Hello,

Attached are comments of Mozilla in response to the RUS and NTIA Broadband Opportunity Council Notice and Request for Comment.

Please do not hesitate to contact us with questions or for additional input.

Thank you,
Chris

Chris Riley
Head of Public Policy
Mozilla

mozilla

June 10, 2015

Rural Utilities Service, U.S. Department of Agriculture; National Telecommunications and Information Administration, U.S. Department of Commerce

RE: Broadband Opportunity Council Notice and Request for Comment

To Whom It May Concern:

Mozilla submits these comments in response to the April 29, 2015 Broadband Opportunity Council Notice and Request for Comment.

Our goal in this filing is to discuss our work on education and investment in communities and application development as pathways to encourage broadband demand and growth, in hopes that the Broadband Opportunity Council will take a holistic look towards its engagement in this space. We also identify potential infrastructure related policy areas for further exploration. And, we emphasize throughout that openness and trust online should be principles that underlie the Council's efforts, as they are with ours.

On behalf of Mozilla, we thank you for the opportunity to comment on this request for information. Please do not hesitate to contact us with questions or for additional input.

Respectfully Submitted,

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Comments on the Rural Utilities Service and National Telecommunications and Information Administration Broadband Opportunity Council Notice and Request for Comment

Prepared by Mozilla and Submitted on June 10, 2015

I.   Introduction

Mozilla is a global community of people working together since 1998 to build a better Internet. As a non-profit organization, we are dedicated to promoting openness, innovation, and opportunity online. Mozilla and its contributors make technologies for consumers and developers, including the Firefox web browser and Firefox OS phone used by more than half a billion people worldwide. As a core principle, we believe that the Internet, as the most significant social and technological development of our time, is a precious public resource that must be improved and protected.

We welcome the announcement of the Broadband Opportunity Council, and the Council's public outreach and engagement at this early stage of its deliberations. At Mozilla, we have long supported the effective inclusion of stakeholders in developing Internet policy, ranging from participation in proceedings such as the European Union's Public Consultation on copyright and the U.S. Federal Communications Commission work on net neutrality, as well as international discussions around multistakeholder Internet governance.

In the context of this notice and request for comment, the primary recommendation we wish to share is the importance of connecting citizens to the full, open Internet, so that they can create, shape, and personalize their online experiences, and not merely consume from among a walled garden of content and services. Achieving the full potential of empowered creators online requires investment in high quality infrastructure, meaningful choice of devices and means of access, tools and literacy development efforts, and the fostering of communities of support and mentorship, everywhere.

The possibilities of the open Internet are endless. Mozilla is glad to work alongside the Departments of Agriculture and Commerce to help make these a reality.

II. Invest in applications and communities

Mozilla has a strong history of helping advance broadband access to the open Web through our work with the National Science Foundation on high-speed connectivity, our product level investments in software technologies that take advantage of high-speed Internet access, and our literacy and community-building efforts to teach and encourage people to create their own Web experiences. Promoting products, and communities behind those products, both stimulates demand for broadband networks and delivers tangible value in return for investment. We hope that sharing our experiences will help the Council understand the context behind the goals it seeks to support through its efforts to evaluate and align relevant governmental programs and regulatory structures.

Since 2011, Mozilla has partnered with NSF and US Ignite to demonstrate the value of high performance networks. Through the 2012-2013 Mozilla Ignite Open Innovation Challenge, we facilitated a competition that led to hundreds of ideas for new applications to take advantage of gigabit performance capabilities and support national priority targets such as education, health, and public safety. These efforts help push the boundaries of the possible and seed an technology ecosystem to drive end-user value and stimulate demand for high-speed network connections.

Over the past two years, Mozilla has worked with NSF to foster developer-educator communities to continue investment in gigabit-scale applications. Mozilla has established Hive Learning Networks in Chattanooga and Kansas City, building models for collaborative and community-driven application development targeted to high-speed, low-latency networks and to education and workforce development objectives. Last year, the Gigabit Community Fund received more than 80 proposals for development, selecting 17 across Chattanooga and Kansas City for a twelve-month project period investment, working with more than 30 local partner institutions.

We invest directly in Web technology innovations to take advantage of broadband connections as well. We recently released Hello, a tool for WebRTC-powered realtime video conferencing within a Web browser. Pushing into higher-bandwidth applications, we are leading the development of WebVR, a technology stack to enable Web access to virtual reality devices, contributing to a future of immersive education, research, and gaming. Both realtime video and virtual reality technologies serve as case studies for

the need to promote not just connectivity, but high bandwidth and low latency communications networks.

Educating communities and promoting broad literacy is a key path to drive sustainable application innovation, content generation, and adoption of broadband networks. Mozilla's Webmaker work offers tools to understand and create Web sites, videos, and applications, along with community events and a global Maker Party to encourage broad collaborations. Mozilla also produces teaching kits to empower training-of-trainers around the world and raise the global baseline of Web knowledge.

III. Focus on the Open Web

To promote an open and inclusive future for the Web, Mozilla engages in public policy proceedings in support of our mission. Mozilla Manifesto principle #2 says, "The Internet is a global public resource that must remain open and accessible." Driven by this, we filed extensively in the Federal Communications Commission's net neutrality proceeding, supporting effective rules and regulations to protect innovation and user choice. Similarly, we are closely monitoring the FCC's recently opened Lifeline proceeding, and other efforts to reform and modernize Universal Service programs.

Apart from telecommunications issues governed by the independent FCC, other areas of public policy may prove relevant to advancing the goals of the Council and worthy of more in-depth exploration.

Promoting unlicensed use of wireless spectrum can help encourage innovation and competition in the provision of a variety of types of communications services. Furthermore, spectrum sharing and cognitive radio have not been fully explored as possibilities for last-mile access to broadband infrastructure. Loosening restrictions on government-controlled spectrum may be a valuable pathway to developing the potential of these technologies.

Some degree of subsidization or public provisioning of shared infrastructure in unserved or underserved areas, for example fiberoptic cable deployment to anchor institutions and public wireless access points, may help generate opportunities for low-cost baseline connectivity, competitive last mile service offerings, or innovative business models to help close the digital divide and make the benefits of broadband available to all.

Finally, adoption and use of broadband services is greatly limited to the extent that users lack trust in the Internet ecosystem. The executive branch has a considerable role to play in improving trust online. Policies that promote user privacy and security go far beyond today's focal points of consumer and educational environments and improved information sharing in the wake of major security incidents. A more holistic and more aggressive policy agenda, centered around education, positive incentives, investment, and improved practices by government agencies more than regulatory changes for the private sector, is needed to help improve privacy, security, and trust.

IV.   Conclusion

We welcome the Council's efforts to improve broadband opportunities, and to include the public in its early deliberations. The Council may see benefits from future explorations of unnecessary regulatory overhead, as well as efforts to promote investment into broadband infrastructure. As Mozilla has learned, focusing on literacy, community building, and investment into applications and development have a role to play as well. Throughout all of its efforts, and particularly where public policy is implicated, we encourage the Council to keep openness and trust online as guiding principles for its work.