November 9, 2011

To: All Proposers

Re: Request for Information # SH1107 – Voice Over Internet Protocol Network Technologies (“VoIP”)

The City Colleges of Chicago (CCC) hereby requests letters of interest, one (1) original and nine (9) copies, from selected Voice over Internet Protocol firms.

BACKGROUND
The City Colleges of Chicago (“CCC”), a community college system composed of fourteen (14) campuses across the city of Chicago, is pleased to announce this Request for Information (“RFI”) for network technologies related to Voice over Internet Protocol (“VoIP”) networked voice communications. CCC’s voice communications network maintains approximately 4800 Centrex lines, 300 POTS lines, and 2,000 voice mail boxes.

The following describes the functionality of CCC’s Phone System at each of its seventeen (17) locations, with the exception of CCC’s two (2) newer locations, i.e., Kennedy-King College (KKC) and WYCC, CCC’s public television station:

1. The Data network consists of Cisco-based equipment, i.e., routers and switches, that is connected by high-speed data lines provisioned at 100 Mbps CCC has separate voice and data networks which in most cases include different types of wiring infrastructure. A disaster recovery Co-location site exists with two high-speed data connections at 1000 mbps from the District Office and 100Mbps to the network. (Please see Appendix 1 for a high-level drawing of the network topology.)

2. The CCC Phone System consists of approximately 300 AT&T-provided Pots lines and 4800 Centrex lines. The CO switches are a mix of ESS5, DMS and EWSD. The CCC Phone System is connected to twelve (12) Centrex databases. The Pots lines are primarily used for monitoring equipment and security lines.

3. The Centrex lines are augmented with Nortel Meridian Key System Units (KSU) which uses Nortel’s M and T 7000 series phones. CCC has 30 KSUs spread across each of their eight (8) main locations and six (6) of their nine (9) satellite sites. Most satellite sites have at least one 8x24 module. The main campus locations typically have two to five fully expanded KSUs with five (5) trunk modules and one (1) station module. While most phones appear to be equipped with only one (1) line, eight (8) or more lines is not uncommon. (Please see Appendix 2 for a high-level drawing of the voice topology.)

4. Most of the main campuses have at least two (2) ISDN Centrex lines connected to a Lucent i2022 ISDN phone that uses a serial interface to communicate with a PC that is running Conveyant’s
console software. These phones usually have seven (7) or more appearances of that campus’ main number.

5. CCC uses AT&T’s Enterprise Messaging voice mail system which includes more than 2,000 mail boxes that connect through four (4) PRIs and four (4) Call Trees using two (2) ports each. Most mail boxes support call transfer attendant (operator escape).

As previously noted, Kennedy-King College (KKC) and the WYCC campus have alternative phone systems. The buildings in which KKC and WYCC are housed represent fairly new construction and part of the build-out for each of these separate and distinct facilities includes a VoIP solution. KKC’s main campus solution is Siemens and includes 1,000 IP phones, two (2) attendant consoles, and HiPath 4000 IP PBX. KKC uses four (4) ISDN PRI for trunking and Siemens X-pressions for voicemail. The WYCC installation consists of ninety (90) IP phones, one (1) attendant console, and HiPath 3800 IP PBX. WYCC uses two (2) ISDN PRI circuits for trunking and Siemens X-pressions for voicemail.

For CCC’s entire Phone System, inclusive of each of its fourteen (14) campuses and seventeen (17) locations, the following description holds:

1. The local Intralata carrier is AT&T and the long distance Interlata carrier is Qwest.

2. CCC has thirty-two (32) conference bridge pins that allow for conference calls on demand, and its audio conference bridge provider is Qwest.

3. E911 Location service is provided by Intrado and AT&T and is a manual process using a web interface that allows an authorized user to enter the location and phone numbers manually.

DESCRIPTION
The purpose of this RFI is to identify and understand emerging technology approaches for VoIP applications with a focus on features and functionality that may be optimized for use in the CCC environment. Novel VoIP approaches are encouraged to maximize throughout and minimize network overhead in the CCC environment, while providing quality intelligible voice to the user. Responses to this RFI should include, at a minimum, the following details:

1. Overview of VoIP solution,
2. Architecture (including, high availability),
3. Additional functionality, such as, but not limited to, call center, VoIP, voice mail, E911 solution, and on-hold messaging applications, etc.,
4. High-level cost of a typical solution, and
5. Additional considerations that make a VoIP implementation successful.

TECHNOLOGY DEMONSTRATIONS
As part of the RFI response, the respondent may be requested to demonstrate and/or provide a presentation of their proposed capabilities on location at City Colleges of Chicago in Chicago, Illinois or in their own system laboratory environment.

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1 The KKC campus consists of more than five (5) buildings, while WYCC is housed in a separate building that is also home to CCC’s Sikia Restaurant.
RFI RESPONSE OUTLINE
The responder to this RFI is requested to submit a comprehensive data package which is to include the following information:

1. Technology White Paper (no more than 10 single-sided pages): The white paper should respond to the request for information outlined in the above "Description" section, including the respondent's existing and near-term products and technologies applicable to VoIP in CCC’s current environment.

2. Experience and Capabilities (no more than 10 single-sided pages): In addition to the white paper, please address the following items as they relate to this RFI:
   
   A. Research areas (past and current)
   B. Applicable experience (past and current)
   C. Customer experience (past and current work with higher education institutions)
   D. Workforce experience and capabilities (e.g., in design, analysis, development, testing).

This RFI is issued solely for information and planning purposes and does not constitute a solicitation. Responses to the RFI will not be returned. Respondents are solely responsible for all expenses associated with this RFI. CCC reserves the right to issue no awards arising out of this RFI.

All questions should be referred to Sherri Hutcherson at procurementservices@ccc.edu the deadline for questions is, November 11, 2011 no later than 1:00 p.m.

Request for information and supporting materials will be accepted at the address below until 11:00 a.m., Wednesday, November 23, 2011.

The envelope of each submission must be labeled:

SH1107-Request for Information - Voice Over Internet Protocol (“VOIP”)

City Colleges of Chicago
Procurement Services
Attn: Sherri Hutcherson, Senior Buyer II
226 W. Jackson Blvd., Room 1003
Chicago, IL. 60606
Appendix 1 – Network Topology
Appendix 2 – Voice Topology

City Colleges of Chicago Phone System

100 Ft View

AT&T

Nortel Meridian Key System Unit
Most Campuses have between 1 to 5 KSUs. Typical KSU configuration is 1-8x24, 5-12x0s and 1-16x16

Demark

Line Side

FAX

M9009

M9316

M7208

M731D

M7324

BRICentrex ISDN

Digital Multi-Line Phones

Single Line Phones

House Pairs

Port (Station) side

Port (Station) side