

From: Antonio Forenza

To: Anthony Serafini

Date: September 08, 2015

Subject: Request for Info - File # 0275-EX-PL-2015

Message:

Dear Tony:

Below are the answers to your questions. Note that we've filed the requested diagram as Exhibit 5. Thank you.

1. The experimental license application form lists 3 types of antennas that might be used at each location. It wasn't intended to indicate the number of antennas that might be used at each location. We couldn't find any place in the application form to make this distinction. Each location typically has at least 8 antennas (8 radio heads, each with an antenna) and might have as many as 32 antennas (32 radio heads, each with an antenna).

2. The multiple locations cooperate to support any number of mobile devices in the vicinity near them. In general, no one location supports a mobile device alone, and there is not a fixed number of devices that can be supported by the network. Rather, the locations work together to support an arbitrary number of devices.

3. pCell is a C-RAN architecture. There are no base stations, only remote radio heads. All of the waveform processing is done at the centralized data center remote from the radio head deployments.

4. The diagram filed as Exhibit 5 shows an aerial view of 2nd Street in San Francisco where you can see 2 of the buildings which we might use, 301 Brannan Street and 625 2nd Street. For the sake of illustration, we've shown possible antenna placements as yellow triangles. Note that each antenna is the antenna of a remote radio head. There are no base stations on the rooftops. Since 301 Brannan is on a street corner and is taller than the buildings adjacent to it, we'd likely place antennas facing out on 4 sides. So, this is a building where we'd likely use 32 antennas. Since 625 2nd Street is a short building in the middle of a street, we'd likely only place antennas on the side of the roof facing the street. So, we might place as few as 8 antennas onto this roof, but possibly more because it is a wide roof, but probably not as many as 32. Note that the actual antennas are much smaller and typically lower height than the yellow diagrammatic antennas we are showing. We expect them to be about the size of 10"x10" patch antennas. If they are located at the edge of the roof, at most they only need to be high enough to be above any wall on the roof edge. If they are further back on the roof, we might use a short mast so they have a view that partially clears the edge of the roof. But, towers and tall masts are not planned to be used.

5. How many people will be participating at each segment of the trial?
Initially, no people other than a few technicians (less than 8) will be participating.
Next, we plan to expand to up to 64 people testing in the local area
Next, we plan to expand to up to 256 people testing in the local area
Finally, we plan to expand to up to 1024 people testing in the local area

6. Will the market trial be generating revenue?
No.

7. What is the expected length of the trial?
Given that this is a new technology, it's hard to predict the exact duration, but we hope to be completed within 6 months. It might continue for a year or more.

8. Who exactly will be participating in the trial? For example, employees? Non-employees? etc.
All of the technicians are our employees/contractors or those of our partners
As we get to medium-size numbers, we'll invite non-employees to be alpha testers using iPhone/iPad devices provided to them
As we get to larger-size numbers, we'll invite non-employees to be beta testers who have their own iPhone/iPad devices

9. Are the iPhones and iPads unmodified and certified devices?
Yes. They are all unmodified and certified iPhone/iPad devices, all purchased in US retail stores (mostly at the Apple Store).