

Title: Standardization and Current Status of Broadband Wireless Access Technologies in Japan

Abstract (max. 400 words):

Since several bands on 5-GHz have been standardized in the end of 2004, broadband wireless access (BWA) services using the bands, having several 10-Mbps transmission data rate, are being expected in Japan. Up to now, some Japanese telecommunication carriers have been testing a potential for use of IEEE802.16-based devices. Also an optical fiber link is currently considered as a backbone link of the BWA. For fiber-exempt areas, a wireless backbone link system having ultra-high data-rate such as Giga-bps is expected because "wireless" has easy-establishment advantage, which can also be a complementary way to the wired lines for broadband access in telecommunications.

In my talk, firstly, Japanese standardization status of 5-GHz band as well as 22/26/38-GHz for fixed wireless access (FWA) services is briefly introduced. Also several examples of potential telecommunication services, e.g., a combination of WiMAX and WiFi system on 5-GHz band, which is a planned service by Japanese telecommunication carriers, are briefly explained. Next, I would like to show a broadband wireless access system, which is able to handle up to 1-Gbps data rate, using 18/32/38-GHz radio frequency bands, and is established widely over Yokosuka urban area to Yokosuka Research Park (YRP) area in Japan, to examine the possibility of use as a backbone as well as an access link using millimeter-waves.