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July 7, 2010

To: Interested Vendors

From: Scott County Purchasing

Subject: Bid Requests for Professional Services related to Voice over Internet Protocol Based Telephone System Hardware Implementaton

Scott County of Iowa is seeking vendors interested in providing professional service bids related to the implementation of Cisco Voice over Internet Protocol (VoIP) equipment, software, and licensing that is listed in the VoIP equipment lists (Addendum A1, A2, B1, & B2). Please contact Sam Samara with Scott County IT by phone at 563-328-3271 or by e-mail at [ssamara@scottcountyiowa.com](mailto:ssamara@scottcountyiowa.com) to address any questions concerning this request for professional services. Following is a description of the associated professional services project.

Scott County of Iowa is a medium size local government agency with approximately twenty agencies serviced by the Scott County Information Technology Department. Scott County IT currently maintains a fifteen to twenty year old Nortel Option 61C telephone switch environment based primarily on PRI, TDM and analog telephone technology, with some VoIP capabilities. The existing VoIP capability is used to supply telephone presence to remote locations within Scott County. Based upon age, parts availability, and lack of expandability the decision has been made to replace this older system with a new one that supports greater expandability and flexibility. The intent is to build a new telephone infrastructure that will provide enhanced telephone capabilities for the next ten to fifteen years.

From this bid request, Scott County expects to obtain professional services from a vendor for the engineering, installation, and configuration, of a new Cisco Unified Communications solution. The respondent must be an Authorized Cisco Voice technology provider. This project involves a total replacement of the afore mentioned telephone infrastructure, along with an expansion that includes the new Scott Emergency Communications Center (SECC) and existing Medic EMS facility. The SECC facility is a new state of the art 911 dispatching facility that will also serve as a disaster recovery / business continuity target for Scott County and other associated governmental agencies. Medic EMS will be co-locating part of their operations at the SECC facility, requiring intercommunications between SECC and their existing facility. This telephony solution will be interfaced with an Intrado/Positron Viper 911 Emergency telephone switch to further enhance emergency communications between the SECC facility and other governmental entities.

Through a separate equipment bid, Scott County is working to purchase the new Cisco telephony equipment that will be necessary to replace the above mentioned Nortel telephone infrastructure. Much of the new equipment will replace existing equipment on a one-for-one basis. Exceptions to this rule involve some cases of elimination, expansion, or swapping of existing telephony gear, along with the addition of all new equipment for the newly constructed SECC facility. Most of the new edge devices will be implemented in a staged conversion approach versus a flash cut to avoid excessive down time. Since the SECC facility is in the process of being constructed, there will be special considerations around that equipment and how it is initially implemented prior to building completion.

The system that is being suggested will be split between two locations, the Scott County Courthouse and the new Scott Emergency Communications Center. A new Cisco core network has been acquired and is currently being installed at each of those locations. This new core network consists of Cisco Nexus 7010's at each core site with multi-path 40GB connectivity over private fiber between the two sites. Scott County projects that the new VoIP system will be supplied telephone access by up to two PRI connections to start, but will grow to eight PRI connections at completion. The necessary Cisco routers with voice capabilities have already been acquired to meet that need. Scott County has no interest in external SIP trunks at this time, but does expect to establish some internal SIP trunking between other agencies over existing private fiber optic connections. There is also an expectation that the Intrado/Positron Viper 911 telephone switch at SECC will be connected via a SIP trunk.

Scott County has standardized on four different end-user telephone models for our initial purchase. We have also selected additional equipment such as conference phones, line expansion modules, and voice gateways that will augment the final deployment. This equipment will be deployed on a newly acquired Cisco IP based network infrastructure that consists of 1GB connectivity for most end user devices, 10GB connectivity to core devices and edge switching, and 100GB+ capability within our network core. Please be aware that the items in the "Telephone Hardware" category of Addendums A2 and B2 will be flexible. We are only listing sample numbers, but expect there will be some fluctuation in phone device quantities as the deployment proceeds. We are primarily providing these numbers so that Scott County can achieve the best discount rate for the whole project, and arrive at a "Not to Exceed" budgetary number. Scott County commits to a final port license count exceeding one thousand (1000) port licenses.

Scott County desires to approach the implementation project in three phases. The first phase will involve the implementation and configuration of 100% of the back-end systems and 33% of the telephony hardware, end user devices, and licensing (Addendum A1 or B1). The second and third phases will involve the implementation and configuration of the remaining 66% of products and licensing (Addendum A2 or B2). These phases will occur at approximately six month intervals, with the total project engagement lasting eighteen months. Scott County wishes to progressively take on the project duties in the second and third phase, such that vendor interaction in the second phase is equal to that of Scott Counties, and that vendor interaction is further reduced to an oversight and guidance role by the beginning of the third phase. System knowledge is key to the success of this approach, and accordingly Scott County has an expectation that the selected vendor supply "train the trainer" classes along with rich knowledge transfer for system administrators, end-users and receptionists as part of the project. The expectation is that three different classes be held by the vendor to supply the associated subject matter experts with the necessary knowledge which they will use to then train other staff members within Scott County and the other supported agencies.

Below is a breakdown of the end user equipment deployments for the first phase of the implementation.

Department	6911	6921	6961	9951	CKEM	7937G
Information Technology	15	11	2	7	0	1
SECC – Courthouse	0	0	3	1	0	0
Administration	0	5	3	3	0	0
Facility & Support Services	0	15	3	3	2	1
Sheriff - Pavilion	0	0	3	2	0	1
Sheriff - Lower Level	0	21	6	2	2	0
County Attorney	0	32	1	2	2	0
SECC - Tremont – Emergency Operations Center	0	40	0	1	0	2
SECC - Tremont – 911	6	33	3	3	2	1
	21	157	24	24	8	6

Phase one must be completed by late December of 2010 to facilitate the needs of the new Scott Emergency Communications Center. Phase two and three will require analysis of existing capabilities within the remaining 16 departments to arrive at the best replacement solutions. The expectation is that the remaining departments be cut over one or two a month starting in January 2011. The project completion date is expected to be around late December 2011.

Beyond just traditional phones there are also a number of specialized phone applications within Scott County that will require the use of analog and/or digital capabilities. The analog applications involve fax, modem, and a hand full of other analog lines. These lines are included in the above referenced license counts, and we have attempted to provide necessary interfaces for their deployment. Scott County also uses overhead paging and intercom features within three departments and expects the selected vendor to interface the new phone system to those existing systems.

The digital applications involve Call Detail Reporting (CDR) and call recording. CDR is an important aspect of the day to day system accounting process at Scott County. We are requesting that bidders also include, as an optional component in the response, a CDR solution. This solution can be either an on-site solution, or an on-line hosted service. Please provide details about benefits and shortfalls of proposed solutions. Call recording is yet another critical accounting element of the existing phone system. Scott Emergency Communications is currently working on a different RFP to acquire a new multi-channel IP based recorder. While the exact manufacturer is unknown at this point, we are still requesting that interconnectivity be considered in your responses

Scott County has asked for two responses to our VoIP hardware request, one showing a complete replacement of all telephony equipment (Addendums A1 & A2), and another response showing a total replacement of back-end systems, along with provisions to support a number of existing analog telephone devices (Addendum B1 & B2). Vendors may wish to supply different quotes to this professional services request based upon the two different equipment models, but this is not necessary.

Below is a list of the major activities that are associated with the implementation project. Please provide an itemized response to the below action item list, and feel free to add action items as needed. Scott County reserves the right to accept or reject any of the action items as necessary.

1. Work with I.T staff to establish a best practice approach for the VoIP system install and config.
2. Work with I.T staff to establish a logical and physical VoIP configuration plan.
3. Work with I.T. staff to establish a VoIP installation/implementation schedule.
4. Work with I.T. staff to define responsible parties for different aspects of the project.
5. Work with I.T. staff to coordinate and provision necessary Telco services.
6. Physically stage the install of new listed VoIP gear with the assistance of I.T. staff.
7. Establish base configurations on all listed VoIP gear with the assistance of I.T. staff.
8. Load appropriate Software, IOS, and firmware on all listed gear to establish device consistency.
9. Review existing telco wiring and components to ensure compatibility and available capacity.
10. Review existing Nortel database and modify as necessary to facilitate the conversion.
11. Establish a PRI link between Nortel system and Cisco system for inter-switch communication.
12. Add and move PRI interfaces as necessary to facilitate the conversion from Nortel to Cisco.
13. Configure system components to utilize QOS capabilities for the VoIP solution.
14. Configure system to interoperate with pre-existing intercom and paging systems.
15. Configure system to interoperate with to be determined IP based call recording solution.
16. Configure system to provide necessary analog support, including fax machines and modems.
17. Configure system to supply necessary location information to 911 operators.
18. Configure system to interoperate with new Positron Viper 911 emergency telephone system.
19. Establish commands to utilize a Call Detail Reporting / Accounting service.
20. Establish commands to provide event reporting and logging to a Solarwinds NPM solution.
21. Establish commands to utilize a TACACS access solution such as Cisco ACS.
22. Establish commands to enable energy conserving capabilities within the deployed devices.
23. Establish commands to enable rapid failover and back-up capabilities in equipment that supports it.
24. Work with I.T. staff to establish an inventory document for the deployed devices.
25. Register the new maintenance contracts for the newly acquired equipment.
26. Provide knowledge transfer opportunities through-out the project to I.T. staff.
27. Provide "train the trainer" classes for system administrators, end-users and receptionists.
28. Provide full project documentation in electronic and print form that includes network diagrams, network baselines, device configurations, and appropriate technical guides.
29. Provide full documentation for power and cooling requirements of the installed VoIP system.
30. Provide a schedule of rates for service and technical support available after project completion.

Scott County will only fund one third of the project at time of contract execution; the remaining phases of the project will be funded at the time frames outlined above.

While cost is an important factor in the selection process, it is not the only criteria that will be used in the selection process. This work will be performed at various Scott County locations and will require travel and some before/after hours work during the implementation phase of the project. All work locations are listed in the work locations document (Addendum C).