

Staff Report

COMMUNITY INTERNET IMPROVEMENTS FOLLOW-UP

June 25, 2019

BACKGROUND:

In November 2018, City staff presented a report to the Council outlining preliminary concepts to improve internet service in the community. That report was a response to the Council's objective to explore possible improvements to availability, reliability, cost, speed, customer service, and policy (e.g., net neutrality, broadband privacy).

At the time that report was delivered, the City Council directed staff to address the following five issues:

1. Provide cost estimates for a feasibility study covering the retail and wholesale models of City-deployed internet service
2. Provide a staff report with more information about the community ownership and deployment model including reaching out to ISU, Iowa DOT, Mary Greeley, and the school districts (Ames, Gilbert, and Colo)
3. Work with private sector companies to explore the quality and scope of internet service in Ames
4. Investigate the Bettendorf/Davenport model of internet service
5. Provide a staff report on possible modifications to the subdivision codes to require new housing subdivisions to be internet-ready

FEASIBILITY STUDY:

The Council requested information regarding the costs for a feasibility study to explore two models of City-deployed internet service:

- **Retail Model** – The municipality designs, constructs, and operates an internet infrastructure network and provides services directly to the end user
- **Wholesale Model** – The municipality designs and constructs an internet network, then engages one or more private providers to deliver services using that network. The end users obtain services from the private provider(s).

After reviewing studies commissioned by other communities for similar work, City staff estimates the cost to conduct a feasibility study would be approximately \$75,000 to \$125,000. **Staff should emphasize that if a study were pursued, it would be important to ensure that it be conducted in an independent manner.** Therefore, staff's recommendation would be to disqualify firms from submitting proposals for the study if those firms also engage in the construction or operation of broadband networks.

COMMUNITY OWNERSHIP AND DEPLOYMENT MODEL:

This model of internet service involves the City partnering with other anchor institutions in the community to create a broadband network, thereby spreading the financial risk associated with the infrastructure investment. The partners then create a non-profit to operate the network and provide services to customers.

Following the November 27th City Council meeting, the City Manager sent letters to potential partners identified in the initial staff report to determine the level of support to explore this concept. Of those, the only potential partner to express interest in a follow-up discussion was Iowa State. A meeting was held with City staff, in which ISU staff noted it has a variety of network assets within the Ames community. However, there was no commitment from Iowa State to engage in a partnership.

PRIVATE SECTOR PROVIDER DISCUSSIONS:

City staff has held a number of meetings with 1) current service providers in Ames, 2) service providers in areas adjacent Ames, and 3) service providers interested in potentially entering the Ames market. The conversations centered on the providers' interests in Ames and what ways the City could encourage more providers to offer service to Ames residents at higher speeds.

Each of the providers was also asked about their interest in being notified of new developments in the community through the City's Development Review Committee (DRC) process. The response to this was universally positive. City staff will work to inform internet providers of proposed developments so they may contact developers and identify ways to provide service early in the process.

MEETINGS WITH CURRENT PROVIDERS WITHIN AMES:

Mediacom, CenturyLink, ICS Advanced Technologies

Mediacom – City staff met with Mediacom representatives on several occasions. To reconcile the disparity between Mediacom's impression of how much of the community was serviceable and the large number of responses to the City's survey indicating residents were not able to obtain Mediacom's services, staff provided Mediacom with a list of all 30,303 physical addresses in Ames.

Mediacom reviewed the list and determined that 2,281 (7.5%) are addresses that are in bulk contracts with other providers (e.g., multi-family housing). Of the remainder, 26,777 (95.6%) are serviceable, meaning the property owner could call and schedule a connection for internet service without any contribution for the infrastructure. The 1,245 non-serviceable addresses include commercial addresses that require either a contract or an owner contribution (412), properties where Mediacom service is currently being extended or is approved to do so this year (65), invalid addresses (212), community spaces (48), and properties where an evaluation for Mediacom service has been requested but is not yet complete (367). The remaining 141 non-commercial addresses have been evaluated and require an owner contribution.

CenturyLink – CenturyLink has reported to City staff that its service is built over copper telephone line infrastructure (slower speeds), which has been supplemented and replaced in sections by fiber infrastructure (higher speeds). Approximately 90% of the community is currently able to be provided at least basic internet service using copper infrastructure. CenturyLink staff reported that its new and replacement installations are being made with fiber infrastructure. CenturyLink was receptive to further discussions with City staff about specific areas of the community where constraints to improved service could be identified and addressed. CenturyLink also identified policy changes the City could consider to make service improvements easier, such as reducing the depth cable must be buried in easements and sharing in the cost of the make-ready process for pole attachments.

ICS Advanced Technologies – This provider focuses primarily on multi-family residential properties, serving approximately 9,000 households. ICS uses fiber infrastructure to connect the multi-family properties. City staff inquired whether ICS would consider expanding its services to provide service to single-family homes in the community, but ICS staff indicated at this time its business model does not focus on individual residential properties.

MEETINGS WITH PROVIDERS IN AREAS ADJACENT AMES:

Ogden Telephone Company, Colo Telephone Company, Huxley Communications

Three providers serve areas immediately adjacent Ames with fiber-to-the-premises internet. Staff met with all three of these providers and discussed constraints that exist to getting service into the Ames community. Each viewed Ames as an important potential market, but their lack of capital to initiate a major construction project to move into Ames is a significant constraint. As the Ames community expands through annexation over time, portions of the community may grow into the areas already built-out by one or more of these providers.

It was pointed out by several providers that if sizeable pockets of customers got together to pay for upfront construction costs, there may be interest for an outside provider to enter the Ames market. Additionally, one provider noted that if the City built the network infrastructure, it would be interested in leasing the assets to provide service to customers.

POTENTIAL NEW PROVIDERS:

City staff has been approached by a private fiber-to-the-premises (FTTP) internet service provider interested in entering the Ames market. After several conversations, this provider reported to City staff in May that it had received approval from its board to proceed with construction of a new network in Ames. This provider has installed and continues to operate FTTP services in a number of other communities across the Midwest. This network would cover nearly all the residential areas of the Ames community. In total, this project is estimated to be a \$30 million investment for new infrastructure.

In discussions with this provider, City staff has worked to facilitate access to publicly available data showing rights-of-way and public utility easements, discuss the construction permitting requirements, and other matters of interest to this provider. **This provider is aware that the City may consider pursuing a feasibility study for a City-operated internet utility, and has informed City staff that it would not proceed with a project in Ames if the City intended to proceed with a City-operated utility.**

Although the provider has indicated it has received board approval to enter the Ames market, it intends to make a public announcement in the fall after preliminary construction plans have been developed. At that time, the provider would have more detailed information about the areas it intends to serve within the Ames corporate limits and potentially areas adjacent Ames. This provider has indicated that although it intends to overlay a majority of the residential areas in Ames, it will still have areas of the community which do not meet the return on investment required to provide service. **Therefore, the Council should understand that although some portions of the community are at the moment underserved, the project undertaken by this provider may not improve service in those areas if it is not cost-effective.** If this provider proceeds, City staff intends to work with the provider to understand where those gap areas are and what can be done by the City to allow any provider of high-speed internet to better serve those customers.

Separately, City staff has also been approached by an internet industry consultant regarding a unique potential arrangement that could be explored between the City and an investment group looking to build a fiber network. This consultant who approached City staff does not represent the investment group, but has offered to make introductions to the group's representative. In this arrangement, the City would pay to conduct a feasibility study through a separate consultant who represents the investment group. Assuming a positive feasibility report, the investment group can access financing through a state-sponsored bond program offered through the state of Arizona, which allows the investments to be made in other states.

As a condition of the investment group accessing these funds, the City Council would be required to declare by resolution that there is a public interest in having a fiber-to-the-premises network developed in Ames. Once installed, the investment group would hire a

third party provider to manage the network. The City would have no risk or involvement in the development of the network, but it is possible the City could condition its resolution on certain performance standards being met (e.g., construction of the network to all parts of the City, or certain customer service requirements, reliability requirements, etc.).

City staff's conversations related to this concept have only been preliminary; staff has not had further discussion with the representative of the investment group regarding this project. It has been communicated to City staff, however, that it is not likely this group would proceed with a project if another fiber-to-the-premises provider intended to construct a project in Ames.

BETTENDORF/DAVENPORT MODEL:

The City Council requested further information about the Davenport/Bettendorf model of internet service that was formalized in August 2018. This model requires the private internet provider, MetroNet, to provide FTTP service to nearly all parts of each community within three years in exchange for tax incentives.

City staff spoke with staff from Davenport to understand this arrangement. Approximately five years ago, Davenport evaluated its City-owned fiber assets and began to explore how those assets might be used for greater public benefit. Davenport conducted a feasibility study for a municipally operated internet utility. The study showed that Davenport would need to invest approximately \$100 million in infrastructure to develop a system. The city pursued potential partners to operate private services over city-owned infrastructure (wholesale model), and had interest from two or three providers willing to lease the infrastructure and pay a per-connected-premises fee to the city. However, Davenport was ultimately unable to identify a way to adequately absorb the \$100 million infrastructure debt.

During this evaluation process, Davenport began negotiations with MetroNet to install privately owned and operated infrastructure. After the City of Bettendorf was approached to partner in the same kind of arrangement, the three parties arrived at a tax rebate arrangement. It is important to note that the agreements are not exclusive; any future provider that wishes to install FTTP services within these cities is also eligible to receive tax incentives so long as the service meets the terms of the agreements between Davenport, Bettendorf, and MetroNet.

The agreements specify minimum service thresholds, including 1 Gigabit download speeds, and IP television and phone services for customers. Services are not required to be provided to premises that are already served by another FTTP provider, or where the property owner refuses access. MetroNet has the right to charge one-time construction fees for no more than 10% of the homes in the territory to offset unusually high buildout costs, but will not charge those fees if enough customers in those areas sign on for service.

MetroNet is required to operate a retail store in the community for customer and technical support, and must employ 10 full-time equivalent staff to support the network for at least five years after completion of the network.

The cities are required to assist MetroNet by renting or selling city-owned property for MetroNet's use. The cities must also identify its fiber assets and may offer it for use by the MetroNet to extend the network. MetroNet is also permitted to install its own temporary utility poles in instances where attaching its cables to existing poles is cost-prohibitive.

State law provides that telecommunications infrastructure is real property subject to property taxes based on the number of miles and types of lines. Twice per year, Davenport and Bettendorf agree to rebate to MetroNet the amount MetroNet paid in property taxes to each city for its installed infrastructure. This amount does not include the taxes paid to the county or school districts, as it would in a TIF district. The rebate is not structured as a TIF or tax abatement because the infrastructure is not tied to a particular parcel. Each city will make up to forty bi-annual payments (20 years), up to a maximum of \$11,675,000 in payments from Davenport and \$3,375,000 in payments from Bettendorf.

SUBDIVISION CODE CHANGES:

In the meetings with providers, City staff discussed the concept of requiring a multi-duct conduit to be installed for internet infrastructure at the time of subdivision. Both the existing and prospective internet service providers believed this would be a useful tool to reduce costs for internet service and ensure more areas of the community could obtain high-speed internet service without being required to pay significant construction costs. Providers have reported to staff that boring conduit underground is the costliest aspect of extending new internet services (as opposed to the cabling itself), and that the least costly time to install the conduit is when the subdivision is being developed and there is an open trench to lay the conduit.

Staff has had initial discussions with two major local developers regarding their experiences installing internet infrastructure. It appears that developers engage both Mediacom and CenturyLink, but that it is rare for both to provide infrastructure within the same area. It is important to understand that typically, the developer works with whichever provider does not charge the developer fees to install the infrastructure. **Therefore, a requirement to install conduit for internet infrastructure at the time of subdivision would shift some costs from the internet providers to the developer. Like the subdivision costs for streets, sidewalks, etc., the internet infrastructure cost eventually will be passed on to the homeowner in the land purchase price.**

Staff has polled other cities in Iowa to learn about their internet infrastructure requirements. Responses were received from staff in Ankeny, West Des Moines, Davenport, Pleasant Hill, and Johnston. None of these cities has adopted such requirements.

Staff has not yet had an opportunity to complete a detailed study of potential costs of requiring conduit installation prior to returning this staff report to the City Council. Additionally, staff would need to evaluate how access to the conduit would be administered, and how maintenance would be conducted in the future (i.e., does the City own and maintain this asset, or does the City provide it one time for providers to use at their own risk if the conduit fails in the future?). Therefore, if the Council wishes to pursue this concept further, it should provide City staff direction to conduct further research.

Staff also received feedback from one internet provider that an additional burden for internet providers and homeowners is connecting the service drop on the exterior of a home to a central point within the structure interior. Providers typically have to bore holes in the foundation or siding, and then place equipment near an exterior wall, making it difficult for wireless signals to adequately cover the entire residence.

The provider suggested requiring new homes to have a small conduit near where the service drop would enter the home, and extending to a central point in the home interior. This would allow the cabling to be easily brought to the center of the home, where networking equipment would be connected and would be best suited to reach all parts of the house. Such a requirement would likely involve a change to the development standards for single family residences in the Zoning Code. The Council can choose to direct staff to further explore this concept as a next step if it has interest in exploring this as a code requirement.

NEXT STEPS:

There are a number of issues contained within this report. The Council is being asked to provide direction regarding the following key issues:

1. Should staff proceed with an RFP for a feasibility study of a City-operated internet utility?

The complicating factor with this decision is the statement from a new private sector provider of its intent to enter the Ames market. That provider has indicated to City staff that it would not proceed with its plans to enter the Ames market if the City pursued a municipally owned FTTP internet utility. The provider's staff has indicated that its investors are interested in aggressive growth, and would like to see the capital invested in infrastructure as soon as possible, whether in Ames or in some other market. The provider has made moves to proceed with acquisition of property in Ames and indicates it will make a public announcement in the fall.

This leaves the Council with two options regarding this issue:

OPTION A – Decline to conduct a feasibility study, thereby allowing the potential new provider to enter the Ames market. It is unlikely the City could complete an RFP, select a consultant, and receive the results of a feasibility study any sooner than spring 2020. If this potential new provider proceeds as indications

suggest, it will begin to put infrastructure in the ground this summer and complete build-out to the community within three years of commencement.

Having a new private sector provider has the potential to accomplish many of the goals the Council initially described regarding this topic, by increasing access and speeds, and reducing the costs of service through competition. Having an internet alternative may also address concerns regarding customer service and net neutrality, although all these factors would need to be evaluated at the conclusion of buildout to determine whether the Council's stated desires have been met.

If the City relies on the entry of a new provider into the market to improve the community's service, that provider is taking on the financial risks of developing and operating a system, as opposed to the City. The tradeoff is that the City would not have direct control over the factors the Council wishes to improve (costs, coverage, speeds, customer service, net neutrality).

If the potential new provider ultimately chose not to enter the market, the Council could then choose to proceed with the RFP at a later time.

OPTION B – Proceed with a feasibility study RFP. If this potential provider follows through on its statements, taking this action would cause it to not enter the Ames market. The City would then evaluate whether it is feasible to enter the internet business as a municipal provider. Ultimately, a City-operated internet utility would achieve the greatest degree of control over the manner in which services are delivered (including factors such as cost, customer service, accessibility, net neutrality, etc.).

However, proceeding with an RFP does not guarantee that the City will be able and willing to proceed with providing internet services. The feasibility study may not show a sufficient subscriber base to be feasible. Additionally, as the Council will recall from the prior staff report regarding this topic, there remain significant constraints with state law regarding how municipal internet services may be financed in the construction and operation stages. Lacking the ability to subsidize this new internet enterprise, the City's costs might result in user fees greater than those of the private sector competitors in the market.

If the City Council chooses to proceed with an RFP, the Council should confirm the scope of the RFP (which staff believes to involve an evaluation of the retail and wholesale models), and the source of funding for the study. Because of the economic benefits associated with a potential new internet service in the community, City staff believes it would be justifiable to fund the study from the Hotel/Motel Tax Fund balance, which is used to support economic development initiatives. At the end of June, this fund is anticipated to have an available balance of \$1,064,087. Although a \$75,000-\$125,000 expenditure for a study is unbudgeted, a resolution from the City Council to finance the study from this fund

would be sufficient to authorize expenditures. A budget amendment would be brought to the Council in the fall to confirm the funding source.

2. Does the Council desire further action with existing providers, adjacent providers, or with the community ownership model?

Regardless of what happens with a prospective new provider, the existing providers in the community intend to continue providing service. Staff has had a number of conversations with representatives of these companies to discuss what can be done to improve the levels of service, and believes these providers understand the Council's desire for improvements. Staff has also provided several providers with the City's publicly available GIS data to facilitate their provision of service to the community.

City staff has learned from Davenport staff that the announcement of a new FTTP provider entering the Davenport market has caused current providers to improve costs and improve infrastructure. It is possible Ames could experience a similar competitive improvement from current providers if a new private FTTP provider or a City-operated utility entered the market.

Providers who have service adjacent to Ames are hampered from entering Ames primarily due to access to sufficient capital for construction. It is likely that as Ames grows, parts of the community will eventually expand into their service areas. City staff has been unable to identify any concrete actions the City could take to encourage expansion plans that are not already underway.

It does not appear there is sufficient interest from the identified potential institutional partners to develop a community ownership model of internet service.

However, if there are other topics the Council wishes for staff to pursue with existing providers and potential partners, it should identify those topics for City staff to pursue.

3. Does the Council support drafting subdivision requirements for internet infrastructure?

Before proceeding further with this requirement, the Council should consider whether it is willing to transfer the cost of this infrastructure from providers to developers. Additionally, the entrance into the Ames market of a new provider has the potential to provide additional choices and fill service area gaps. This may remove the need for requirements to install infrastructure.

If the Council wishes for staff to investigate this type of requirement further, staff's next step would be to gather feedback from developers and conduct a more thorough search for comparable requirements in other communities.