

December 11, 2017

VIA ECFS

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

Re: "Restoring Internet Freedom", WC Docket No. 17-108

Dear Ms. Dortch,

On December 11, 2017 at 12:45pm ET, I was contacted by Louis Peraertz, Legal Advisor to Commissioner Clyburn, regarding the above-referenced proceeding. The presentation on the corresponding phone call was at the request of Louis Peraertz for the clarification and adduction of the December 6, 2017 ex parte filing by the Electronic Frontier Foundation (EFF) in the same proceeding. Per section 1.1204(a)(10) of the Commission's rules, the presentation on the phone call is thus exempt from the prohibitions during the Sunshine Agenda period in section 1.1203(a) of the Commission's rules.

Louis Peraertz asked me to clarify and adduce the statements made in EFF's December 6, 2017 ex parte filing. In that filing, EFF sought to explain that "there are two major technical systems which unite mobile BIAS (and the Internet in general) with the PSTN: the E.164 Number to URI Mapping (ENUM) standard, which integrates the addressing systems; and the Evolved Packet Core (EPC) of 5G networks, which integrates the infrastructure".¹

I first clarified and adduced EFF's comments about the Evolved Packet Core. I explained that in early mobile network architectures, voice calls were often transmitted using circuit-switching technology over the public switched telephone network, and data streams were often transmitted using packet-switching technology over the Internet. However, mobile network architectures have long been progressing toward a unified and converged architecture in which all applications (including voice, video, and data) are transmitted using packet-switching technology over a converged network. The Evolved Packet Core is the principal component of the architecture of current (4G) and future (5G) mobile networks. The progression toward a unified and converged architecture will be complete in 5G mobile networks, using the Evolved Packet Core. As EFF correctly explained, "the network that carries telephone calls is the same exact network as that which carries mobile BIAS data".² The progression towards a unified and converged network architecture is relevant to this proceeding, because it conclusively demonstrates that the networks used to provide mobile voice service and those used to provide mobile BIAS are not and will not "continue to be distinct and separate networks".³ Thus, as I have previously explained, there is a single public switched network that includes the networks used to provision telephone exchange service, telephone toll service, mobile service, and broadband Internet

¹ December 6, 2017 Ex Parte Letter from the Electronic Frontier Foundation regarding Restoring Internet Freedom, WC Docket No. 17-108, available at <https://ecfsapi.fcc.gov/file/1207185143636/EFF%20-%20Explanation%20of%20mobile%20services.pdf> (EFF ex parte letter), at 1.

² EFF ex parte letter at 2.

³ Public draft of Declaratory Ruling, Report and Order, and Order, In the Matter of Restoring Internet Freedom, FCC-CIRC1712-04, DOC-347927A1, para. 77 n. 283.

access service, regardless of whether the Commission reverts to the outdated definition of *public switched network*.⁴ Using 4G LTE and even more so using 5G, mobile voice will become “just another application that the [mobile] device can run”.⁵

I also clarified and adduced EFF’s comments that the Evolved Packet Core bears upon the issue of whether mobile BIAS is an interconnected service. The 1994 *Second CMRS Report and Order* defined *interconnected* as “direct or indirect connection through automatic or manual means (by wire, microwave, or other technologies such as store and forward) to permit the transmission or reception of messages or signals to or from points in the public switched network.”⁶ As EFF correctly explained, the networks used to provide mobile voice service and mobile BIAS have always been directly connected, and the further convergence of them in 5G using the Evolved Packet Core accentuates this fact.⁷ Furthermore, as EFF also correctly explained, not only is mobile BIAS interconnected with the public switched network (regardless of whether the Commission reverts to the outdated definition of *public switched network*), mobile BIAS also permits the transmission or reception of messages or signals to or from points in the public switched network.⁸ Since Congress defined *interconnected service* as “service that is interconnected with the public switched network ...”, it follows that mobile BIAS satisfies the statutory definition of the term *interconnected service*.

Second, I clarified and adduced EFF’s comments about ENUM. EFF correctly explained that “modern Voice over IP (VoIP) services use a system called ENUM to allow either Internet Protocol (IP) addresses or North American Numbering Plan (NANP) numbers to dial NANP addresses”.⁹ ENUM (the E.164 Number to URI Mapping) is a standard that allows an application to use broadband Internet access service to address the party with which they wish to communicate using an NANP address. As I have previously explained, a single network does not necessitate that all devices utilize a uniform addressing space.¹⁰ ENUM conclusively demonstrates that NANP and IP-address based networks are not and will not “continue to be distinct and separate networks”.¹¹

Finally, I clarified and adduced EFF’s comments that ENUM bears upon the issue of whether mobile BIAS is an interconnected service. The 1994 *Second CMRS Report and Order* created a regulatory definition of *interconnected service* as a “service that is interconnected with the public switched network, or interconnected with the public switched network through an interconnected service provider, that gives subscribers the capability to communicate to or receive communication from all other users on the public switched network ...”¹² As I have previously explained, a telecommunications service offers transmission between points specified by the user, but in order to meaningfully communicate end users

⁴ Reply Comments of Scott Jordan, In the Matter of “Restoring Internet Freedom”, WC Docket 17-108, filed August 30, 2017 (Jordan Reply Comments), at 29-33.

⁵ EFF ex parte letter, at 3.

⁶ *Implementation of Sections 3(n) and 332 of the Communications Act; Regulatory Treatment of Mobile Services*, Second Report and Order, 9 FCC Rcd 1411 (1994) (*Second CMRS Report and Order*), Appendix A: Final Rules, section 20.3.

⁷ EFF ex parte letter, at 3.

⁸ EFF ex parte letter, at 2. (“The connection may be made through either direct or indirect connection; in either case, the network as a whole is interconnected.”)

⁹ EFF ex parte letter, at 2.

¹⁰ Jordan Reply Comments, at 32-33.

¹¹ Public draft of Declaratory Ruling, Report and Order, and Order, In the Matter of Restoring Internet Freedom, FCC-CIRC1712-04, DOC-347927A1, para. 77 n. 283.

¹² *Second CMRS Report and Order*, Appendix A: Final Rules, section 20.3.

must acquire the necessary services and CPE.¹³ As EFF correctly explained, if the called party registers their NANP number with ENUM, then a mobile BIAS subscriber can call that party using the NANP number (even if the mobile broadband Internet access service did not include a mobile voice service, which most do).¹⁴ Thus, as EFF correctly explained, mobile BIAS also satisfies the regulatory definition of the term *interconnected service*.¹⁵

In this phone call, as in the Reply Comments, I represented no one but myself, and did not speak on behalf of my employer or any other party.

/s/ Scott Jordan

Scott Jordan

cc: Louis Peraertz

¹³ Jordan Reply Comments, at 34-35.

¹⁴ EFF ex parte letter, at 2.

¹⁵ EFF ex parte letter, at 4.