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September 21, 2017

Via ECFS

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: EX PARTE NOTICE

**Amendment of the Commission's Rules with Regard to Commercial Operations
in the 3550-3650 MHz Band, GN Docket No. 12-354, RM-11788 and RM-11789**

Dear Ms. Dortch:

On September 19, 2017, JT Hwang, General Manager and Mike Hart, Vice President of Engineering with Vivint Wireless, Inc. ("Vivint") and the undersigned met separately with:

- Rachel Bender, Wireless and International Advisor to Chairman Pai;
- Erin McGrath, Legal Advisor to Commissioner O'Rielly;
- Daudeline Meme, Legal Advisor to Commissioner Clyburn;
- Kevin Homes, Acting Legal Advisor to Commissioner Carr;
- Travis Litman, Legal Advisor to Commissioner Rosenworcel; and
- Dana Shaffer, Nese Guendelsberger, Paul Powell, Jessica Greffenius, Matthew Pearl, and Kamran Etemad of the Wireless Telecommunications Bureau ("WTB") and Robert Pavlak of the Office of Engineering and Technology ("OET").

In all of these meetings, Vivint discussed issues raised in its comments and reply comments in the above-referenced proceedings potentially affecting the Citizens Broadband Radio Service ("CBRS") rules. Specifically:

- We urged the Commission to reject proposed CBRS rule changes and to maintain the census tract geographic area for Priority Access Licenses ("PALs"), the three (3) year license term for PALs with the ability to initially apply for two consecutive terms for a total of six years, and the allocation of 70 MHz for PALs and 80 MHz for General Authorized Access ("GAA") use. Vivint and others have already made

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tremendous investments in CBRS under the existing rules and are anxious and ready to deploy networks.

- We explained that CBRS spectrum (both GAA and PAL) is critical to Vivint's ability to offer a competitive and affordable fixed wireless broadband service to retail customers, principally in underserved suburban markets where only one or two fixed offerings are available. We further explained the significant difference between the primary access necessary to provide a high-quality, reliable fixed wireless offering using CBRS versus extension or augmented access required by mobile providers to address spill over from low-band or other mid-band spectrum.
- We discussed Vivint's need for liquidity with respect to license area and term of PALs. Census tract based PALs permit companies like Vivint to acquire rights to areas as they are ready to deploy services. In contrast, a large license area like the proposed Partial Economic Area ("PEA") would stifle competition from a company like Vivint given the need to raise significant capital to acquire such a license. Moreover, to the extent Vivint did not prevail at auction, it would likely have reduced access to unused spectrum on the secondary market. In addition, coupling a large license area with a license term longer than three years, especially with an option to renew in perpetuity, would effectively keep competitors like Vivint out of many markets altogether or would prevent an affordable service offering.
- We asked the Commission to expeditiously complete the certification of Spectrum Access System (SAS) and Environmental Sensing Capability ("ESC") administrators. Long-term investment in CBRS is difficult until the SAS and ESC certification is concluded, and such certification appears to be the only impediment to GAA deployment.

Attached is a copy of the written presentation materials circulated to WTB and OET staff. If you have any questions regarding this filing, please feel free to contact the undersigned.

Respectfully submitted,

/s/ Danielle Burt

Tim Bransford
Danielle Burt

Counsel for Vivint Wireless, Inc.

cc (via email): Rachel Bender

Marlene Dortch, Secretary
September 21, 2017
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Robert Pavlak

vivint.SmartHome™

The leading Smart Home company in North America



#1

Largest Smart Home platform in the world*



1.2 million

Customers across North America



19.7 million

Connected devices



\$848 million

Annual recurring revenue and \$482 million in LQA EBITDA



Nationwide

Sales, installation, and service footprint



700+ million

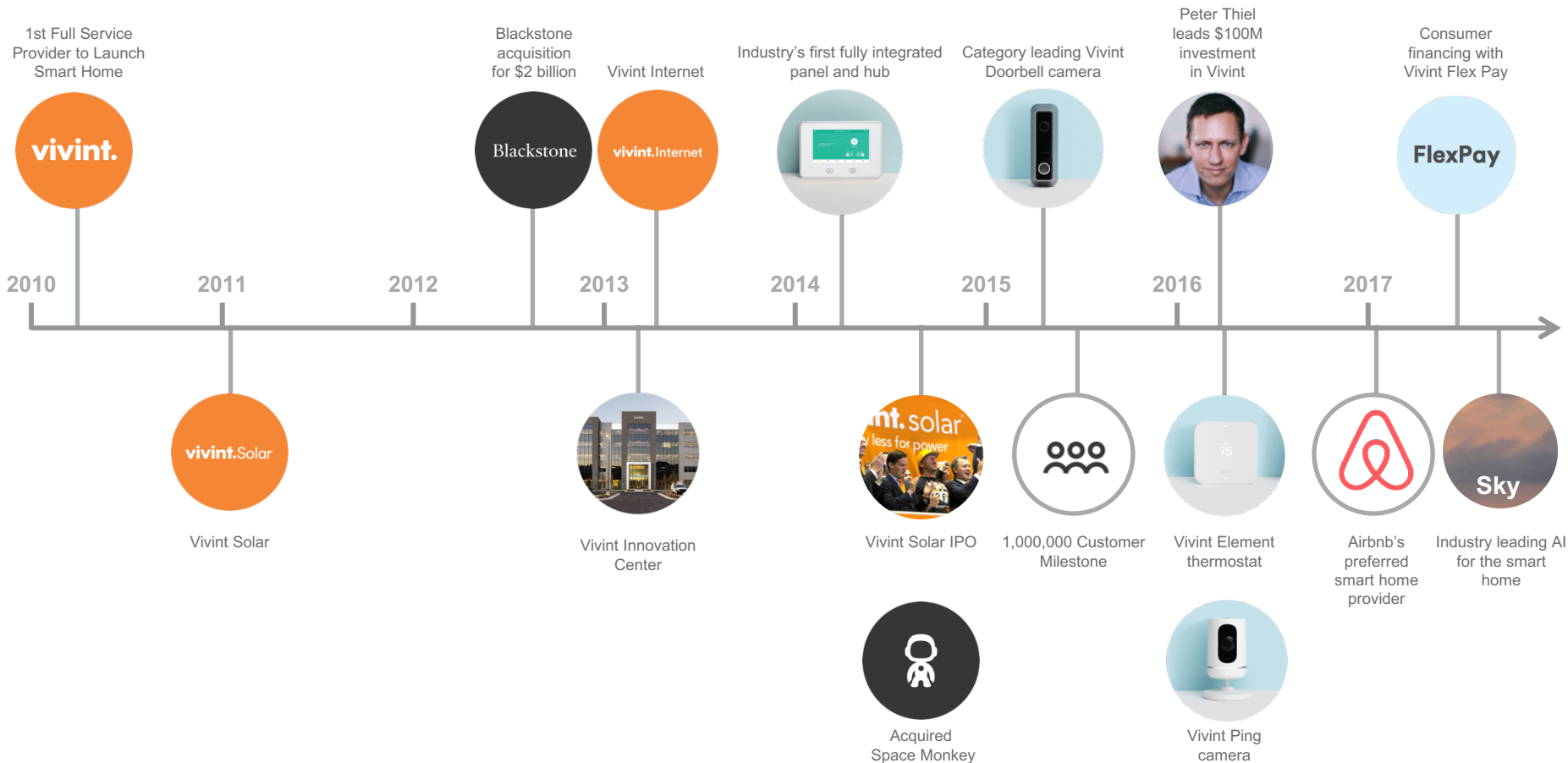
Daily events processed by artificial intelligence system



Incubated

Successful adjacent businesses

Key milestones



“...the experience is magical.”

TC TechCrunch



Vivint Doorbell
Camera



Vivint Ping
Camera



Vivint Element
Thermostat



Vivint Glance
Display



Vivint Smart Home
App



Amazon Echo



Kwikset
Smart Lock



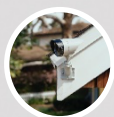
Nest Learning
Thermostat



Lighting
Control



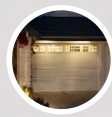
Vivint Smart
Drive



Outdoor
Camera



Motion
Detector



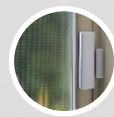
Garage Door
Controller



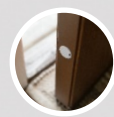
Smoke Detector



Flood
Sensor



Window
Sensor



Recessed Door
Sensor

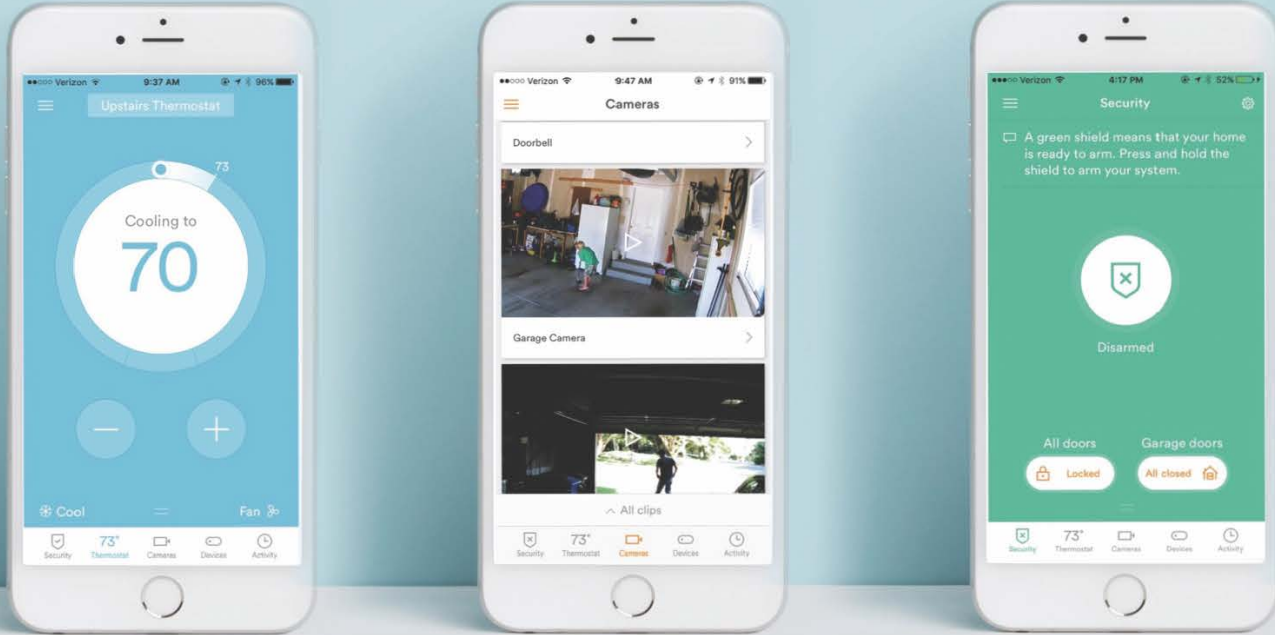


CO Detector



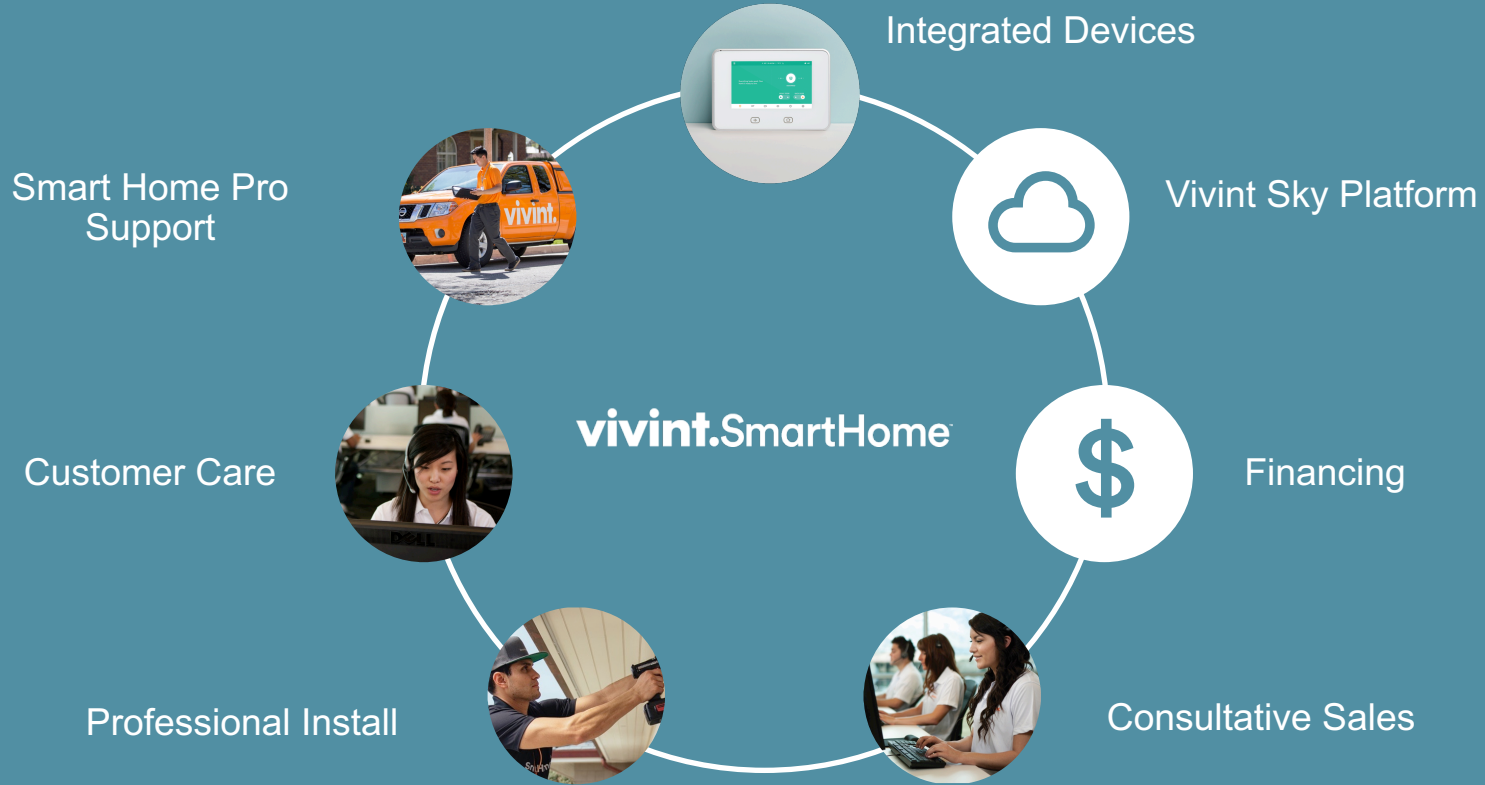
Glass Break
Detector

Vivint Smart Home App

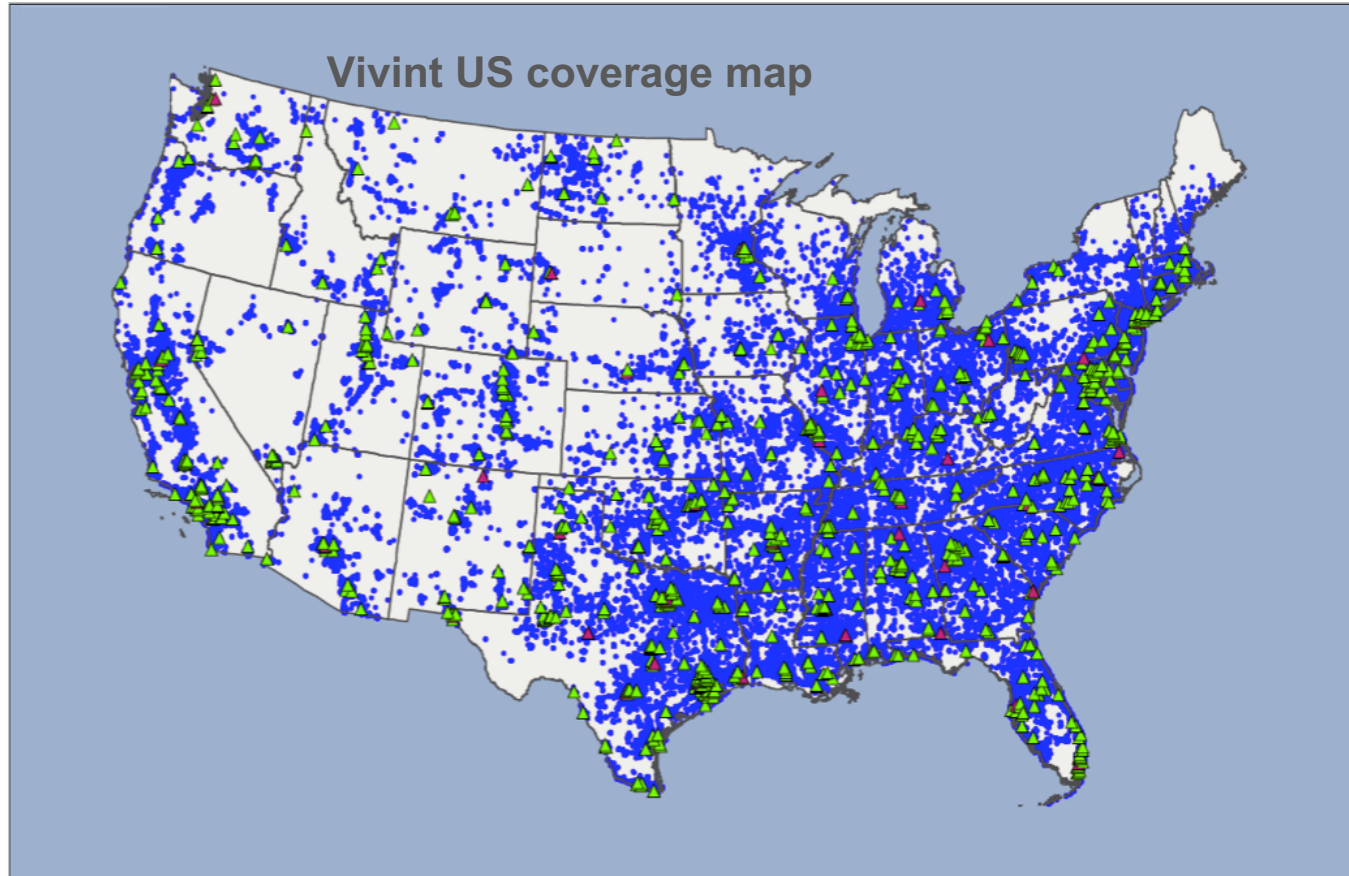


4.5 app star rating

We Have Built a Company to Overcome the Key Barriers



Vivint provides nationwide coverage



Focused efforts across technology, channel and financing continues to accelerate Vivint's momentum as the Smart Home leader

"Vivint Smart Home is the No.1 smart home service provider in the U.S."

– Strategy Analytics, 2017

FAST COMPANY
THE WORLD'S 50 MOST INNOVATIVE COMPANIES 2017

Why Vivint Smart Home Is One Of The Most Innovative Companies Of 2017
The company's device-subscription packages are opening the door to the connected home of the future.



[Photo: courtesy of Vivint Smart Home]

FAST COMPANY STAFF | 02.13.17 | 8:00 AM

"We're taking what's very complicated and simplifying it for the consumer,"

Forbes / Tech / #CuttingEdge

This Utah Company Has Emerged As The Biggest Smart Home Player



Traveling tech salesmen: Vivint Smart Home president Alex Dunn, left, and CEO Todd Pedersen (Photo credit: Tim Parnell for Forbes)



Aaron Tilley, FORBES STAFF
I cover hardware and chipmakers. [FULL BIO](#)

This story appears in the July 26, 2016 issue of *Forbes*. [Subscribe](#)

On the first warm summer week of the year in Provo, Utah, the headquarters of

YAHOO! FINANCE Search for news, symbols or companies

Vivint Smart Home Tops the Strategy Analytics List of Smart Home Service Providers in the U.S.



Business Wire January 26, 2017

PROVO, Utah--(BUSINESS WIRE)--

Vivint Smart Home is No. 1 on the list of the Top 10 Smart Home Service Providers in the U.S., according to a recent report from Strategy Analytics. The report highlights companies that offer a range of smart home services, including monitoring, notification, automation and energy management.

By the end of 2016, Strategy Analytics estimates that nearly 30 million homes in the U.S. had one or more smart home capabilities and projects this number to grow 20 percent to more than 35 million homes by the end of 2017.

cnet THE LATEST NEW PRODUCTS MUST-SEE

Vivint and Airbnb join forces to protect your rental

Security company Vivint has teamed up with Airbnb to make the rental process easier for guests and hosts.



San Francisco-based Airbnb rents residential properties in over 34,000 cities and 191 countries.

John van Hasselt, Carlos via Getty Images

Professional home security and monitoring company Vivint today announced a partnership with international rental agency Airbnb at CES 2017 in Las Vegas. Through this collaboration, new and existing Vivint customers should be able to link to their Airbnb account through the Vivint Smart Home app for Android and iPhone.

FAST COMPANY

Forbes

THE VERGE

WALL STREET JOURNAL

TC TechCrunch



FORTUNE

USA TODAY



DIGITAL TRENDS



vivint.SmartHome

Vivint's opportunity is massive

— IN 2016 —

<1%

VIVINT MARKET PENETRATION

Additional opportunities:

- Adjacent services
- International expansion
- Platform extension (e.g., data services)

Vivint is developing a Fixed Wireless ISP

- Founded in 2014
- Vivint's direct to home model is ideal for small cell deployment and sales
- Vivint has the fastest wireless ISP speeds in the nation and is in the top 30 across all providers according to Netflix study
- Currently servicing customers in various states
- Proven leader in low cost site acquisition and rapid deployment



Vivint Supports The FCC's Carefully Crafted CBRS/3.5 GHz Rules

- **Wireless spectrum provided through the Citizens Broadband Radio Service (CBRS) rules will enable Vivint to become a disruptive alternative option for broadband service**
- **Current painstakingly crafted CBRS rules strike the right balance between many diverse and competing interests**
 - Coastal radar protected
 - Census tract geographic Priority Access Licenses (PALs) allow new entrants to compete for licensed spectrum without shutting out traditional cellular carriers
 - General Authorized Access (GAA) unlicensed users get guaranteed use of uncongested spectrum with favorable propagation characteristics
- **The tremendous investment already made by OEMs and others (including Vivint) evidences a growing ecosystem and confirms that the existing rules work**

Pending CBRS Petitions Propose Changes Harmful to Innovation

- **Census tract based PALs encourage new entrant auction participation**
 - Lower capital investment for census tract licenses “levels the playing field” and promotes new entrant participation in PALs auction
 - Partial Economic Area (PEA) based licenses would require new entrants to raise large amounts of capital and create an artificial barrier to entry
 - No policy or technical basis for changing course; Spectrum Access Systems (SAS) optimized for smaller licenses; cellular interests can aggregate licenses as needed
- **3-year term license terms promote innovation**
 - Commission rightly concluded that shorter license terms would “promote competition, spurs innovation and encourage rapid network deployment”
 - 10-year terms will leave suburban/rural areas underserved or unserved altogether
- **Proceed with 70 MHz auction**
 - Commission’s rules balance licensed and unlicensed user interests
 - Auctioning all CBRS spectrum would create major delays, strand existing investments in CBRS, chill future investments

Prompt Certification of SAS/ESC Administrators Needed

- **CBRS/3.5 GHz deployment possible today**
 - Hardware available, awaiting equipment authorization
 - SAS and ESC systems deployed and ready to test
- **Certification of SAS and Environmental Sensing Capability (ESC) administrators only impediment**
- **Long-term investment in CBRS difficult until SAS/ESC certification concluded and systems ready for commercial service**
- **Prompt certification ensures positive forward momentum for CBRS and ensure that Vivint and other new entrants can deploy networks in early 2018**

Appendix

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