Request for Experimental License Exhibit

Purpose:

AT&T Laboratories wishes to conduct tests on new radio systems with integrated adaptive antennas manufactured by Tarana Wireless, Inc. to evaluate the performance of a novel short distance microwave radio digital communications network. We hope to evaluate various performance characteristics of the system in a real world suburban/office park outdoor environment. Performance characteristics such as data throughput, latency, error rates, availability and susceptibility to and generation of self and external interference will be investigated.

Radio Systems:

AT&T requests authority to test the Tarana AbsoluteAir2 CN1 and CN6 concentrator node models with the EN-SP and EN-HP edge node radio models. These radios will be installed and tested by AT&T Laboratories personnel using microwave radio and digital communications test equipment. Each radio unit weighs about 12 lbs. and is housed in a weatherproof outdoor enclosure approximately 11.02 x 11.81 x 5.24 inches in size. Each radio unit consists of a transmitter, a receiver and an integrated adaptive antenna. The maximum transmitter power of any radio unit will not exceed 32 dBm (1.6 Watts).

Antenna Systems:

Much of the experimentation will be centered around the evaluation of the integrated adaptive antenna system in a non-line-of-sight (NLOS) environment, so the exact antenna gains and beamwidths to be realized are unknown at this time. However the maximum gain of any antenna deployed will not exceed 18 dBi. Furthermore the main lobe of any antenna deployed will be pointed approximately to the horizon plus or minus 10 degrees. The azimuthal orientation of the main lobe of the antenna may be arbitrary.

Equipment Deployment:

The radio units will be deployed at various outdoor locations around the AT&T Labs office facility located at 200 S. Laurel Ave., Middletown, NJ 07748 in Monmouth County. All transmitters will be within 0.7 Km (700 meters) of 40:23:48.9N 74:08:05.7W NAD83. The ground elevation at the Middletown office facility varies from about 80 feet to 130 feet above mean sea level. No more than 12 radio transmitters will be operated simultaneously. Radios will be mounted on rigid masts not exceeding a height of 12 meters (40 feet) above the ground level or on building rooftops no more than 3 meters (10 feet) above the roof. The roof level of the buildings at the Middletown facility are approximately 21 meters (70 feet) above ground level. See the diagram in Figure 1 for a depiction of the mast deployment. The masts will be located near trees and buildings of similar or taller height.

Spectrum Use:

The radio transmitters may occupy spectrum from 3300 MHz to 3650 MHz. Depending on how it is configured, each radio will use a digitally modulated 10 MHz, 20 MHz or 40 MHz channel in this band. Different transmitters may use the same or different channels as each other. The total power of any transmitter will not exceed 32 dBm (1.6 Watts).

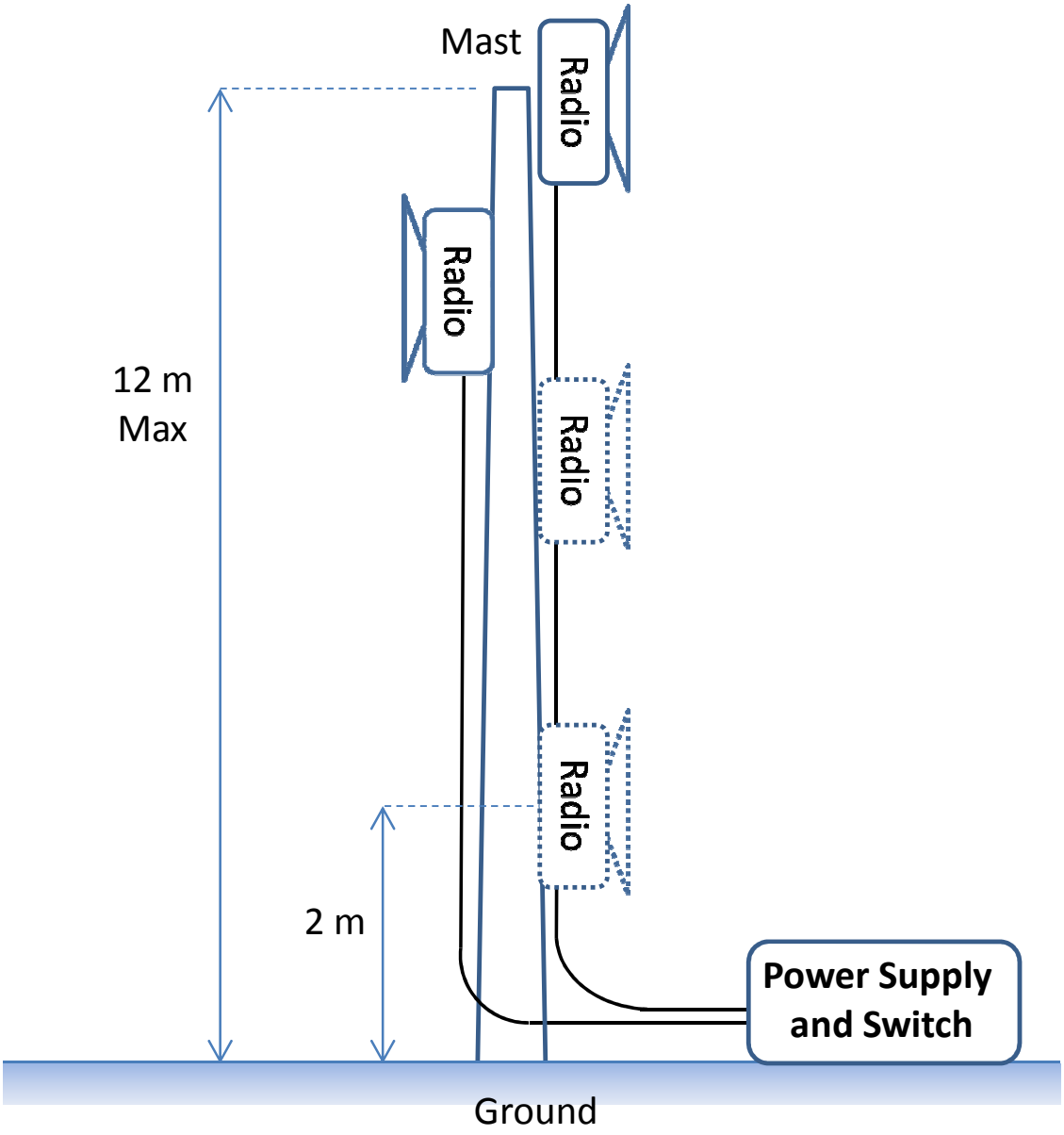

Figure 1 - Possible Radio Deployments on Mast