

March 7, 2014

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

Re: *Revision of Part 15 of the Commission's Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band*  
(ET Docket No. 13-49) – NOTICE OF ORAL EX PARTE PRESENTATIONS

Dear Ms. Dortch:

I am writing pursuant to Section 1.1206(b)(2) of the Commission's Rules to notify the Commission that on March 6, 2014, Mary L. Brown, Director, Government Affairs of Cisco Systems, Inc. ("Cisco") and the undersigned had separate meetings with Renee Gregory, Legal Advisor to Chairman Tom Wheeler, Brendan Carr, Legal Advisor to Commissioner Ajit Pai, Louis Peraertz, Legal Advisor to Commissioner Mignon Clyburn, and Erin McGrath, Legal Advisor to Commissioner Michael O'Rielly, to discuss the above-referenced proceeding.

During each of these meetings, Cisco presented the findings of its February 2014 Visual Networking Index mobile data forecast relating to the exploding demand for Wi-Fi and thus the need for the Commission to improve Wi-Fi access to the 5 GHz band. Most importantly, we noted that by 2018, it is expected that almost two-thirds of all mobile data traffic will be offloaded to Wi-Fi and that by 2017, almost one-half of all local access IP traffic will be over Wi-Fi. The attached materials were provided to the attendees at the meetings.

Cisco also noted in each meeting that, if the Commission believes it is necessary to adopt special rules to govern outdoor use of the U-NII-1 band to protect the underutilized feeder uplink spectrum licensed to Globalstar, Inc. ("Globalstar"), Cisco supports the March 4, 2014 proposal by the National Cable & Telecommunications Association ("NCTA"). Under that proposal, use of the U-NII-1 band would be permitted at up to 1 watt equivalent isotropic radiated power ("EIRP") with an antenna gain of up to 6 dBi, provided either that any outdoor base station uses an antenna that restricts emissions more than 30 degrees above the horizontal plane, that the device is used indoors, or that the device is used for a point-to-point link. Other outdoor uses

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would be permitted at up to 250 mW – a 75 percent decrease in power. We noted that by employing an approach based on limiting EIRP more than 30 degrees above the horizontal plane, the NCTA proposal will permit the immediate use of some existing antennas, albeit at power levels lower than the maximum 1 Watt proposed by NCTA, while incenting antenna manufacturers to develop innovative designs that will allow operations at 1 Watt in the future. We also discussed the discrepancies between Globalstar’s projections for Wi-Fi use of the U-NII-1 band and those being employed by ITU-R Joint Task Group (JTG) 4-5-6-7 in its preparations for the 2015 World Radio Conference.

We also pointed out that while the U-NII-1 band has received the most attention of late, it is equally important to the Wi-Fi community that the Commission adopt rules re-opening the 5600-5650 MHz band that is shared with Terminal Doppler Weather Radar (“TDWR”). We noted that Cisco, Wi-Fi Alliance, IEEE 802 and other stakeholders overwhelmingly supported adoption of the rules proposed by the Commission that directly addressed the known causes of interference to TDWR. However, we reiterated that other proposals advanced in the name of protecting TDWR, such as requiring a geo-location database or mandating adjacent channel sensing or imposing more stringent unwanted emissions limits, should be rejected. These additional requirements seek to address hypothetical problems that have not materialized despite years of experience in U-NII/radar sharing, are unnecessary to protect TDWR, and would unnecessarily subject manufacturers to additional costs that ultimately would be borne by the public.

Finally, Cisco reported on the ongoing efforts between Wi-Fi interests and the Dedicated Short Range Communications (“DSRC”) community to explore ways in which unlicensed uses and DSRC can share the U-NII-4 band without subjecting DSRC to harmful interference.

Pursuant to Sections 1.1206(b)(2) and 1.49(f) of the Commission’s Rules, this letter is being filed electronically with the Commission via the Electronic Comment Filing System. Should you have any questions regarding this presentation, please contact the undersigned.

Respectfully submitted,



Paul J. Sinderbrand

Counsel to the Cisco Systems, Inc.

Attachment



# Cisco Visual Networking Index (VNI) Mobile Data Forecast U.S. Highlights 2013-2018

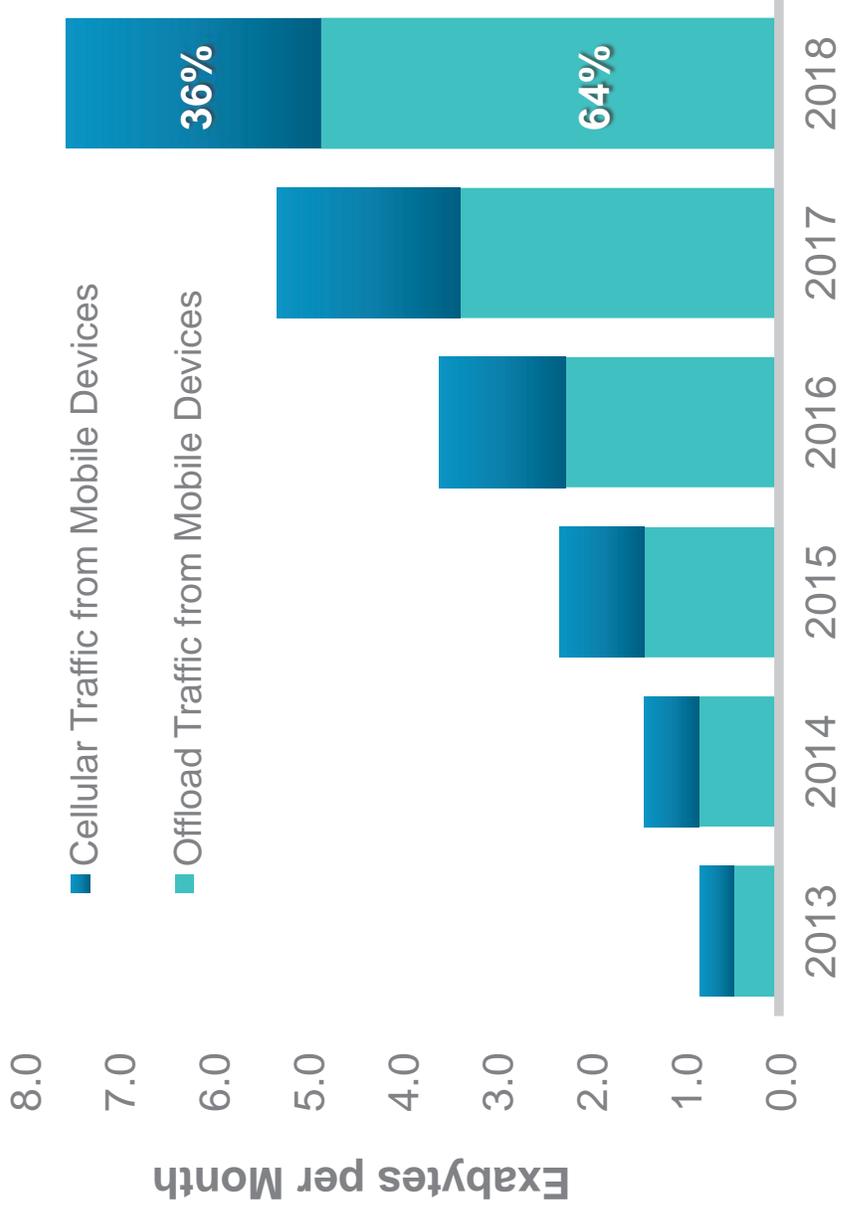
Robert Pepper, VP Global Technology Policy  
Doug Webster, VP Service Provider Marketing

February 2014



# United States Mobile Data Traffic Offload\*

64% of Mobile Traffic to be Offloaded by 2018  
57% of Mobile Traffic Offloaded in 2013

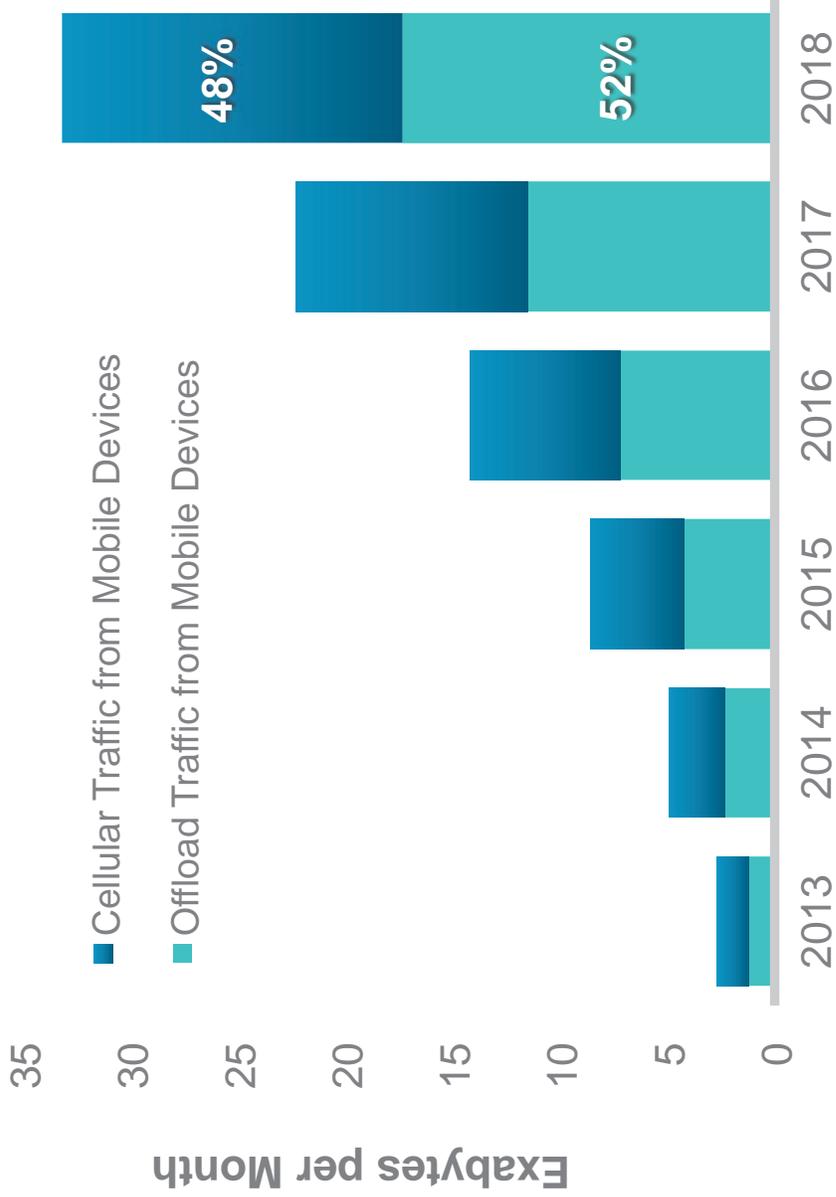


\*Offload pertains to traffic from dual mode devices (i.e., supports cell & wi-fi; exc. laptops) over wi-fi/small cell networks

Source: Cisco VNI Global Mobile Data Traffic Forecast, 2013–2018

# Global Mobile Data Traffic Offload\*

52% of Mobile Traffic to be Offloaded by 2018  
45% of Mobile Traffic Offloaded in 2013

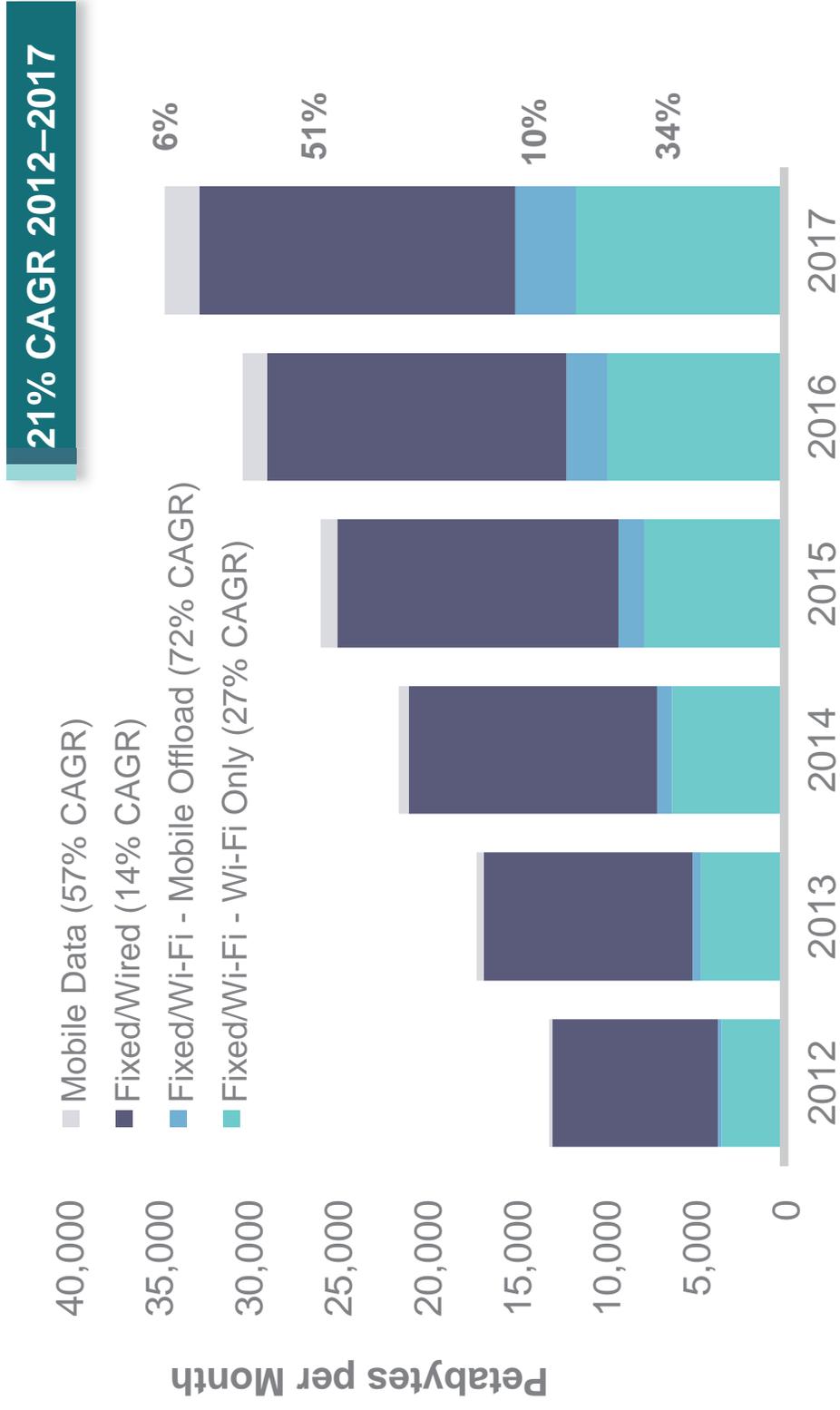


\*Offload pertains to traffic from dual mode devices (i.e., supports cell & wi-fi; exc. laptops) over wi-fi/small cell networks

Source: Cisco VNI Global Mobile Data Traffic Forecast, 2013–2018

# United States IP Traffic by Local Access Technology

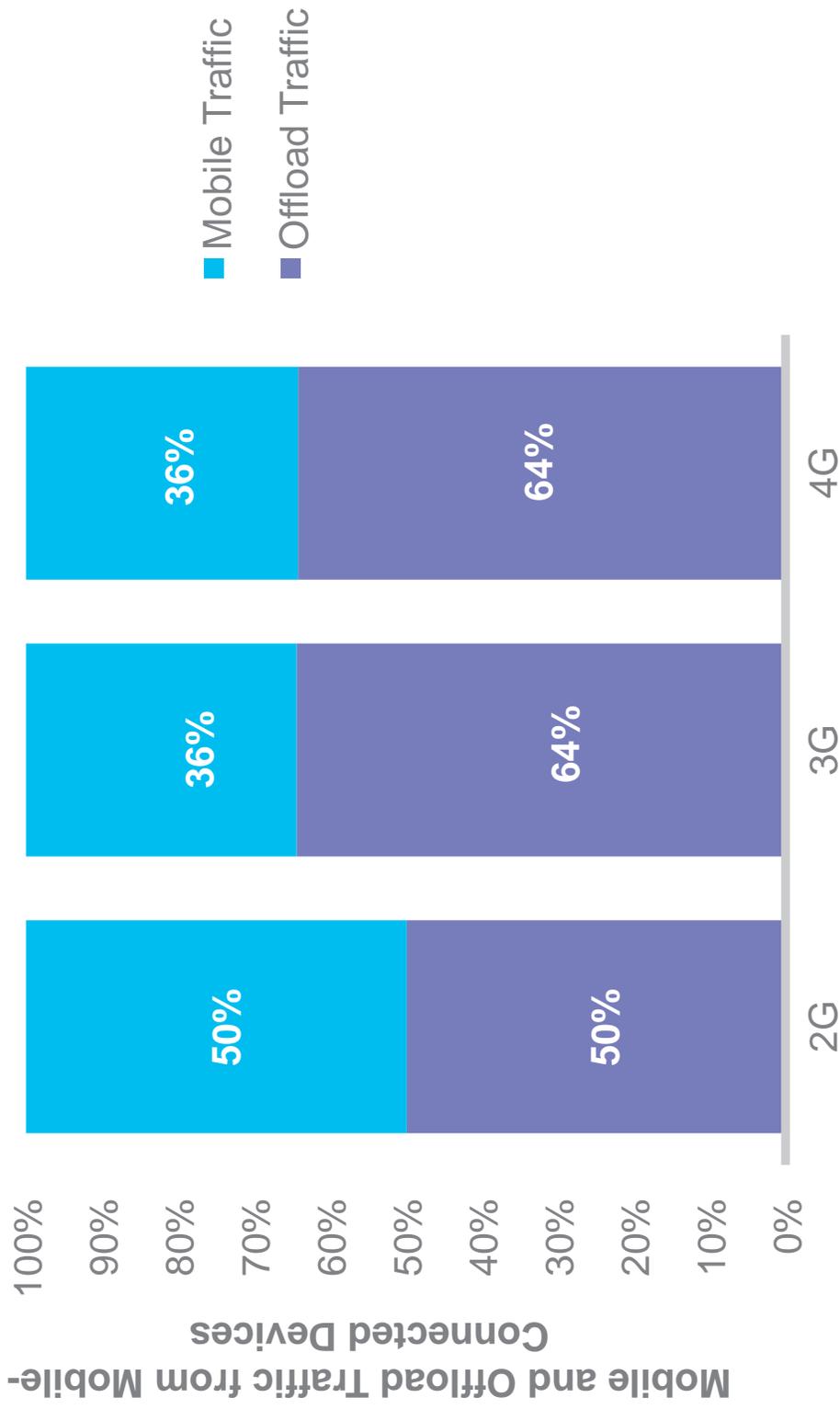
## Wi-Fi From Mobile Offload Growing Fastest



Source: Cisco VNI Global Mobile Data Traffic Forecast, 2013–2018

# US Mobile Data Traffic and Offload Traffic, 2018

## 4G Devices Offloads As Much Traffic As 3G and More Than 2G



Source: Cisco VNI Global Mobile Data Traffic Forecast, 2013–2018

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