

**REQUEST FOR MODIFICATION OF EXPERIMENTAL LICENSE**

Pursuant to Sections 5.3(a), 5.3(g) and 5.3(i) of the Commission's rules, Qwest Corporation (the "Applicant") seeks to modify its experimental radio service station license (WD2XTK) in order to continue its technical trial of non-type accepted wireless broadband equipment utilizing Worldwide Interoperability for Microwave Access (WiMAX) technology in the 3.5 GHz band.<sup>1</sup> For the reasons set forth below, the Applicant respectfully submits that favorable Commission action on the instant request will serve the public interest, convenience and necessity.

**Background**

The Applicant is a wholly-owned, indirect subsidiary of Qwest Communications International Inc. (together with the Applicant, "Qwest"), a leading provider of voice, video and data services. Indeed, Qwest's broadband network, designed with the latest advances in network technology for speed and efficiency, spans more than 156,000 route miles globally, enabling new products and services that benefit businesses and consumers worldwide. In order to continually expand, enhance and evolve these service and product offerings, Qwest aggressively seeks out and tests new technologies to enable broadband connectivity.

**Proposed Modification**

The purpose of this application is to obtain Commission approval to modify Qwest's experimental license to: 1) delete one and add one fixed location, 2) reduce the amount of its authorized spectrum, and 3) reduce the number of its authorized end-user units. Specifically, Qwest has discontinued operations at its Mead location (denoted as Location No. 1 on its license), and seeks authority to add a new, fixed location in downtown Denver as set forth in the foregoing FCC Form 442. Moreover, Qwest proposes to greatly reduce the amount of spectrum used at both locations from 3395-3600 MHz to 3400-3421 paired with 3500-3521 MHz.<sup>2</sup> Finally, Qwest requests a reduction in the number of authorized end-user devices, from 250 to 100, though it is possible that its trial may ultimately involve a much smaller number of units. No other changes to its authorized technical parameters are contemplated at this time.

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<sup>1</sup> Station WD2XTK is subject to a pending renewal application which seeks continuing authority to operate until November 1, 2007. See FCC File No. 0213-EX-RR-2006 (filed Oct. 3, 2006). On the advice of staff, the renewal application was filed separately from the instant request for license modification.

<sup>2</sup> Qwest determined that a smaller band of frequencies will be sufficient for its continuing experimental trial, and will further reduce any possibility of interference to U.S. Air Force radar operations in the 3395-3399 MHz band.

Since initiating experimental operations last year, Qwest has been testing WiMAX hardware, software and network management systems. To date, its results have been excellent. In order to expand its knowledge of WiMAX technology, Qwest is seeking Commission authority to continue these experiments at its Littleton site (denoted as Location No. 2 on its license), and to conduct similar experiments from a new fixed site situated in a more technically challenging, urban environment. Specifically, Qwest proposes to deploy a new base station at one of its office buildings in downtown Denver, and to experiment with hardware and software modifications (at both sites) that just recently became available, including indoor customer premises equipment. Qwest also plans to implement changes to the network management software that are designed to improve system performance, including traffic tracking features. In addition, due to the nature of its earlier experiments, Qwest purposely did not stress its radio systems (*e.g.*, creating an environment of neighboring sectors at the same frequency); in order to better understand the capabilities and limitations of WiMAX technology, Qwest intends to conduct such tests over the coming year. Finally, Qwest proposes to test its WiMAX system over a variety of new IP systems, architecture, products and services (Ethernet over copper “EoCu” is one test configuration under consideration).

By continuing its experimental operations, Qwest expects to gain a fuller understanding of the strengths and limitations of WiMAX technology in providing broadband IP access, video distribution, voice services, and other wireless broadband services and products. Qwest understands and acknowledges that its experimental operations must be conducted on a secondary basis only. Accordingly, Qwest will adhere to good engineering practices at all times, and will suspend operations in the event its experimental program causes harmful interference to primary users of the band. Finally, Qwest will continue to exercise appropriate care to ensure that all end-user equipment is returned once its experimental trial ends in a particular area.

#### **Public Interest Benefit**

Qwest’s experimental program already has generated valuable technical data regarding a promising new technology for delivering wireless broadband access. As a leading provider of broadband solutions, Qwest is ideally suited to test and evaluate the utility of this new technology, including the new round of testing described above. Accordingly, Qwest respectfully submits that inasmuch as approval of the instant application will benefit the development of wireless broadband technology, and will thus help advance the art of radio science, it should be granted as consistent with the public interest, convenience and necessity as expeditiously as possible.