

FCC clears deep-sea fiber-optic cable linking Asia, California

October 9 2009, By John Boudreau

The U.S. Federal Communications Commission has given the green light for a trans-Pacific fiber-optic cable funded by an international consortium that includes Google. The new cable, expected to be carrying data traffic by early next year, links the U.S. West Coast and Asia to meet the demand for more bandwidth to handle explosive global Internet communications.

The commission's go-head this week means the soon-to-be completed cable can now come ashore in Redondo Beach, Calif. The Department of Homeland Security signed off on the plans Sept. 23.

The 6,200-mile cable, costing about \$300 million, is being funded by six companies that, in addition to [Google](#), include telecommunications companies Bharti Airtel in India, SingTel of Singapore and Pacnet, a Hong Kong-based deep-sea fiber-optic cable network operator.

"It was the last hurdle for the Unity cable to be completed," said Bill Barney, chief executive officer of Pacnet, the largest investor in the consortium, dubbed Unity.

The new cable will tap into two-thirds of all networks in Asia. "It will provide seamless connectivity to all the major markets in Asia," Barney said. "From an Internet user's perspective, it will either be the fastest, or one of the fastest, routings between Silicon Valley and Asia. It will be lightning fast."

Testing of the line begins next month, and it will be in use by the first quarter of 2010, he said.

The cable will run along the ocean floor from Southern California to Chikura, Japan, dipping as deep as 2,000 feet below the surface, and then connect into other networks. Pacnet will control two of the five fiber pairs in the new cable.

Capacity-chewing activities in the United States, such as social networks and online video sharing, have triggered a massive investment in deep-sea cables. And in Asia, companies like Pacnet are scrambling to meet demand of video traffic over mobile devices.

"We've done more capacity sales to China in the last three months than we'd done in the last two years," Barney said. "We are in the process of upgrading our networks. Traffic is booming. Data volumes are going up very, very fast."

Between 2008 and 2014, the number of customers using mobile video services in the Asia-Pacific region is expected to jump fivefold to 534 million, making it the world's largest mobile video market, according to Pyramid Research.

The new cable linkup comes amid a boom in new cable construction and upgrades of existing lines, the largest expansion of fiber-optic systems since the dot-com bust, when too much cable capacity led to a market collapse and bankruptcy for fiber-optic network operators such as Global Crossing.

The expansion, in addition to providing more capacity, aims to diversify routes. An earthquake off the coast of Taiwan in late December 2006 exposed the vulnerability of having too many cables laid along the same routes. The quake snapped a half-dozen or more deep-sea [fiber-optic](#)

[cable](#) systems in the Luzon Strait, representing about 90 percent of the telecommunications capacity of the region. The costs of the ruptured cables were estimated in the billions of dollars in repairs and lost e-commerce.

In addition to the Unity trans-Pacific cable, three others have been constructed or are being planned, including a line sponsored by Verizon and another backed by a consortium that includes AT&T and [telecommunications](#) companies in Southeast Asia.

A fiber is about the size of a single human hair. Each pair of fiber cables is capable of carrying up to 960 gigabytes per second, roughly the amount needed for 15 million simultaneous voice calls. The cable is expected to initially increase transpacific "lit" cable capacity by about 20 percent, and could potentially add up to 7.68 terabytes per second of bandwidth. A terabyte is 1,000 gigabytes, or 1 trillion bytes.

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