Proposal to Serve

Cable Infrastructure Scope of Work

Buyer:

City of Blaine
Attn: Joe Huss
10801 Town Square Drive
Blaine, MN 55449

Proposal Date:

8 February 2016

Prepared by:

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TABLE OF CONTENTS

February 8, 2016

City of Blaine
ATTN: Joe Huss; Finance Director
10801 Town Square Drive
Blaine, MN 55449

RE: Cable Infrastructure

Dear Joe and Paul:

On January 14th 2016 Technology Management Corporation (TMC) presented a high level Executive Summary detailing areas of technology requiring closer inspection and planning to enhance the delivery of Information Technology services to the City of Blaine staff and citizens. Pursuant to the findings of that report, Technology Management Corporation is pleased to have the opportunity to submit proposals for a deeper dive into three key areas of Blaine's Information Technology (IT) Division. These include:

- Servers/Storage
- Cable Infrastructure
- LAN/WAN/Firewall

We are providing three separate Scopes of Work so that the City of Blaine can evaluate each separately and prioritize the execution of the work.

This proposal is for the Cable Infrastructure Scope of Work.

We look forward to your review and approval of this work.

Sincerely,

Cheryl O'Brien
President and Founder

BACKGROUND INFORMATION

Cable Infrastructure and TRs:

All data end devices are connected to the LAN switches in the five Telecommunications Rooms (TRs) via patch panels using Category 5e Ethernet cable. These five TRs are connected to each other by multimode fiber.

Voice cable for current digital phone system is antiquated and terminates on 66 blocks.

There is also limited cabling for some of the smaller sites to support the current TDMA environment; any existing phones or smaller systems in place at remote locations such as the Senior Center, park buildings (9), Police cold storage building and four water towers which may not support IPT, LAN infrastructure (port count and PoE) and any WAN upgrades. We are currently not including these smaller sites in the scope at this time as it is not known the extent of the IPT project and if it will be covering these sites or not. Review of these sites can occur at a future date when the IPT project is further defined and budgeted to determine inclusion of these sites or not.

Four Telecommunication Rooms (TRs) reside in City Hall and one TR is located in Public Works. The two main buildings; Public Works and City Hall are connected by Single Mode fiber. All IP devices are reliant on these TRs and there are projects underway (example of the IP Voice Communications project) which will increase the dependency on these TRs. TMC understands that these TRs are secured with card or combination lock access, separate environment (power, heating/cooling, humidity) conditioning and in some cases monitored for environmental conditions. It is not readily apparent if the TRs are served by the backup generator nor what level the UPSs are relating to current equipment or End of Life (EOL) nor if the power load has been calculated recently. UPSs appear to have been budgeted for replacement in 2015 but appear to not have been purchased.

WiFi:

Limited WiFi is provided using just a handful of APs to serve the iPads at Council meetings. It is not anticipated that WiFi will be expanded at this time due to higher priorities for the given budgets.

SCOPE OF THE WORK

Overview

TMC's RCDD staff will be leading the team in addressing the physical conditions of the data center and Telecommunications Rooms (TRs):

- Primary and backup power or UPS for PoE equipment and servers
- Structured cabling to ensure it will support the new IP Telephony system design

Our team is fully qualified to ensure that the cable infrastructure is able to support a new IP Telephony system along with advances and recommendations in the video distribution systems (current and future). The work will include:

- Conduct initial fiber and copper cabling assessment and evaluate adequacy for future needs.
- Review the City of Blaine's UPS environment and summarize findings after the server replacement project has been concluded to ensure correct sizing of the UPSs and present any recommendations to be acted on by the City of Blaine.
- Prepare cost/benefit analysis. Identify and evaluate the various alternatives for structured cable infrastructure and UPSs along with projected paybacks and estimated costs for the various alternatives.
- Prepare design specifications for all recommended changes in the structured cable infrastructure and UPSs and assist with the review/analysis of proposals and provide project management from installation to cutover to new infrastructure including:

    - Current documentation and needs assessment.
    - Design and technical specification of recommended solutions.
    - Working with City of Blaine's System's staff in developing the necessary procurement documents for purchase of the new structured cable infrastructure.
    - Inspection of the awarded vendor's work post implementation and acceptance by City of Blaine.

Business Goals & Objectives

The Technology Management Corporation (TMC) team has crafted this Statement of Work (SoW) to support the following City of Blaine business goals and objectives:

- The development of the new UPS standard to provide City of Blaine with the necessary power protection to allow for moving forward replacement as budget

and projects allow and to ensure the new servers and IP Telephony system are protected.

- Expanded and organized structured cable infrastructure able to support the upcoming IP Telephony system and server room equipment. This will provide City of Blaine the infrastructure necessary to be able to more easily grow and adapt as future projects demand more and more of City of Blaine's IT environments.

APPROACH

Approach for the IT Consulting Scope

In order to achieve City of Blaine's business goals and objectives and to solve the challenges outlined above, the following plan approach and sequence is recommended. This presents our multi-phased approach to conducting this structured cable infrastructure optimization and Refresh & Replace (R&R) UPS project for City of Blaine:

- Phase 1 – Evaluation of Existing UPS Environment and Cable Infrastructure. The TMC project team will perform a detailed assessment of the existing UPS environment and structured cable infrastructure by performing on-site, in-depth reviews for the following:
    - Inventories and validation of the current UPSs.
    - Validation of the current structured cable infrastructure.
    - Issues and limitations of the current environment for the above to incorporate findings into future recommended changes, upgrades and modernization for the upcoming new high density IT environment.

- Phase 2 – Development of UPS Environment Requirements and any structured cable infrastructure clean up required. The key deliverable for this phase is the new hardware requirements, which encompasses the capability for efficiently meeting the needs of the new server environment.

- Phase 3 – Budget/Migration Planning and Recommendations. The key goal of this phase is to outline a cost-effective, efficient, and minimally labor-intensive migration path for upgrade and consolidation. The outcome of this phase is a detailed upgrade and consolidation framework. Detailed budgets will be developed in conjunction with the Budget/Migration Plan.

- Phase 4 – Solution Procurement Assistance. The key goal of this phase is the creation of the necessary procurement documents for the purchase of the new hardware and needed labor. The key deliverable will be the new hardware specifications which will be used by the City of Blaine Purchasing Department for bidding.

PLAN OF IT EXECUTION TASKS & DELIVERABLES

Based on our experience as an independent, objective consultant, TMC offers our clients an independent, unbiased view of vendor offerings. We approach assessments from three perspectives:

- Client needs vs. vendor delivery
- The contract vs. vendor delivery
- Vendor to vendor assessment for comparable services

TMC also looks beyond the initial investment costs; we look at a total cost of ownership for the client. Our experience gives us a unique ability to hold vendors to a high standard and strict contract adherence. Each engagement will have different requirements which will drive the vendor requirements for that project. It is not a 'one size fits all.'

Key Project Success Factors for the Work Plan

Below are what we have found to be the key success factors to projects.

Return on investment (ROI) assessment including software, hardware, licensing, and maintenance of the systems by staff

The first step in a return on investment (ROI) assessment is to determine what the ROI timeline is for each deployment: is ROI measured over 5 years; 7 years; 10 years? What is the desired goal? Do different departments within the City of Blaine operate differently? Once this parameter has been established, budgets and then ROI can be calculated for post warranty costs.

Project management services and methodology

TMC's many years of project management experience has taught us to first uncover all the unknowns and get everything visible; then all facets can be managed. This first step identifies existing documentation along with its accuracy. The next step is to identify what is missing and then build those elements. The sum total of all documentation identifies all opportunities; pain points; things that work and things that do not. With our years of experience, we know what documentation is key to success vs. what will only add time and not be needed. Identification and documentation of all conditions is the first step of our 4-phase Methodology for all projects.

With each client engagement, we determine how best to provide project management services; do we supplement existing support services as needed or do we define a more leading role. Each implementation is addressed individually according to the situation. The ultimate goal is a seamless integration with the team resulting in a successful implementation.

Through our many years of experience, we have developed project plans, check lists and financial analysis tools that are constantly being refined to keep pace with changing technologies and requirements.

STATEMENT OF OBJECTIVITY:

As an independent, vendor neutral consultant firm, Technology Management Corporation has no allegiance to any vendor or manufacturer. Over our years of consulting, we have awarded contracts to all major manufacturers. To get the right solution that really services the client, we feel vendor neutrality is a must. This is such a strong belief for TMC, we have a formal policy as stated below for all staff to abide by to ensure the client solution is always of paramount importance. Please review our corporate policy below.

TMC strictly prohibits any interest in, agreement with or affiliation with any equipment or carrier vendor or installer to buy, sell or receive any form of compensation for any equipment recommended or purchased by the facility on the part of the company or any individual employed by TMC. This policy is maintained to ensure that all equipment and carrier assessments and purchasing recommendations are in the client's best interest.

A consulting firm cannot honestly state that they will act in the best interests of a client if they are tied in any way to a vendor.

- This means no financial gain to be had by the consultant in any way from a vendor.
- No agency agreements with any vendor of any kind.
- This means no dependency on a vendor or vendors for favors.
- No use of vendor resources to complete a project that a consulting firm would normally handle in house if they had the certifications and/or expertise.
- A consultant must not rely or depend on vendors for lead generation.
- A consultant must never accept unusual financial scams to push money towards the consultant's pocket.
- A consultant must be able to look any vendor in the eye and state without any hesitation that they are non-biased and will act only in the interest of the client to better their technology and well-being.

CONTRACT PRICE

TMC strongly believes in best value to the customer and that includes our fees. We have included our estimate of hours to complete all phases of this project; we only bill the hours used so if we are able to achieve efficiencies during the project City of Blaine only pays for the hours used.

TMC	Sr Project Manager Rate	Principal Rate	Administration Rate	CAD Rate
Estmated Hours for all Phases	30.00	6.00	5.00	4.00
Total Hours	30.00	6.00	5.00	4.00
Hourly Rate	$ 125.00	$ 150.00	$ 50.00	$ 65.00
Total Fees	$ 3,750.00	$ 900.00	$ 250.00	$ 260.00
Total Not to Exceed Fees	**$ 5,160.00**			

ASSUMPTIONS

For this scope we will be including a maximum review, config and pricing for the top three UPS brands and structured cable.

We assume that City of Blaine will conduct the purchasing process with TMC providing the specifications for the equipment.

TMC fees do not include physical installation or day to day project management of the implementation of the new UPS and structured cable environment, it is assumed that the City of Blaine IT department will handle this portion of the project. TMC does have a final inspection of the structured cable infrastructure work upon 90% completion to ensure all final punch lists are created and acted upon by the chosen vendor.