

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Allocations and Service Rules for the 71-76 GHz,)	
81-86 GHz and 92-95 GHz Bands)	WT Docket 02-146
)	

ORDER

Adopted: September 29, 2004

Released: September 29, 2004

By the Chief, Broadband Division, Wireless Telecommunications Bureau:

I. INTRODUCTION

1. By this Order (*Order*), the Wireless Telecommunications Bureau (Bureau or WTB), acting under delegated authority, designates Frequency Finder, Inc. (FFI), Micronet Communications, Inc. (Micronet) and Comsearch as database managers (individually referred to as Database Manager, and, collectively, Database Managers) that will be tasked with jointly developing and managing databases of link registrations by FCC licensees in the 71-76 GHz, 81-86 GHz and 92-95 GHz bands (collectively, link registration system). Each entity may serve for a five year term, renewable by the Commission. As a condition of this designation, each Database Manager will be required to sign a Memorandum of Understanding setting forth its duties and the limits on its authority. Although we are designating three database managers at this time, we reserve the discretion to designate additional managers or change the current designations at a later date if circumstances indicate that such action is warranted.

II. BACKGROUND

2. On October 16, 2003, the Commission adopted a *Report and Order* establishing service rules to promote non-Federal development and use of the “millimeter wave” spectrum in the 71-76 GHz, 81-86 GHz and 92-95 GHz bands¹ on a shared basis with Federal Government operations.² The Commission adopted a flexible and innovative regulatory framework for the 71-95 GHz bands that allows for the issuance of an unlimited number of non-exclusive, nationwide licenses to non-Federal

¹ Allocations and Service Rules for the 71-76 GHz, 81-86 GHz and 92-95 GHz Bands, WT Docket No. 02-146, *Report and Order*, 18 FCC Rcd 23318 (2003) (*Report and Order*) (*recon. pending*). In the *Report and Order*, the Commission adopted rules for both unlicensed (Part 15) and licensed (Part 101) use of portions of these bands; this *Order* concerns licensed use of the bands, which involves all of the bands except for 100 megahertz of spectrum at 94.0-94.1 GHz. For convenience only, we refer to the licensed spectrum herein as “the bands” or “the 71-95 GHz bands”; such references do not include 94.0-94.1 GHz. *See infra* note 4. On February 23, 2004, The Wireless Communications Association International, Inc. filed a petition for reconsideration of certain aspects of the *Report and Order*, which is currently pending before the Commission.

² In the context of spectrum management, “Federal Government” refers to use by the Federal Government and “non-Federal Government” refers to use by private entities and state and local governments. *See id.* at 23319 n.3.

Government entities for the 12.9 GHz of spectrum allocated for commercial use. These licenses serve as a prerequisite for registering individual point-to-point links developed and managed by one or more third-party database managers.³ A licensee will not be authorized to operate a link under its nationwide license until the link is both (1) coordinated with the National Telecommunications and Information Administration (NTIA) with respect to Federal Government operations⁴ and (2) registered as an approved link.

3. By public notice, the Bureau sought proposals from parties interested in developing and managing the link registration system, and four parties initially submitted proposals.⁵ One party decided to remove its proposal from consideration,⁶ and the remaining three ultimately submitted an amended joint proposal on September 9, 2004 (Joint Proposal).⁷

4. Currently, the Commission accepts link registrations in the 71-95 GHz bands through ULS (interim process).⁸ Once the third-party link registration system is in place, the database manager(s) will be required to register links and maintain a record of the requested and approved links for each licensee and assist parties in cases of interference (permanent process). In the event of an interference dispute, interference protection rights with regard to affected links are established based on the date and time of link registration, i.e., as between two or more links experiencing or causing interference, the link with the earliest registration date acquires the right to protection from the later registered link or links,

³ The Commission stated that the ultimate decision of the number of database managers and the selection of such Managers would be made by WTB, and noted that the Bureau would announce its database manager selection procedures by public notice. *Id.* at 23341 ¶ 51.

⁴ The 71-76 GHz, 81-86 GHz and 92-95 GHz bands are allocated to both Federal Government and non-Federal Government users on a co-primary basis, except the 94.0-94.1 GHz portion, which is allocated for Federal Government use on a primary basis. *See generally Report and Order*, 18 FCC Rcd at 23322-31. NTIA is completing development of an automated coordination mechanism that will allow non-Federal users and database managers selected by the FCC to use an Internet site to determine whether a given non-Federal link has any potential conflict with Federal Government users.

⁵ Wireless Telecommunications Bureau Opens Filing Window for Proposals to Develop and Manager Independent Database of Site Registrations by Licensees in the 71-76 GHz, 81-86 GHz and 92-95 GHz Bands, *Public Notice*, DA 04-672 (rel. March 12, 2004)(*Public Notice*); Micronet filed its proposal under the above-referenced docket on March 25, 2004 and supplemented that filing on April 20, 2004; the remaining three proponents filed their proposals on March 26, 2004 in the above referenced docket; FFI filed reply comments on April 2, 2004; and Cisco Systems, Inc. filed comments in response to the *Public Notice* on April 2, 2004 emphasizing the need for efficient link registrations through the database manager(s).

⁶ NECA withdrew its proposal from consideration. *See Letter to Secretary of Commission from Melanie Proehl-Steinhart, NECA Services, Inc.* dated June 28, 2004.

⁷ Comsearch, Micronet and FFI originally filed a Joint Proposal on September 9, 2004, in WT Docket 02-146, and on the same day filed the amended Joint Proposal because they “found it necessary to modify the [database] process.” *See letter addressed to the Secretary of the Commission from Christopher Hardy, Comsearch*, dated September 9, 2004, attaching the amended Joint Proposal, in WT Docket No. 02-146.

⁸ Wireless Telecommunications Bureau Announces Licensing and Interim Link Registration Process, Including Start Date for Filing Applications for Non-Exclusive Nationwide Licenses in the 71-71 GHz, 81-86 GHz, and 92-95 GHz Bands, *Public Notice*, DA 04-1493 (March 12, 2004) (*Interim Procedures PN*). The Commission will be providing further guidance on the link registration process in the near future.

and so on in order of priority based upon the earliest date registered. In the *Report and Order*, the Commission expressly stated that a database manager would not have authority to recommend specific frequencies to users, but would be responsible for keeping current link registration information to aid in resolution of interference disputes.⁹

III. DECISION

5. As a preliminary matter, we must decide whether to designate one or multiple database managers. In the *Report and Order*, the Commission noted that one of its goals has been to introduce market forces into the frequency coordination process and concluded that a similar approach was important in the administration of the link registration process in the 71-95 GHz bands.¹⁰ Accordingly, instead of adopting a rule restricting link management to a single manager, the Commission left that decision to be made by the Bureau pursuant to its existing delegated authority.¹¹

6. In its original proposal, Comsearch favored a central, nationwide database with one designated manager to oversee and ensure database efficiency and reliability.¹² Micronet and Frequency Finder, on the other hand, opined that multiple database managers with individual databases would provide the competitive environment envisioned by the Commission.¹³ Experience has shown that the introduction of competition in the frequency coordination process, such as for PLMR services,¹⁴ has brought significant benefits in terms of cost-based pricing for coordination and the incentive to enhance customer services.¹⁵ We believe that designating a single manager would not achieve those efficiencies, nor do we believe designating a single manager would significantly simplify the link registration process. By specifying that the link registration databases must contain the same up-to-date information and readily available access to that information, we do not anticipate any notable lag time occurring in the registration process. Further, we expect any manager designated to have and use their engineering expertise to speed resolution of any interference dispute without the necessity of Commission intervention. Therefore, increasing the number of managers with such expertise should enhance the industry's ability to successfully resolve technical disputes.

7. While one centralized database might be easier to maintain than multiple databases, the speed and efficiencies that can be built in (and indeed that is the case for the Joint Proposal) will more than offset any marginal gain through the use of a single, stand alone database. Moreover, as discussed *infra* at para. 9, we will require that there be a high degree of cooperation among multiple managers to

⁹ *Report and Order*, 18 FCC Rcd at 23340, 23343 ¶¶ 50 and 58.

¹⁰ *Id.* at 23340 ¶ 51.

¹¹ *Id.*

¹² Comsearch Proposal at 7-9.

¹³ Micronet Proposal at 3 and FFI Reply Comments at 2-5.

¹⁴ See Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them and Examination of Exclusivity and Frequency Assignment Policies of the Private Land Mobile Radio Services, PR Docket No. 92-235, *Second Report and Order*, 12 FCC Rcd 14307 (1997).

¹⁵ See *Report and Order*, 18 FCC Rcd at 23340 ¶ 51.

avoid any lapses in service that could lead to disruptions in the registration process and/or inaccessibility of the data by users, the public, and the Commission.¹⁶ Furthermore, providing more than a single source for link registrations could reduce the costs of registration through competing price structures. Three distinct but coordinated databases serve to offer choice to the user community while ensuring a centralized format for available link information. In light of these considerations, we conclude that it is appropriate to designate more than one database manager, at least initially. We will continue to have the discretion to revisit this issue in the future if experience suggests such a course is prudent.

8. Based on our review of the record in this proceeding, we find that FFI, Micronet and Comsearch are uniquely qualified to serve as a database manager. In particular, all three bring years of experience in database design, frequency coordination and spectrum management.¹⁷ No party has challenged the qualifications of or interposed any objection to the selection of any one of the three proponents.¹⁸ All three provided the requisite information and otherwise demonstrated the ability to fulfill the database manager requirements specified in the *Report and Order* and recounted in the *Public Notice*. We believe that FFI, Micronet and Comsearch have proven abilities to work with the relevant user communities to address link registration issues, and therefore designate each as a database manager.

9. The Commission envisioned a “single, shared database” if more than one database manager is selected.¹⁹ In the Joint Proposal, the Database Managers indicate their separate databases will be linked through coordinated communications to form a unified link registration system. We are in favor of letting the Database Managers work out their database needs and function as a unified system. We will therefore require that the Database Managers build a cooperative environment that will expedite link registrations through their combined efforts. Specifically, we will require that the link registration process be uniformly administered and that communications among the three Database Managers be completed without undue delay. In addition, all three Database Managers must share link information on a continuous basis to permit access to the most up-to-date link information by users, the public and the Commission from all three sources. With those parameters, a unified link registration system serves the same purpose as a single, shared database.

10. Having found that FFI, Comsearch and Micronet will serve the public in the creation and oversight of the 71-95 GHz bands link registration system, and pursuant to the *Report and Order* (and as outlined in the *Public Notice*), we define their duties and responsibilities as follows:

¹⁶ Any significant down time by a single database, on the other hand, would be catastrophic for the real time processing of link registrations.

¹⁷ For example, FFI provides wholesale coordination services for Part 90 Frequency Advisory Committees, FFI Proposal at 1; Micronet’s primary business is frequency coordination, microwave engineering, field services and FCC filing compliance, Micronet Proposal at 1; and Comsearch provides spectrum management and software for terrestrial microwave, satellite and mobile telecommunications systems, Comsearch Proposal at 2.

¹⁸ FFI initially registered concerns about voluntary data exchanges with Comsearch (*see* FFI Reply Comments at 2). Nevertheless, it is apparent from the Joint Proposal that all three intend to work together to build an integrated system, and this *Order* otherwise requires that all data be shared equally among the three databases, *see* paragraph 9, *supra*.

¹⁹ *See Report and Order*, 18 FCC Rcd at 23340 ¶ 50.

- A. Develop, manage and use link registration databases in coordination with all Database Managers, together which will serve as the clearinghouse and repository of current and historical link information for all registered non-Federal Government links. Database Managers will not be responsible for assigning frequencies, but will be responsible for establishing and maintaining their individual databases as described in detail in the *Report and Order* and reiterated in this *Order*. A Database Manager may offer additional services, such as frequency coordination and other services to assist a licensee in designing a link and resolving any interference disputes;²⁰
- B. Make all Database Manager services available to all parties on a first-come, first-served and non-discriminatory basis, and provide public access to the link registration database at no charge;²¹
- C. Ensure that non-Federal Government links are coordinated with Federal Government operations through NTIA's automated coordination mechanism, and promptly notify the licensee when a link submission receives a green- or yellow-light response from NTIA;²²
- D. Verify whether individual link registrations are subject to Commission filing requirements, and are otherwise compliant with Part 17 of our rules, including where required, registration in the Commission's Antenna Structure Registration Database;²³
- E. Update its link registration database based on FCC actions affecting licenses and links in these bands, such as registration deletion, or license expiration, renewal, transfer or assignment;²⁴
- F. Add or delete link information to its database based upon review and processing of link submissions from licensees on a non-discriminatory, first-come, first-served basis, and maintain a complete and accurate history of all links;²⁵
- G. Modify its database when it is determined that a licensee has not met construction and loading requirements, and maintain documentation of such actions (with notice to WTB for links also registered in ULS);²⁶
- H. Administer the formal interference protection procedures, based upon "first-in-time" information recorded in the link registration system;²⁷

²⁰ *Id.* Database Managers may set fee structures associated with such services as necessary to recoup costs. *Id.* at 23341 ¶ 51.

²¹ *Id.* at 23340 ¶ 50.

²² A "green light" response will indicate that the link is coordinated with the Federal Government; a "yellow light" response will indicate a potential for interference to Federal Government or certain other operations. *See generally* 47 C.F.R. § 2.106. In the case of a "yellow light," the licensee must file an application for the requested link with the Commission, which in turn will submit the application to the Interdepartment Radio Advisory Committee for individual coordination. *See id.* at 23341-43 ¶¶ 52, 54, 58.

²³ *See id.* at 23342, 23348 ¶¶ 55, 57; *see also id.* at 23343 ¶ 60.

²⁴ *See generally Report and Order*, 18 FCC Rcd at 23337, 23339, 23341, 23343 ¶¶ 42, 46, 56, 58.

²⁵ *Id.* at 23337, 23341 ¶¶ 54, 58.

²⁶ *Id.* at 23350 ¶¶ 80-81.

²⁷ *Id.* at 23343 ¶ 58 (once notified of an interference complaint, Database Manager must identify the problem link and notify the later-registered licensee that it must accept or resolve (as applicable) any identified interference immediately).

- I. Provide all interested parties access to the link registration system at all times, except where maintenance and system upgrades require short periods of down time to complete;²⁸
- J. Provide the Commission and NTIA access to the link registration system at all times, and establish, at a minimum, the following report capabilities/utilities for NTIA and FCC:
 - ability to query on basic link elements such as licensee name, FCC call sign, registration number, transmit coordinates and transmit frequency or frequency band;
 - ability to query and retrieve all link registrations associated with a specific licensee or FCC call sign;
 - ability to retrieve all link registrations within a specified geographic area;
 - ability to retrieve all link registrations filed or accepted within a specified time period;
 - ability to retrieve or request a report of all links removed from its database within a specified time period;
 - provide automated interface or reports as required by NTIA to allow them to maintain an accurate and complete database;
 - upon request, a complete download of the registration database in a format specified by FCC;
 - ability to provide other reports to NTIA and FCC and respond to information requests as necessary;²⁹
- K. Implement procedures and execute related documents required by NTIA to access its automated system;³⁰
- L. Monitor and implement Commission rules and policies, including any changes thereto, pertaining to these frequency bands, including but not limited to those contained in or referenced by the Commission under WT Docket No. 02-146, including the *Report and Order*, *Interim Public Notice*, and any subsequent notices implementing the link registration process.³¹
- M. Enter into a Memorandum of Understanding (MOU) with the FCC memorializing the duties and responsibilities as a database manager.³²

IV. CONCLUSION AND ORDERING CLAUSES

11. Frequency Finder, Inc., Miconet Communications, Inc. and Comsearch ACCORDINGLY ARE DESIGNATED to serve as a database manager as set forth in this Order. Each is responsible for the creation and maintenance of its individual link registration database for the 71-95 GHz bands, the data collected and maintained by each being jointly shared, and together which shall comprise

²⁸ *Id.* at 23340 ¶ 50.

²⁹ *Id.*

³⁰ *Id.* at 23340-42 ¶¶ 50, 52-55.

³¹ Database Managers are advised that certain of the rules and policies adopted in the *Report and Order* are the subject of a petition for reconsideration pending before the Commission. *See supra* note 1.

³² *Id.* at 23340 ¶ 51.

the link registration system for the bands. The designation will take effect upon the execution of a Memorandum of Understanding by each Database Manager and the Wireless Telecommunications Bureau regarding the Database Manager's duties and responsibilities. Following completion of the MOU process, the Bureau will provide contact information for the Database Managers via public notice.

12. This action is taken under the delegated authority contained in Sections 0.131, 0.331, 101.147(z)(1) and 101.1523 of the Commission's Rules, 47 C.F.R. §§ 0.131, 0.331, 101.147(z)(1), 101.1523.

FEDERAL COMMUNICATIONS COMMISSION

Joel D. Taubenblatt
Chief, Broadband Division
Wireless Telecommunications Bureau