

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of)	
)	
Expanding Flexible Use in Mid-Band)	GN Docket No. 17-183
Spectrum Between 3.7 and 24 GHz)	
)	

COMMENTS OF CALIFORNIA INTERNET, L.P. DBA GEOLINKS

California Internet, L.P. dba GeoLinks, LLC (“GeoLinks” or the “Company”) submits these comments in response to the Notice of Inquiry (“NOI”) issued August 3, 2017 in the aforementioned docket.

I. INTRODUCTION

Due to the costs associated with building and maintaining a cable/ fiber-based network, millions of Americans either lack access to highspeed broadband access or lack competitive choice between broadband providers. Fixed wireless technologies offer new opportunities to connect rural and unserved communities and offer competitive alternatives to incumbent providers in urban settings. Additional flexible access in the spectrum bands between 3.7 and 24 GHz would allow broadband providers to leverage wireless technologies to fill the gaps in the current broadband landscape. GeoLinks submits these comments to provide input on potential opportunities for additional flexible access to mid-band spectrum.

II. DISCUSSION

A. The Ability to Access Mid-Band Spectrum Resources for Point-to-Multipoint Connections Will Promote Competition and Broadband Deployment

As an initial matter, GeoLinks commends the Commission for releasing the NOI and seeking comments on how it can develop rules to promote flexible access in the spectrum bands between 3.7 and 24 GHz. The three bands specifically identified in the NOI (3.7-4.2 GHz, 5.925-6.425 GHz, and 6.425-7.125 GHz), are well suited for wireless broadband services and

the opportunity for flexible use within these bands will allow for new wireless broadband technologies to emerge. However, GeoLinks urges the Commission to structure this flexible use in ways that will allow small and mid-sized wireless broadband providers to utilize these spectrum bands to deliver highspeed broadband solutions. Specifically, GeoLinks urges the Commission to adopt a licensing structure that will allow for point-to-multipoint (“P2MP”) wireless broadband connections in the identified bands.

Access to dedicated spectrum on a licensed basis allows fixed wireless providers to utilize clean spectrum connections to deliver robust, highspeed service. GeoLinks has had success using licensed spectrum in the 6 GHz and 11 GHz bands for point-to-point (“P2P”) wireless connections for a variety of users. In urban settings, GeoLinks has used these types of connections to deliver business-class services. In rural settings, the Company has used P2P connections to deliver long-haul middle-mile connections, as well as last-mile connections to connect rural schools throughout California that previously had not had access to any highspeed broadband service. In both instances, having access to clean spectrum for dedicated purposes has allowed GeoLinks to offer highspeed broadband solutions of identical quality to fiber connections for a fraction of the cost.

While P2P connections have been successful, this approach is limited in its application. Specifically, P2P connections are cost effective for a single connection point (e.g. one school, community anchor institution, or business), but they are not, comparatively, for multiple connections (e.g. multiple residences throughout a community) as they require additional equipment and infrastructure to reach the additional users. P2MP connections, on the other hand, create opportunities to connect multiple users from one transmission point without the need for additional infrastructure. This may include numerous homes or buildings within a densely populated area or homes in rural areas that are, sometimes, miles apart.

P2MP fixed wireless technology is undoubtedly well suited to help meet the Commission’s broadband deployment and competition goals. However, dedicated licenses for P2MP connections have not been easy for fixed wireless providers to obtain. Moreover, there is no licensed mid-band spectrum allocation for fixed wireless P2MP service that can enable Gigabit speeds. These P2MP capabilities are not only necessary for fixed wireless providers to stay competitive in the urban marketplace, they are also necessary to meet the Gigabit+

performance tiers being sought throughout Connect American Fund Phase II areas in the most cost-effective manner.¹ Therefore, GeoLinks urges the Commission to develop spectrum licensing policies that allow small and mid-sized fixed wireless providers to offer P2MP connections over dedicated spectrum within the mid-spectrum bands.

B. The Commission Should Adopt a “Light Licensed” or Part 101-Type Licensing Structure for Mid-Band Spectrum

GeoLinks understands that the bands referenced in the NOI include significant and important federal operations.² GeoLinks suggestions herein are provided to offer a solution that will promote flexible use of the bands for P2MP wireless broadband services while ensuring that federal agencies can continue their important missions. Specifically, GeoLinks suggests that these bands be licensed on a “light licensed” or Part 101-type basis. This approach would allow for shared use of the bands with the necessary protections in place to ensure no harmful interference to federal users.

Because small to mid-sized fixed wireless providers have the potential to offer services that can meet the Commission’s goals, GeoLinks emphasizes that any spectrum licenses granted in the mid-band spectrum should be granted on a basis that will allow these companies to obtain and utilize them. Foremost, these spectrum licenses should not be offered solely via an incentive auction. While these auctions are effective for some spectrum bands, with respect to the mid-spectrum bands at issue here, such auctions are only suited for those companies with large amounts of capital to spend. Moreover, auctions incentivize bidders to purchase spectrum resources as an asset for future use rather than for immediate use. Instead, GeoLinks urges the Commission to grant Priority Access Licenses (“PALs”) based on factors that would more effectively promote efficient use of the bands discussed herein.

GeoLinks asserts that PALs should be granted on a geographic basis that takes into account the specific attributes of the license area (i.e. rural or urban setting, topography, etc.) and that the Commission should create a license renewal process that allows licensees reasonable certainty that licenses will be extended. In addition, to ensure wireless broadband connections

¹ See *Comment Sought on Competitive Bidding Procedures and Certain Program Requirements for the Connect America Fund Phase II Auction*, Public Notice, AU Docket No. 17-182, FCC 17-101 (August 4, 2017), para 78.

² See NOI at para 3.

capable of Gigabit+ service offerings, GeoLinks suggests making adequate channel sizes available or granting PALs that encompass adjacent channels. These factors create the regulatory certainty necessary to spur investment in robust P2MP networks and equipment for use in the mid-band spectrum.

C. Additional Spectrum Bands Suitable for Wireless Broadband Offerings

The NOI asks commenters to identify other bands, allocated for exclusive non-federal use or shared federal and non-federal use that might be suitable candidates for expanded flexible wireless broadband use.³ GeoLinks believes that an approach similar to that outlined above would also be appropriate for E Band spectrum (specifically, 72 GHz and up). Currently, this band only allows for light licensed P2P use. GeoLinks urges the Commission to expand this light licensed use to allow for P2MP services.

In addition, GeoLinks urges the Commission to ensure policy is solidified that would allow P2MP use within the TV Whitespaces. Specifically, the Commission should identify available channels that cannot be reallocated for other use. This is necessary to create regulatory certainty and to drive investment in the equipment necessary to utilize this spectrum resource.

III. CONCLUSION

In conclusion, GeoLinks urges the Commission to develop spectrum policy for the mid-band spectrum that allows for the effective deployment of P2MP wireless broadband technologies. Deployment of these technologies will help the Commission meet its goals of promoting competition and broadband deployment both in urban and rural settings.

Respectfully submitted,

GEOLINKS, LLC

/s/ Skyler Ditchfield, Chief Executive Officer

/s/ Melissa Slawson, General Counsel/ V.P of Government
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³ NOI at para. 2.