

CITY OF COOS BAY CITY COUNCIL
Agenda Staff Report

MEETING DATE March 1, 2016	AGENDA ITEM NUMBER
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TO: Mayor Shoji and City Councilors
FROM: Susanne Baker, Finance Director
THROUGH: Rodger Craddock, City Manager
ISSUE: Technology Services

BACKGROUND:

Over the last several decades, the City has used a variety of resources to provide technology support for the City's computer system and network. In the early years when technology was first introduced at the City, each department had one or two employees who managed their respective small, peer-to-peer computer networks, desktops, and printers. As the technology increased in sophistication and computer networks became more integrated into the work environment, the advantages of computers became more apparent. With this ever increasing reliance on technology and the increasing complexity of computer networks, it necessitated the City to outsource technology support. The City contracted with School District 9's Technology Department for support for several years which then progressed to hiring a local company, ComputerWorks, who could provide immediate assistance due to the 24/7 nature of public safety. In 2014, the City's technology provider, ComputerWorks, was purchased by Comspan Communications; and the contract has continued since that time.

Throughout the years, the City of Coos Bay has increased its reliance on technology to deliver services to the community and computer technology has integrated into most job functions. This can easily be seen in the reliance on technology with cameras and computers installed in police cars, 9-1-1 dispatching services, and records management; the implementation of the Oregon State Building Codes E-Permitting system for the issuance of building permits; all accounting functions are performed with technology; and Public Works utilizes technology to track and estimate projects and all mapping is performed using computer aided drafting programs. Technology has become a necessity to provide the efficient delivery of the services requested by the public.

Subsequently, the City's technology network is complex and must have consistent maintenance in order to keep the asset viable. The health and vulnerability of the network is of the highest concern and prompts action. The required maintenance has been performed in a manner which is consistent and proactive with a long term approach in the City's best interest. This short term method has resulted in a disheveled network in need of immediate attention. The ongoing and increasing technology problems require more time each day by the provider, and the frequency of downtime has increased and has become an unacceptable regularity. The current provider's response time to immediate problems has increased with old problems complicating new problems and creating compound issues.

The City has an internal IT Committee which meets each month with the provider to discuss IT issues, budget, prioritize projects, and to work together for the benefit of the City as a whole. The IT provider is an integral part of this meeting, and the meeting provides an opportunity to discuss in person any obstacles and resolve issues. For quite some time, outside of the monthly meetings, the IT Committee has been discussing options to address the issues for improved technology services.

The consensus has been due to the complexity of the City's network and security protocols, the needs of a technology provider with access to a 24/7 team of experienced high level network engineers to be proactive, recommend decisions that will not hamper future operations, and timely follow through. The IT Committee has considered whether it would be cost effective to hire an employee or look towards a local firm. After looking into the cost of an employee and comparing with other entities along the coast, the salary plus benefits would be cost prohibitive. Over the years, the City has followed the difficulties of the technology providers trying to find qualified employees to meet the local needs and resolved this would not be a solution. The City's 24/7 operation, overtime costs, and reliance on one individual would be burdensome for both the City and an employee. This brought the focus to a larger technology firm with depth in which to draw upon experience and a multitude of highly skilled employees. An additional benefit with such a firm is the professional peer review of projects within the firm to streamline projects. With this quality review, the focus of projects and work would be proactive and with a long term, efficient approach.

The severity of some of the IT issues and response by the provider are noted.

Backups of data:

- October 2015: At the City IT meeting, the provider notified staff computer backups for the City's network were not running at all; and they resolved the issue.
- November 2015: At the City IT meeting, the provider advised local backups were occurring.
- December 2016: The IT provider did not attend the City IT meeting nor provide an update on unresolved issues on the emailed advance agenda.
- January 2016: At the City IT meeting, the provider stated the main file server backups had stopped working in Sept. 2015 and started again recently; the main database server had not been backed up at all as far back as they looked; and the email server was receiving incremental backups.

Though the backup problem was resolved later that same day in January 2016, the consistent maintenance required on a regular basis had not been provided. Because of the past lack of response, City staff moved towards an alternate solution in October for a backup solution. Through a recommendation from the City's financial software vendor and past experience with Executech, assistance was obtained for a secure offsite backup solution for the financial database.

Hardware:

Attached is a memo received from the technology provider at the January 2016 IT meeting

which notes the unconventional daisy-chaining of parts of three computers for the daily operation of a server. Due to security concerns some of the information has been redacted. In the picture, the top computer is only supplying power through a cable to a hard drive which is then connected via a cable to the computer below which does not have a back cover. In the technology provider's own words, "there are two hard drives connected to this machine in a way that is not acceptable." To date, no progress on the correction has been reported.

Network bottlenecks:

At the February 2016 IT meeting, the technology provider advised that they discovered a significant portion of the City's network traffic is being routed through a simple home type router that could be purchased at Walmart. This could be contributing to some of the City's slow network issues.

When issues are discovered, the network provider provides a conceptual solution and advises they will provide a quote for the City's approval to purchase the needed equipment. However, quotes are not obtained, and the issues continue and/or cause network failure.

The most viable solution to the City's technology issues that staff explored was the use of a broad based technology firm, Executech, which performed the system engineering and upgrades for the City's financial software vendor, Caselle. During the upgrade of financial software this last year, Executech performed the upgrade remotely and from the knowledge of that experience they were easily able to implement the offsite backup services requested. Caselle utilizes Executech to perform all of their financial software upgrades for cities and other clients. Because of the City's past experience with Executech, they were approached to provide an assessment of the City's network.

Executech provided an assessment which was not entirely surprising considering the issues occurring. The status of the City's network is such that it requires reconfiguration to resolve the issues. During the reconfiguration, the network must remain fully operational. Executech was asked to provide a proposal to bring the City's network up to a fully operational and efficiently operating network. The City's current network is comprised many different functions which have become co-mingled over time; and as part of this process, they will be separated. One of these functions is the phone system which will be addressed through a separate process. To solve the business continuity issue, there are two approaches. The first approach involves expending funds to integrate new servers into the network and separate out the known issues. This process is a long term approach which would extend the life of the network into the future and maintain the business continuity that is needed. A second approach would accomplish the same task; but it would instead invest funds in labor without the benefit of new assets and extending the life of the network in a long term approach. The first approach is what Executech proposed at the onset, and the second approach was not considered optimum for the City or efficient. This proactive long term business approach is what the City has been looking for.

Additionally, Executech is aware of and would help the City comply with the "Red Flag Compliance" requirements. These regulations were created by the Federal Trade Commission to help prevent identity theft, and they are federally mandated. The current provider has not been able to evidence network compliance with Red Flag Compliance regulations. Executech's standard use of the federally mandated compliance regulations testifies to the depth and

breadth of their technology knowledge, and the best practices the City desires. These security protocols are required of businesses utilizing online sales with the use of credit cards to secure private information held by the City on the network.

Executech’s proposal has two components. The first is the reconfiguration of the network which would be a deployment of a team of technicians to correct the City’s network functionality in an expedient manner while keeping the network operational. Additionally, Executech would have a full-time tech onsite during the first month to resolve remaining issues. To implement the reconfiguration based on a preliminary review of the current hardware/software implementation cost with a contingency is estimated at approximately \$91,000. Because of the unknown nature of the work required, Executech has estimated the work to the best of their knowledge at this point in time. Staff recommends a contingency to cover likely unanticipated costs. Executech has reassured that they will bill less if the actual costs are less.

The second component is the monthly IT support by remote access of an estimated 10 hours per week which would include a quarterly onsite visit. The remote access is a common industry standard for a well-documented network, and it has been a process used by the City to implement and maintain many programs. The proposal will utilize a cloud solution for the email and provide network software needed for efficiency and security. Currently, the City expends \$2,874 per month for IT labor for the City’s network (phone system is separate). This figure would increase to \$4,550 per month which is an increase of approximately \$1,676 from the current contracted price. The proposal also includes monthly software subscriptions to ensure up to date and consistent spam, anti-virus, Office 365, and backup services. Additionally at no charge, Executech will provide a software program which will monitor the condition of the network and alert their staff to any issues with the essential processes and services to proactively correct issues.

Summary	
Implementation Hardware/Software	\$ 32,810.71
Implementation Labor	\$ 48,041.67
Implementation Estimate	\$ 80,852.38
Implementation Contingency	\$ 10,002.50
Project Estimated Total	\$ 90,854.88
Current Monthly Labor Cost	\$ 2,874.00
Proposed Monthly Labor Cost Estimate	\$ 4,550.00
Proposed Monthly Software Subscriptions	\$ 1,066.00

After review of the Executech proposal, City staff contacted School District 9 (District) based upon the City’s good working relationship with the District’s Technology Department and requested assistance for an unbiased third-party review of the initial proposal and the current condition of the City’s network. After this third-party review and the District’s site visit to the City’s server room and assessment of the network, the Technology Department Manager advised:

“As we indicated in our last meeting with you, Kevin and I believe the city will need a consulting firm like Executech with considerable depth and experience to bring your technology up to date. We did not feel that the proposal for services was overpriced, but seemed reasonable based on the scope of work.”

Reference checks on Executech with other clients and cities revealed they have provided the services proposed, and they continue to be a good resource for IT support.

The current budget did not anticipate a mid-year change in IT services, and a supplemental budget appropriating carryover will be needed. Additionally, to ease the cash flow, Executech has offered an interest free loan for 30 months for the hardware portion of the proposal which staff would advise accepting with the anticipation of prepaying depending upon cash flow.

ADVANTAGES:

The City has become reliant on technology and a proactive, efficient network will reduce downtime and possible loss of data.

DISADVANTAGES:

The budget impacts are reflective of the cost of paying for the service required. Without the change in IT providers, there will likely be an increase in downtime or system failure.

BUDGET IMPLICATIONS:

There will be expenditures for the upgrade of the network: additional monthly IT cost, a loan as recommended, and a supplemental budget will be required.

ACTION REQUESTED:

If it pleases the Council, direct the City Manager to execute the proposed 30 month interest free loan for the hardware with Executech, approve the technology implementation estimate of \$91,000 using Executech as the technology provider, and approve ongoing monthly IT services with Executech.

Attachment:
Memo on hardware issues

