Harnessing the Potential Of Gigabit Cities

Participants in the Gigabit City Summit explored the ways in which cities can take advantage of next-generation broadband infrastructure.

By Denise Linn / Harvard University

January was an eventful month for the Internet in America. President Obama traveled to Cedar Falls, Iowa, and publicly supported a city’s right to build its own high-speed Internet infrastructure.

Meanwhile, a coalition of local leaders from across the country gathered in Kansas City, Mo., for the 2015 Gigabit City Summit [January 13–15, 2015]. Representatives from dozens of cities, as well as from partners such as Code for America, Cox and Mozilla, came together to discuss key questions: What can an American city do with Internet speeds of 1 gigabit, 100 times faster than today’s average? How can a city make sure all citizens, businesses and schools benefit from these advancements? How can gigabit connectivity drive regional economic development?

Sponsored in part by Google Fiber and organized by Kansas City Digital Drive, the Summit spurred conversations between representatives from established gigabit cities such as Chattanooga and the Kansas City metro and aspiring gigabit cities such as Charlotte, Salt Lake City, Portland and Chicago.

Throughout the week of panels, workshops and tours, several themes emerged that may help guide cities looking to increase their Internet speeds:

1 The digital divide is real. An aspiring gigabit city should start defining it and tackling it sooner rather than later.

The topic of equity arose throughout the Summit as city representatives pondered how and where they should build out infrastructure and how local government can support existing digital literacy programming. Experts agreed: Barriers of skill, relevancy, hardware access and cost keep citizens offline. Efficient solutions, therefore, require that multiple barriers be addressed at once.

The digital divide, or the gap between those who have and know how to use the Internet and those who don’t, is a particular concern for cities undergoing massive speed upgrades. The threat of uneven information access has the potential to exacerbate existing racial, educational and income inequities. The concern didn’t just stop at the citizen level, either. Summit attendees also discussed the digital divide as it relates to small businesses and nonprofits that lack the speeds or knowledge to thrive in the 21st century.

Gigabit Internet access can widen the digital divide and exacerbate inequities. Would-be gigabit cities must tackle these issues sooner rather than later.
On an expert panel, organizations such as Tech Goes Home, Connecting for Good and the Kansas City Public Library shared best practices for digital inclusion programs, highlighting the importance of forming strategic partnerships to get to the people in need. Faith-based organizations are often underleveraged, according to Cheptoo Kositany-Buckner, deputy director of the Kansas City Library.

“The digital divide is a long-term problem that needs a long-term solution and money,” said Deb Socia, executive director of Next Century Cities, who previously served as executive director of Tech Goes Home. “It’s worthy of a civil rights focus.”

2 Speed is not a silver bullet. It’s what a community does with the speed that matters.

Gigabit speed can catalyze progress and innovation, but cities need to leverage that speed in service to their specific goals.

Is a gigabit city simply a city with fast Internet speeds, or is it a city that knows how to use its faster speeds? Although more than 1,100 municipalities originally applied to be the first Google Fiber gigabit city in 2010, the conversation about what a gigabit truly means hasn’t had the same reach or attention. The city delegations at the Summit were in agreement: The speed is a catalyst for progress and innovation, not progress and innovation itself.

A major component of the Summit was to help cities create “playbooks” – very similar to the playbook published by the Kansas City Mayors’ Bistate Innovations Team. The purpose of a gigabit playbook is to articulate a city-specific vision for leveraging faster Internet speeds. In the case of Kansas City, the playbook prioritized goals in health care, digital inclusion, education, arts and culture, local government and neighborhoods. The convening process, aside from the end product itself, is an added value of creating a playbook; it presents a chance to identify key regional stakeholders, create lasting networks.
Some of the most impressive outcomes from faster speeds, such as the Kansas City Startup Village, are entrepreneur-led ripple effects that originate outside city hall.

of broadband champions and foster a shared mission for the city.

3 Unlocking the benefits of gigabit connectivity will come from efforts inside and outside government.

In the best sense, the Kansas City Startup Village is a blink-and-you’ll-miss it experience. Why? It’s where old meets new. Aside from the red flags that wave from the porches of several houses, each startup headquarters blends seamlessly into the neighborhood street, blurring the line between neighbor and innovator. The surroundings – homes, yards, grills and porch chairs – did not compare to the aesthetic cues of incubators and co-working spaces where you might find other startups. Still, the energy was just as high.

The village, which attendees toured on the Summit’s final day, was not a plan from city hall or a corporate social responsibility project from Google Fiber. It was organic and entrepreneur-led. As more people moved in to capitalize on the infrastructure, others followed. Businesses set up shop in existing houses, and the village emerged. In a way, this case stands testament to another Gigabit City Summit theme – that some of the most impressive outcomes from faster speeds are ripple effects originating outside city hall.

4 The civic hacker movement and smart city movement should join forces.

Aaron Deacon, managing director of Kansas City Digital Drive and one of the main organizers of the Summit, pointed out how infrequently civic hackers and Internet infrastructure advocates talk across their silos. In the Summit brochure, Deacon told the story of how he was one of three people who attended both Meeting of the Minds and the Code for America Summit in 2014 – two gatherings with very different dress codes, cultures and conversations. The infrastructure-focused smart city crowd and the application-focused civic hacker crowd have complementary missions. Unfortunately, Deacon says, this gap in communication translates into missed opportunities:

"Apart from the nuts and bolts of implementation, even the philosophical underpinnings of the ‘smart city’ movement and the ‘civic hacker’ movement are somewhat divergent; the former is informed by systems engineers and structural-functionalism theory, while the latter has a more individualistic, techno-libertarian bent. I’m not sure how many on either side recognize this gap. The point is, basically, the people concerned with the infrastructure layer and the application layer don’t always talk to each other, even though those two layers are both integral to what each group ultimately wants to achieve."

One compelling need for both better tools and infrastructure is in public safety. At the Summit, Mayor Holland, of Kansas City, Kan., pointed to the example of police body cameras and exactly how much data each produces. When there is a high volume of data but little capacity to sort, send, store and make sense of it, is that truly transparency? Do cities have the backbones and IT departments to handle this information in the way we need them to? This is a question that needs to be tackled by both the smart city and civic hacker communities.

5 Despite being filled with seemingly esoteric topics and technical jargon, Internet policy questions are human at their core.

Susan Crawford, a co-director of the Harvard Berkman Center for Internet and Society, who co-wrote “The Responsive City” with Stephen Goldsmith, was one of the Summit’s featured keynote speakers. She discussed the transition of a “gigabit city” to a “responsive city.” While gigabit cities are places with fast speed and lots of potential, responsive cities have unlocked that potential to improve daily life and government services.

After all, if you dig down one more layer below Wi-Fi, below fiber and below smartphone applications, you get to topics that resonate across all cities and people: jobs, communities, education and what Crawford called “American pluck.”

The possibilities of gigabit speeds have yet to be fully realized, and the quest continues for the “killer app,” or the tool that will stand testament to fiber’s power. Crawford, however, doesn’t see that technological journey as impersonal.

“The killer app is presence,” she reminded her audience. “To be in a doctor’s office … to be in a classroom … to be on one side of a window of glass that shows you anything.”

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