put today's high speeds to shame.

Higher speeds mean downloading a high-definition, feature-length film

in seconds, not the hour it can take today. With billions of things—cars, appliances, cameras, watches—expected to tap the Internet by 2020, demand will only rise. “That is the thing that all network providers are panicking about. That bandwidth requirement is not going away. In fact, it’s increasing,” says Ron Kline, a network infrastructure analyst at technology research firm Ovum.

The speed breakthrough in France suggests network engineers are on the brink of a solution to the coming massive bottleneck. Of course, the breakthrough gives French broadband customers living along the Paris-Lyon corridor some bragging rights, too. They now have access to the fattest pipe on the planet capable of supplying to their homes and businesses broadband speeds that will blow past even Google Fiber, the staggering 1GB (or 1,000 MB) [pilot service](#) in Kansas City, Kan., considered the world’s speediest commercial service today.

In a few years, even this might look slow. By 2015 we’re likely to see commercial deployment of 1 terabit-per-second transmission lines, more than twice as fast as what Alcatel-Lucent announced last week in Paris. At which point Google Fiber may be one of many 1GB services on the market—crucial if we’re to watch *House of Cards* in one sitting.