

Abstract for ITU seminar on BWA for rural & remote access

In order to bridge the digital divide between urban and rural areas, a cost effective rural wireless solution is envisaged in India, which offers mobility along with voice and data applications in the network. Rural wireless products include cost effective and compact integrated base station using the emerging technology neutral Software Defined Radio (SDR) technology. The base stations seamlessly integrate with existing rural wire-line systems, as well as any other switching systems using the standard interfaces. Along-with this they also support VOIP features for interfacing to a centralized soft-switch using an IP/MPLS network.

This rural solution utilizes standard wireless broadband technologies (Wi-Fi and Wi-MAX) for backhauling wireless subscribers to the main network. The same technology is also being used to provide broadband access for shared internet access for the village community development programmes.

This paper outlines the strategy for upgrading urban and rural networks based on existing PSTN technology, to seamlessly interface with IP based core packet network, in which subscribers can access the core network using standard wireless and wire line access technologies.