

Before the
Federal Communications Commission
Washington DC 20554

In the Matter of)	
)	
Amendment of Part 101 of the Commission's)	
Rules to Facilitate the Use of Microwave for)	
Wireless Backhaul and Other Uses and to)	WT Docket No. 10-153
Provide Additional Flexibility to Broadcast)	
Auxiliary Service and Operational Fixed)	
Microwave Licensees)	
)	
Fixed Wireless Communications Coalition,)	
Petition to Amend Part 101 of the)	
Commission's Rules for Automated)	RM-11610
Government Frequency Coordination and)	
Conditional Licensing in the 23 GHz Fixed)	
Service Band)	

***EX PARTE* COMMENTS OF THE
FIXED WIRELESS COMMUNICATIONS COALITION**

The Fixed Wireless Communications Coalition, Inc. (“FWCC”)¹ submits these *ex parte* comments in support of a request filed by Mimoso Networks, Inc. in this docket to add 80, 160, and 320 MHz channels to the 21.2-23.6 GHz (23 GHz) band. We ask further that the Commission add 100, 150, 200, 300, and 400 MHz channels. Finally, we renew our long-standing request for automated federal coordination and conditional authorization throughout the 23 GHz band.

¹ The FWCC is a coalition of companies, associations, and individuals keenly interested in the Commission’s rules and regulations governing terrestrial fixed microwave communications. Our membership includes manufacturers of microwave equipment, fixed microwave engineering firms, licensees of terrestrial fixed microwave systems and their associations, and communications service providers and their associations. The membership also includes railroads, public utilities, petroleum and pipeline entities, public safety agencies, cable TV providers, backhaul providers and their respective associations, communications carriers, and telecommunications attorneys and engineers. Our members build, install, and use both licensed and unlicensed point-to-point, point-to-multipoint, and other fixed wireless systems, in frequency bands from 900 MHz to 95 GHz. For more information, see www.fwcc.us.

A. INTRODUCTION

The 23 GHz band is critical to wireless backhaul in support of mobile broadband devices, among many other uses. Backhaul provides the connection between a carrier's central network facilities and its cell towers. The only other technology that offers sufficient capacity for these applications is fiber optic cable. Often, however, wireless backhaul is the most efficient or the only choice, particularly in rugged rural terrain and built-up urban areas where deployment of fiber technology is impractically expensive.

In 2010, the Commission's National Broadband Plan predicted that demand for mobile broadband capacity will increase significantly and called for changes to improve wireless backhaul deployment.² Today, as demand for mobile data continues to expand, wireless backhaul capacity must keep pace.

B. The FWCC Supports and Expands on Mimosa's Proposal to Permit Wider Channels and Increased Payload Requirements in the 23 GHz Band.

Mimosa has urged the Commission to authorize wider channels in the 23 GHz band, specifically, 80, 160, and 320 MHz. Mimosa also requested that the Commission increase payload capacity requirements in the band, arguing that channels 80 MHz or larger should be 3 bps/Hz. This matches the payload requirement for channels that are 20 MHz or larger in the 10.55-13.25 GHz range.³

The FWCC supports these proposals. Authorization of wider channels will serve the public interest. A 2011 Report and Order earlier in this proceeding acknowledged that

² See Connecting America: The National Broadband Plan, at Section 5.1 *The Growth of Wireless Broadband* (Mar. 17, 2010).

³ *Ex Parte* Comments of Mimosa Networks and Request for Expedited Consideration, WT Docket No. 10-153 at 7 (filed July 13, 2015); 47 C.F.R. § 101.141(a)(3)(i) (table).

“broadband is indispensable to our digital community” and that a “robust broadband ecosystem ... relies, at least in part, on access to adequate and cost-efficient backhaul.”⁴ A subsequent order found that “allowing 60 MHz and 80 MHz [*i.e.*, wider channels] in the 6 GHz and 11 GHz bands, respectively, would serve the public interest by allowing backhaul operators to handle more capacity and offer faster data rates Allowing wider channels can also result in more efficient spectrum utilization.”⁵ The same is true here.

The two highest bandwidths currently authorized at 23 GHz are 40 and 50 MHz.⁶ Mimosa’s proposal rests on multiples of 40 MHz. The FWCC asks that the Commission also add bandwidths that are certain multiples of 50 MHz, namely, 100, 150, 200, 300, and 400 MHz. Mimosa supports these additions. A band plan that combines Mimosa’s proposal and ours is attached.

We also support Mimosa’s proposal for a corresponding increase in the payload capacity requirements for the band.

C. The Commission Should Move Forward on Automated Coordination and Conditional Authorization Across the 23 GHz Band.

The 23 GHz band is shared with the federal Government, requiring applications to be coordinated through the National Telecommunications Information Administration (NTIA). Because of NTIA restrictions, the Commission allows conditional authorization—*i.e.*, operation

⁴ *Use of Microwave for Wireless Backhaul and Other Uses*, Report and Order, Further Notice of Proposed Rulemaking, and Memorandum Opinion and Order, WT Docket No. 10-153, RM-11602, at ¶¶ 1, 2 (Aug. 9, 2011).

⁵ *Use of Microwave for Wireless Backhaul and Other Uses*, Second Report and Order, Second Further Notice of Proposed Rulemaking, Second Notice of Inquiry, Order on Reconsideration, and Memorandum Opinion and Order, WT Docket 10-153, RM-11602 (Aug. 3, 2012).

⁶ 47 C.F.R. §§ 101.147(s)(6),(7).

while an FCC application is pending—only on six channel pairs, and only at power levels at or below +55 dBm EIRP.⁷ The importance of conditional authorization to 23 GHz private users is evidenced by their overwhelming preference for the six pairs on which it is permitted.

Certain other bands shared between private and Government users, at 70/80/90 GHz, employ an automated coordination system that informs an applicant in real time whether NTIA approves a proposed link.

In a 2010 Petition for Rulemaking, the FWCC asked the Commission and NTIA to implement a similar system for 23 GHz, and to permit conditional authorization on all 23 GHz frequencies and at all otherwise permissible power levels, on receipt of automated NTIA approval.⁸ The requested rule changes will improve utilization of the band, and in particular, conditional authorization throughout the band will enable prompt and efficient deployment of new systems. All of the filed comments support the FWCC's request.

Nothing has changed in the interim, except that need for the rule change has become more urgent.

Removal of power limitation. The FWCC's 2010 petition also requested deletion of the +55 dBm power limit on conditional authorizations. We explained that the provision dates from 1996, when conditional authorization was allowed across the entire band.⁹ It remained, without discussion, in the 2002 order that restricted conditional authorization to specific frequency

⁷ 47 C.F.R. § 101.31(b)(vii). Conditional authorization is also preconditioned on successful prior frequency coordination with non-Government users.

⁸ Petition for Rulemaking of the Fixed Wireless Communications Coalition, Docket No. RM-11610 (filed July 26, 2010).

⁹ *New Part 101 Governing Terrestrial Microwave Fixed Radio Services*, Report and Order, 11 FCC Rcd 13449 at ¶ 29 (1996).

pairs.¹⁰ While the +55 dBm limitation may once have been needed to protect Government users against unpredictable conditional authorizations, the automated coordination proposed here will make it unnecessary.

CONCLUSION

We ask the Commission to issue a Notice of Proposed Rulemaking on wider channels in the 23 GHz band, along with automated federal coordination and conditional authorization throughout the band.

Respectfully submitted,



Cheng-yi Liu
Mitchell Lazarus
FLETCHER, HEALD & HILDRETH, P.L.C.
1300 North 17th Street, 11th Floor
Arlington, VA 22209
Telephone: 703-812-0400
Counsel for the Fixed Wireless
Communications Coalition

September 27, 2016

¹⁰ *Amendment of Part 101 of the Commission's Rules to Streamline Processing of Microwave Applications*, Report and Order, 17 FCC Rcd 15040 at ¶ 24 (2002). This changed the application of +55 dBm from ERP to EIRP, thus allowing 2 dB more power.

APPENDIX—Proposed Rule

Change the heading of Section 101.147(s) to read:

(s) 21,200 to 23,600 MHz: 400 MHz authorized bandwidth.

Renumber Section 101.147(s)(8) as Section 101.147(s)(16) and insert the following after Section 101.147(s)(7):

(8) 80 MHz Bandwidth Channels:	
21240	22440
21320	22520
21400	22600
21480	22680
21560	22760
21640	22840
21720	22920
21800	23000
21880	23080
21960	23160
22040	23240
22120	23320
22200	23400
22280	23480
22360	23560
(9) 100 MHz Bandwidth Channels:	
21250	22450
21350	22550
21450	22650
21550	22750
21650	22850
21750	22950
21850	23050
21950	23150
22050	23250
22150	23350
22250	23450
22350	23550
(10) 150 MHz Bandwidth Channels:	
21275	22475
21425	22625
21575	22775

21725	22925
21875	23075
22025	23225
22175	23375
22325	23525
(11) 160 MHz Bandwidth Channels:	
21320	22520
21480	22680
21640	22840
21800	23000
21960	23160
22120	23320
22280	23480
(12) 200 MHz Bandwidth Channels:	
21300	22500
21500	22700
21700	22900
21900	23100
22100	23300
22300	23500
(13) 300 MHz Bandwidth Channels:	
21350	22550
21650	22850
21950	23150
22250	23450
(14) 320 MHz Bandwidth Channels:	
21400	22600
21800	23000
22200	23400
(15) 400 MHz Bandwidth Channels:	
21400	22600
21800	23000
22200	23400