Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of	)	
	)	
Model City for Demonstrating and	)	ET Docket No. 14-99
Evaluating Advanced Spectrum	)	
Sharing Technologies	)	

KC Digital Drive reply in response to request for public comment from the National Telecommunications and Information Administration (NTIA) and the Federal Communications Commission's (FCC) Office of Engineering and Technology (OET)

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On behalf of the greater Kansas City metropolitan area, we are very interested in the Model City concept to explore the benefits of advanced spectrum sharing. Such an effort would complement a host of local initiatives that have led to a great deal of nterest and expertise in next generation networking and serving as a test bed for the resulting applications.

Our organization, KC Digital Drive, was formed to serve as a regional non-profit home for realizing social and civic benefits based on advanced networks in the wake of Google Fiber's decision to deploy its gigabit fiber-to-the-home network here. We work closely with the mayors' offices in both Kansas City, Kansas and Kansas City, Missouri, along with other stakeholders in the region. We are a key test bed community for another National Science Foundation initiative, US Ignite, a public-private partnership created to spur the creation of advanced networking applications. In addition to serving as a test bed, we have worked closely with the US Ignite leadership to develop innovation processes and create new projects and applications in a scalable

way. Through our work with US Ignite, we are participating in NIST's Global Cities Challenge beginning in the Fall of 2014.

Throughout the Kansas City region, over 20 municipalities have reached agreements with fiber-to-the-home providers, including Google Fiber and AT&T.These relationships make us well suited for the Model City opportunity as they require an innovative flexible orientation toward public-private partnership and making public assets available for improved network capacity—and ultimately citizen experience. From a provider perspective, we have robust wireline competition with both Comcast and TimeWarner present in the market (in addition to Google Fiber and AT&T) and Consolidated Communications, another fiber overbuilder.

Of course, the Kansas City area also serves as the home of Sprint, the nation's third largest wireless carrier and largest holder of wireless spectrum in the US. The local carrier hotel 1102 Grand is another key asset in the region's notable telecommunications and information infrastructure portfolio.

But our capacity to deploy that expertise in public-private partnerships as an innovation test bed is a more compelling driver of our interest in this project. The city of Kansas City, Missouri has recently entered into an agreement with Cisco Systems to bring their leading Smart and Connected Communities infrastructure to a central urban corridor. The "smart city solution" will rely heavily on wired and wireless ICT solutions and offer better management tools from a civic/municipal perspective. But the more exciting possibilities lie in the "living lab" whereby data and technology are opened up to entrepreneurs, academic researchers and others in the community who are invited to participate in driving better civic outcomes from the infrastructure.

In addition to the major infrastructure plays that require the city to engage in large-scale public-private partnership, we have more grassroots efforts to employ digital connectivity in better ways throughout the city. We are working closely with the locally based Free Network Foundation on mesh wifi solutions to create community-owned networks—similar to the Open Technology Institute's Commotion Wireless project. One of the barriers to projects like this is the noise created on current publicly available spectrum.

The potential for new applications and innovation on hyperlocal community networks seems an untapped market. In the Model City context, it's and especially promising for disaster relief and resilient city programs in the event that traditional networks fail. One take on this idea is to build an independent, self-contained neighborhood network—a "digital green space", as it were—running on equipment owned at a household or business level and a network managed at a community level. We have explored solar energy solutions as a way to further keep such a local network resilient in the face of damage to the energy and telecommunications grid. Having a dedicated spectrum and a broader coalition of partners to explore such opportunities could accelerate these projects.

Representatives from KC Digital Drive and Sprint both participated last year in a future-planning workshop on Next Generation Communications and Interoperability facilitated by the Pacific Northwest National Laboratory (PNNL).

Our higher-ed community also makes us attractive to the Model City project. The University of Missouri-Kansas City (UMKC) and University of Kansas (in Lawrence) have both been active in exploring next generation networking. Global Environment for Network Innovations (GENI) racks are running at both universities and both the KU and UM systems

have pilot projects running through US Ignite. Both universities have been very open to partnering with the public and private sectors on projects to drive innovation, including the Digital Sandbox project, initially funded by an i6 Challenge Grant from the EDA.

The ability to operate across two states is another characteristic that allows the Kansas City market to serve as an effective test bed. Especially in networked communications, where networks cross geopolitical boundaries, the ability to experiment across jurisdictions is valuable. In that regard, the Mid-America Regional Council is one of the most effective regional planning organizations in the country and has established a model regional 911 program among a number of other communications and disaster preparation programs.

Kansas City has been working on next generation network experimentation for the past several years. Our advanced provider ecosystem, grassroots community initiatives, and national partnerships make us an ideal candidate for the Model City project. The efforts we have made in this area clearly indicate that municipal and federal governments, along with the corporate, academic, and philanthropic communities, have a strong stake in proactive exploration of new ways to build and use wireless as well as wireline network infrastructure. Our recommendation is to move forward with the Model City concept, and as a next step to bring together a coalition of interested partners to pursue the concept further. We look forward to participating in this conversation and helping to build the model.

Submitted by

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