The basic of our wireless communication is based on TV Whit Space (TVWS). Then, for implementing this wireless solution to rural, we need algorithms to support. In which we are utilizing the PRKS and pktRT algorithms created by Dr. Hongwei Zhang. This ensures the reliability for the wireless communication and the time guarantee in real time packet transmits. Then for the software requirement, we are using the OpenWrt on top of QEMU which was designated to simulate MIPS embedded devices. By simulating the chip we are using, it ensures us to test our code functionally before actually did the field test. Lastly, we will need physical hardware to apply our solution.