The Downside Of Broadband Caps

The U.S. is becoming less technologically competitive worldwide. Penalizing users will make things worse. Here are other ideas for funding needed broadband networks.

By Steven S. Ross ■ *Broadband Communities*

Who will create the software and services of the future, the innovative apps that bring value to networks? Innovators in countries with widespread, fiber-borne, high-bandwidth availability? Or Americans?

Over the past year, cellular and landline operators have begun to put tiered pricing into practice. The more bits are moved, the higher the cost. Carriers point out, correctly, that only 1 to 3 percent of all customers bump up against the limits, and by hogging bandwidth they make networks harder to manage and thus make life more difficult for the vast majority of users. Carriers also complain about "free riders," companies like Netflix and Google that stimulate bandwidth use without having to build their own networks.

Consumer advocates note, also correctly, that once a network is built, the marginal cost of moving those extra bits is close to zero. True, local carriers may have to pay the national carriers they connect to, if the nationals have to move too many of the locals' bits. But providing raw bandwidth already offers a higher margin now than video or voice. And as only fiber to the home can offer essentially limitless bandwidth, all other network technologies, whether landline or wireless, are stressed by the few percent of users who push the limits.

One could argue that users are bypassing the physical limitations of cellular systems by using landline-connected Wi-Fi and that cable companies will eventually get to FTTH by splitting DOCSIS nodes as needed. But the argument isn't just about technology. Band-width hawks should be more concerned that caps, especially caps that don't grow as bandwidth demands grow, will stifle innovation now and stifle bandwidth growth in the future.

WATCH TAIWAN

This was brought into sharp focus for me when I visited Taiwan in June. Companies based in this country of 23 million make at least 20 percent of the computer equipment consumers use worldwide. In key communications sectors, Taiwan is the world leader: It produces 84 percent of WLAN equipment, 70 percent of cable customer-premises equipment (CPE), 63 percent of DSL CPE and half of all WiMAX hardware, along with almost all laptops.

Dr. Pao-Chung Ho, a top official at Taiwan's Institute for Information Industry, the manufacturers' nonprofit trade association, told me that Taiwan has to move forward quickly. "We focus too much on [equipment for] Microsoft [operating systems]," he said. "But five or six years from now, ARM and Android [will dominate]. University professors are now teaching iOS, too, so we are changing, but not quickly enough. Vendors focusing on Windows machines, including Acer, ASUS and Quanta, have more than 1,000 software engineers, far more than other [Taiwan-based] companies. Last week, we ran a briefing on Windows 8 … enhancements on the communica-tions side. We expect that most Taiwanese companies will have to enhance their software engineers as soon as possible."

They've already started. The largest communications company, Chunghwa Telecom, has already brought fiber to more than 2 million of Taiwan's 8 million households and will connect another 4 million in the next two to three years. It is not planning broadband caps.

Taiwan's Industrial Technology Research Institute is pushing for more cloud computing facilities as well. I saw an "instant" server farm housed in three mobile trailers parked under the protecting shade of a simple fabric roof. Just add a fiber point of presence and turn it on.

About 10 percent of the exhibitors at last year's giant Taipei International Electronics Show (TAITRONICS, colocated with the Broadband Taiwan show) showed software rather than hardware. This year the show, held October 10–13, will have even more software on display. There will be 20 international forums; about 900 exhibitors are expected.

To compete, the United States needs a system that forces today's free riders to pay more of the cost of the robust networks they depend on. In exchange, network providers must be more transparent about their true costs. The FCC is asleep at the switch, and Congress is poised to make things worse. Wake up, America! ❖

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