



**DLA Piper LLP (US)**  
500 Eighth Street, NW  
Washington, DC 20004  
www.dlapiper.com

Nancy Victory  
nancy.victory@dlapiper.com  
T 202.799.4216  
F 202.799.5616

January 5, 2018

**VIA ECFS**

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

RE: Notice of Ex Parte – 3.5 GHz Spectrum Access System (“SAS”) Administrator(s) and  
Environmental Sensing Capability (“ESC”) Operator(s) Applications, GN Docket No. 15-319.

Dear Ms. Dortch:

On January 4, 2018, executives of Federated Wireless, Inc. (“Federated”), including Iyad Tarazi (CEO), Kurt Schaubach (CTO), and Ross Vincenti (CLO), together with their counsel from DLA Piper, R. Michael Senkowski and the undersigned, met with Chairman Ajit Pai and his legal advisor, Rachael Bender. During the meeting, Federated provided Chairman Pai with an overview of the company and its recent activities, including Federated’s progress on the development of its Spectrum Access System (SAS) and Environmental Sensing Capability (ESC) platforms and the progress of its field trials.

Federated also discussed with the Chairman the remaining steps for the deployment of these platforms, including final SAS and ESC certification and approval. As detailed more fully in the attached presentation deck, Federated emphasized the need to ensure timely approval of SAS administrators and ESC operators, including by setting a timeframe for completing certification and defining a reasonable process for public testing. The company indicated to the Chairman that it stands ready to assist the Commission in moving forward with these processes.

Respectfully submitted,

**DLA Piper LLP (US)**

/s/ Nancy J. Victory

Nancy J. Victory  
Partner

NV

cc: Chairman Ajit Pai  
Rachael Bender

A background image showing the back of a person with voluminous, curly brown hair. The person is looking towards a bright, sunlit outdoor area, possibly a park or street, with a blurred car visible in the distance. The lighting is warm and golden, suggesting late afternoon or early morning.

# Federated Wireless

unlocking a spectrum of possibilities

January 4, 2018

# Federated Wireless

## Pioneering Shared Spectrum Technology

- HQ in Arlington, engineering center in Boston, executive office in Silicon Valley
- Founded in 2012, nearly \$75M invested to date, raised \$42M Series B funding
- IP developed by founding technologists from Virginia Tech, Department of Defense (DoD), and Defense Advanced Research Projects Agency (DARPA)
- Leader in software solutions to enable a revolutionary shared spectrum paradigm
  - Founder and Co-Chair WInnForum Spectrum Sharing Committee
  - Co-founder and Board member CBRS Alliance

# Series B Investment

## Deal terms

- Proceeds: \$42m
- o/w new investors: \$27m
- Use of proceeds: sales & marketing, continued R&D; and infrastructure investment
- Valuation (pre): \$79.5m
- Valuation (post): \$121.5m
- Deal materially over-subscribed

## Syndicate



# Federated Wireless Progress

## Accomplishments

- 20+ OEM partner integrations to SAS
- 30+ SAS demonstrations and technical trials
- Launch of Spectrum Controller for field trials
- Field verification of commercial ESC sensor platform

## Upcoming Milestones

- SAS & ESC certification
- Major field trials started in late 2017 and going into 2018
- Roll out of ESC infrastructure
- Customer commercial launches (3 – 5 in 2018)
- First commercial revenue

# Field trials

Announced and underway in Q4 2017



- Validate LTE and Spectrum Controller technology
- New wireless strategy
- First ESC deployments
- Large-scale access deployment
- Indoor and outdoor



- Wireless infrastructure solutions for enterprises and venues
- Flexible and unified end-to-end ecosystem
- New in-building solutions: CBRS, neutral host, private LTE



- Enterprise and Residential Wi-Fi System Solutions
- Wireless and wired backhaul
- Smart City Wireless Infrastructure
- 17 active or completed CBRS trials



- First end-end carrier grade CBRS trial
- Network densification: advanced LTE
- Adds CBRS to unlicensed LTE portfolio and small cells
- Field trials to begin in the fall
- Key to ecosystem roll-out: devices; chipsets



# Spectrum Controller: Trial Statistics

18 Different  
OEM  
Vendors

135+ CBSDs On-Air



415k+  
Heartbeats per



# The Path To CBRS Commercialization

## Three issues to address

- Eliminate remaining bottlenecks for final SAS and ESC certification and launch including the SAS Public Test procedures and the registration of protected FSS earth stations.
- Expedite approval of SAS administrators and ESC operators to maintain market momentum and investment in CBRS.
- Resolve CBRS rulemaking in a manner that does not delay SAS and ESC approvals and preserves access to CBRS spectrum for as many users and use cases as possible.



# How the FCC Can Help

Demonstrated commitment to timely launch of CBRS is critical

- Set a date for completing SAS and ESC certification by June 30, 2018
- Commit staff and resources to ensure all required testing stays on track
- Send letter to NTIA Administrator stressing the importance of timely and focused SAS and ESC testing
  - FCC and NTIA commit to keeping ITS test plan review to within the allotted 60 day window
  - ESC testing must keep moving forward with completion concurrent with SAS testing
- Establish procedures and a reasonable timeline for public testing

# Federated Wireless Is Ready

SAS and ESC developed and proven in field trials; ready for certification testing

- Federated stands ready to assist Commission staff in any way possible to expedite the SAS and ESC certification process
  - Federated is committed to making staff available whenever and wherever needed throughout testing period to demonstrate or explain aspects of its SAS operation to Commission staff
  - Federated is committed to working interactively with Commission staff to address any issues identified during testing and taking appropriate action as expeditiously as possible
  - Federated is committed to working with Commission/NTIA/DoD to test and certify ESC



Thank You