



Google's latest investment in long-haul undersea fibre optic cabling has come online. The FASTER Cable System gives Google access to up to 10Tbps (Terabits per second) of the cable's total 60Tbps bandwidth between the US and Japan. They will use this capacity to support their users, including Google Apps and Cloud Platform customers. This is the highest-capacity undersea cable ever built — about ten million times faster than your average cable modem — and we're beaming light through it starting today.

"From the very beginning of the project, we repeatedly said to each other, 'faster, Faster and FASTER', and at one point it became the project name, and today it becomes a reality," said Hiromitsu Todokoro, chairman of the FASTER management committee.

The project was first announced back in 2014, and was led by a collaboration of six companies - Google, Global Transit, China Telecom Global, Singtel, China Mobile International, and KDDI. Japanese IT giant NEC Corporation was laid the cable.

This is especially exciting for Google as they prepare to launch a new Google Cloud Platform East Asia region in Tokyo later this year. Dedicated bandwidth to this region results in faster data transfers and reduced latency as GCP customers deliver their applications and

information to customers around the globe.

The FASTER Cable System is just one example of Google's ongoing investments in internet infrastructure. They were the first technology company to invest in undersea cable back in 2008, with the 7.68Tb trans-Pacific Unity cable, which came online in 2010. This completion brings the global number of Google-owned undersea cables up to four, with more (under) the horizon. Google is also backing a project to build a cable called Monet between Florida and Brazil due to be finished by the end of the year.

Google is one of six members of the FASTER Consortium, with sole access to a pair of 100Gb/s x 100 wavelengths optical transmission strands between Oregon and Japan — one strand for sending and one for receiving.

In addition to greater bandwidth, the FASTER Cable System also brings valuable redundancy to the seismically sensitive East Asia region. The cable utilizes Japanese landing facilities strategically located outside of tsunami zones to help prevent network outages when the region is facing the greatest need.

NEC is the supplier that built the \$300 million "Faster Cable System" for Google, China Mobile International, China Telecom Global, Global Transit, KDDI, and Singtel. It won't be the highest-capacity cable for very long, as Microsoft and Facebook recently announced a 160Tbps undersea cable from the US to Europe, to be completed in October 2017.

The NEC-built Faster cable, 9,000km long, lands in Oregon and has two landing points in Japan. There are also "extended connections" to major US West Coast hubs to cover Los Angeles, the San Francisco Bay Area, Portland, and Seattle, NEC said. Faster is stylized as "FASTER," but it's not an acronym. As you might expect, it was named "Faster" because the companies building it wanted a faster cable.

"Faster is the first trans-Pacific submarine cable system designed from day one to support digital coherent transmission technology, using optimized fibers throughout the submarine portion," NEC said. "The combination of extremely low-loss fiber, without a dispersion compensation section, and the latest digital signal processor, which compensates for the huge amount of cumulative dispersion at the end of the cable, enable this six-fiber pair cable to

deliver 60 Terabits per second (Tbps) of bandwidth across the Pacific."

"The cable system ... will help spur innovation on both sides of the Pacific to simulate the growth of the digital economy," said Ooi Seng Keat, vice president of Singtel.