



Agenda
City of Lucas
Technology Committee Meeting
November 12, 2019
7:00 PM

City Hall - 665 Country Club Road – Lucas, Texas

Notice is hereby given that a meeting of the Technology Committee will be held on Tuesday, November 12, 2019 at 7:00 pm at Lucas City Hall, located at 665 Country Club Road, Lucas, Texas 75002-7651 at which time the following agenda will be discussed.

Call to Order

- Roll Call
- Determination of Quorum
- Reminder to turn off or silence cell phones
- Pledge of Allegiance

Citizen Input & Open Discussion

The Citizen Input portion of the agenda is an opportunity for the public to address the Technology Committee on any subject. By completing a "Request to Speak" form and submitting to the City Secretary, citizens have an opportunity to speak at the Technology Committee meeting.


1. Citizen Input and Open Discussion (**Technology Committee Chairman Paul Rathgeb**)

Regular Agenda

2. Consider approving the minutes of the October 8, 2019 Technology Committee meeting. (**Technology Committee Chairman Paul Rathgeb**)
3. Provide a summary of the Broadband Communities Conference. (**Technology Committee Chairman Paul Rathgeb, Assistant to the City Manager Kent Souriyasak**)
4. Discuss key content and details regarding the scope of work to be included in the City of Lucas Request for Proposal (RFP) to acquire the services of a consultant to prepare and complete a broadband feasibility study. (**Technology Committee Chairman Paul Rathgeb, Assistant to the City Manager Kent Souriyasak**)
5. Adjournment.

Certification

I do hereby certify that the above notice was posted in accordance with the Texas Open Meetings Act on the bulletin board at Lucas City Hall, 665 Country Club Road, Lucas, TX 75002 and on the City's website at www.lucastexas.us on or before 5:00 p.m. on November 8, 2019.



Kent Souriyasak, Assistant to the City Manager

In compliance with the American with Disabilities Act, the City of Lucas will provide for reasonable accommodations for persons attending public meetings at City Hall. Requests for accommodations or interpretive services should be directed to City Secretary Stacy Henderson at 972-912-1211 or by email at shenderson@lucastexas.us at least 48 hours prior to the meeting.



City of Lucas Technology Committee Request November 12, 2019

Item No. 01

Requester: Technology Committee Chairman Paul Rathgeb

Agenda Item Request

Citizen Input and Open Discussion

Background Information

NA

Attachments/Supporting Documentation

NA

Budget/Financial Impact

NA

Recommendation

NA

Motion

NA



City of Lucas Technology Committee Request November 12, 2019

Item No. 02

Requester: Technology Committee Chairman Paul Rathgeb

Agenda Item Request

Consider approving the minutes of the October 8, 2019 Technology Committee meeting.

Background Information

NA

Attachments/Supporting Documentation

1. Minutes of the October 8, 2019 Technology Committee meeting

Budget/Financial Impact

NA

Recommendation

NA

Motion

I make a motion to approve the minutes of the October 8, 2019 Technology Committee meeting.



City of Lucas

Technology Committee

Regular Meeting

October 8, 2019

7:00 PM

City Hall – 665 Country Club Road – Lucas, Texas

MINUTES

Call to Order

Chairman Paul Rathgeb called the meeting to order at 7:00 pm. It was determined that a quorum was present.

Committee Members Present:

Chairman Paul Rathgeb

Member Jamie Gibson

Member Troy Dechant

City Staff Present:

City Manager Joni Clarke

City Secretary Stacy Henderson

Assistant to the City Manager Kent Souriyasak

Bill Baxter, City IT Consultant

Committee Members Absent:

Member George Brody

Member Dennis Scully

City Council Liaison Present:

Councilmember Debbie Fisher

Regular Agenda

1. Citizen Input.

Jason Spahr, 412 Oakbrook, inquired about the failure rate of Mont Belvieu's fiber network system since it had started and thanked the Committee for their work on attempting to approve internet service in the City.

2. Consider approving the minutes of the August 13, 2019 Technology Committee meeting.

MOTION: A motion was made by Member Gibson, seconded by Member Dechant to approve the minutes of the August 13, 2019 Technology Committee meeting. The motion passed unanimously by a 3 to 0 vote.

3. Appoint Vice Chairman of the Technology Committee to serve for a period of the remaining term ending December 31, 2019.

MOTION: A motion was made by Member Dechant, seconded by Chairman Rathgeb to appoint Jamie Gibson as Vice Chairman to the Technology Committee. The motion passed unanimously by a 3 to 0 vote.

4. Provide a discussion summary of the meeting between the Cities of Lucas and Mont Belvieu regarding MB Link, the City of Mont Belvieu’s municipally owned fiber network.

Bill Baxter, the City’s IT Consultant, discussed the meeting held with the City of Mont Belvieu on September 16, 2019 to review Mont Belvieu’s municipally owned fiber network called MB Link and understand the planning and implementation process.

Mr. Baxter noted that the City of Mont Belvieu was an industrial community in oil and gas and owned a majority of the right-of-way areas in the City. The City of Mont Belvieu received similar responses from internet service providers indicating that the City was not densely populated enough for providers to expand and improve internet services.

In 2015, the City of Mont Belvieu contracted services with Magellan Advisors to develop a broadband feasibility study at a cost of \$40,000. Based on recommendations from the feasibility study, Mont Belvieu City Council approved Certificates of Obligation totaling \$14 million issued for 20 years to pursue the implementation of a municipally owned fiber network. The construction and implementation process of the fiber network took approximately 12 to 18 months. In July of 2018, Mont Belvieu launched MB Link and began offering residential internet services as an optional public utility. The approximate timeline for pursuing, developing, implementing and rollout of the fiber network took approximately five years. Mont Belvieu currently maintains a mix of 12 full-time and part-time MB Link employees. MB Link is estimated to generate approximately \$50 million in revenue for the City of Mont Belvieu within 20 years.

Mr. Baxter stated recommendations from the visit included conducting a broadband feasibility study, hiring a broadband network engineer prior to construction and implementation, provide communication and marketing strategies and create a positive customer experience.

Chairman Rathgeb stated that the Committee has spent the last year gathering data and meeting with internet service providers to determine if they would improve their network in the area, all who have stated they were not interested in doing so due to the low density of homes in Lucas. Chairman Rathgeb stated that it was time for the community to decide how we move forward.

There was no action on this item it was for discussion purposes only.

5. Consider appointing a Technology Committee member to attend the Broadband Communities Conference in Washington, D.C.

Chairman Rathgeb stated that this conference was geared towards the public sector and believed it would be beneficial for a Committee member to attend and gather more information along with staff member, Kent Souriyasak. Chairman Rathgeb stated that he would be interested in attending the conference.

6. Review the internet speed test map and discuss recommendations to pursue an internet solution.

Chairman Rathgeb discussed the internet speed test map depicting internet service throughout Lucas. Chairman Rathgeb stated that approximately 24 percent of Lucas households responded with an average downlink of 41.49 Mbps and an average uplink data rate of 23.65 Mbps. Chairman

Rathgeb stated that 74 percent of the respondents were below 50 Mbps for downlink data rates. The best and least served areas of the city were mapped and discussed.

The Committee discussed information received from current providers in the City such as Suddenlink, AT&T, Frontier, and GCEC that had no business plan to expand on their existing network or to rebuild a copper network in the City of Lucas due to its low density, house per mile.

Chairman Rathgeb stated that he would like to prepare a final summary report for the City Council at their October 17, 2019 meeting with a recommendation to invest in a feasibility study and what it would take to organize and operate a City owned fiber network.

MOTION: A motion was made by Vice Chairman Gibson, seconded by Member Dechant to approve a Committee recommendation of moving forward with a feasibility study to obtain information needed regarding the City operating its own fiber network. The motion passed unanimously by a 3 to 0 vote.

7. Adjournment.

MOTION: A motion was made by Member Dechant, seconded by Vice Chairman Gibson to adjourn the meeting at 7:57 pm. The motion passed unanimously by a 3 to 0 vote.

Paul Rathgeb, Chairman

Stacy Henderson, City Secretary



City of Lucas

Technology Committee Request

November 12, 2019

Requester: Technology Committee Chairman Paul Rathgeb
Assistant to the City Manager Kent Souriyasak

Agenda Item Request

Provide a summary of the Broadband Communities Conference.

Background Information

Technology Committee Chairman Paul Rathgeb and Assistant to the City Manager Kent Souriyasak traveled to Washington, D.C. to attend the Broadband Communities Conference from October 29 through 31. Broadband Communities is an organization that provides information committed to helping communities maximize the economic benefits of ultra-fast broadband networks. This year's conference theme is focused on new technologies, new strategies and new services to bridge the digital divide amongst communities between urban versus rural areas, high versus low income populations, and big internet carriers versus small internet carriers. The conference sessions included discussions of federal funding opportunities, municipal bonds, policymaking, public private partnerships, organizational restructuring, new technologies, and financial modeling.

Several takeaways from the Broadband Communities Conference include:

- Many federal funding opportunities to implement broadband infrastructure are more focused on rural and urban communities. The City of Lucas is considered to be located within the Dallas Metropolitan Trading Area (MTA) in which the City does not qualify as an area for broadband federal funding due to the Dallas MTA broadband speeds being considered above the defined necessary minimum Internet speeds determined by the Federal Communications Commission (FCC).
- The Fiber Broadband Association indicated there is currently a 17% increase in fiber growth in 2019.
- Deloitte estimates a \$150-180 billion investment in fiber over the next five to seven years in preparation of 5G.
- The Utilities Technology Council (UTC) supports the ability to provide broadband through public power utilities and oppose state laws that restrict the ability to do so. Recent examples would be Arkansas approving a state law to allow municipalities to provide broadband service (solely and, or in partnership) and the City of Fort Collins, Colorado approving the building of a broadband network.
- The City of Alexandria, Virginia is moving forward with building a municipal fiber network connecting through municipal complexes throughout the City in an effort to expand and improve Internet service.



City of Lucas

Technology Committee Request

November 12, 2019

The following list are several broadband firms and vendors to further research services in considering needs for a municipal broadband network:

- COS Systems – A software that aggregates demand before building a broadband network, deployment calculations based on Return on Investment (ROI), an online marketplace for Internet Service Providers (ISP), and an Open Access management system for multi-provider networks.
- ETI Software Solutions – A software that manages subscribers, services and devices through one integrated system that manages daily workforce installations, troubleshooting the fiber network during outages, designing and planning network expansion, analyzing subscriber market trends, and tracking infrastructure inventory.
- Lit Communities – A broadband firm that provides consulting services to create financially viable roadmaps for network deployments to meet community needs and network infrastructure assets.
- Magellan Advisors – A broadband firm that provides consulting services to public and private organizations in developing feasibility studies, financial plans, design and engineering, and project management and operations.
- Render Networks – A digital, data-driven platform for fiber network deployment utilizing GIS, mobile and automation technology that enables network operators, engineers and builders to deliver quality networks with real-time, geospatial data for increased control and visibility.
- Vantage Point – A broadband firm that provides consulting services for feasibility studies, broadband deployment, network engineering services, data networking, security, and project management solutions.

Attachments/Supporting Documentation

NA

Budget/Financial Impact

NA

Recommendation

NA

Motion

There is no motion required.



City of Lucas

Technology Committee Request

November 12, 2019

Requester: Technology Committee Chairman Paul Rathgeb
Assistant to the City Manager Kent Souriyasak

Agenda Item Request

Discuss key content and details regarding the scope of work to be included in the City of Lucas Request for Proposal (RFP) to acquire the services of a consultant to prepare and complete a broadband feasibility study.

Background Information

At the October 17, 2019 City Council meeting, Technology Committee Chairman Paul Rathgeb presented findings from conducting the Internet speed test map that depicts Internet service throughout the City of Lucas. Chairman Rathgeb explained that members of the Technology Committee met with current providers such as Suddenlink, AT&T, Frontier and Grayson Collin Communications that showed no interest in expanding on their existing network or to rebuild a copper network in the City of Lucas due to its low density and housing per mile.

On behalf of the Technology Committee, Chairman Rathgeb recommended that the Council should consider approving the preparation of a Request for Proposal (RFP) to authorize a feasibility study for deploying a fiber-to-the-home network as a public utility. Chairman Rathgeb indicated that the Council should consider the success of the City of Mont Belvieu's fiber deployment as a reflection of the consultancy performing their feasibility study. Chairman Rathgeb encouraged the Council to direct the Technology Committee to begin developing key content to be included in the feasibility study. The Council approved the recommendation and directed the Technology Committee and City staff to work together in preparing the RFP.

The City of Mont Belvieu provided a sample RFP and Broadband Study for the Committee to review the general outline and scope of work. The Committee also received samples of the Medina County, Ohio, Fiber Business Plan and Financial Plan. The purpose of reviewing these sample documents is to generate key ideas on what should be included in the proposed RFP. Chairman Rathgeb and Assistant to the City Manager Kent Souriyasak has prepared an outline of the proposed scope of work for the Committee to discuss. The proposed topic discussions for the scope of work include:

- Physical Plant (i.e. core fiber ring)
- Data Center
- Operations
- Marketing and Pricing Plans
- Financing Modeling
- Assumptions and Requirements



City of Lucas

Technology Committee Request

November 12, 2019

Attachments/Supporting Documentation

1. RFP Proposed Scope of Work
2. RFP Timetable Example

Budget/Financial Impact

NA

Recommendation

NA

Motion

There is no motion required.

**Proposed Topics
Scope of Work
Request for Proposal (RFP)
City of Lucas**

1. Physical Plant
 - a. Core Fiber Ring
 - i. Fiber type and cost per foot
 - ii. Installation cost per foot
 - iii. Total fiber feet and cost estimate
 - iv. Equipment type and cost
 - b. Laterals by Phase
 - i. Fiber type and cost per foot
 - ii. Installation cost per foot
 - iii. Total fiber feet and cost
 - iv. Equipment type and cost
 - c. Customer Premise Equipment
 - i. Equipment type and cost

2. Data Center
 - a. Square foot requirements by phase and per third party partner
 - b. Racks, cables, conduit, cable ladders, etc. and cost
 - c. Equipment type and cost
 - d. Heating, Ventilation and Air Conditioning (HVAC) requirements
 - e. Electrical service requirements
 - f. Non-neutral vs. neutral carrier uplink
 - g. Other requirements

3. Operations
 - a. Organization Plan (head count requirements, both outsourced and direct hire)
 - i. Engineering and technical operations
 - ii. IT and web site support
 - iii. Customer Support
 1. Technical support plan and response
 2. Web-based and self-service support
 3. Call-in support
 4. Ticketing and dispatch
 - iv. Sales and marketing
 - v. Finance, accounting and billing
 - vi. Administration and project management
 - vii. Personnel transition and specialized training
 - b. Enterprise Resource Planning (ERP) and Support Systems
 - i. Operations Support System (OSS), Broadband Billing Software (BSS) and Network Management System (NMS)
 - ii. Ticketing and work order system
 - iii. Billing
 - iv. Accounting
 - v. Other

**Proposed Topics
Scope of Work
Request for Proposal (RFP)
City of Lucas
(continued)**

4. Marketing and Pricing Plans
 - a. Retail Pricing Plans (install fee and recurring access charge by tier)
 - i. Consumer
 - ii. Business
 - b. Market Place Pricing Plans (existing models? Example: premises passed and premises served)
 - c. Web site design
 - d. Branding
 - e. Communications and campaigns

5. Financial Modeling
 - a. 20-year financial model with emphasis on initial five year, three-phase plan
 - i. Phase One – one to two years of outsourcing, construction and rollout
 - ii. Phase Two – three years of expansion of network and transition to in-house operations
 - iii. Phase Three – continuation of services and expansion of network after five years
 - b. Retail revenue forecast
 - c. Third-party provider revenue forecast
 - d. Deployment cost forecast
 - e. Continuing operations forecast
 - f. Graphs on revenue and costs

6. Assumptions and Requirements
 - a. Aerial installation where poles available, otherwise subterranean
 - b. Take rate
 - c. Automated provisioning required
 - d. Two fiber strands to each premise served
 - e. Initial roll-out to areas to be determined should be described in three phases across five years and should reach X number of households
 - f. Long-haul and short-haul reliability requirements
 - g. Minimum down and up data rate requirements
 - h. Minimum latency requirements
 - i. Other Key Performance Indicators (KPI)

**Timetable Example
Request for Proposal (RFP)
City of Lucas**

Event	Time Required	Deadline
Develop scope of work topics	At least two weeks	November 4, 2019
Review scope of work topics at Technology Committee meeting		November 12, 2019
Prepare scope of work descriptions and RFP	At least three weeks	December 3, 2019
Review and approve final RFP at Technology Committee meeting		December 10, 2019
Distribute RFP to vendors		December 16, 2019
Hold teleconference call with prospective vendors		January 6, 2020
Update at Technology Committee meeting		January 14, 2020
Allow time for vendors to return proposals	At least two to four weeks	January 24, 2020
Evaluate vendor proposals, compile list and select most favorable at Technology Committee meeting	At least one to three weeks	February 11, 2020
Provide recommendation at City Council meeting		February 20, 2020
Select and notify the vendor (pending City Council approval)		February 24, 2020
Develop a contract	At least two to four weeks	March 13, 2020
Review contract	At least one week	March 20, 2020
Provide recommendation at City Council meeting to authorize the City Manager to enter into an agreement		April 2, 2020
Both parties sign agreement		April 20, 2020
Consultant prepares the Broadband Feasibility Study	30-60 days	May/June 2020
Review Broadband Feasibility Study and vote on recommendation at Technology Committee meeting		June 9, 2020
Provide recommendation at City Council meeting		June 18, 2020