

From: "Kurt DeSoto" <kdesoto@wrf.com>
To: <aserafin@fcc.gov>
Date: 9/4/01 10:17AM
Subject: Re: null [Reference Number: 1418]

----- Forwarded by Kurt DeSoto/WRF on 09/04/2001 10:14 AM -----

Kurt DeSoto
To: OET <oetech@fccsun07w.fcc.gov>
08/22/2001 cc:
11:18 AM Subject: Re: null [Reference Number: 1418]
(Document link: Kurt DeSoto)

(See attached file: Form 442 Exhibit for MeshNetworks - Amended.DOC)

Mr. Serafini:

This is to respond to your inquiry (attached below) regarding the application submitted by MeshNetworks, Inc., under File No. 0170-EX-PL-2001. As discussed, MeshNetworks has agreed to withdraw its request to use the 5.15 to 5.35 GHz band and has expanded its request to use the 5 GHz band to cover 5.725-5.875 GHz.

MeshNetworks has also amended its narrative to reduce the scope of authority it seeks. Specifically, it has amended the request to be able to conduct experimental operations using not more than 4,050 units at four specific sites (Maitland, FL; Washington, DC; Denver-Boulder, CO; and Dallas-Ft. Worth, TX). In addition, for demonstration purposes, MeshNetworks proposes to operate not more than 100 mobile units at not more than five sites nationwide at any given time. In other words, at no time would MeshNetworks demonstrate and operate more than 500 unapproved mobile units under the nationwide authority requested therein.

Attached for your convenience, and for inclusion in the record, is the amended narrative reflecting the changes discussed above. Please let me know if I should also file these changes electronically.

Please call with any questions or if you need additional information.

Respectfully,

Kurt E. DeSoto
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OET
<oetech@fccsun07.w.fcc.gov> To: kdesoto@wrf.com
cc:
Subject: null [Reference Number: 1418]
08/01/01 02:30
PM

This is a summary of our earlier conversation stating that you will verify the operating frequencies in the 5 GHz bands. You can either make any needed changes yourself using ELS or email them to me.

Confirmation Number: EL11328
aserafin@fcc.gov

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The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information within 30 days of 08/01/2001 may result in application dismissal pursuant to Section 5.67 and forfeiture of the filing fee pursuant to Section 1.1108

DO NOT Reply to this email by using the 'Reply' button. In order for your response to be processed expeditiously, you must upload your response via the Internet at https://gulfoss2.fcc.gov/prod/oet/index_els.html

MeshNetworks, Inc.
FCC Form 442
Exhibit 1 -Amended
File No. 0170-EX-PL-2001

NARRATIVE STATEMENT

By this application, MeshNetworks, Inc., seeks an experimental license in part to replace its Special Temporary Authorization issued under call sign WB9XMV, File No. 0213-EX-ST-2001, which is currently scheduled to expire on December 22, 2001, and in part to expand the scope of its authority to conduct experimental operations. The license will allow MeshNetworks to continue testing new generations of innovative wireless equipment for functionality and customer suitability over the course of the next several years. In support of this application, the following is shown:

(1) Applicant's Name and Address:

MeshNetworks, Inc.
485 North Keller Road, Suite 250
Maitland, FL 32751

General Contact:

Clifford Chillemi
Vice President and General Counsel
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Technical Contact:

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(2) Description and Purpose of Operation:

MeshNetworks is developing a data-centric wireless communication system that provides multimedia services (voice, data, video, and location) to mobile personal Internet devices such as personal digital assistants (PDAs) and laptop computers. Its system achieves this through the use of advanced, patented IP-based peer-to-peer ad hoc networking technologies and high performance wireless modems.

The system will support connection between subscribers within a neighborhood, metropolitan area, or region via a QDMA LAN/WAN and between subscribers via the public switched telephone network, the wired Internet, and other networks. Like cellular systems, it is designed to support mobile users.

(3) Need for a 5-Year License:

MeshNetworks proposes to display, test, and operate prototype wireless equipment so that it may meet competitive challenges, investor expectations, and user needs. It seeks a five-year license to accommodate ongoing tests of equipment that is expected to change or evolve over the next five years as a result of the company's research and development. Thus, the issuance of a five-year license is in the public interest, convenience, and necessity.

(4) Specific and Nationwide Locations of Proposed Operation:

MeshNetworks proposes to conduct experimental operations centered primarily at two sites: (1) its company headquarters, located at 485 North Keller Road, Suite 250, Maitland, Florida (NAD-83 coordinates: 28-37-55.5 N; 81-23-57.3 W) and (2) its regulatory offices, located at 1750 K Street, N.W., Washington, D.C. (NAD-83: 38-54-08.2 N; 077-02-26.7 W). Fixed units could be placed on rooftops, billboards, water towers, cell towers, utility poles, and streetlight poles within 80 kilometers of these addresses. Mobile units will be used by persons in vehicles and by pedestrians and will traverse the area in which coverage is provided by the fixed units.

In addition, MeshNetworks proposes to conduct additional tests within 80 kilometers of two other locations: (1) Denver-Boulder, Colorado (NAD-83 coordinates: 39-52-53.0 N; 105-03-02.8 W) and (2) Dallas-Ft. Worth, Texas (NAD-83: 32-47-09.5 N; 096-47-38.0 W). It is working with a number of equipment manufacturers and software developers headquartered or located in these cities that will evaluate and test prototype devices and systems.

Although it will conduct tests at the locations listed above, MeshNetworks also plans to demonstrate equipment at other locations in the United States. As it cannot at this time

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determine the specific locations of such demonstrations, MeshNetworks seeks blanket authority to operate nationwide (within the United States and its territories). Specifically, MeshNetworks seeks authority to demonstrate and operate products (1) at its own premises; (2) at the premises of entities working under MeshNetworks' authorization in the design and development of the devices and related products; (3) at trade shows or non-residential exhibitions; and (4) at non-residential, business, commercial, industrial, scientific, or medical locations during the design, development, and pre-production stages. Indeed, these operations would be consistent with the requirements set forth in Section 2.803 of the Commission's marketing rules. 47 C.F.R. § 2.803 (2000); *see also* Revision of Part 2 of the Commission's Rules Relating to the Marketing and Authorization of Radio Frequency Devices, ET Docket No. 94-45, Report and Order, released Feb. 12, 1997, at 11-13, 19-20 ("Marketing Rule Revisions").

Finally, MeshNetworks seeks authority to operate devices at residential locations. It submits that grant of such authority is in the public interest and convenience. The nature of the services and devices typically involve such usage and therefore should be tested at residential locations.

None of the units would be marketed to the public under this experimental license. Moreover, MeshNetworks would inform customers participating in the experiments that operation is for experimental purposes only and may be cancelled at any time. In addition, MeshNetworks would label the equipment or user information as follows:

This device has not been authorized as required by the rules of the FCC. This device is not, and may not be, offered for sale or lease, or sold or leased until authorization is obtained.
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(5) Equipment to Be Used:

Many of the consumer products MeshNetworks proposes to test are typically sold in quantities of hundreds of thousands. For example, the potential market for its products include the entities that service over ninety million consumers that currently subscribe to cellular and cellular-like services in the United States. For demonstration purposes, MeshNetworks proposes to operate not more than 100 mobile units at not more than five sites at any given time. In other words, at no time would MeshNetworks demonstrate and operate not more than 500 unapproved mobile units under the nationwide portion of the authority requested herein.

In addition to the demonstrations described above, MeshNetworks must conduct scalability, throughput and loading tests on both base stations and mobiles. To obtain accurate

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data regarding real-world operations, MeshNetworks must employ a sufficient number of units during its studies to simulate actual usage. It expects that it will be able to conduct most of its experimentation with a maximum of 50 base stations and 4,000 mobile units at each of the four test locations identified above (Maitland, FL; Washington, DC; Denver-Boulder, CO; and Dallas-Ft. Worth, TX).

In sum, MeshNetworks seeks authority to demonstrate 100 or fewer mobile units at each of 5 or fewer locations nationwide (for a total of 500 or fewer mobile units) and to conduct scalability tests using 50 or fewer base stations and 4,000 or fewer mobile units at each of the four locations specified above. It will limit the number of units, as well as the power, area of operation, and transmitting times of these units to the minimum necessary to evaluate the system, however. As required, MeshNetworks would seek separate and specific authority if additional units or other operating capabilities are needed to conduct a particular experiment.

(6) Frequencies Desired:

MeshNetworks' wireless equipment will operate in the 2.4-2.4835 GHz band and the 5.725-5.875 GHz band according to Part 15 and 18 guidelines.

(7) Radiated Power:

MeshNetworks' wireless equipment will meet the output power guidelines of Parts 15 and 18 of the Commission's Rules.

(8) Type of Emission:

The emission type is 80M0G7D, in accordance with Section 2.201 of the Commission's Rules. Other emission modes may be utilized, but in no event will the emissions extend beyond the frequency band requested.

(9) Overall Height of Antenna Above Ground:

The antennas will not extend more than 6 meters above the ground or, if mounted on an existing building, will not extend more than 6 meters above the building. If the antennas are mounted on existing structures other than buildings, they will be installed in accordance with FAA and FCC rules and regulations.

(10) Anti-Drug Abuse Certification:

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MeshNetworks hereby certifies that it, its officers and directors, and any party with five percent or greater interest in this application is not subject to a denial of Federal benefits requested herein pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. §862.