

Before the
Federal Communications Commission
Washington, D.C. 20554

Applications Filed for the)
Transfer of Control of XO)
Communications, LLC) WC Docket No. 16-70
To Verizon)
Communications Inc.)

Comments of Catron County (NM) Astronomical Association

Pursuant to Section 1.419 of the Commission’s rules and its Public Notice of April 2, 2016, Catron County (NM) Astronomical Association herein files its reply comments in opposition to the application of Verizon Communications Inc. (“Verizon”) and XO Holdings (together with Verizon, the “Applicants”) for consent to the transfer of control of XO Communications, LLC (“XO”) from XO Holdings to Verizon.

Catron County (NM) Astronomical Association respectfully replies to the Joint Opposition to Petitions including “REPLY OF DISH to Deny” and Comments (“Opposition”) submitted by Verizon Communications Inc. (“Verizon”) and Nextlink Wireless, LLC (“Nextlink”) in the above-referenced proceeding.

1 The Applicants’ response falls far short of providing evidence sufficient to demonstrate that this proposed lease application and related merger application are in the public interest. Indeed, the Applicants try to shift their burden, failing in an attempt to make a full competition showing into a failure on the part of the Petitioners.

2 In fact, it is not the Petitioners that “fail to identify any specific 1 See Joint Opposition of Verizon and Nextlink Wireless to Petitions to Deny and Comments, ULS File No. 0007162285 (May 13, 2016) (“Opposition”). Verizon, XO Holdings, XO Communications, and Nextlink are collectively referred to as “the Applicants.” 2 DISH Network Corporation, INCOMPAS, and Public Knowledge are collectively referred to as “the Petitioners. markets.”

3. Catron County (NM) Astronomical Association asserts the fact that it is these same Applicants which have both historically and intentionally decided to fail to serve remote rural areas with optical fiber to the home FTTH. It is these same applicants who also fail now to specify how the proposal would serve the public interests..

4. Catron County (NM) Astronomical Association members, as well as the scientific exploration at the VLA, EVLA and the future ngVLA, will all require far more optical fiber service to the home and to the businesses and observatories, than the applicants have ever been willing to provide, to keep the Radio Dark Skies, and simultaneously Optically Dark skies in Catron County NM and Socorro County NM free from light pollution from radio Tower lights and Radio Pollution from proposed HF, SHF Microwave and mm wave microwave links.

The economic development of these Optically Dark and Radio Dark Desert Zones near the Continental Divide must be done carefully with Optical Fiber only, not wireless deployments, to protect Science and Optical Astronomy and Radio Astronomy from unwarranted intrusion by Light and Radio Interferences pollution.

These areas of the US Southwest are a natural optically dark and Radio Dark treasure. They comprise a scientific enterprise zone like no other in North America for exoplanet research.

5 “The Applicants” proposed lease and purchase will have significant anticompetitive effects: acquisition of critical 5G resources as well as removal of a competitor in the mobile backhaul (both wireless and fiber), Internet transit, and enterprise and wholesale markets. This showing remains un-rebutted.

6 Catron County (NM) Astronomical Association replies that the Applicants’ position that the de facto control transfer of XO’s spectrum (through Nextlink) to Verizon should be analyzed separately from Verizon’s purchase of XO’s other assets suffers from an internal inconsistency and a misreading of Commission case law. Allowing that to occur would do great harm to Catron County and its residents and businesses.

The Applicants acknowledge, correctly, that LMDS and microwave backhaul, “are not a standalone market..”The Applicants also acknowledge that “the use of these radio bands for backhaul purposes competes with more needed (by Catron County (NM) Astronomical Association) options already available elsewhere, including optical fiber.”

7. Catron County (NM) Astronomical Association believes that the ”The Applicants also acknowledge that they plan, inappropriately, to use of microwave bands and even mm wave microwave bands in these critical Radio-Dark sky areas for backhaul purposes competes with the public interests by delaying installation of less sky-polluting options not yet available, including optical fiber.”

8 Catron County (NM) Astronomical Association believes that history proves that both XO Communications LLC and Verizon Communications Inc have a dismal history in the NM area of failing to provide any Optical Fiber internet connectivity in the low population rural areas of Catron u NM and Socorro County NM.

9. Catron County (NM) Astronomical Association states that the economic development of both these counties is heavily dependent on both the VLA (Very Large Array of

Radio-telescopes), and the nascent rapidly developing local industry of remotely controlled Optical Astronomical Observatories.

10. Catron County (NM) Astronomical Association replies that both the VLA, VLBA (Very Long Baseline Array) EVLA (Expanded VLA, and proposed ng VLA (Next Generation VLA) as well as the nascent rapidly developing local industry or remotely controlled Optical Astronomical Observatories, are currently unserved by any robust fiber optic backbone infrastructure, which has never been installed in the area.

11 Catron County (NM) Astronomical Association which promotes Radio Dark Skies Optically Dark Skies and good neighbor relationships between the scientist and astronomers at the nascent rapidly developing local industry of remotely controlled Optical Astronomical Observatories and the radio-astronomy researchers at the VLA and while not speaking for the VLA and NRAO, Catron County (NM) Astronomical Association is aware of some concerns expressed by the VLA and NRAO , and by this reply hereby requests that the FCC extend the comments and reply periods to allow additional public comment as to which duplicative assets in which locations around the US would better serve the public interest by being spun off as public access optical fiber backbone assets, public access middle mile optical fiber links and last mile FTTH for community owned ISP PON optical fiber co-ops.

12. Catron County (NM) Astronomical Association which promotes Radio Dark Skies Optically Dark Skies and good neighbor relationships between the scientist and astronomers replies that the nascent rapidly developing local industry of remotely controlled Optical Astronomical Observatories and the radio-astronomy researchers at the VLA and while not speaking for the VLA and NRAO, Catron County (NM) Astronomical Association, is aware of some concerns expressed by the VLA and NRAO , to Catron County (NM) Astronomical Association, and by this reply hereby requests that the FCC extend the comments and reply periods to allow additional public comment as to which other scientific research operations at various locations around the US could be harmed by the proposed merger, where the public and scientific interest intersect, and would both be better served by public access optical fiber backbone assets, public access middle mile optical fiber links and last mile FTTH community owned ISP PON optical fiber co-ops.

13. Catron County (NM) Astronomical Association urges the FCC to seek additional comments from the NRAO and VLA to asses the future needs of a proposed enlarged radio silence zone in the US four corners region to protect the future deployment of the ngVLA from unnecessary and unwarranted and preventable radio noise pollution to the future proposed far more sensitive (To Radio Interference) ng VLA (Next Generation VLA)deployment and resolve those Radio Astronomy Interference concerns as a precondition of any merger of assets.

14. Catron County (NM) Astronomical Association agrees with much of the reply comments of “REPLY OF DISH to Deny” for many of the same anticompetitive reasons.

Catron County (NM) Astronomical Association members realize that the scientific exploration at the VLA, EVLA and the future ngVLA will all require optical fiber service to the home and to the businesses and observatories, to keep the Radio Dark Skies, and simultaneously Optically Dark skies in Catron County NM and Socorro County NM free from light pollution from radio Tower lights and Radio Pollution from proposed HF, SHF Microwave and mm wave microwave links.

It is precisely because of the very low population densities, that the lack of optical fiber Points of Presence are strangling economic development, viable business opportunities and vital scientific research opportunities.

15. County (NM) Astronomical Association replies that the FCC should prohibit the unnecessary use of microwave backhaul in the four corners states in the US southwest to protect this vital ng VLA / VLBA Radio Dark Sky Desert Radio Astronomy zone.

16. Catron County (NM) Astronomical Association replies that the FCC should instead insist that proposed merger applicants build-out a more dense and geographically diverse Fiber Optic Backbone, not merely along the same existing Optical Fiber Backbone routes, but along several new routes as well. Both the applicants are already grantee recipients of very large amounts of "Connect America" optical fiber Internet funding from the federal government. There is a danger here, that such a merger would allow the low population rural areas to again be avoided once again, and this time, with no competition, so both applicants could build-out in favor of the more lucrative city and town Internet Optical fiber build-outs.

17. Catron County (NM) Astronomical Association replies and suggest that the FCC require that a new robust fiber optical backbone be provided to Albuquerque Nm and Socorro NM, and then along the route of US 60 to Phoenix AZ, including public access opportunities and middle mile interconnects at nodes that would serve both the future ng VLA build-out and present rural communities, many native Americans that have never had FTTH, adequate ISDN, functional wireless or CLEC POTS service opportunities in rural areas along that new very rural route.

18. Catron County (NM) Astronomical Association replies and suggest that the FCC prohibit new microwave backhaul installation in along that route and require XO and Verizon to instead deploy that new optical fiber backbone along US Route Radio Dark in preparation for the future ngVLA deployment.

19. Catron County (NM) Astronomical Association replies and suggest that the FCC require XO and Verizon, if merged, to stop harming and impeding scientific research, and set aside adequate public access optical fibers in that new optical fiber backbone, route, that would serve both the future ng VLA build-out and present rural communities as well as allowing scientific remote controlled Optical Observatory optical fiber backhaul of high resolution astronomical imaging, from the Dark Sky Deserts of NM to distant city based Universities located in already light polluted skies.

20. The Catron County (NM) Astronomical Association replies and suggests that the FCC conduct hearings including the scientific community and local residents to determine just how to strike the proper balance the needs of very low population areas, Radio Dark Astronomy Zones which are perfect for scientific observation and repeatedly denied optical fiber FTTH connectivity., for lack of population. The FCC, for guidance, could look to the example in Green Bank WV, where Verizon sold assets to Frontier who then tried to thwart Optical Internet FTTH connectivity in that similar WV/VA Radio Astronomy / NSA Radio-Dark Zone.

21 The Catron County (NM) Astronomical Association replies that the proposed merger would greatly harm astronomy science, reduce much needed IP, access and greatly delay installation of much needed scientific bandwidth infrastructure, and keep the economies of Optically Dark and radio dark skies in Catron County NM and Socorro County NM “Excommunicated from the Information Age”

22. The Catron County (NM) Astronomical Association replies that before and decision to allow such a merger is made, the VLA and the NRAO should have an opportunity to allow the residents of Catron County NM and Socorro County NM meet with them and work with the FCC commissioners to help create and define a short and long-term plan to protect the Radio-Dark skies and optically dark desert skies for future science and do so without added pollution from unwanted microwave Internet back-haul will providing affordable optical fiber FTTH connectivity in the low population and Native American rural desert areas of NM AC CO and UT where the ngVLA be in then neighborhood.

23. The Catron County (NM) Astronomical Association reply that to the still IP unserved residents of Catron County NM and Socorro County NM “Connect America Initiative 3MBS download / 1MBS upload speeds would be a blessing for residential users; however, high resolution robotic telescopes and Radio Telescopes for that matter produce large amounts of data that needs to be uploaded to transport to researchers at distant universities. The FCC should consider that science discovery and economic development is such Radio Dark Optically Dark Science Data Production zones may require asymmetric Internet bandwidth, with much higher upload speeds than download speeds.

24. The Catron County (NM) Astronomical Association and the residents of Catron County NM and Socorro County NM, have always been good and welcoming neighbors with the VLA. The Catron County (NM) Astronomical Association by this reply strongly urges the FCC to thoroughly consider harw to prevent the likely harm form the proposed merger, and address the complex issues raised to devise a method to mesh the needs of the Radio Dark Zones with the Needs of the Connect America Initiative and devise a mechanism to prevent the harm to sensitive communities such as Catron County NM and Socorro County NM, so that all can prosper with the needed but non-existent internet access that unleashes prosperity

Conclusion

For the foregoing reasons, if lacking any consideration of the perverse and adverse impact on the need to keep interference out of the Radio-Dark zones for the VLA and asses harm to Optical Astronomy's need for high speed optical fiber connectivity, the Commission should set both Applications for a hearing, and deny them.

May 27, 2016 DECLARATION

The foregoing has been prepared using facts of which I have personal knowledge or upon information provided to me. I declare under penalty of perjury that the foregoing, except for those facts for which official notice may be taken, is true and correct to the best of my information, knowledge and belief.

Executed on May 27, 2016 Patrick Ward

Patrick Ward

For the Catron County (NM) Astronomical Association