Request for Proposal

IP Telephony System

Introduction

NORTHERN LAKES CMH invites the bidder to submit a proposal to supply, install and maintain an IP telephony system. The project requires the design, implementation, training support and administration of a new IP telephone system and includes the interconnection of this system to the established multi-site voice and data network. Evaluation of this proposal will be made on the basis of the proposal's ability to commit the appropriate resources to meet NORTHERN LAKES CMH's contract signing date of 09/15/2010. An implementation schedule and resource plan must be submitted as part of the vendor response.

2.0 Present System

NORTHERN LAKES CMH currently has 4 office locations. The offices are located in Cadillac, Traverse City, Houghton Lake, and Grayling. The systems were initially installed on 1990. There are several reasons why Northern Lakes CMH is replacing the system, including aging technology; cannot satisfy current or planned feature/function requirements; port traffic, and call processing capacity; and growth limitations. Current office locations are served by the following PBX and network Systems:

Cadillac – Avaya G3siV9 R009i.05.1.122.4, Intuity Audix ia5.1.33

Operator Consoles: They have 4, but are only using 3.

Digital Phones: 89

Analog Phones: 2.

Switches:	Ports:	Ports used:
HP ProCurve 2650	50	24
HP ProCurve 2650	50	13
HP ProCurve 2650	50	42
HP ProCurve 6108	8	6
HP ProCurve 4104GL	60	51

Grayling – Avaya G3V6i.03.1.230.6

Operator Consoles: 0

Digital Phones: 3

Analog Phones: 25.

Switches:	Ports:	Ports used:
HP ProCurve 2650	50	30

Houghton Lake – Avaya G3V6i.02.1.125.0

Operator Consoles: 0

Digital Phones: 3

Analog Phones: 32.

Switches:	Ports:	Ports used:	
HP ProCurve 2650	50	20	
HP ProCurve 2524	26	14	

Traverse City - Avaya G3V8i.02.0.034.5

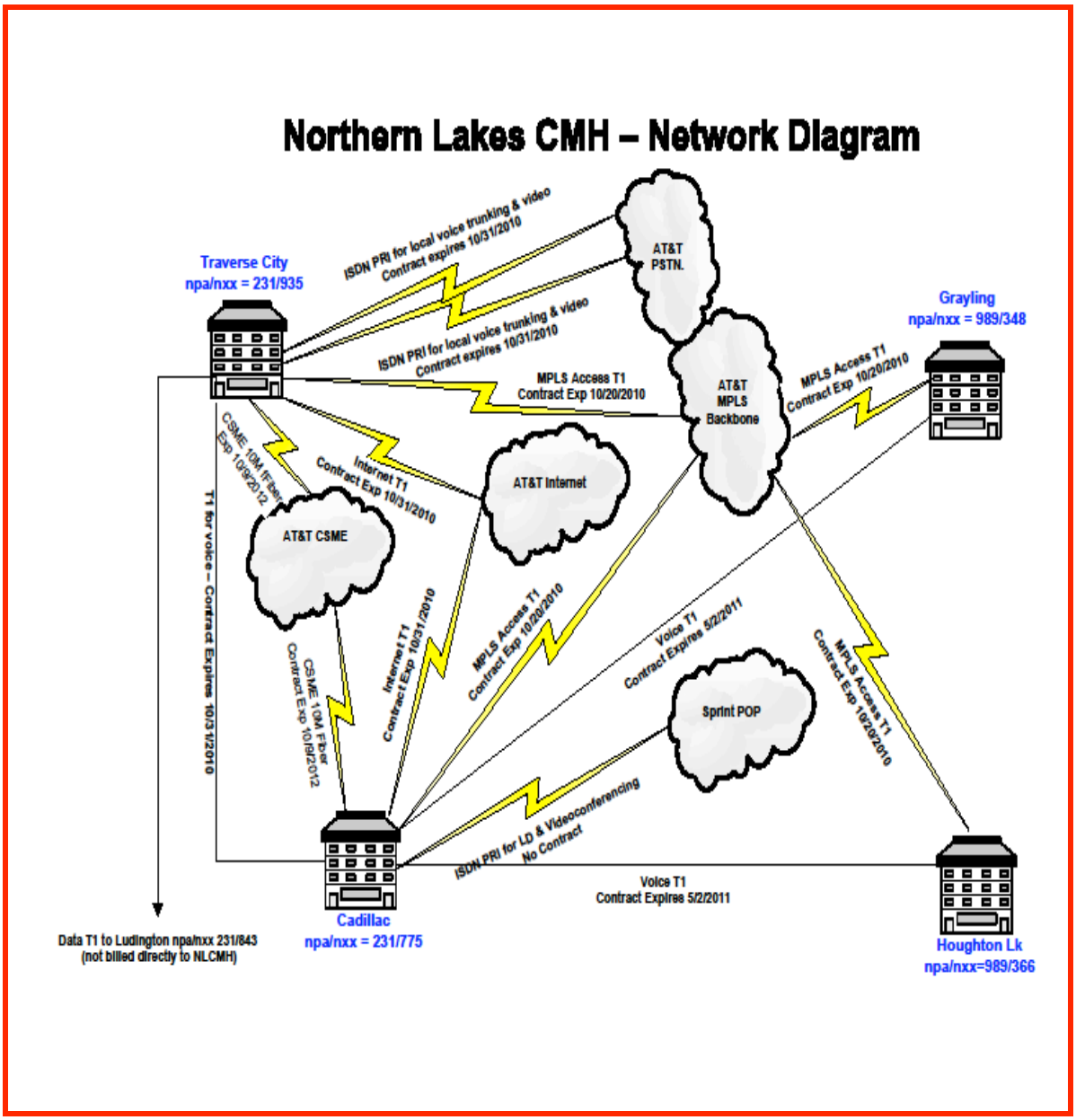
Operator Consoles: 2

Digital phones: 30

Analog phones: 159.

Switches:	Ports:	Ports used:	
HP 4000M	72	41	
HP 4000M	72	25	
HP 4000M	72	38	
HP 4000M	72	49	
HP 4104GL	42	32	
HP 2524	26	2	
HP 2510	26	17	
HP 2524	26	4	DMZ Switch

The accompanying diagram illustrates the current system configuration.



The bidder must ensure that the proposed IP telephony solution is fully compatible with the established systems and can function within the current network. If the additions of 3rd party products, upgrades or modifications are required to achieve this result, then the details must be fully documented and the cost estimated as part of the proposal.

3.0 Instruction to Bidders

There will be three general principles that will govern the RFP review, evaluation and selection process:

- Clear, complete and truthful responses to RFP clauses and requirements
- Satisfactory responses to vendor issues and system performance requirements as determined by Northern Lakes CMH
- Competitive cost solution based on Northern Lakes CMH financial analysis benchmarks, which is to include any yearly maintenance cost.

Northern Lakes CMH will be the final arbiter for determining vendor compliance with these three general principles.

The vendor must confirm that it will accept Northern Lakes CMH's determination of vendor compliance to these general principles.

The proposed system must be based on the manufacturer's most current hardware and software releases, and may not include any used and/or refurbished equipment.

Vendor RFP responses should be returned to:

Keith Huggett

I.T. Manager

105 Hall Street

Traverse City, MI 49684

231-935-3770

Keith.huggett@nlcmh.org

The RFP should be submitted in an electronic format. All RFP submissions are due by September 3rd, 2010.

Additional clarification to the bidder:

- **Timetable.** All reply must be post marked no later than September 3rd, 2010. The final contract must be signed no later than September 15, 2010. All proposals will expire by October 1st of 2010.

- **Pricing.** The pricing needs to be details to the units of hardware and software, with maintenance contract calculated based on a five (5) year commitment. Renewal of maintenance should be agreed to be not more than a 20% increase of the original maintenance contract.

- **Confidentiality.** Document may contain confidential information that is submitted for proposal purposes only and that the information is not to be used other than in connection with the bid response. Also stipulated is that responses will be treated in confidence but may be shared with the organization's advisers if there are already confidentiality agreements between the buyer and its advisers — such as consultants, analysts, lawyers and accountants.

- **Compliance.** Bidders must bid in a format consistent with specified sections, subsections, and numbered paragraphs and must respond to each one individually. Failure to address any item shall be interpreted as a noncomplying response.

- **Attachments.** Bidders are allowed to submit attachments as part of their response to specific items in the RFP. Attachments are allowed only in electronic form; and the formats can be PDF or Word.

- **Right of rejection.** Purchaser reserves the right to accept or reject any or all responses to the RFP.

- **Right of incorporation.** The bidder's response to the RFP constitutes a business offer and that the purchaser may incorporate all or part of the response in any contract.

- **Contacts.** Additional technical information can be obtained from Kurt Swank at:

  Kurt.Swank@nlcmh.org

  231-935-3844.

4.0 System Requirements

This section defines requirements in terms of system capacities and the architecture needed. It quantifies sizing requirements, including trunk and equipped-end capacities. Equipped-end capacities should be expressed in current needs, growth factor, and maximum system configuration. They should be presented in a matrix format (see Table

1). This gives the bidder a comprehensive understanding of the full range of port requirements and advises the purchaser of limitations in capacity.

Table 1. System Sizing Matrix

Capacity Requirements	**Current Needs**	**Growth Factor**	**Maximum Configuration**
IP Stations	380	20	400
Other Stations (Specify Type, if Any i.e.: Analog Phone, fax, modem)	17	0	17
Digital PSTN Trunks (Inbound & Outbound Dialing)	6	0	6
Analog PSTN Trunks (Inbound & Outbound Dialing)	28	TBD	TBD
SIP Trunks for service providers or 3rd party integration	TBD	TBD	TBD
Tie Trunks for Legacy Integration	1	0	1
Conferencing Ports	10	0	10

Describe how your system will address the following:

- The proposed system's traffic-handling capacity at the projected growth factor size.
- The number of simultaneous conversations at system maximum configuration.
- The maximum number of call attempts that can be handled during the busy hour.
- Provide details on the architectures of your systems (such as switches, telephony servers and gateways).

What redundancy features are embedded in your proposed system?

5.0 Security Requirements

Northern Lakes CMH requires that the proposed communications system solution be secure from unauthorized access and abuse. There are several major security issues that must be addressed, including, but not limited to: Eavesdropping; Denial-of-Service; Spoofing; Unauthorized Access; Toll Fraud.

Eavesdropping

Briefly describe available hardware and software tools to prevent eavesdropping by either system users or third parties. Indicate what, if any, encryption techniques are used for both IP-based voice and control signaling transmission streams at the station user desktop and/or media gateway interfaces. Also identify instances and circumstances when encryption is not supported.

Denial-of-Service (DoS) Attacks

IP telephony communications systems are susceptible to DoS attacks, i.e., flooding the network with useless traffic in an attempt to bring disable normal operations. Briefly describe available hardware and software tools to prevent DoS attacks on the proposed communications system.

Spoofing

Spoofing is unauthorized access to computers, whereby an intruder sends messages to a computer with an IP address indicating that the message is coming from a trusted host. . Briefly describe available hardware and software tools to prevent spoofing on the proposed communications system.

Authentication and Unauthorized Access

Briefly describe available hardware and software tools to verify station user authentication and methods to prevent unauthorized access to the proposed communications system.

Toll Fraud

Toll fraud is the unauthorized use of long distance services. Briefly describe available hardware and software tools to prevent toll fraud by either system users or third parties. Identify specific software features to restrict calls and define calling privileges.

6.0 System Features: Architecture

The bidder should provide a narrative response to each item and should indicate which features are standard and which are extra-cost options. Providing a system manual is not an acceptable response to this section. The bidder must also cite any system feature limitations relating to software or interaction with other features.

6.1 System Features: Reliability

Bidder should describe the overall reliability of their architecture. Key things to consider:

- Do you provide 99.9999% availability?
- Do you have embedded real-time operating system?
- Do you have a distributed or centralized system (single point of failure)?
- Do you have moving parts in PBX like spinning media?
- Are components hot swappable?
- Is the system redundant?
- Does solution offer N+1 redundancy?
- Is the system fully non-blocking?
- Do you have automatic IP Phone fail-over capabilities?
- Do you have PSTN fail-over capabilities?
- Can you provide 9-1-1 access in a power-outage?

6.2 System Features: Scalability

Bidder should describe the overall scalability of the IP Telephony solution.

- Does solution allow incremental growth of as few as 8 users?
- Does solution scale seamlessly from 0 – 10,000+ users
- Hardware and software upgrades; how is this handled?
- Do Moves, Adds & Changes (MAC) require a system re-boot?

6.3 System Features: Multi-site Capabilities

Bidder should describe how IP telephony solution will act as a single system image in a multi-site environment.

- Does solution have a single management interface?
- Is the solution distributed with remote survivable architecture?
- Does solution provide system monitoring and service support to multiple sites?
- How does the solution leverage VoIP across multi-sites?
- Does the addition of additional sites disrupt the existing phone system or require a system shut down?

6.4 System Features: Network Requirements

Bidder should describe the network requirements for their IP Telephony solution and their overall ability to leverage the existing data network.

- Is solution network agnostic or does it requires proprietary networking hardware/software?
- How does solution manage QoS?
- Does solution offer QoS support on a single UDP port?
- Does solution support TOS, Diffserv, 802.1p and VLANs?
- Does solution provide multiple uplinks to the network?
- Will the solution allow the setting of admission control bandwidth?
- Does solution allow for the unlimited access to bandwidth for VoIP calls?
- Does solution monitor VoIP calls between sites and provide reports on this activity?
- Does have built-in monitoring and troubleshooting tools?
- Does solution allow for remote support access and troubleshooting?

6.5 System Features: Peripheral Equipment

Bidder should identify peripheral equipment that is supported as part of their IP Telephony solution.

- Support of non proprietary handsets (IP and Analog)
- Support of non proprietary voice mail
- Voice Mail storage limits
- Voice Mail simultaneous access limits
- Does solution have provision for survivable remote voice mail?
- Does survivable remote voice mail act as single voice mail system?
- Does solution have integrated ACD capabilities?
- Does solution have integrated E911 capabilities (CESID)?
- Does solution support standard compression rates?
- Does solution support media encryption?
- Does solution support SIP?
- Does solution support QSIG?
- Does solution support MGCP?
- Does solution support SMDI?
- Does solution support AMIS?
- Does solution provide an easy way to back up system configuration?
- Does solution provide easy disaster recovery?
- Does solution support Music on Hold?
- Does solution support Overhead Paging?
- Does solution support Group Paging through phones?
- Does solution support Silent Monitoring and Barge In capabilities?
- Does solution provide Call Recording capabilities?
- Does solution support Bridged Call Appearances?
- Does solution support Centrex Flash?

6.6 System Features: Administration and Management

Bidder should describe the administration/management interface used with the IP Telephony solution and the training options available to the customer who wants to do self administration.

- Does solution provide for the ability to do self-administration and MAC orders with nominal training?
- Does solution have a single management interface for PBX, VM, ACD, E911, Phones, and Users?
- Does solution have a single management interface for administration of all sites?
- Does solution have a single management interface for all PSTN connections at all sites?
- Does the System Administration solution use a command line interface or GUI interface?
- Does solution allow for role based system administration?

6.7 System Features: Reporting

Bidder should describe the reporting capabilities of the IP Telephony solution.

- Does solution have a single set of CDR reports for all sites?
- Does solution provide cradle to grave customized reporting capabilities?
- Does solution use standards based reporting interface (Crystal, Excel, Text, ect)
- Does system have auditing reports for system wide usage? This would include, but not be limited to the following: Time caller has been on hold, time caller was connected, number of times a caller was transferred, number of caller that hung-up.

6.8 Assistive Technology Devices

Bidder shall provide a system that complies with Titles II, III, and IV of the Americans with Disabilities Act of 1990, Sections 251 and 255 of the Telecommunications Act of 1996, and Section 508 of the Workforce Investment Act of 1998 for a pure IP solution, for a TDM solution.

7.0 System Perspective: Installation

Bidder should describe their installation planning and implementation process.

- Does vendor have an installation methodology and documented process?

- Does vendor have an on-line project management tool that customers can use during the installation process?
- Does the vendor perform a network assessment to ensure VoIP deployment will be successful?
- Does vendor require customer to purchase proprietary network equipment (switches & routers) in order to deploy their VoIP solution?
- With nominal training could a customer install their own system at their initial site?
- With nominal training could a customer install their own system at their secondary sites?
- Does the IP Telephony System have an integrated software distribution solution?
- Describe the steps involved in software upgrades.

8.0 User Perspective: Multi-site

Bidder should detail the feature transparency of the IP telephony solution across a multi-site installation.

- Does solution provide 100% feature transparency across multiple sites?

8.1 General User: Desktop Productivity Tools

- Does solution have Unified Messaging integration with Outlook?
- Does solution have Unified Messaging integration with other platforms?
- Does solution have the ability to put a pointer in email, not a .wav file?
- Does solution provide for Outlook integration without the use of an Exchange server?
- Does solution provide for dialing integration with Outlook Contacts?
- Does solution provide for dialing integration with other PIM/CRM packages?
- Does solution have synchronized Message Waiting Light with Unified Messaging application?
- Does solution have Voice Mail callback capabilities?
- Does solution have dynamic on-line directories for internal users on a phone?

- Does solution have dynamic on-line directories for internal users with a PC GUI?
- Does solution have dynamic on-line directories for external users on a phone?
- Does solution have dynamic on-line directories for external users with a PC GUI? What does this mean??
- Does solution allow users call control capabilities (make call, take call, transfer, conferencing, pickup, & park) through a GUI?
- Does solution allow users call control capabilities (make call, take call, transfer, conferencing, pickup, & park) through the phone?
- Does solution allow user to stack multiple calls and manage multiple calls on a single extension? If so how many calls can be stacked on a single extension?
- Does solution allow users configure their call control and voice mail preferences through a GUI?
- Does solution allow users configure their call control and voice mail preferences through the phone?
- Does solution allow users configure their call control and voice mail preferences through a web client?
- Does solution POP TAPI information?
- Does solution allow users access to call history for their own extension?
- Does solution offer call-back in case of hang-ups.
- Does solution allow user to set multiple forwarding scenarios for their extension?
- Does solution allow user to store multiple voice mail greetings?
- Does solution allow user to configure a Fine Me Follow Me feature?
- Does solution allow user to configure voice mail notifications to internal numbers, external numbers, pagers, and email?
- Does solution provide user with just in time presence monitoring across multiple sites?
- Does solution support a Soft Phone?
- Does solution allow users to assign their office extension to any phone on or off the company network?
- Does solution allow for the monitoring of Bridged Call appearances through a GUI?

8.2 Operator: Desktop Productivity tools

- What solution(s) are available for Operators?
- Does solution have an Operator Console and/or a Desktop PC GUI?
- Does solution allow for a centralized Operator supporting multiple sites and/or distributed Operators at remote locations?
- Does solution allow Operators to see detailed user information for extensions across multiple sites?
- Does solution allow Operators to monitor important company extensions? If so how many extensions can be monitored?
- Does solution allow Operator to drag & drop calls to monitored extensions via a GUI?

8.3 ACD Supervisor/Agent: Desktop Productivity Tools

- Does solution support distributed Agents across multiple sites?
- Does solution support queues?
- Does solution support easily recorded customized announcements?
- Does solution support real time monitoring?
- Does solution support historical reporting?
- Does solution support multiple agents in multiple queues?
- Does solution support Silent Monitoring?
- Does solution support Barge In?
- Does solution support Call Recording?
- Does solution support Wait Time announcements?
- Does solution support Real Time Agent Status?
- Can Agents login/log out via a GUI?
- Can Agents login/log out via the phone?
- Can a Supervisor login/log out Agents via GUI?
- Can a Supervisor activate predefined call flow schedules via GUI?
- Can a Supervisor activate Alert Threshold Warnings via a GUI?
- Does solution support Call Pickup from the queue?

8.4 Call Center Features

- Does solution support a multi-level Call Center?
- Does solution support Real Time reporting?
- Does solution support Multi Media queues?
- Does solution support Preview Dialing?
- Does solution support Advanced Skills Based Routing?
- Does solution support ODBC (Open Database Compliance)?

8.5 Telephone Interface

- Does solution support standard Analog phones?

- Does solution support basic telephony features (make call, take call, transfer, conferencing, call pickup, call park, redial & voice mail login)?
- Does solution allow a user to “reassign” their extension to any phone on or off the company network?
- Does solution support Intercom/Paging through the phone?
- Does solution support Whisper Page?
- Does solution support allow user to access a Directory through the phone?
- Does solution support allow a user to see call history through the phone?
- Does solution support multi-call appearance or BLF/DSS keys on the phone?
- Does solution support headsets?
- Does solution support programmable buttons on the phone?
- Does the solution have a 360 degree MWI light?
- Does the phone support Bridged Call Appearances?

9.0 Conferencing

Bidder should detail their conferencing capabilities.

- Does PBX support multi-party conference calls, if so up to how many parties on a single call?
- Does PBX support multiple conference calls simultaneously, if so how many simultaneous calls?
- Does solution support an integrated IP Based Conference Bridge?
- Does solution support the incremental increase of additional conference ports, if so what are the incremental increases and what are the maximum ports allowed?
- Does solution support Collaboration tools like document or application sharing?
- Does solution support Call Recording?
- Does solution support Instant Messaging?
- Does solution support the archiving of conference recordings to an HTML site?
- Can users schedule conference calls via a web browser?
- Does solution integrate with Outlook?
- Can System Administrator access the management interface via a web browser?

- Does solution support CDR reports?

10.0 Training: End User and System Administrator

Bidder should detail their training offerings.

- Does vendor offer on-site training sessions for System Administrators
- Does vendor offer on-site training sessions for Call Center Supervisors and Agents?
- Does vendor offer on-site training sessions for general End Users?
- Does vendor offer web-based training?
- Does vendor provide System Administration and End User documentation?

11.0 Service and Support

Bidders should describe the various Service and Support Programs they offer.

- Does vendor offer remote support services?
- Does vendor offer a “managed service” solution?
- Does vendor offer a “hosted” solution?
- Does vendor offer “direct support” from the manufacturer?