Memorandum

Date: January 21, 2015

From: Joanne Hovis

To: Ms. Diane Stoddard
Assistant City Manager
City of Lawrence, Kansas

Subject: *Considerations with regard to requiring open access on privately funded fiber*

As the City requested, this memorandum raises issues and concerns for the City of Lawrence's consideration as it evaluates whether to require open access on privately funded fiber in the City.

The basis for our analysis are the following:

- First, our experience with public-private partnerships and public broadband projects around the country and internationally.

- Second, our engineering experience with parameters around third-party access to fiber networks and standard industry practices in that regard.

- Third, our knowledge of Lawrence's broadband goals, developing during the work we undertook for you in 2013 and maintained through our periodic discussions since then.

Background

Our understanding is that the City is considering, on the recommendation of one of its private sector partners, requiring that companies that build fiber within Lawrence make their fiber open access. Our understanding of the open access requirement is that it would mandate that competitive service providers be allowed to lease capacity on privately owned fiber infrastructure, and that private owners of that infrastructure be required to interconnect their fiber assets within Lawrence with the assets of other companies upon request. We have not seen any further detail in regard to this proposal, and so we base our comments simply on this framework.

We understand also that the City is considering adoption of a fiber leasing policy, and is seeking to build that policy in a way that will maximize the value, utility, and economic impact of the

City’s own fiber and conduit investments. In addition, the City seeks to enable, incent, and catalyze private investment in next-generation communications infrastructure. We therefore evaluated the open access proposal in light of our understanding of these goals.

Our observations of open access requirements elsewhere

Open access represents an incredibly important and laudable strategy in the context of enabling new competition. We have strongly supported and seen the value of open access networks over the past decade. To its credit, the U.S. Department of Commerce required open access on the part of its Broadband Technology Opportunities Program (BTOP) grantees, and we believe that that requirement has resulted in new competition in the middle mile that has led to investment in the last mile.

While open access is a policy goal for many communities that seek to enable new competition, we have not seen a model emerge to enable it where the investment is private as opposed to public.

We have seen open access emerge in the privately funded last mile in recent years in only one case: the Urbana-Champaign partnership with the private entity iTV-3 in Illinois. iTV-3 agreed to wholesale service on its network at predetermined prices in consideration of cost-free access to the cities’ extensive middle-mile and last-mile infrastructure, which for rough estimation purposes could be valued at around $30 million.

In the case of Urbana-Champaign and iTV-3, the wholesaling requirement was adopted voluntarily by the private company as part of a broader set of contractual agreement between the two entities—as opposed to as an involuntary requirement imposed by the cities. As a result, we do not think the Urbana-Champaign example is analogous here—and indeed, the preliminary information we were provided is that competitive providers in your market consider the open access requirement to be an involuntary burden. In contrast, iTV-3 voluntarily contracted to be open access, as this was consistent with its existing business model.

Open access requirements have generally been imposed only for publicly funded middle-mile infrastructure

It is important to note, however, that where open access has been required by government entities, it has been done almost exclusively in the context of publicly funded middle mile infrastructure, rather than the privately funded last mile infrastructure to the home and business that is contemplated in Lawrence. We have not seen anywhere in the United States where a locality has imposed an open access requirement on privately funded last-mile communications infrastructure.

The economic theory behind open access in the middle mile is that enabling bridging of the long distances to reach into communities and neighborhoods by competitive providers will incent them to deploy in the last mile—and that it is not economically feasible to have multiple entities building middle mile infrastructure when technology allows for sharing of that infrastructure with appropriate and reasonable compensation.

The middle-mile market, moreover, can sustain an open access environment, in that multiple entities can build viable business cases for traveling the same routes. In contrast, in the last mile, where that infrastructure connects a very small number of users (and potentially only one user), it is frankly difficult to imagine that the competitive providers will compete for those customers.

While we do believe that open access to business customers and in the enterprise and institutional markets will potentially attract new service providers who want to compete for that business given the higher revenues per customer, we frankly think that in the existing residential market, the potential revenues per customer are too modest to attract additional service providers who would make use of the open access infrastructure to the home.

As a result, some of the theoretical benefits of open access to the home—however attractive seeming—are, in our professional judgment, highly unlikely in the foreseeable future. That may change over time, but the promised benefits are illusory in the short- and medium- term, while the disadvantages of such a requirement are significant.

Open access requirements could potentially chill investment

Unfortunately, the potential downside of an open access requirement could be quite significant. Frankly, almost all private sector broadband investors in our experience oppose this approach. Given the fact that communities nationwide are competing aggressively for private fiber investment in this new era of understanding the benefits of fiber-to-the-premises, we are concerned that an open access requirement could tip the balance between an investment in Lawrence and one elsewhere where such a requirement does not exist.

We strongly recommend that before the City go forward with such a requirement, it initiate conversations with both incumbent and competitive providers in the region to determine their willingness, and whether the requirement would reduce the amount of private investment coming in to Lawrence.

While we are still in the early days of competitive fiber-to-the-home deployment nationally, it is our experience and observation that private deployers value the simplest, most efficient processes in investing their own funds in fiber. To the extent that Lawrence can keep its requirements as simple as possible, we believe this offers a competitive advantage.

Put another way, if leasing the City's fiber becomes complex, burdensome, and slow, we think that the private market for that fiber will be reduced, and the private investment in last-mile infrastructure will similarly be reduced.

Open access requirements could entail legal risk

We recommend that you explore the City's potential legal risk and related considerations. As we discussed, CTC cannot offer you legal guidance—but we strongly recommend that if you do pursue this potential requirement, you seek an assessment of legal considerations from qualified counsel. Among other things, we recommend assessment of your regulatory authority and whether this requirement would be a function of that authority.

The open access requirement will entail challenges regarding enforcement

As the City considers whether to impose the open access mandate, we recommend you consider the challenges and costs of enforcing it. Ensuring that the Internet service providers in your community comply with your requirement will entail checking, testing, and potentially adjudicating disputes. Frankly, the requirement would put you in a position similar to that of a regulator, which could be quite burdensome, controversial, and difficult for City staff.

Enforcing an open access requirement is likely to require analysis of, and possibly mandates with regard to, pricing—given that an open access requirement with no pricing parameters can easily be gamed by the fiber owner (i.e., by setting the price at or above what the retail market will bear), and therefore making the open access service of no interest or viability to competitors.

In the event of disagreement among the party required to offer open access and the party that seeks to take advantage of it, the City may have to serve as the arbiter of the disagreement, and potentially as a decision maker.

Put simply, the challenges not only of imposing this requirement but of enforcing it are quite enormous. The City needs to analyze whether the potential benefits of this open access requirement—financial and otherwise—will meet or exceed the cost of enforcing it.

The City can realize its competition goals without this requirement

As we noted above, we have long appreciated the policy goals of open access. But at the same time, we recognize that it can be chilling to private investment. Given the realities of the national regulatory structure for broadband and communications networks in the United States, our national policy has been to pursue competition that is "facilities based," meaning competition among providers who own and offer service over their own infrastructure.

We frankly believe that this is the less risky approach for the City—and that, while it likely does not hold the promise of many different providers all competing against each other, what it does potentially offer is the emergence of one or more competitive providers who will build last-mile infrastructure in different parts of the City and offer robust competition to your incumbent cable and phone companies.

This is what Kansas City and its suburbs have achieved with their partnership with Google. And in our experience, it is no small matter when a new competitor enters the broadband market; incumbents respond with better pricing, better customer service, and more investment—just as one would expect based on what we all know about the benefits of competition.

And as we also noted above, while last-mile open access holds the theoretical promise of a robust, competitive environment, the reality in our experience is that it is likely to repel rather than attract new investment in the infrastructure. And if new last-mile infrastructure does not emerge, there is no open access environment over which theoretical competitors can provide competitive services.

We thus recommend that the City stay the course with respect to its existing strategy, in which City assets such as conduit and fiber are offered for lease with appropriate security and privacy restrictions; this strategy enables competitors to enter and expand in the Lawrence market. It is our understanding that the City itself offers its own infrastructure on an open access basis, thus enabling multiple entities to potentially bridge the middle mile—either through conduit or over dark fiber. This is an open access mechanism we strongly support because we do not believe it creates the kind of chilling of private investment, or the potential political (and perhaps legal or regulatory) difficulties that could arise from a last-mile open access requirement.

The City has already put in place policies that we believe could serve to stimulate additional competition.