March 12, 2014

VIA ELECTRONIC FILING

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

Ex Parte Presentation

GN Docket No. 13-185
Amendment of the Commission's Rules with Regard to Commercial Operations in the 1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz Bands

Dear Ms. Dortch:

On March 11, 2014, Douglas C. Smith, CEO; Randy Clark, VP Special Projects; Janice Obuchowski, and Jay Chauhan, representing Oceus Networks Inc. ("Oceus Networks") met with David Goldman, Senior Legal Adviser to Commissioner Rosenworcel.

During the meeting, representatives from Oceus Networks provided an overview of company's work adapting commercial wireless technologies for military, first responder, critical infrastructure industry and other markets. Representatives from Oceus Networks identified interest by these users in 4G LTE due to economic and capability benefits and the need for spectrum to support the use of this technology.

Oceus Networks identified how a bi-directional sharing framework that provides access by military users to the band pairing, 1755-1780 MHz and 2155-2180 MHz, could fulfill training requirements on remote bases and ranges with limited impact to auction revenues.

Respectfully submitted,

/s/ Jay Chauhan
Jay Chauhan

cc: David Goldman

Meeting the Spectrum Challenge for Tactical LTE Deployments

MARCH 11, 2014

OCEUS NETWORKS

Networking for a Better Tomorrow

DESIGN. BUILD. OPERATE.

OCEUS NETWORKS

- Offer State-of-the-Art tactical 4G LTE solutions to DoD and other Federal Users
  - Open, standards-based, architectures leverage industry innovation, devices, & apps
  - Oceus customers access same technological capabilities of commercial consumers
- Deliver complete broadband solutions to tactical and enterprise environments
  - Adapt commercial tech for critical, secure missions (Government / Public Safety)
    - Specializing in Wireless – 4G LTE, 3G, 2G, WiFi, DAS, and Backhaul
  - Offer rapidly deployable and highly survivable solutions for range of missions on diverse platforms (aerial, maritime/ship, vehicular, backpack) and configurations (mobile, fixed, portable)
- US-owned and exclusive provider of Ericsson products and services to DoD, Intelligence Community, and State Department
  - Staff has ~700 years of commercial cellular expertise
  - Ericsson – world leader in mobile 4G LTE networks and broadband products
    - ~$5B annual investment in R&D

Innovating to meet the needs of our warfighters & first responders

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OCEUS KEY DIFFERENTIATORS

Performance

- World's best commercial radio (Ericsson)
- One commercial evolution path
- 60 watt Macro Cell in small, deployable package
- Significant range (~20 miles)
- Fixed & deployable via land, sea, & air

Interoperability

- Oceus supports 34 frequency bands
- Oceus technology delivers assured interoperability with world's LTE ecosystem
- Open, 3GPP standard-based architecture supports commercial industry evolution
- Xiphos JITC tested for land, sea, & air

Security

- Private commercial grade network
- Oceus developed commercial encryption
- 4G LTE Security architecture approval for Secret on commercial devices – Government First!

Commercial-grade solution with military-grade security deployed today

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HOW LTE SUPPORTS WARFIGHTERS

- Supports mobile broadband capabilities that enables use of commercial mobile devices and mobile applications
  - Saves lives globally
  - Increases mission-effectiveness
- Provides increased capability at decreased cost
- Can enable DoD interoperability with public safety and civilians in emergencies

DoD is seeking to leverage LTE eco-system and innovation

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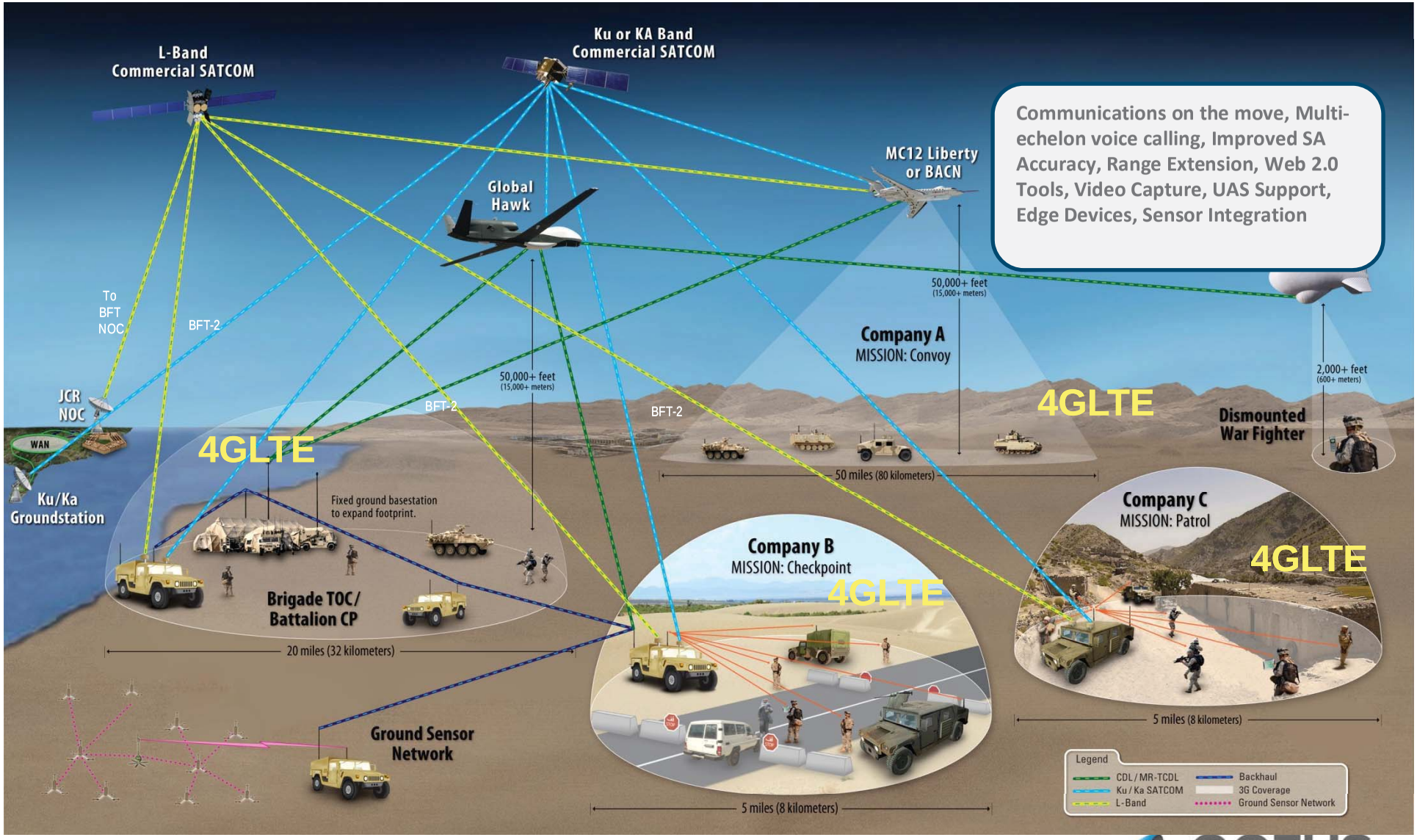
OPERATIONAL CONCEPT – 4GLTE SERVICES AT THE TACTICAL EDGE



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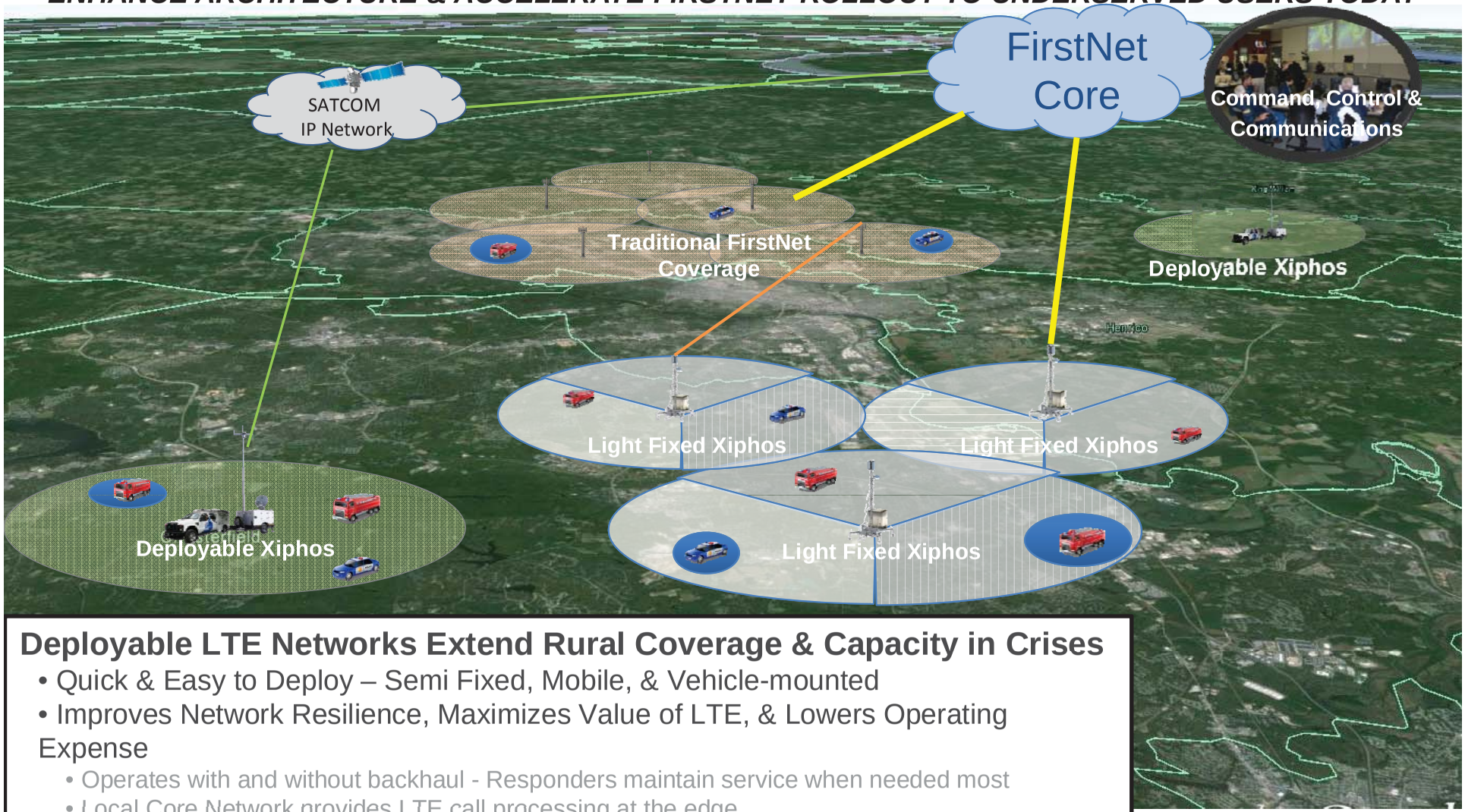
OCEUS FIRSTNET SOLUTION APPROACH

ENHANCE ARCHITECTURE & ACCELERATE FIRSTNET ROLLOUT TO UNDERSERVED USERS TODAY



Deployable LTE Networks Extend Rural Coverage & Capacity in Crises

- Quick & Easy to Deploy – Semi Fixed, Mobile, & Vehicle-mounted
- Improves Network Resilience, Maximizes Value of LTE, & Lowers Operating Expense
  - Operates with and without backhaul - Responders maintain service when needed most
  - Local Core Network provides LTE call processing at the edge
  - On-board Application Servers provide video, voice & data without backhaul
- Delivers FirstNet Interoperability with Lower Satellite Operating Expense
- Provides Local Visibility, Provisioning and Control
- Engineered & Produced in the USA

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WHITE HOUSE SPURS BI-DIRECTIONAL SHARING

- Section 7 (b) of President's Executive Memorandum – June 14, 2013

Sec. 7. Rapid Deployment of Wireless Broadband. The FCC is strongly encouraged, in collaboration with NTIA, where appropriate, to expedite the repurposing of spectrum and otherwise enable innovative and flexible commercial uses of spectrum, including broadband, to be deployed as rapidly as possible by:…..(b) identifying spectrum allocated for nonfederal uses that can be made available to agencies, on a shared or exclusive basis….

- FCC Seeks Comment On Bi-Directional Sharing In Its 1755-1780 MHz Rulemaking – July 23, 2013

1. Federal Use of AWS-3 Spectrum including 2155-2180

81. Shared use of spectrum bands by Federal and non-Federal users could facilitate the increased use of "commercial-off-the-shelf" ("COTS") communication technologies to support important government missions, including military uses. By allowing government users to tap into global scale economies of the commercial market, the use of COTS devices, networks, and components could potentially help improve the performance and cost of certain government communications systems, where appropriate. Moreover, the use of such technologies might also increase electromagnetic compatibility with commercial uses, thereby facilitating greater shared use of spectrum. Accordingly, we seek comment on whether Federal users should be able to access the AWS-3 band(s), including spectrum not presently allocated for Federal use (e.g., 2155-2180 MHz), on Federal lands or properties that are generally unserved by commercial wireless networks. [1]

[1]FCC, Amendment of the Commission's Rules with Regard to Commercial Operations in the 1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz Bands, *Notice of Proposed Rulemaking*, FCC Docket No. 13-102, rel. July 23, 2013.

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POLICY MOMENTUM CONTINUES BUILDING FOR BI-DIRECTIONAL SHARING

- NTIA Letter to FCC Endorsing Spectrum Sharing – November 25, 2013

Third, NTIA appreciates the FCC seeking comment on options for preserving federal users' access to the AWS-3 bands on federal lands and military training ranges in unpopulated areas that are generally unserved by commercial wireless networks. NTIA agrees that expanding opportunities for federal access to this spectrum, including bands not specifically allocated for federal use (e.g., 2155-2180 MHz), may allow federal agencies greater flexibility to meet tactical, training, and other requirements. Federal agency domestic spectrum needs, particularly DoD's, sometimes require intermittent or geographically limited tactical and training operations that may not hinder the nationwide implementation of wireless broadband services.

- NTIA/Commerce Spectrum Management Advisory Committee (CSMAC) Study Item – August 2013

Federal agencies and particularly the Department of Defense need significant amounts of spectrum for large training exercises, however, the United States cannot afford to obligate so much spectrum all the time for such exercises. What approaches to authorization, coordination would facilitate access to spectrum for training? Should DOD expect to pay license holders for that access? Should DOD expect to pay for access even where the license holder does not provide coverage?

- FCC Technological Advisory Council COTS Working Group (December 2013)

Recommendation 2: Identify spectrum sharing opportunities in under built commercial areas collaboratively with Industry Stakeholders

•Work collaboratively with industry stakeholders in a workshop to cover spectrum sharing options as part of a broader workshop that discusses Enterprise requirements for Wireless Broadband Services

•Explore possibilities for public safety/emergency service usage of private networks

•Look at evolving technologies that support sharing

SPECTRUM ACCESS FOR FEDERAL USERS ON MILITARY BASES

- Removes spectrum barrier to DoD commercial wireless technology adoption
  - DoD needs same spectrum roadmap as commercial for LTE to be used
  - Support U.S. warfighters' domestic "train as we fight' needs
- Supports policymaker, FCC, and Industry goal for more use of commercial technology by DoD
  - Industry seek more use of commercial technology for DoD. Ultimately, expands opportunities for sharing and interoperability.
- Proposed sharing regime in AWS-3 band provides opportunity for fuller spectrum use by allowing military access to band in geographic areas with limited 2G and 3G carrier buildout
  - FCC build-out requirement for most 700 MHz licenses excludes federal lands including military bases
  - Areas are economically unattractive to carriers who sought this relief.

Spectrum access on base is critical enabler for DoD tactical LTE use

Strong Policy Basis To Support Shared Use of Some LTE Bands

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