Communications World Weekly: US-Japan FTTx into the Gbit / s time

6/21/2010, broadband access services in the promotion of United States and Japan are on the FTTx access technology upgrades. Close by the end of November 2009, the Japanese broadband users (FTTH / DSL) to download data, the average total bandwidth 1.36Tbit / s, 37.9% the previous year. In total, the average download bandwidth among the six major broadband ISP (NTT Docomo, KDDI, Softbank BB and Softbank Telecom, etc.) the overall average download data bandwidth 539.7Gbit / s, the nation's total, the average download data bandwidth of 39.6 %. From the total average data bandwidth 943.4Gbit / s, 36.8% increase compared with the previous year.

   According to the survey, in March 2010 with 180 million U.S. Internet users watch online video, of which 135 million people watched the YouTube video. In the YouTube site, users per capita in the March 96 video watching. Network Video greatly boosted the demand for bandwidth users.

   U.S. government support the development of broadband

   According to recent media reports, the U.S. Department of Commerce February 21, 2010 published report, U.S. home broadband penetration rate in the past two years have significantly improved in 2009 reached 63.5%. In 2007, only half of U.S. households have broadband connections. Although the overall U.S. broadband penetration improved significantly over the past two years, but different income, age and ethnic groups, there are still a wide gap between. In addition, according to statistics there are 46% of U.S. households can not use the broadband services in rural areas, urban households compared to just 34%. However, rural households can not use the ratio of broadband services has been significantly reduced over the past two years, in 2007 as high as 61%.

   U.S. broadband policy to strengthen support efforts as soon as possible in order to solve the last 1 km of the network bandwidth bottlenecks. WiMAX Forum, according to reports, the U.S. Telecommunications Administration (NTIA) and U.S. Department of Agriculture has begun to accept the case of broadband access. March 16, 2010, the Federal Communications Commission (FCC) to submit to Congress a national broadband plan, which was regarded as the Obama administration in 2009 put forward the economic revitalization program in the broadband part of the Programme of Action.

   FCC publication of the national broadband plan, admitted today there are still nearly 100 million Americans without access to broadband at home, according to statistics, broadband penetration in U.S. households Economic Cooperation member countries of the ranking, the first since 2001 4 has continued to fall to 15th place in 2008, which has caused the U.S. government attention.

   Japan successfully embedded fiber optic CDMA communication systems

So far, users of traditional application of optical fiber communication technology, mainly TDMA Time Division Multiple Access technology. CDMA, mainly used in mobile communications, and has a lot of advantages, Japan, CDMA technology is now successfully transplanted to Fiber to communications systems, to widespread Guan Zhu. According to Japanese media reports, Japan has set up one of the OCDMA academia, industry forums, and has successfully launched 50 km OCDMA experimental system for OCDMA has laid a solid foundation for business.

The so-called OCDMA (Optical Code Division Multiple Access) mobile communication is to present the CDMA technology is widely used in transplantation to the user optical fiber communication technology, called code division multiple access (OCDMA). NICT (Japan Institute of Information Communication research institutions) in Osaka University, Fujikura Ltd., and NTT Corporation assistance, the use of OCDMA technology, research and development success can be a single fiber carrying eight users, the highest household 10Gbit / s rate can transfer the experimental line of 50 km. But also in the case of two-way communication using the same wavelength, which is the first time in the world. Now Japan's Fiber to provide the highest transfer rate to the user only 100Mbit / s, if by this successful experiment, the user rate can be increased to 100 times, so much attention.

Three networks has become increasingly obvious terminal fusion

Current telephone, television, and computer three networks and terminals, increasing the performance approach, the integration of the applications have become increasingly prominent, to promote the rapid development of broadband services.

According to U.S. research company Nielsen released in March 2010 the investigation report, mobile users in the United States, the use of iPhone, BlackBerry and Android smartphone users such as the number of multi-functional growth. According to media reports, Verizon will begin in March 2010, in their own 3G networks, smart phone users on the Site because, unlimited open skype VoIP telephone services. According to the agreement the two companies, skype company started by the March, will Verizon 3G network smartphone users to provide mobile version of skype application.

Now in the VoIP market, has an absolute advantage in the skype company has also entered to the Verizon network, using the skype service, through Verizon's mobile communication network, skype can be realized between users and users as well as within the United States to talk to foreign customers. Call charging method using a computer with the same skype users. skype mobile most notable feature is a long time to connect can be realized, can be a clear understanding of friends online. Is clear from the computers and smart phones already have some features of the television.

In television, it was reported in January 2010 by Panasonic, LG launched jointly with the skype network television began to market. January 5, 2010, skype announced its offer of

services, Matsushita and South Korea will be able to start between LG TV subscribers, bringing the TV users will be able to make free calls between can and fixed telephone and mobile phone user. The kinds of models have been held in Las Vegas on display at the Consumer Electronics Show. Japanese software developer KADENZA on December 21, 2009 announced that it has developed a broadband network TV, the TV uses Intel chips and Microsoft's Windows XP operating system, use both broadband television viewing digital TV programs , can watch online video. Today's TV features have been the development of computer and telephone.

link: FCC National Broadband plan for the future goals of the Decade

At least 100 million U.S. households should afford access down more than 100Mbit / s, up more than 50Mbit / s broadband service;

The United States will pay more attention to widespread wireless network, and strive to lead in mobile innovation;

Every American can afford broadband access services;

Every American community will have broadband access than 1Gbit / s broadband service for the residents to visit schools, hospitals and government institutions;

In order to ensure the safety of the American public, can access each responder interoperable, secure nationwide wireless broadband network;

In order to ensure that the U.S. economy in the clean energy leadership, every American can track in real time via broadband and manage their energy consumption;

In the next decade will be the existing universal service fund (USF) to enhance the scale to 155 million.