



Midpeninsula Regional
Open Space District

R-18-40
Meeting 18-15
April 25, 2018

AGENDA ITEM 6

AGENDA ITEM

Award of Contracts for Fiber Optic Line installation and Ethernet Virtual Private Network Services with Comcast Business Inc.

ACTING GENERAL MANAGER'S RECOMMENDATIONS

1. Authorize the General Manager to execute a contract with Comcast Business Inc., for the installation of fiber optic line to four office facilities for a base contract amount of \$456,309 based upon the State of California CALNET 3 pricing.
2. Authorize the General Manager to execute a three-year service contract with Comcast Business Inc., for an Ethernet virtual private line (EVPL) for an annual not-to-exceed amount of \$115,000, for a total contract amount of \$345,000, based upon the State of California CALNET 3 pricing.

SUMMARY

Network connectivity is an increasingly critical infrastructure element to all Midpeninsula Regional Open Space District (Midpen) offices, particularly between the Administrative Office and Field Offices. Communication software and other technology, such as SharePoint and Skype, are essential to support reliable and robust information exchange between Midpen offices. The current outdated, and in some cases nonexistent, connectivity infrastructure severely hampers the use of this technology. Additionally, Midpen recently invested in two new data management systems, enterprise GIS and the work order and asset management system, which require high speed, high quality communication infrastructure to function. The recommended contracts with Comcast will upgrade the existing connectivity infrastructure and provide the services needed to maintain and operate the new infrastructure. The proposed Fiscal Year 2018-19 budget includes sufficient funds for the installation of the new fiber optic line and the first year of network services and support.

DISCUSSION

Current Issues with Midpen Internet Services

All Midpen field offices currently run on consumer grade internet. This was largely due to the prior premium cost for new technology and the unavailability of business-grade internet access in remote locations where Midpen field offices are located. Midpen phone systems, remote file access, and other critical communication and business operations technology rely on network services to function. The current network bandwidth limitations directly affect phone (voice over IP or VOIP), email, and video conferencing services.

As a result, since the beginning of 2016, there have been over 100 helpdesk tickets related to connectivity issues at the Foothills Field Office (FFO) alone. The nature of these helpdesk tickets indicate that the existing network, phone, and internet services are affecting the ability for employees to work uninterrupted and unimpeded by connectivity issues. For example, FFO has a maximum internet connection of 24 Mbps (megabyte per second – a measure of burst speed), which is similar to what most people receive in their home. While this bandwidth is adequate for one (1) to four (4) users, it is not sufficient to support an office staff of 160 (or more including seasonal staff).

Creation of an Ethernet Virtual Private Line (EVPL)

Current network service levels vary by Midpen office. This is due to the availability of service in remote locations, which varies by provider. Updating the network connectivity between offices would significantly increase internet services and speed to all Midpen offices. An upgrade can be accomplished via an Ethernet virtual private network (EVPL), which can centralize network services and internet access through the Administrative Office (AO). Based on discussions with the vendor, the service can be readily transferred to the new 5050 El Camino building then the Administration Office is relocated into the new office building.

Two components are required to create an EVPL. The first being the installation of fiber optic line and the second being the installation of all applicable switches at the three field offices: Skyline Field Office, Foothill Field Office, and the new South Area Office at Cristich Road (*installation at Cristich slated 18 months out from the contract date*). The EVPL will create a gigabyte-based connection between all offices. The internet connection out of the AO will be at 200 Mbps with a redundant and second internet service provider at 100 Mbps. In essence, Midpen would create a dedicated “hub and spoke” between the Administrative Office and each field office that increases inter-office access to files and systems. This will also allow Midpen to centralize its information technology security and disaster recovery/planning practices.

Alignment with the Information Technology (IT) Master Plan

The proposed connectivity upgrade addresses the following three IT needs as identified in the 2015 IT Master Plan:

- Increase Internet/Network Bandwidth
- IT Infrastructure Consolidation
- IT Security and Disaster Recovery/Planning

Increase Internet/Network Bandwidth

The IT Master Plan recommends taking steps to increase internet bandwidth. Increased internet bandwidth and high availability networks are increasingly important to an organization’s daily function. The proposed connectivity improvements provide additional bandwidth during peak internet usage and provide resiliency when disasters occur.

IT Infrastructure Consolidation

A variety of network devices (firewalls and switches), servers, and desktop computing are maintained at Midpen field offices. Implementation of an EVPL will consolidate most of this infrastructure and improve remote device support. For example, staff from the Information Systems and Technology (IST) Department will be able to provide desktop and print management support to field staff without having to drive to remote offices. This will reduce the total hours to resolution and reduce mileage on fleet vehicles. Additionally, IST

will be able to implement Virtual Desktop Infrastructure (VDI) to provide field staff with a uniform user interface experience regardless of which computer/office they log into, which will help offset future replacement costs of field office technology due to reducing the total amount of devices that need to be replaced.

IT Security and Disaster Recovery/Planning

Recently, IST staff initiated the first offsite data backup. To date, Midpen has backed up approximately 40% of its data offsite. At this time, field offices rely on different servers due to poor network connectivity, and as a result, the majority of field data is not backed up to specifications outlined in the IT Master Plan. Implementation of an EVPL will consolidate IT infrastructure at the field offices to allow proper backup of all files, thereby supporting uniform delivery of security and disaster recovery services. In this way, the EVPL aligns with the goals of the business continuity and disaster recovery plan, which begins in Fiscal Year 2018-19.

Purchasing Process and Vendor Selection

Pricing is derived from the State of California CALNET3 Contract. The California Department of Technology (CDT) service offerings available through the CALNET Contract are primarily designed to meet State agency purchasing requirements. These services, however, may be purchased by qualified non-state agencies, including federal and local government agencies such as cities, counties, schools, libraries, and special districts. Comcast is considered a category 2-7 managed internet service provider under the current CALNET Contract, and the pricing provided to the State via CALNET is being extended to Midpen.

FISCAL IMPACT

The installation of fiber optic line was initially projected to cost \$500,000 in Fiscal Year (FY) 2017-18 and \$1,300,000 in FY2018-19 based upon preliminary engineering studies conducted by AT&T in 2016, for total projected cost of \$1.8 million. After reaching out to Comcast Business to solicit other approaches that meet Midpen needs, total capital cost projections dropped to under \$875,000. Accordingly, a Quarter 3 budget adjustment will be recommended to reduce the IST capital budget for FY2017-18 by \$500,000, which the Board will review on May 9, 2018. The proposed FY2018-19 budget under Fund 40 (General Fund – Capital) includes \$875,000 for the Field Office Connectivity project for the installation of the fiber optic line, and the consolidation and reconfiguration of Midpen technology.

General Fund 40 – Capital Budget			
	FY2017-18	FY2018-19	Total
Original Budget	\$500,000	\$1,300,000	\$1,800,000
Amended Budget	\$0	\$875,000	\$875,000
Spent-to-Date (as of 05/09/2018):	\$0	\$0	\$0
Encumbrances:	\$0	\$0	\$0
Field Office Internet Upgrade Project Costs:	\$0	\$456,309	\$456,309
Budget Remaining (Proposed difference from the Amended Budget):	\$0	\$418,961	\$418,691

The proposed General Fund 10 – Operating Budget for FY2018-19 will include \$115,000 to fund the first year of the recommended three-year service contract. The net cost would be about \$93,000 since this service will replace some existing service costs incurred by Midpen. This

same amount will be included in the FY2019-20 and FY2020-21 budgets to fund the remaining two years. This will be an on-going service cost. In general, the cost of network and internet services tend to decrease over time, therefore, future on-going costs are expected to decrease in the out years. In future years, Midpen may be able to continue leveraging the CALNET State Contract to negotiate pricing for these services.

The recommended contracts are not funded by Measure AA.

BOARD COMMITTEE REVIEW

This item was not previously reviewed by a Board committee.

PUBLIC NOTICE

Public notice was provided as required by the Brown Act.

CEQA COMPLIANCE

The installation of optical fiber and related telecommunications equipment on existing utility structures on Midpen property is categorically exempt under Article 19 of the California Environmental Quality Act (CEQA) Guidelines as follows:

Section 15302 – Replacement or Reconstruction: Class 2 exemptions consist of construction and location of limited numbers of new, small facilities or structures; installation of small new equipment and facilities in small structures; and the conversion of existing small structures from one use to another where only minor modifications are made in the exterior of the structure. The proposed project involves the replacement or reconstruction of existing conduit and/or overhead utility lines, and installation of new, small equipment at existing Midpen facilities.

Section 15303 – New Construction or Conversion of Small Structures: Class 3 exemptions consist of operation, repair, maintenance, or minor alteration of existing public and private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that previous existing. The proposed project involves the construction and location of limited new, small underground utility facilities, and installation of fiber optic cable in those facilities as well as on existing overhead utility poles. New underground facilities would be installed along existing rights-of-way, in previously disturbed areas near Midpen facilities, and/or within easements held by Comcast.

Section 15304 – Minor Alterations to Land: Class 4 exemptions consist of minor public or private alterations in the condition of land, water, and/or vegetation, which do not involve removal of healthy, mature, scenic trees except for forestry or agricultural purposes. The project includes trenching and backfilling in previously disturbed areas to access and/or install conduit for new fiber optic cable. The surface will be restored following disturbance. There will be no grading in any waterway, wetland, scenic area, or area of sever geologic hazard.

NEXT STEPS

Pending Board approval, the Acting General Manager will enter into a contract with Comcast to perform construction over a 120 day window for fiber line installation at the AO and

Skyline/Foothills Field Offices, and an 18-month window for the new South Area Office at Cristich.

Additionally, Midpen staff will be reaching out to our partner agencies affected by this project to notify them of the effort and projected project timelines.

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