



e-vergent.com, LLC.
8330 Corporate Drive
Mount Pleasant, WI. 53406

Friday, December 22, 2017

Comments Regarding Notice of Proposed Rulemaking, GN Docket No. 17-258

E-vergent is a fixed wireless Internet Service Provider serving approximately 3000 rural customers between Milwaukee and Chicago. Even with our relatively close proximity to major metropolitan areas there are significant numbers of people who have no wired choice for their home or business Internet service. The maximum speed we currently offer is 25Mbps using 5GHz spectrum.

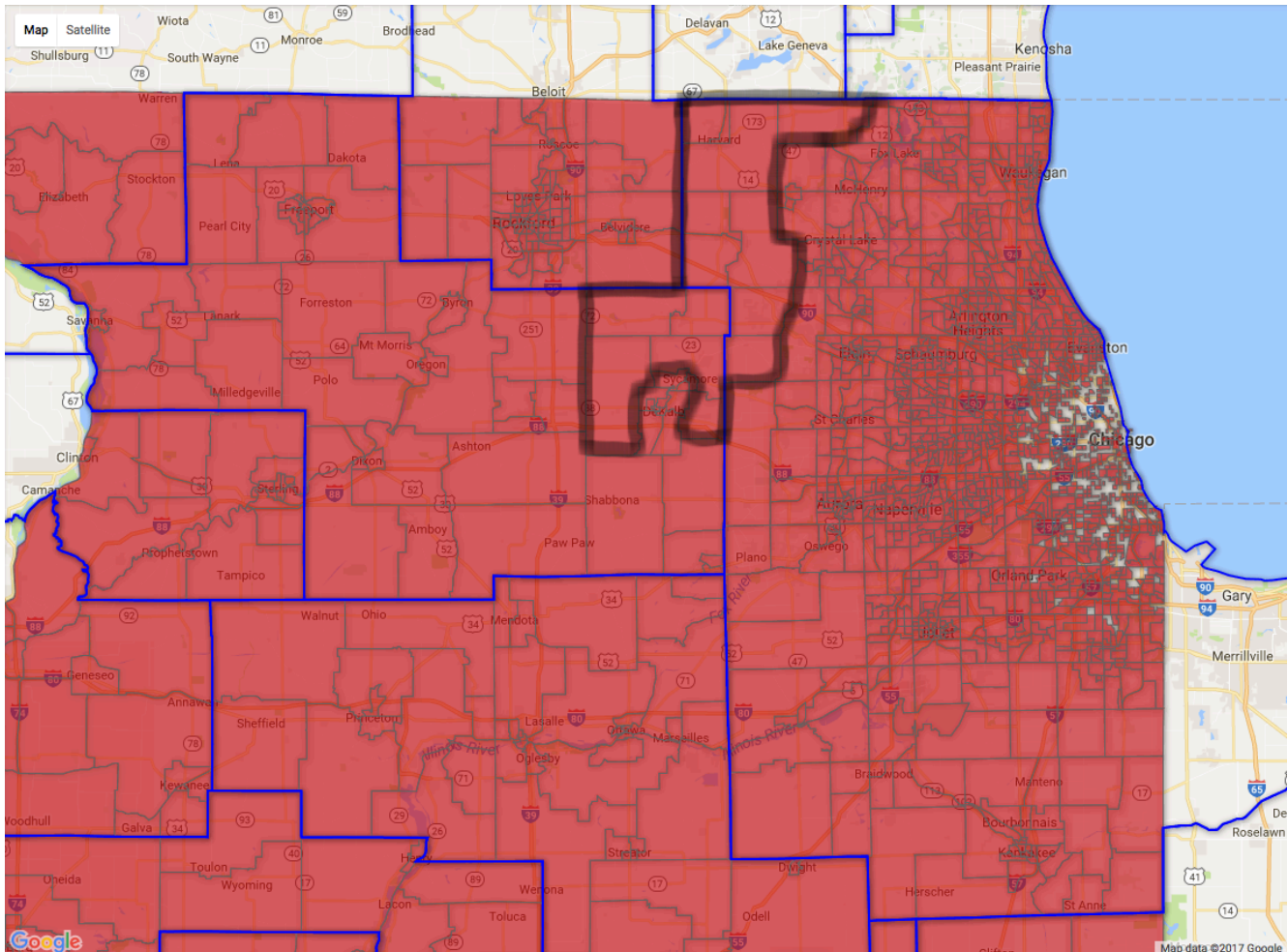
We think we are pretty good at qualifying locations over the phone and do not invest technician time to attempt to install service where we know we cannot deliver it. That said, we have a 63% success rate for installing service. That means we invest time and money to attempt an installation and we cannot provide service 37% of the time.

The overwhelming reason for a failed installation is trees around a home preventing a 5GHz link to a tower. We see the CBRS mid-band spectrum as a solution to help provide Internet service to more people within our footprint who are currently not serviceable. We have a NN license for 3.65GHz and have deployed some LTE gear with exceptional results. Unfortunately we have halted LTE deployments because of the uncertainty created by the NPRM. The towers we deployed LTE on are providing service to customers that until then generally had no service available to them that wasn't satellite based or data cap limited.

We have been providing wireless Internet service since 2003 using unlicensed bands. We are familiar with working around interference and the dynamic nature of these bands. Our customer base has matured and the reliance on unflappable Internet has increased. We are very interested in PALs but they need to be obtainable by companies of all sizes and use cases. A PAL will help e-vergent avoid interference and also allow us to work with a known amount of spectrum vs a dynamic allocation of GAA which could cause a capacity shortage on the network. PALs will

allow us to deliver a higher level of reliability to our rural customers than we have previously been able to with unlicensed spectrum.

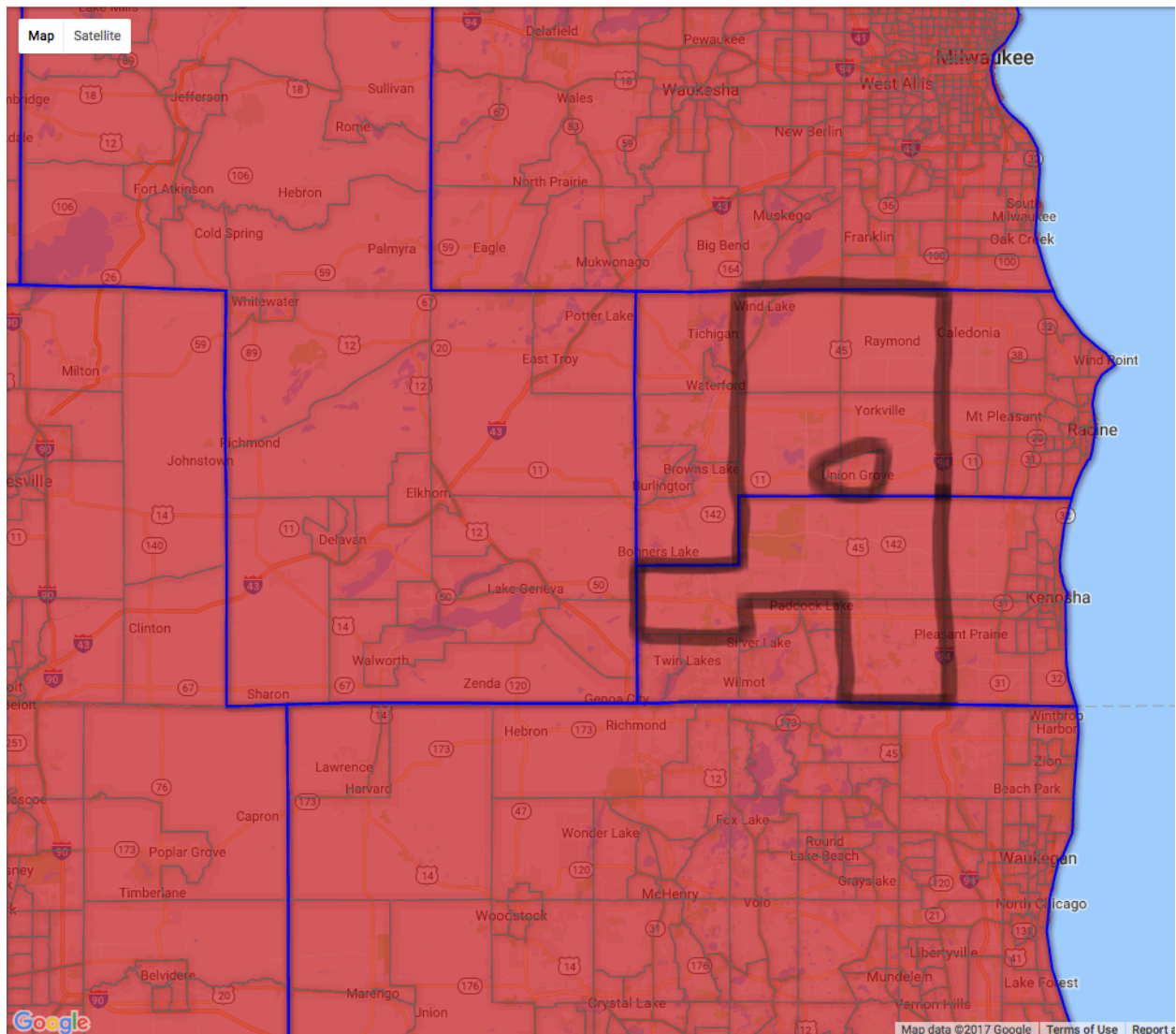
The census tract size PALs are right sized for implementing micro solutions to solve rural America's broadband issue. WISPs such as e-vergent are ready, willing, and able to deploy networks using the CBRs band to locations where we know it is needed. Looking at the following image, the rural area outlined in black is where we are interested in bidding on PALs in Illinois.



You will see some of the area is within PEA 3 (Chicago) and the adjacent PEA 224. PEA 224 touches the Chicago suburbs and Iowa, which is a huge land area to cover for us. Furthermore, the Chicago PEA is too large and populous for a company like ours to bid on. We would only deploy a network in a handful of the rural census tracts of each PEA making it much too costly for us. Making it too costly, by keeping the license area the size of a PEA, means that a company like e-vergent is never going to be able to provide the rural residents of PEA 3 and 224 PAL

based Internet. The outlined area comprises 12 census tracts between the two PEAs. If we were able to secure PAL based spectrum we could provide 25Mbps service via PAL based CBRS spectrum. Right now we provide service in this area with 5GHz only. We provide service to many customers in these small towns using 5GHz spectrum, but there are many potential customers who are interested in service, we estimate 37% of the people who call us, who we cannot serve because we do not have access to a spectrum band that will provide a non-line-of-sight connection. We want to invest in PALs in these areas so that we can provide broadband to these currently un-served locations.

In our Wisconsin network we can also show why census tracts are the right solution compared to a PEA or county sized license. Again the following image shows where we intend to bid on PAL licenses in 6 census tracts in Wisconsin split between two PEAs, 287 and 269.



We have a number of towers in the rural areas West of I-94 in Racine and Kenosha Counties where we use 5GHz already. The census tract model aligns with being able to deploy PAL based service exactly where broadband is needed and nothing more. This means other users would be able to deploy PAL based service elsewhere in the county promoting increased usage of the spectrum resource. The people East of I-94 generally have the choice of Internet from both the Cable and Phone providers. Lumping the census tracts in the West with the municipalities East of I-94 means that the rural customers without service remain without service due to the increased cost of licensing for areas we would not deploy a network but have considerable population size. Again we estimate that 37% of the people who call us for service cannot have it installed because we do not have access to a spectrum band that will provide a non-line-of-sight connection. In these two cases in Wisconsin, the PEA is the size of the county. This shows even a license tied to a county is too large in size.

The additional 100MHz of spectrum will go a long way toward delivering the capacity to the areas that need it the most. The current 50MHz of spectrum in the 3.65 band does not leave a lot of room to go to move around interference sources. Clean spectrum is critically important to e-vergent so we can deliver reliable service and increased capacity to meet the needs of our customers.

To be clear we oppose the proposals to increase the size of PALs to the size of a PEA or even a county. The three-tier model is innovative and allows networks of all types and use cases to develop. GAA spectrum is fundamentally important to service providers as well as other independent networks. We support the WISPA proposals including the licensing terms.

Thank you for your consideration,

Joseph Falaschi
General Manager
e-vergent.com, LLC.