

**NORTH CAROLINA TELEHEALTH NETWORK -
HOSPITAL PHASE
NCTN-H**

**REQUEST FOR PROPOSAL
NCTN RFP # 01**

July 13, 2010

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I. Goal of NCTN-H Project

The goal of this NCTN-H project is to select, construct and operate a highly reliable, highly available high-speed dedicated broadband network linking hospitals throughout North Carolina in rural, sub-urban, and urban locales. This NCTN-H network will interconnect with the NCTN-PH network which will be serving local public health sites, free clinics, and some rural clinics. All hospitals have mission-critical networked applications and almost all have requirements to operate in responding to a disaster in the communities where the sites exist. This RFP is a step in selecting a integrator vendor who will provide the dedicated backbone network and a ("last mile") connection to each of the hospital sites.

II. Overview of North Carolina Telehealth Network

The North Carolina TeleHealth Network -Hospital phase (NCTN-H) is a project designed to assist public non-profit hospitals in North Carolina to obtain broadband services suitable for their current and upcoming needs. The network is planned to support about 94 NCTN-H connection (or demarc) sites representing 108 hospitals throughout North Carolina. As with other healthcare providers, North Carolina's public, nonprofit hospitals will be heavily engaged in the adoption of electronic health records and health information exchanges, leveraging the funding from the ARRA HITECH funding. To succeed in those efforts, the hospitals will require a dedicated, high-speed broadband access to one another and access key partners via the internet.

This NCTN-H phase is one of three phases intended to create a single dedicated NC Health TeleHealth Network with public health departments (Phase I), hospitals (Phase II), and private physician practices (Phase III). Phase I is underway – nearing a vendor agreement. Phase III is conceptualized, but has no guaranteed funding mechanism to date. The NCTN-H phase for hospitals is putting out this RFP under the Rural Health Care Pilot Program (RHCPP). In the remainder of this RFP, we will use “NCTN-H” to refer only to the hospital Phase II of the NCTN. The web site at <http://NCTelehealthNetwork.com> supports general communication needs for project stakeholders.

The NCTN-H was made possible by a spring 2009 decision to merge the four RHCPP selectees in NC – Albemarle Health, University Health Systems of Eastern NC, Western Carolina University (later the Southwestern Commission), and the Cabarrus Health Alliance - into one project for this purpose. The Cabarrus Health Alliance is the combined project coordinator. Together these projects provide \$6.1M to subsidize broadband services up to a maximum of 85% for public non-profit NC hospitals. The NC Institute for Public Health was chosen as the project manager for this phase of the NCTN with support from the NCHA, e-NC Authority, and others. The Golden Leaf Foundation has provided the program management funds that support the staff work needed to develop the NCTN-H.

For-profit hospitals may also use the NCTN-H services, but must pay their full share of the costs since the RHCPP funds are not available to support for-profit providers. For-profit hospitals are planned to benefit from participating in the expected volume discount and to benefit by having access to the dedicated facilities on the NCTN-H.

While all of the NCTN-H candidate sites currently have some type of broadband connections, many sites have connections that are inadequate for their current and/or upcoming needs. The NCTN-H project plans to alter these circumstances by providing a high-speed and highly-reliable network that interconnects these sites with each other, the commercial Internet and (optionally) Internet2 with robust “last mile” connections to each hospital. Most sites are charged to act as “first responders” in the case of community disasters (e.g. hurricane, epidemic, ice storm). These sites are planned to have disaster-proofed network connections to support first responder needs.

The NCTN-H leverages approximately \$6,100,000 in discounts for building and operating broadband networks from the FCC's RHCPP. The broadband network is planned to be funded for the duration of the contract issued pursuant to this RFP by allocating these discount funds as far as they will go in supporting a three-year commitment and obtaining the balance from the NCTN-H subscribers plus a small subscription fee to cover program management. Although we won't know the exact percentage of costs paid by the discounts until all sites that are going to accept service have done so, we expect to have

discounts at least in the 50-70% range, The RHCPP discounts are available for use for 5 years from the first date that funds are formally committed.

The initial services purchased by the NCTN-H will be selected based on a number of parameters. Chief among them will be a price and performance balance that is compatible with long-term sustainability of the NCTN-H. We plan to encourage increased value in network services by 1) selecting one vendor (an integrator/aggregator) to be responsible for the entire network's construction, and operation and 2) forming an NCTN Association of subscribers that will seek efficient and effective network services for these sites over the long term while acting as a support for continuing to developing long-term financing options.

The Cabarrus Health Alliance (CHA) is the formal Program Coordinator for the NCTN-H from the FCC's perspective. CHA is also known as the Public Health Authority of Cabarrus County. CHA will be the contracting party for the Contract that results from responses to this RFP. Program management functions in the development phase of the NCTN-H are being carried out by the Institute of Public Health (NCIPH), part of the UNC Gillings School of Global Public Health. L. Annette Foster is a subcontractor to the NCIPH providing project management to NCTN-H. The e-NC Authority, a state initiative to promote broadband coverage and use in NC, and the North Carolina Hospital Association (NCHA) participate on the project team.

It is possible that an NCTN Association, as a 501(c)(3) or other non-profit entity, will be formed over the first phase of the network's operation and the program coordinator function and Contract responsibility will be moved to this association. CHA (and later the NCTN Association, if it is formed) will name an official to be the NCTN-H Administrator for the purposes of the Contract.

This RFP is designed to help the NCTN-H stakeholders select a (one) vendor to whom we may offer a Contract to build, and operate the NCTN-H. The key opportunity for the bidder is in obtaining long-term customers with significant buying power, expertise, and growing needs whose sites span the state of North Carolina.

III. Project Process Flow

In this RFP we need to distinguish between a hospital location and a demarc site. We will use the term hospital location for the main public location of a hospital. We will use the term demarc site for the physical site for the termination of an NCTN-H connection. For independent hospitals the hospital location and the demarc site are generally the same. Demarc sites in a health system may reside in a hospital location but serve many hospitals or may reside in a different building (with a different address) or in an offsite data center.

In this RFP the word "site" used alone means demarc site.

The NCTN-H project will generally follow these high-level process steps:

1. Health systems/hospitals **register** each Demarc site. Registration includes providing detailed information about each site. Completed February 2010.
2. Health systems/hospitals **provide a Letter of Agency (LOA)** for hospitals eligible for the FCC discount (public, non-profit hospitals). The LOA gives Cabarrus Health Alliance the right to represent them in this RFP process to the FCC. If a public, non-profit hospital/health system did not return an LOA their sites were dropped from the project. NOTE: For-profit hospitals do not return LOA's since they are not eligible for the FCC discount. Completed April 2010.
3. The RFP is written and submitted to the FCC for review. Completed July 2010.
4. The RFP is put out for competitive bidding by being posted on the FCC website.
5. Vendor proposals are received.
6. Vendor proposals are evaluated and a vendor is selected.
7. CHA and the vendor negotiate a contract with a maximum price per site connection and tiered pricing based on the total number of sites. The contract is signed with a contingency that a Funding Commitment Letter (FCL) is issued by the FCC.
8. The FCC reviews the contract and issues a FCL.
9. Each site is offered a Subscription Agreement with a specific offer of services at the maximum price.
10. Health Systems/hospitals choose to **subscribe** each site to NCTN-H accepting the maximum price.
11. The vendor begins implementation and operation.
12. When the total number of subscribed sites is known, the actual price will be determined from the tiered pricing. This price may be the same as the maximum price or lower.

IV. Demographics of the NC Hospitals Participating in NCTN-H

There are 143 hospitals in North Carolina. 55% are in health systems. The vast majority of the other 45% are individual hospitals along with a very small number of state-owned, military, and veterans' facilities. In the RFP we will call individual hospitals "independent" meaning they are not part of a health system.

There are 15 health systems represented in NC with multiple hospitals.

- 3 of these are national health systems and their hospitals are for-profit organizations (or are expected to be changed to for-profit over time).

- The other 12 health systems are headquartered in NC.
 - 11 of these operate hospitals in NC.
 - 1 operates hospitals in NC and other states.

There are 4 for-profit hospitals that have indicated they will participate in NCTN-H. They are in the 3 national health systems.

For NCTN-H we have registrations for 38 independent hospitals and 13 health systems representing 70 hospitals. This is approximately 75% of the hospitals in NC and over 80% of the NC licensed hospitals.

Type of Hospital	No of Hospitals Participating in NCTN-H	No of Health Systems Participating in NCTN-H
Independent	38	
Health System	70	13
Total	108	13

V. Demographics of the Registered Sites in NCTN-H

A. How the number of sites was determined

One of the goals of the NCTN-H project is to provide a significant discount on broadband for a length of time that makes it worth the effort to join NCTN-H. Since the FCC discount is a fixed amount of money the number of demarc sites directly affects the discount per site amount and length of time over which the discount will last. We learned that hospitals and health systems generally have a primary site of interest for NCTN-H. After that first site most had many secondary sites of interest.

In order to have a discount of significant size that would last at least 3 years we limited:

- Independent hospitals to a single connection demarc site.
- Health systems to one demarc site per hospital plus demarc sites for any separate data centers.

B. Expectations on the number of registered sites that will subscribe to NCTN-H:

Registered sites (which have returned LOA's if they are non-profit) may participate in NCTN-H. Hospitals and health systems may choose for a site to not subscribe when specific services and prices are offered to them. Particular cases for RFP responders to be aware of are:

1. We expect most of the non-profit independent hospitals (eligible for the FCC discount) to subscribe. Reasons for a specific independent hospital to not subscribe would be the NCTN-H price or the magnitude of their termination fee (see statistics below on termination fees).
2. We have been told by the for-profit hospitals (which are not eligible for the FCC discount) that a significant part of the subscription decision will depend on whether pricing is better than their corporate connection rate. They need to make a business case based on cost reduction.
3. We do not expect all of the health systems' registered sites to subscribe to NCTN-H. About half of the 12 non-profit health systems based in NC are uncertain of how they will implement connections to NCTN-H. In light of this uncertainty we have instructed them to register all potential sites and to develop a NCTN-H connection design. Some factors in their design decision are: the existing infrastructure of intra-health system communication lines and services, centralization of services, security, business continuity/disaster recovery, magnitude of their termination fees, cost of the NCTN-H connection. The other health systems have narrowed their design choices to a small number and the final decision will be based on NCTN-H prices.

We speculate at this time that approximately 80% of the sites would subscribe.

The initial participating sites, including service type information per site are listed in Appendix D. 2. NCTN-H Demarc Site List with NCTN-H Site ID Number. This same information is available to vendors in an Excel spreadsheet on the NCTN project website <http://NCTelehealthNetwork.com>.

C. Summary information from the registrations

There are 94 demarc sites registered to participate in NCTN-H. (Note that the FCC is the final authority on whether a hospital location and demarc site are eligible to receive the discount.)

NOTE: One demarc site withdrew after these statistics were compiled so some statistics show 95 sites.

Participating	Hospital Loc = Demarc Site or Other Type of Site	Data Centers	Eligible for FCC Discount	Not Eligible for FCC Discount
Independent Hosps Demarc Sites	38		38	
Health Systems Demarc Sites	45	11	52	4
Sub-Total	83	11	90	4
Total Demarc Sites		94		94

Which options best describes your interest in NCTN-H opportunity?

Replace current broadband with NCTN-H connection	55%	52
Keep current broadband connection and add NCTN-H connection as a secondary (hot backup) connection	32%	30
Other	13%	13

What type of "Internet" connection do you have at your primary site now (check only one).

Cable Modem	4%	4
DSL	1%	1
Fractional T1	1%	1
T1	13%	12
MetroE	50%	47
None	3%	3
Other (please specify)	28%	27
	(10 GB, OC3, DS-3, Fiber, Data quality T1, T3, 15MB fiber, 10 MB, 25 MB, 100 MB, GigE, business class cable)	

Which vendor provides this Internet connection at your primary site?

	%	Number
No Internet Connection	2%	2
AT&T COMMUNICATIONS (Old Bell South)	18%	17
CenturyTel, Inc.	0%	0
Country Cablevision, Inc.	0%	0
CenturyLink (formerly Embarq)	23%	22
North State Communications, LLC	0%	0
Star Telephone Membership Corporation	1%	1
Time Warner Cable	16%	15
Time Warner Telecom	3%	3
Verizon South, Inc. (Verizon Communications)	1%	1
Windstream Communications (Lexcom)	4%	4
Other (Please specify)	32%	30

The Other responses included:

- MCNC, MCNC/NCREN
- Level-3
- DirectUS
- Paetec
- Sprint
- Charter Business
- Dnet Internet Services
- Qwest
- Carolina Computer Supply, Inc.
- Computer Central
- City of Wilson
- Blue Ridge Mountain Electric Membership Corporation
- Comporium Telecommunications
- Skyline Membership Corporation
- Internet of Beaufort

Enter the anticipated termination fee of your primary/only Internet service. (For the purposes of this question only assume a “go live” date of October 2010 if you need to for a calculation.) Please estimate if you're not sure of the exact amount.

- 39 (41%) of the sites have no termination fees if they cancel service with their current vendor.
- 56 (59%) of the sites have termination fees if they cancel services with their current vendor.
- 10 of 56 have termination fees over \$50,000 ranging up to \$90,000.

Please indicate your view of the historical dependability of your current primary/only Internet connection by selecting the most descriptive phrase.

	Once per day	Once per week	Once per month	Once per quarter	Once per year	Never	Don't know	Other	Response Count
Connection is down:	0.0% (0)	1.1% (1)	3.2% (3)	21.1% (20)	56.8% (54)	11.6% (11)	3.2% (3)	3.2% (3)	95
Connection is too slow:	5.3% (5)	11.6% (11)	5.3% (5)	11.6% (11)	32.6% (31)	18.9% (18)	9.5% (9)	5.3% (5)	95

How important is the need for the following over the next year?

	Not Important	Somewhat Important	Important	Very Important	Extremely Important	Response Count
need broadband infrastructure to change to support business needs	5.3% (5)	12.8% (12)	24.5% (23)	29.8% (28)	27.7% (26)	94
need more bandwidth	7.5% (7)	17.2% (16)	25.8% (24)	22.6% (21)	26.9% (25)	93
need more reliability	9.6% (9)	11.7% (11)	23.4% (22)	25.5% (24)	29.8% (28)	94
need a dedicated Internet connection	11.8% (11)	15.1% (14)	18.3% (17)	28.0% (26)	26.9% (25)	93
need to reduce broadband cost	0.0% (0)	2.1% (2)	10.5% (10)	21.1% (20)	66.3% (63)	95

VI. Vendor Requirements

A. One Entity and Integration Options

The proposing party (i.e. the vendor) must be one entity. Given the geographic distribution of the sites and variety in available services across North Carolina—especially in the “last mile” portion of the network—it is expected the proposing party will be an integrator and use a variety of sub-contractors to supply specific services. The integrator may provide services directly if it chooses to do so.

Vendors are encouraged to look for partnership opportunities and to use/leverage existing infrastructure with the objective of reducing the overall cost of network construction and operation.

Future NCTN-H subscribers have existing broadband support today. Our registration data tells us that some sites have inadequate broadband services now and some additional sites will find that their current services inadequate within the next year (as key applications that use the network come into use). This RFP is meant to support competitive bidding for the services. This includes the potential that vendors may propose these existing services as the best value services for use in this project.

B. Minimum Qualifications

All vendors submitting proposals must meet the following minimum qualifications:

1. The vendor must be capable of managing the implementation and operation of the entire project. However, the use of subcontractors is permissible.
2. The vendor must have a proven history of executing large scale IP networks.
3. The vendor must have a current FCC Registration Number (FRN). More information about obtaining an FRN can be found at <https://fjallfoss.fcc.gov/coresWeb/publicHome.do> .
4. The vendor must have a current USAC Service Provider Identification Number (SPIN). More information about this process can be found at <http://www.usac.org/rhc-pilot-program/vendors/step01/service-provider-id.aspx> .
5. The vendor must be in “good standing” with the FCC, the State of NC, and local governments in the service area. Any bidder found to be in FCC “Red-Light Status” will be disqualified.
6. The vendor must be thoroughly familiar and compliant with any rules or regulations related to this project, including, but not limited to:
 - a. FCC Order 06-144 ¹
 - b. FCC Order 07-198 ² including correction
 - c. The Telecommunications Act of 1996 ³
 - d. USAC’s RHCPP process ⁴
 - e. Local, State, and Federal Laws

C. Use of Subcontractors

The vendor must identify all subcontractors that it plans to pay more than ten percent (10%) of the overall project budget. Additionally, the vendor must provide the role of each such subcontractor, each such subcontractor’s experience in that role, and the vendor’s relationship with each such subcontractor. If there are sub-contractors whose share of the budget may or may not be as large as 10%, the vendor must note these in the proposal. All such subcontractors must have at least one year of experience in the services they will be providing. During the life of the Contract, the vendor must notify CHA of any sub-contract undertaken as part of the Contract.

1 http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-06-144A1.pdf

2 http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-07-198A1.pdf

3 <http://www.fcc.gov/telecom.html>

4 <http://www.usac.org/rhc-pilot-program/vendors/>

D. Goods and Services Offered

The vendor must offer only goods and services that are eligible under the RHCPP program. Generally, these are services to build and operate broadband facilities for public non-profit healthcare facilities. Refer to FCC order 07-198 for details. Note that these types of goods and services will be offered to for-profit hospitals in the NCTN-H, but RHCPP discounts will not be used for these for-profits.

E. Reasonable Accommodations

Upon request, CHA will provide reasonable accommodations, including the provision of informational material in an alternative format, for qualified individuals with disabilities. If you require accommodations, please contact the primary RFP contact.

F. EEO: Minority- Veteran- & Women-owned Business Participation

While CHA encourages minority-, veteran-, and women-owned businesses to submit a proposal or participate as a subcontractor to a vendor who is submitting a proposal, no preference will be given based on business type.

G. Disqualification from bidding, contracting, or provision of services:

Vendors must state that:

1. At the time of bidding they and any anticipated sub-contractors are not disqualified from bidding, contracting, or provision of products and services under the contract to the CHA, NCTN subscribers, or others within North Carolina.
2. During the contract period, they agree to notify NCTN program managers in writing if they or any existing or anticipated sub-contractors are disqualified from bidding, contracting, or provision of the products and services under the contract to the CHA, NCTN subscribers, or others within NC.
3. That CHA may terminate the contract if it determines that the contractor or any existing or anticipated sub-contractors are disqualified from bidding, contracting, or provision of the products and services under the contract to the CHA, NCTN subscribers, or others within North Carolina.

H. Contractor Reliability

Bidders must describe their financial condition in a way that will allow the evaluation team to reliably assess the contractor's risk of financial distress. Bidders must describe their management team, highlighting experience relevant to this project.

I. Ability to Execute

The bidder must provide information that the RFP evaluation team can use to determine the bidder's ability to execute the workplan that it has put forward and, more generally, its ability to meet its potential obligations under a contract based on this RFP. Examples of this information include:

1. Vendor References. Vendors submitting proposals must include in their response the names of three customers, including points of contact (name, address, telephone number, and e-mail address), who can serve as references for work performed on similar network projects completed within the last five years. Selected organizations may be contacted to determine the quality of work performed and personnel assigned to the project. The results of the reference check will be provided to the Evaluation Committee and used in scoring the written proposal.
2. Inventory of available and relevant resources (e.g. skilled staff, sub-contractors).
3. Vendor Capabilities. Describe the firm's experience and capabilities in providing services similar to those requested in this RFP. Identify projects, dates, and results.

VII. Technical Requirements for the NCTN-H Backbone

The backbone is defined as any network segment that supports the traffic from more than one site.

The vendor's proposal must detail how the proposed network will meet all of the requirements of this Section. Responses should include a network map, both physical and logical, and the manufacturer's hardware specification/data sheet for each proposed model of equipment. These items may be provided as attachments to the proposal.

A. Requirements for the Backbone

1. Must be resistant to failure.
 - a. It is highly desirable that all backbone segments be redundant.
 - b. Any backbone network segment that supports more than twenty (20) sites in any Service Type must have redundant and diverse paths and interconnecting equipment.
 - c. All single points of failure that could affect more than one site, if any, must be identified and eliminated if possible.
2. The vendor will be responsible for maintaining the backbone in an up and reliable state, free of any interruption of service, at least **99.99%** of the time, measured monthly, quarterly, and annually.
3. Must follow the Open Systems Interconnection (OSI) model:
 - a. Layer three interfaces must be Internet Protocol version four (IPv4) with a capability to support version six (IPv6).
 - b. Layer two interfaces at each site will be Ethernet, meeting Metro Ethernet standards.
 - c. Layer one must be fiber optic cable, meeting the performance requirements specified.
4. Due to the nature of the health care industry, the proposed solution should be adaptive and scalable to meet the changing landscape.
5. At no point on the network may the subscription rate be more than two to one (2 to 1). That is, each link that carries traffic for two or more NCTN-H nodes must be at least half as large as the sum of the nodes that may contribute traffic to the shared link.
6. While vendors must describe the design of the NCTN-H in their proposals in accordance with the services they shall deliver, it is conceivable that this network would utilize core/router configurations in the major metro areas across the state with each core connected to a facility within the state (e.g. redundant core routers).
7. The network must have reliable connection(s) to the commercial Internet only for transmission of traffic to non-NCTN-H locations.
8. The centralized core must route all traffic within North Carolina (Peering) and only route the commercial IP traffic out/in of North Carolina. (Note: There is a single site in metropolitan Charlotte that is in SC.)
9. More peering with ISP's within the state will be an advantage to the health community and therefore will be favorably considered in the design, additionally, it's adaptability to current and future technologies as well as its ability to eliminate much of the overhead associated with large scale networks are required features.
10. Vendors must list in their response to this RFP what relevant standards the solution utilizes:
 - a. All equipment, transmission methods, and systems must be "industry-standard." Industry-standard is defined as the most current version of relevant standard(s) set by an American National Standards Organization (SDO), such as the Institute of Electrical and

Electronics Engineers (IEEE), Telecommunications Industry Association (TIA) or Electronic Industries Alliance (EIA).

11. Technical, physical and administrative security:
 - a. The vendor must describe in its proposal the technical, physical and administrative security measures employed in providing the services.
 - b. The vendor allows the use of standard encryption and data integrity protocols in support of subscribers needs to comply with:
 - i. the HIPAA Security Regulation
 - ii. the security requirements of Business Associates in HIPAA (This does not imply that the vendor is a Business Associate of any of the NCTN sites that are Covered Entities under HIPAA.)
 - iii. in the American Recovery and Reinvestment Act of 2009.
 - iv. Credit Card Protection Act
12. The vendor will be responsible for monitoring, maintaining, updating/patching, repairing/replacing failed and failing components and ensuring that the equipment continues to function for the duration of the Contract.
 - a. Security related patches must be applied within 30 days of stable release from the manufacturer.
 - b. Non-security related patches must be applied within 60 days of stable release from the manufacture.
 - c. The vendor assumes replacement responsibility (with the right to bill the site at cost) for site-based equipment that is damaged, stolen, etc; beyond the vendor's control. Subscribers will be held responsible in cases of abuse or negligence in housing site-based equipment.
13. Equipment and Hardware:
 - a. All equipment must have a minimum documented mean time between failures (MTBF) of 150,000 hours.
 - b. All hardware must be manufactured by a manufacturer with at least 5 years of experience.
 - c. Provide, as an attachment to the response, manufacturer specification/data sheets of all hardware that is proposed.
14. All core links must be registered and remain registered for the duration of the Contract with the Telecommunications Service Priority (TSP) program; if not a transport circuit regulated by the FCC then vendor must provide the equal service for restoration of service.

B. Connection to the Internet

Requirements for the connection to the Internet:

1. Due to its semi-private network requirements, the network must have at least two (2) Internet gateways.
 - a. These gateways must be at least 50 miles apart from each other and any other Internet gateway.
 - b. Vendor must provide at least two (2) Domain Name System (DNS) servers.
 - c. The DNS servers must be at least 50 miles apart.
 - d. The Internet gateways and the DNS servers may be co-located.
 - e. The subscription ratio for the Internet connections may be no more than 2-to-1, i.e. the internet connection needs to be able to pass half of the maximum traffic generated to and from the subscribers.

C. Connection to NCTN-PH

The first phase of the NCTN is a private network connecting the public health departments and free clinics in NC (NCTN-PH). This project is in contract negotiations. The NCTN-PH and NCTN-H must connect in a way that to the end users it appears to be one network.

1. NCTN-H must connect to NCTN-PH:
 - a. In at least two locations in the state. We think the connection points will be in RTP and Charlotte. The vendor must describe these two locations in the network design.
 - b. Each of these two connections needs to supply 1 GB per second throughput in both directions.
2. NCTN-PH will have a connection to the research-based Internet2 and National LambdaRail (NLR) network through the interconnect points on the PH network. The vendor's design for NCTN-H should allow the hospital sites on NCTN-H to make full use of that connection.

D. Connection to Health Information Exchanges (HIE's) and Electronic Medical Records (EMR) Providers

One of the main purposes of providing healthcare providers with greater bandwidth is to enable the use and sharing of electronic medical records (EMR). We want to price the following optional connections. We may choose to make a commitment to use one or more of these connections when we understand the contracts between the sites and these entities and the expected level of network traffic.

1. For each of these connections please quote prices on:
 - a. Dedicated link with failover to the commercial internet
 - b. Both throughputs: This connection needs to supply this throughput in both directions:
 - i. 500 Mbps
 - ii. 1 GBps
2. The American Hospital Association is creating a HIE and it is currently in pilot stage with several hospitals. NCTN-H may connect to this HIE at this data center.

Address: 5400 Data Court
Ann Arbor, MI 48108
3. The State of North Carolina is working on a gateway call NCHEX which will retrieve medical records from HIE's. At this time NCHEX is in the planning stages so specific information is not known.

Address: The connection to NCHEX would be in the State of NC.
4. Many hospitals are moving to EMR systems that use a software as a service (SaaS) model, meaning the system and data reside with the software vendor, not in the hospital. A SaaS EMR vendor is Cerner, for example. In the future NCTN-H might consider connecting to one of Cerner's two data centers if a significant number of subscribers use the Cerner system (or another such type vendor).

Addresses: Lee Summit Facility
777 NW Blue Parkway, Lees Summit, MO 64086

KC Facility
3200 North Rock Creek, Kansas City, MO 64117

VIII. Technical Requirements for Site Connections to the NCTN-H Backbone and Services

This section describes the services desired by the individual hospitals for the “last mile” connection to the NCTN-H network.

This section contains a description of several types of network services. Each type is called a Service Type. Each Service Type contains a description of the network requirements for sites designated as being in need of that Service Type. Some sites are described as requiring 2 or more Service Types; in such cases the total service requirements are the combined requirements of all the Service Types.

The project has gathered key information about each site via the registration process. The sites have been assigned an initial service type(s) in preparation for this RFP (See Appendix D. 2. NCTN-H List of Demarc Sites with NCTN-H Site ID Numbers.)

Vendors may propose additional Service Types for use on the Standard Pricing Schedule. The vendor will propose services in accordance with the needs specified for each site. Each is described in detail further below in this Section. There are 8 Service Types:

- Service Type 10 Mbps
- Service Type 100 Mbps
- Service Type 200 Mbps
- Service Type 500 Mbps
- Service Type 1 GBps
- Service Type 2 GBps
- Service Type INC (Increments of Throughput)
- Service Type FR (First Responder)
- Service Type Filter
- Service Type CENTRAL (Use of Centralized Service)

A. Common Requirements that Apply to Service Types 10 Mbps, 100 Mbps, 200 Mbps, 500 Mbps, 1 GBps, 2 GBps

Service Types 100 Mbps through 2GBps have the following common requirements:

1. Supported Site Description

Health care systems and independent hospitals have either in-house or outsourced IT staffs and established networks and connections to the internet. Most independent hospitals and some health systems will be using the NCTN-H connection to replace a current connection to the internet or to be an additional backup/Business Continuity/Disaster Recovery (BC/DR) connection. Health systems tend to have robust networks with significant intra-health system connections. Some health systems may connect their individual hospitals to NCTN-H to supplant or preclude an intra-health system connection.

The sites generally be hospitals or data centers. In some cases the site may be other buildings off the hospital campus such as an administrative building or surgical or oncology center.

2. Connection

- a. Each connection is required to support 3 different types of network communication/traffic:

- i. Intra-network traffic (NCTN-H site to NCTN-H site)
 - ii. Inter-NCTN network traffic (meaning NCTN-H network to NCTN-PH network: NCTN-H site to NCTN-PH site)
 - iii. Access to the commercial Internet
 - b. Intra-network traffic is the baseline traffic and must be available at the full capacity of the connection as listed in each service type description.
 - c. Specific performance requirements for intra-NCTN-H connections are:
 - i. Bandwidth: As specified by the Service Type for the site
 - ii. Latency: < 60ms; (between site and core routers/switches)
 - iii. Stability (video): jitter: good 0 – 20 ms, acceptable 20 – 50ms;
 - iv. Packet loss good 0 – 0.5%, acceptable 0.5 – 1.5%
 - v. Minimize the number of hops to the commercial internet
 - d. Transport:
 - i. All transport facilities are to be fully provisioned from end-point to core or central core location.
 - ii. Physical facility installation to the demarcation point at each site, where needed, must be included in the bid.
 - iii. Transport is to be determined by vendor, but must be transparent to layer-3 and higher protocols.
 - e. All sites on the network must support full interoperable IP services/ports and advanced services, including:
 - i. H.323 audio and video conferencing
 - ii. Large (100MB+) file transfers
 - iii. Web-based audio and video streaming
 - iv. ASP model business applications
 - v. Voice over IP (VoIP)
 - vi. Providing complete network convergence throughout the infrastructure.
 - f. The connection between the hospital and the core switches for the NCTN-H:
 - i. Must have a redundant diverse routing from the core switch to the facility, with separate approaches to the hospital.
 - ii. Note: Facilities with higher instantaneous data transfer rates may be needed to provide the required throughput.
 - iii. The connection should be handed off to the HCP's network as 10/100/1000 Mbps copper Ethernet.
 - iv. The vendor must provide at least 256 static and publicly routable IP addresses to each site or include arrangements to route any existing HCP-owned IP addresses.

3. Hardware Requirements

- a. Equipment and Hardware:
 - i. All equipment must have a minimum documented mean time between failures (MTBF) of 150,000 hours.
 - ii. All hardware must be manufactured by a manufacturer with at least 5 years of experience.
 - iii. Provide, as an attachment to the response, manufacturer specification/data sheets of all hardware that is proposed.

- b. All hardware must have redundant and hot swappable power supplies (i.e. 2 or more power supplies with the devices continuing to function at full capacity if 1 power supply completely fails).
- c. All hardware must have non-blocking architecture that allows for full throughput of at least the specified number of Mbps for the Service Type.

4. Service Level Agreements

- a. The vendor is responsible for maintaining the connection in an up and reliable state, free of any interruption of service at least **99.9%** of the time, measured monthly, quarterly, and annually.
 - a. For a few sites attaining service continuity of 99.9% may be problematic.
 - i. If a site needs 99.9% in the last mile then the site may have to put in a second line at additional cost (in order to get to 99.9% continuity).
 - ii. The vendor should clearly state if a site has deficiencies that make 99.9% problematic, such as lack of equipment, clean power, etc.
- b. Single points of failure that affect only one site must meet the reliability requirements noted above.
- c. The connection speeds of multiple connections, if any, may be combined to reach the required connection capacity stated in each Service Type.
- d. Response times:
 - 1. For responding to any interruption of service within 4 hours, 24x7x365.
 - 2. For responding to all other issues within 8 hours, 8x5 (8 a.m. to 9 p.m. local time, Monday through Friday, excluding Federal holidays)
 - 3. Once on site or actively working on the issue, the vendor must work continuously through resolution of the service issue.
 - 4. The vendor is responsible for maintaining a Mean Time to Repair of four (4) hours, to be measured monthly, quarterly, and annually.
- e. All connections must be registered and remain registered for the duration of the Contract with the Telecommunications Service Priority (TSP) program; if not a transport circuit regulated by the FCC then vendor must provide the equal service for restoration of service.

B. Service Type 10 Mbps

1. Connection

The connection for Service Type 10 Mbps between the hospital and the core switches for the NCTN-H must be capable of sustained bidirectional throughput of at least 10 Mbps.

C. Service Type 100 Mbps

1. Connection

The connection for Service Type 100 Mbps between the hospital and the core switches for the NCTN-H must be capable of sustained bidirectional throughput of at least 100 Mbps.

D. Service Type 200 Mbps

1. Connection

The connection for Service Type 200 Mbps between the hospital and the core switches for the NCTN-H must be capable of sustained bidirectional throughput of at least 200 Mbps.

E. Service Type 500 Mbps

1. Connection

The connection for Service Type 500 Mbps between the hospital and the core switches for the NCTN-H must be capable of sustained bidirectional throughput of at least 500 Mbps.

F. Service Type 1 GBps

1. Connection

The connection for Service Type 1 GBps between the hospital and the core switches for the NCTN-H must be capable of sustained bidirectional throughput of at least 1 GBps.

G. Service Type 2 GBps

1. Connection

The connection for Service Type 2 GBps between the hospital and the core switches for the NCTN-H must be capable of sustained bidirectional throughput of at least 2 GBps.

H. Service Type INC (Increments of Throughput)

1. Supported Site Description

Service Type INC is designed to support all sites by providing a way to add bandwidth to a site's capability at a predetermined cost. The service is to add an additional 100 Mbps from the site thru out the network in accordance with the service type and backbone requirements to the NCTN-H core and provide any upgrades to the core needed to support the additional bandwidth while maintaining the required traffic subscription rates documented above. A site may choose to apply Service Type INC at the predetermined cost for up to 10 times. (e.g. diff A site that starts out at 100 Mbps can grow to 1 GB by adding service type 8 9 times.)

2. Service Requirement

Each instance of the use of this Service Type requires the vendor to support an additional 100Mbps bi-directional throughput for this site along with attendant changes in core network capacity.

I. Service Type FR (First Responder)

1. Supported Service Description

Virtually all hospitals operate as "first responders" sites during a community disaster. They are required to continue complete operations in the immediate aftermath of a disaster and during a disaster if feasible. The sites would generally have back-up power resources and facilities capable of withstanding certain disasters. The facilities must have high probability of remaining in operation during and after hurricanes, ice storms, tornados, floods, forest fires, earthquakes and epidemics. For epidemics, consideration must be given to continuing network operations despite the loss of network support personnel (e.g. redundant trained personnel).

The intention of adding Service Type FR to a site is to specify that this NCTN-H site connection must continue to operate under these disaster conditions.

The Service Type FR designation is given to sites that also have at least one other Service Type (designating throughput).

2. Connection

The connection between the First Responder site and the core switches for the NCTN-H must be capable of sustained bidirectional throughput in a disaster that is required based on the site's other service type designations (e.g. 100 Mbps for service type 100Mbps). The routing and addressing requirements for a First Responder site are also inherited from its other service type designations.

We expect the vendor to plan for high reliability during and in aftermath of disaster.

3. Service Level Agreement/Maintain the Service

1. The vendor will be responsible for maintaining the service in an up and reliable state, free of any interruption of service at least 99.9% during and in the aftermath of a disaster of the type described above.
2. The vendor will make their best efforts to be operational during and after a disaster.

4. Present Your Plan for Operations During and After a Disaster

Describe your plan for being operational in and after a disaster.

Below we are listing some likely features that will support high reliability. Your plan may have other or additional features and innovations that are not listed.

Features Supporting High Reliability During and After a Disaster

- a. Site connectivity physical redundancy should be proposed where the site's location and circumstances provide the capability of effectively providing:
 1. redundant entry points to the facility
 2. diverse routes to the site ; from different CO's (Or Communications switches).
 3. Both routes are not required to be HOT and operating at the same time but must be available when needed with a full test plan to insure this availability.
 4. appropriate network hardware needed to manage the redundant transmission facilities.
 5. The vendor may propose using different technologies for each redundant connection (e.g. satellite for one connection and a wired solution for the redundant connection).
- b. The vendor must document the way in which this "hardening" requirement is met when offering the service to the site and the NCTN-H Administrator. In some cases the vendor may need to propose acceptable route/equipment diversity from other connections and pay extra for it so that a line will be up independent of another line.
- c. Vendor should take into consideration other connections a hospital site has and is retaining when considering redundancy and diversity.
- d. Proposals should consider the physical robustness of the network and the limits on ability to provide service personnel under these circumstances.
- e. Use of highly independent means of connectivity (e.g. satellite-based services) is encouraged in circumstances where they may best support the need for high reliability.
- f. The site requires first repair response from communication providers (TSP).

J. Service Type Filter

1. Supported Site Description

We suspect that some sites today outsource filtering to their current provider and do not wish to provide this service in-house. This Service Type Filter is to provide filtering for the site.

2. Service Requirement

- a. The vendor would support filtering of traffic based on policies set by the site administrator (e.g. to exclude unwanted Internet traffic from the site or limit access to classes of web sites by site staff).
- b. These policies may change from time to time and the filtering mechanism must support this change.

K. Service Type CENTRAL

1. Supported Site Description

The FCC requires that we list the Service Types that the hospital locations will receive. Service Type CENTRAL designates that a hospital location will be using services that are provided from a central source, such as the flagship hospital or a separate centralized data center. This information is primarily for the FCC and not the bidding vendors.

The Service Type CENTRAL designation is given to sites that also have at least one other Service Type (designating throughput). The additional Service Types are those of the central service site or data center site.

IX. Support Requirements

There are 3 models of internal support for the sites:

- There is support within the individual hospital for the site. This is the model of most of the independent hospitals.
- Support is provided by a centralized group in the health system. This is the model in a few of the health systems.
- A mixture of the 2—centralized and decentralized. This is the model in the rest of the health systems.

For purposes of this support section we will call the entity the vendor works with the health care provider (HCP) whether it represents decentralized or centralized support. Note this means that the vendor may be working with one entity or HCP for a group of sites.

A. Response/Network Operations Center

1. The vendor must manage the network. They must maintain a network operations center with the following minimum requirements: :
 - a. Staffed during business hours (8am-9pm Monday through Friday)
 - b. Support available 24 hours per day, 7 days a week, 365 days a year
 - c. With a single telephone number to report network outages
 - d. All calls must be answered/connected to a live network technician within ten (10) minutes.
 - e. At its option, the subscriber may leave a voice mail message.
 - f. Vendor support personnel must respond to any voice mail messages within one (1) hour of the message being left by the HCP.
 - g. A web/text based reporting and status checking process in addition to the telephone number is desired.

B. Monitoring and Reporting

Many points of process in this RFP and in the Contract require communication of status and activity related to servicing the sites. We would prefer a process that depended on a web site with appropriate access by each party (e.g. vendor, NCTN-H Administrator, site manager, sub-contractor, auditor) to both provide information and obtain information related to NCTN-H construction and use. Proposals that include this feature will be preferred and will be part of the formal evaluation.

CHA shall monitor the operations of the network in a way that makes the achievement of the requirements of service (or not) transparent in a timely way to CHA, the vendor, the site contacts, and others. The vendor shall support this objective. Details of this support will be negotiated in good faith during the life of the project. At minimum, in furtherance of this objective, the vendor shall support the following:

1. The vendor must maintain a network operations center that:
 - a. Utilizes an automated system that actively monitors all network sites, traffic and circuits and alerts staff of any unusual or adverse events, traffic, or outages.
 - b. Alerts vendor staff to outages and problems 24/7/365
2. The vendor must provide a detailed description of automated systems including:
 - i. types of items/traffic monitored
 - ii. reports generated

- iii. how alerts/notices are handled and escalated.
- 3. The vendor must monitor and report on:
 - a. The utilization of the local access link at each site
 - b. Report on a quarterly basis to the HCP site contact and the NCTN-H Administrator
- 4. The vendor must provide detailed reports to each HCP and the NCTN-H Administrator including but not limited to the following information:
 - a. Monthly, quarterly, yearly:
 - i. a list of interruptions of service (at each site), including dates, times, and durations
 - ii. the response time for issues reported
 - iii. mean-time-to-repair
 - iv. total usage summary by hour, day, and week
 - v. usage by network type (intra-network traffic, i.e., participating HCP to participating HCP; access to the Internet)
 - vi. usage for the top 25 sources and destinations
 - vii. usage by hour, day, and week by protocol/function (http, SSL, SSH, Telnet, FTP, etc.,) is desirable but not required
 - viii. access to log files
 - ix. indicators as to whether the service requirements for each site have been met during the reporting period or not and, if not, the nature of the short-fall in service.
 - b. Reports must be emailed to the HCP site contact at each site within 5 days of the end of the calendar month.
 - c. The underlying data for the report must be available to the NCTN-H Administrator in a common machine-readable form (e.g. Excel spreadsheet, Access database).
- 5. The vendor will monitor and manage the network's performance and work with sites and the NCTN-H Administrator to make small changes as needed.
- 6. The vendor must track and log (maintain a database of) all interruptions of service.
 - a. NCTN-H Administrator and the HCPs must always have access to this log.
 - b. The NCTN Administrator and the HCPs reserve the right to independently track and log interruptions.
 - c. The vendor will work with the NCTN-H Administrator and the HCPs to ensure this option is available.

C. Problem Notification, Resolution Process and Escalation Process

- 1. The vendor must notify via voice communication, the HCP within thirty (30) minutes after determination that the customer's service is not available or is likely to fail.
- 2. The vendor must use a trouble ticket management system that:
 - a. identifies a trouble incident reported
 - b. type of trouble
 - c. time of trouble
 - d. time to resolution
 - e. generates monthly reports on trouble tickets
 - i. by site if needed

3. The vendor must provide a description of your automated trouble ticket system adequate to determine that it can support the requirement above.
4. The vendor must describe the problem escalation process.
5. The vendor shall collaborate with NCTN-H Administrator to develop detailed policies and practices for working with HCP sites for problem notification, resolution, and escalation procedures.

D. Maintenance

Maintenance that may or will cause an outage must be minimized.

1. The acceptable maintenance window for this network will be from 4:00 am to 12:00 pm (local time) on Sundays.
2. The vendor must provide notice of planned maintenance to the affected HCPs (e.g., on a Thursday prior to a Sunday's maintenance) and NCTN-H Administrator at least 30 days prior to the planned outage. The notice must include, at a minimum:
 - a. date and start time of the maintenance
 - b. anticipated duration
 - c. services and/or sites that will be affected
 - d. services and/or sites that might be affected
 - e. reason for the maintenance
 - f. any additional related information and links.
3. The vendor must provide a mechanism to hear a site's needs to change maintenance times for specific concerns. Describe this mechanism.
4. The vendor cannot take down both routes at the same time without specific written permission from the site.

E. Repair

1. The vendor must provide resources for repair, preferably locally across NC, including:
 - a. Repair facilities
 - b. Staffing
 - c. Spare parts inventory locations

X. Pricing Requirements

A. Commitment Length

The sites will each subscribe for a 3-year period. CHA intends to have virtually all of the sites up in a short period after the Contract begins. But, since all sites will not go live on the same date the Contract will be for a period of more than 36 months to cover staggered start and staggered end dates for all the sites. We believe the contract length will be 42 months.

B. Total Price

There is approximately \$6.1 million in FCC funding available to the eligible sites. We suspect that the sites will be motivated to join NCTN-H if their FCC discount is 50% or more. One can extrapolate then that the total price for the discounted sites (all but 3) should be in the general ballpark of \$12.2 million or less. If the total price is significantly larger we suspect NCTN-H may not be viable.

Accordingly we encourage you to ask questions about requirements and assumptions that will allow your proposal to be in or near the ballpark.

C. What Is In and Not In the Price

1. Pricing for Eligible and Non-Eligible Sites

- A site is “eligible” (for use of RHCPP discounts) if it is a non-profit public hospital and meets certain other criteria required by the FCC and it was registered to participate in the NCTN-H project prior to the RFP being distributed to vendors. The FCC determines which sites are eligible. If a site is “eligible” then RHCPP funds will be used to pay for some percentage of their NCTN-H services with subscribers paying the remainder to CHA for payment to the vendor.
- “Non-eligible” sites may participate in NCTN-H. They pay 100% of the price for their NCTN-H services to CHA for payment of the vendor.
- In creating pricing, the vendor must not differentiate between “eligible” and “non-eligible” sites. That is, the vendor must not charge more or less for the same service or piece of equipment based on the eligibility of the recipient site.

2. Allocation of 100 Percent of Costs

- a. The vendor must allocate *all* costs associated with the project—all nonrecurring (broadband network) infrastructure construction costs and recurring operating costs—to specific sites in the RHCPP project. Any cost that is not allocated to a site cannot be discounted with RHCPP funds and must not be invoiced.
- b. Any costs for items/services that support multiple participants (e.g., laying fiber optic cable, core routers, core transport services, support) must be allocated on a reasonable and demonstrable basis.
- c. All of the proposed services must be eligible for discount under the FCC’s Rural Healthcare Pilot Program (RHCPP) for eligible entities.

3. Avoiding misuse of RHCPP discounts in building excess capacity

- a. The RHCPP program will not provide discounts for facilities beyond those used to service the discount-eligible health care providers who are part of the NCTN-H. This RFP does not envision the NCTN-H owning any facilities. So, opportunities to unintentionally misuse RHCPP discounts are expected to be minimal.
- b. Proposals that envision building network capacity beyond what is needed to service the NCTN-H subscribers must provide documentation of these excess capacities and demonstrate that the vendor is paying for the excess capacity. For example, if only two strands of a new 48-strand fiber optic cable run support the health care network, then the vendor can charge only 2/48ths of the cost of the cable run to the project.
- c. The Standard Pricing Schedule should avoid significant one-time charges for services (e.g. installation charges) as one contribution to avoiding disallowed usage of RHCPP discounts.

4. Ownership of Equipment

All components supplied by the vendor to support the services will be owned or leased by the vendor. At the end of the contract the equipment remains the property of the vendor. The cost of the equipment should be recovered by the vendor in the subscription fees.

D. Fair Share/ Non-RHCPP Covered Services

The offered services for a given site may be shared between the NCTN-H site (a usage that is eligible for the RHCPP discount) and other (ineligible) users and/or usages. For example, a health system may own for-profit physician practices that are on the health system network. Some HCP may choose to segregate this traffic so that the usage is 100% RHCPP eligible. Otherwise the HCP must propose a “fair share” arrangement in which the amount of service provided to the NCTN-H site for RHCPP eligible uses and the amount used for non-RHCPP eligible uses is the basis for a division of the cost of the shared service into a discounted portion and a non-discounted portion. The fair share proposal will be subject to review and approval of the NCTN-H Administrator and may be subject to prior review by the FCC. Entities which use “fair share” arrangements will be liable for repayment for any part of the service that is discounted that the FCC later may determine is not eligible for discount under the RHCPP.

The vendor is not responsible for recognizing or creating Fair Share arrangements. The vendor may be asked to assist in determining and monitoring the fair share division and will need to recognize the existence of fair share arrangements because of payment implications.

E. Tiered Pricing Acceptable

The vendor may choose to present tiered pricing based on the number of HCP sites that subscribe to NCTN-H.

F. Pricing Format

Appendix D lists the sites that have registered to participate in NCTN-H and the Service Type selected for each site. Each site is identified by a NCTN-H Site Identifier (NCTN-H Site ID or Site ID consisting of an “H” and a 3 digit number. Please use the site name and its NCTN-H Site ID on all pricing documents.

The vendor must propose services and pricing consistent with the needs per site described in this RFP.

Pricing must be given for each site. The section below lists the format in which the pricing must be presented.

G. Costs

Each vendor responding to this RFP must detail:

1. The one-time (non-recurring) costs of network construction (including the purchase and installation of all hardware). The vendor is responsible for all installation costs, including, but not limited to, labor, material, permit fees, access fees, easement costs, and make-ready costs. The vendor's bid should reflect all of these costs.
2. The monthly service fee that each site will have to pay to access and use the health care network; this fee will be based on the level of service (service type) provided to the site (e.g., Service type 100M versus Service type 1G).

1. One-Time (Non-recurring) Costs

Each and every identifiable one-time cost to construct the health care network infrastructure—network construction costs (if any), hardware items, and hardware installation and connection costs—must be allocated to one or more sites and itemized using the following spreadsheet format. (This table is provided as a simple example.)

We have a strong preference for recurring charges with minimal to no initial charges.

a.	b.	c.	d.	e.	f.	g.	h.
NCTN- H Site ID #	General Description of Item Site Name	Category	Component	Optional Expanded Description	# of Items	Cost per Item	Total Cost
H999	Health System: Hospital: Site Name Brand X router, model Z	Network Equip	Router		2	\$1,000	\$2,000
...							
H999	Health System: Hospital: Site Name Cable, fiber	Infra- structure	Cable, fiber	UP trunk line allocated to HCP	1	\$25,000	\$25,000
H999	Cable, fiber	Infra- structure	Cable, fiber	UP trunk line allocated to HCP	1	\$25,000	\$25,000
H999	Cable, fiber	Infra- structure	Cable, fiber	UP trunk line allocated to HCP	1	\$25,000	\$25,000
H999	Cable, fiber	Infra- structure	Cable, fiber	UP trunk line allocated to HCP	1	\$25,000	\$25,000
...							

...							
Grand Total							\$9,999,999

- a. Identification of the site that will receive the equipment or to whom the network construction costs are being allocated. The site must be identified by the site name and NCTN-H Site ID number listed in Appendix D form 465.
- b. General description of the item. The description of each hardware item must include the manufacturer and model number. Network construction costs allocated to an HCP site must be described.
- c. Equipment or service category: choose one from the first column of Appendix E. List of USAC Category, Subcategory, Component, and Speed Options
- d. Component: choose one from the third column of Appendix E
- e. Optional expanded description/details/comments
- f. The number of items (e.g., two identical routers installed at the same site)
- g. The cost per item
- h. The total cost for this line item, i.e., “# of Items” times “Cost per Item”

The final line in the spreadsheet should be the **grand total of all “Total Cost” fields**. This figure must be the sum of all one-time costs to build and set up the network. We prefer these installation costs to be recouped in monthly charges (vs. being paid up-front).

2. Monthly (Recurring) Service Costs for Access to the Health Care Network

Each participating HCP site connected to North Carolina’s health care network may be charged a monthly service fee, which may vary by Service Type and other factors. We prefer this cost to be the same for every month for the 3 year subscription. This fee cannot be increased during the first 3 years of service provided to each site, although it may be decreased on an annual basis. In the vendor’s response to this RFP, these fees should be specified using the following spreadsheet format. These are the base fees and may be augmented by the tiered pricing provided as noted above. (This table is provided as a simple example.)

Access to the Health Care Network		
Monthly Service Costs		
NCTN-H Site ID #	Monthly Fee	Total for 36 Months
a.	b.	
H999	\$50	\$1,800
H999	200	7,200
H999	300	10,800
H999	200	7,200
H999	1,000	36,000
...		
H999	500	18,000
Grand Totals	\$150,000	\$8,640,000

- a. Identification of the participating HCP site to whom the service is being rendered. This identification must use the NCTN-H Site ID number as show in Appendix D.
- b. Monthly service cost for access to the network, Internet and Internet2/NLR

H. Standard Pricing Schedule

The vendor is required to offer a "Standard Pricing Schedule" with one price per Service Type lasting for the Contract period.

The vendor may choose to offer one price per Service Type per vendor-defined region. A region is a geographical area constructed so that it is clear whether a given site is in that region or not. The combined regions must cover all of North Carolina. The flexibility of regional differences in pricing allows a vendor to vary prices for a service based on the regional variation in costs to the vendor in providing the service. While the vendor may choose and document region boundaries to fit their proposal, these regions will be fixed based on the selected vendor's region set at the time the Contract is signed for the life of the Contract.

The Standard Pricing Schedule will be used for:

1. Eligible sites that participate in NCTN-H. FCC funds will pay for some percentage of the price for their NCTN-H services.
2. Ineligible sites that participate in NCTN-H. Ineligible sites pay 100% of the price for NCTN-H services.
3. A minimal number of future moves/adds/changes in the initial sites.
 - a. If special fees are associated with moves/add/changes the pricing schedule must state these.
4. A minimal number of future changes in site eligibility.
 - a. A small number of hospitals may change from non-profit to for-profit during the Contract. If so they are to notify CHA and begin paying 100% as of the date of the status change.
 - b. If any hospitals are in violation of other FCC criteria they may be stripped of their eligibility status and must pay 100% of charges.
5. Vendors should propose any additional Service Types that may be needed (e.g. costs associated with a site move).

The format for the Standard Pricing Schedule (optionally per region) is as follows:

Standard Pricing Schedule - for Region 1	Costs		One-time cost items				
	One-time cost	Monthly recurring cost	General Description of Item	Category	Component	Optional Expanded Description	# of Items
Service Type 10 Mbps							
Service Type 100 Mbps							
Service Type 200 Mbps							
Service Type 500 Mbps							
Service Type 1 GBps							
Service Type 2 GBps							
Service Type INC (Increments of Throughput)							
Service Type FR (First Responder)							

Service Type Filter							
.addl service types							

I. Summary of Costs to Be Evaluated

Each vendor's proposal will be evaluated, in part, on cost. To summarize, the 3 cost components that will be evaluated are:

1. One-time network construction costs detailed on a spreadsheet described above
2. A spreadsheet listing all sites and how much each will be charged per month for access to NCTN-H.
3. The Standard Pricing Schedule described above.

XI. Legal Requirements

A. Laws That Apply

All proposals submitted in response to this RFP and any Contract shall be subject to all applicable laws and procedures, including, but not limited to, all FCC Orders, Statutes, State law and regulation, and USAC requirements mentioned in this RFP.

B. Use of Subcontractors

In any subcontracts entered into by the vendor for the performance of services, the vendor shall require the subcontractor, to the extent of the services to be performed by the subcontractor, to be bound to the vendor by the terms of the Contract and to assume toward the vendor all of the obligations and responsibilities that the vendor, by the Contract, assumes toward CHA. CHA reserves the right to receive copies of and review all subcontracts, although the vendor may delete or mask any proprietary information, including pricing, contained in such contracts before providing them to CHA. The management of any subcontractor will be the responsibility of the vendor, and the vendor shall remain responsible for the performance of its subcontractors to the same extent as if the vendor had not subcontracted such performance. The vendor shall make all payments to subcontractors or suppliers of the vendor. Except as otherwise agreed in writing by CHA and the vendor, CHA will not be obligated for direct payments for the services other than to the vendor. CHA's written approval of any subcontractor engaged by the vendor to perform any obligation under the Contract shall not relieve the vendor of any obligations or performance required under the Contract.

C. Maintenance of Requirements to Do Business and Provide Services

The vendor and any subcontractors, at their cost, shall obtain and maintain all licenses, permits and authority necessary to do business and render service under this RFP and any resulting contract(s) and, where applicable, shall comply with all applicable laws including, but not limited to, those regarding safety, unemployment insurance, disability insurance, and worker's compensation.

D. Indemnification

CHA and the participating HCPs are to be indemnified and held harmless by the vendor and all subcontractors for the vicarious liability of CHA and the participating HCPs as a result of this RFP and any resulting Contract(s).

E. General Indemnification

Vendor agrees to indemnify, defend, and hold harmless CHA, all participating HCPs, and their respective Boards of Directors, in their official and individual capacities, administrators, employees, agents, contractors, successors, and assignees, from and against any and all costs, expenses, damages, and liabilities, including reasonable attorney's fees, arising out of the: (i) acts or omissions of the vendor, its officers, directors, employees, successors, assignees, contractors, and agents; (ii) any breach of the terms of the Contract by vendor; or (iii) any breach of any representation or warranty by vendor under the Contract.

F. Environmental Indemnification

Throughout the term of the Contract, vendor shall not permit itself or any third party to use, generate, handle, store or dispose of any Hazardous Substances in, on, under, upon or affecting any HCP or CHA

property in violation of any applicable law or regulation. Without limiting any other provisions of the Contract, vendor shall indemnify, defend and hold harmless all participating HCPs and CHA from and against all liabilities, claims, losses, costs and expenses (specifically including, without limitation, attorneys', engineers', consultants', and experts' fees, costs, and expenses) arising from (i) any breach of any representation or warranty made in this paragraph and/or (ii) environmental conditions or noncompliance with any applicable law or regulation that result, in the case of vendor, from operations or services in or about any HCP or CHA property by vendor or its agents or employees. As used herein, the term "Hazardous Substances" shall mean (i) any hazardous or regulated substance as defined by all federal, state and local environmental laws, including, but not limited to, Federal Water Pollution Control Act (33 U.S.C. §§ 1251 et seq.) ("Clean Water Act"), the Resource Conservation & Recovery Act (42 U.S.C. §§ 6901 et seq.) ("RCRA"), Safe Drinking Water Act (42 U.S.C. §§ 300f-j-26), Toxic Substances Control Act (15 U.S.C. §§ 2601 et seq.), Clean Air Act (42 U.S.C. §§ 7401 et seq.), the Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. §§ 9601 et seq.) ("CERCLA"), the Emergency Planning and Community Right to Know Act (42 U.S.C. §§ 11001 et seq.) ("EPCRA"), the North Carolina Natural Resources and Environmental Protection Act (MCL § 324.101 et seq.), the administrative rules and regulations promulgated under such statutes, or any other similar federal, state, or local law or administrative rule or regulation of similar effect, each as amended and as in effect and as adopted as of the Contract Date, (ii) any other pollutant, contaminant, hazardous substance, solid waste, hazardous material, radioactive substance, toxic substance, noxious substance, hazardous waste, particulate matter, airborne or otherwise, chemical waste, medical waste, crude oil or any fraction thereof, radioactive waste, petroleum or petroleum-derived substance or waste, asbestos, PCBs, radon gas, all forms of natural gas, or any hazardous or toxic constituent of any of the foregoing, whether such substance is in liquid, solid or gaseous form, or (iii) any such substance the release, discharge, or spill of which requires activity to achieve compliance with applicable law. This paragraph shall survive the expiration or earlier termination of the Contract.

G. Conflicts of Interest

All proposals must be accompanied by a sworn and notarized affidavit disclosing any familial relationship that exists between the vendor or any employee of the vendor and any member of the CHA Board or the Board of the NC Association of Free Clinics. Any proposal not accompanied by said sworn and notarized affidavit will not be considered or accepted by CHA.

H. Attachment of RFP and Vendor's Proposal to the Contract

The contents of this RFP and the vendor's proposal, including CHA-accepted objections, will become part of contractual obligations, if a Contract ensues. Failure of the vendor to accept these obligations will result in cancellation of the award.

I. CHA Miscellaneous contract terms

The Contract shall contain standard terms for contracting with CHA. These include:

Civil Rights: Title VI of the Civil Rights Act of 1964 (Pub. L. 88-352), as amended, and all requirements imposed by or pursuant to the Department of Health and Human Services (45 C.F.R. Part 80), to the end that, in accordance with Title VI of that Act and the Regulation, no person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity covered by this Contract.

Rehabilitation Act: Section 504 of the Rehabilitation Act of 1973 (Pub. L. 93-112), as amended, and all requirements imposed by or pursuant to the Regulation of the Department of Health and Human Services (45 C.F.R. Part 84), to the end that, in accordance with Section 504 of that Act and the Regulation, no otherwise qualified handicapped individual in the United States shall, solely by reason of his handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity covered by this Contract.

The American with Disabilities Act 1990: ADA makes it unlawful to discriminate in employment against a qualified individual with a disability and outlaws discrimination against individuals with disabilities in State and local government services and public accommodations. The Contractor certifies that it and its principals will comply with regulations in ADA Title II (Public Services) and Title III (Public Accommodations) in fulfilling the obligations under this contract.

Confidentiality: All information as to personal facts and circumstances obtained by Contractor in connection with the provision of services or other activity under this Contract shall be privileged communication, shall be held confidential, and shall not be divulged without the responsible person's written consent except as may be otherwise required by applicable law or regulation. Such information may be disclosed in summary, statistical, or other form which does not directly or indirectly identify particular individuals. Contractor Employees must sign confidentiality pledges documenting the knowledge of and the agreement to maintain personal and medical confidentiality.

Subcontracting: The Contractor shall not subcontract with a party to perform more than 10% of the work contemplated under this contract without obtaining prior written approval from the Alliance. Any approved subcontract shall be subject to all conditions of this contract.

Hold Harmless: The Contractor agrees to indemnify and save harmless the Alliance against any claims of third parties arising out of any act or omission of the Contractor, its agents, employees, and subcontractors in the performance of this contract.

Conflict of Interest: The Contractor expressly states that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Contract. The Contractor shall not employ any person having such interest during the performance of this contract. The Contractor further agrees to notify the Alliance in writing of any instances that might have the appearance of a conflict of interest. Upon execution of this contract and prior to disbursement of funds, the Contractor shall submit to the Alliance a notarized copy of the Contractor's policy addressing conflict of interest in accordance with North Carolina General Statute 143-6.1.

Insurance: See Section XII. Insurance Requirements below. The Contractor agrees to furnish worker's compensation, liability insurance and other insurance as may be required to protect the Contractor and the Alliance against claims which may arise from the Contractor's performance.

Providing and maintaining adequate insurance coverage is a material obligation of the Contractor and is of the essence of this contract. All such insurance shall meet all laws of the State of North Carolina. The Contractor shall at all times comply with the terms of such insurance policies, and all requirements of the insurer under any such insurance policies, except as they may conflict with existing North Carolina laws or this contract. The limits of coverage under each insurance policy maintained by the Contractor shall not be interpreted as limiting the Contractor's liability and obligations under the contract.

XII. Insurance Requirements

The vendor shall, at all times during the term of the Contract (including any contracts assigned to participating HCPs), maintain in full force and effect the insurance as listed below. All insurances shall be issued by insurers and for policy limits acceptable to CHA, and the vendor shall furnish to CHA certificates of insurance or other evidence satisfactory to CHA evidencing the required insurance has been procured and is in force. The certificates shall include the following express obligation:

“This is to certify that the policies of insurance described herein have been issued to the insured for whom this certificate is executed and are in force at this time. In the event of cancellation, non-renewal, or material modification affecting the certificate holder, thirty (30) days prior written notice will be given to the certificate holder.”

CHA and all participating HCPs shall be additional insureds on the vendor’s Commercial General Liability, Employers Liability, Automobile Liability, Excess/Umbrella Liability insurance, and all other insurance described below; and the extent of the additional insured coverage afforded shall be no less broad than General Liability and Umbrella/Excess Liability, for Auto Liability, and other coverages, or substitute equivalent coverage. The additional insured coverage afforded under the vendor’s policies shall include both ongoing operations (work in progress) and completed operations (completed work). The insurance coverage shall be purchased and maintained by the vendor and shall be primary to any insurances, self-insurance, or self-funding arrangement maintained by CHA, which shall not contribute therewith, and include severability of interests under the insurance policies.

The vendor shall be responsible for the payment of any and all deductible(s) or retention(s) under the policies of insurance purchased and maintained by it pursuant to the Contract. To the extent permitted by law, all or any part of any required insurance coverage may be provided under an approved plan or plans of self-insurance.

All insurance shall be issued by insurance carriers licensed to do business by the State of North Carolina or by surplus line carriers on the North Carolina Insurance Commission-approved list of companies qualified to do business in North Carolina. All insurance and surplus line carriers must be rated A+ or better by A.M. Best Company.

<u>Coverage</u>	<u>Minimum limits of liability, terms and coverage</u>
<u>Commercial General Liability</u>	\$1,000,000 bodily injury and property damage each occurrence, including advertising and personal injury, products and completed operations \$5,000,000 products/completed operations, independent contractors liability, contractual liability, and coverage for property damage from perils of explosion, collapse, or damage to underground utilities, commonly known as XCU

	\$5,000,000 general annual aggregate
<u>Auto Liability Insurance</u>	\$1,000,000 each person, bodily injury and property damage, including owned, non-owned and hired auto liability
<u>Workers' Compensation</u>	Statutory limits
<u>Employer's Liability</u>	\$1,000,000 bodily injury by accident, each accident \$1,000,000 bodily injury by disease, each employee \$1,000,000 bodily injury by disease, policy aggregate
<u>Umbrella/Excess Liability</u>	\$5,000,000 each occurrence and annual aggregate Underlying coverage shall include General Liability, Auto Liability, and Employers Liability
<u>Property</u>	The vendor shall purchase and maintain property insurance covering machinery, equipment, mobile equipment, and tools used or owned by the vendor in the performance of services under the Contract. CHA shall in no circumstance be responsible or liable for the loss or damage to, or disappearance of, any machinery, equipment, mobile equipment and tools used or owned by the vendor in the performance of services under the Contract.

XIII. Financial Requirements

A. Commitment of Funds

Executive Director of CHA is the only individual who may legally commit CHA to the expenditures of funds for a Contract resulting from this RFP. No cost chargeable to the proposed Contract may be incurred before receipt of a fully executed Contract.

B. Contract Staggered Start/Staggered End

All sites will not be brought up on the same day. Therefore the vendor should expect the Contract to cover a total period of time that allows for staggered individual start dates and staggered individual end dates for sites. We expect the contract period to be 42 months. We recommend that the start and end periods be 3 months or less if possible. In their subscription agreement each site will contract for the same number of months, probably 36.

C. Payment for Incurred costs only

The vendor will only be paid for incurred costs. Hardware will have to have been installed, tested, and formally accepted; installation will have to have been completed, tested, and formally accepted; and service will have to have been rendered *before* the vendor can invoice CHA for *any* hardware, installation, or service expenses, respectively. CHA will not process an invoice until all items subject to acceptance testing have been tested and accepted.

D. Funds Must Be Available

A HCP's obligation to pay under this Contract will be subject to availability of funds. This means if an HCP is government funded and the funds to pay for the NCTN-H connection are removed, the HCP may not be able to continue their subscription. This is highly unlikely given the increased dependence on the exchange of medical records anticipated. However, the vendor should be aware that this possibility, however remote, exists. Failure to pay is a legitimate cause to terminate service to the HCP.

E. Invoicing and Payment

1. Invoicing and Payment Process Overview

The invoicing process is designed to be a sound but easy process for the sites, NCTN-H Administrator, the vendor and auditors. CHA will obtain the site portions of payment for NCTN-H usage from all NCTN-H sites along with a subscription fee to cover program management activities. CHA will collect these sufficiently in advance to assure that they are able to meet payment to vendor schedules provided for in the contract (likely 2-3 month ahead of need to pay the vendor).

On a monthly basis,

- a. At the beginning of each month, the vendor will provide CHA with an electronic invoice for all of the services and goods eligible to be paid under the Contract from the previous month. Every cost will be allocated to a specific site identified by the NCTN-H site id). The vendor will present an invoice for all services to CHA in a form that is usable for verification, for submission to USAC, and adequate for audit purposes.

- b. CHA will verify that the charges are correct or advise the vendor otherwise and resolve the difference in cooperation with the vendor.
- c. CHA will provide one check to the vendor for non-RHCPP discounted % (including fair share arrangement portions) of the verified services each month and submit an attestation to USAC that it has done so.
- d. Concurrently, CHA will request that USAC pay the RHCPP discounted % to the vendor (Note the need for an FCC Service Provider Information Number (SPIN) to obtain payment). USAC pays accepted invoices every two weeks. This process is designed so that payments to the vendor will be paid within 30 days after invoicing.

2. Invoicing and Payment Details

Each site is uniquely identified by a NCTN-H Site ID number. The vendor must use this identification and the site name in all invoicing transactions.

a. Invoice Fields

At a minimum, every vendor invoice submitted to CHA must be in electronic form and contain the following data elements:

1. Vendor invoice number
2. Vendor invoice date
3. Vendor Billing Account Number (BAN)
4. Total invoice amount

b. Network Cost Worksheet

USAC mandates use of the Network Cost Worksheet (NCW) to process various one-time and recurring charges. The vendor will submit the invoice to CHA in a form that makes the completion of the NCW by CHA straight-forward.

Non-recurring costs. Each and every identifiable one-time (non-recurring) cost to construct the NCTN-H must be allocated to one or more sites and described using the following fields:

1. Identification of the participating site that will receive the equipment or to whom the network construction costs are being allocated by NCTN-H Site ID and site name. These identifiers are supplied in Appendix D.
2. General description of the item. The description of each hardware item must include the manufacturer and model number. If any costs are allocated among two or more sites, briefly explain why.
3. Equipment or service category (choose one. The description must match one of the acceptable Component descriptions in the USAC list of eligible services. See table of choices in the third column of Appendix E.
4. Optional expanded description/details/comments
5. The number of items (e.g., two identical routers installed at the same site).
6. The cost per item.
7. The total cost for this line item, i.e., the “number of items” times “the cost per item”.

Recurring costs. Monthly (recurring) service costs must be described using the following six fields:

1. Identification of the participating site by NCTN-H Site ID number and site name.
2. The month and year of service.
3. Equipment or service category (choose one. The description must match one of the acceptable Component descriptions in the USAC list of eligible services. See table of choices in the third column of Appendix E. The monthly service cost for access to the NCTN-H.
4. The total monthly service cost.

XIV. Process Requirements

A. Implementation Schedule

The vendor must be able to construct and start operations quickly. Once the contract is signed and a Funding Commitment is issued by the FCC a 5-year clock starts after which discounts are no longer available.

1. CHA requires that the sites be brought up in 90 days starting from the receipt of the Funding Commitment Letter from the FCC.
2. Upon contract signing the vendor must create a detailed schedule for the project:
 - c. That begins at contract signing
 - d. That ends when all services are functioning, the first invoicing cycle is complete, and the first round of quarterly reports are complete.
 - e. With milestones at least at the 1-week level.
 - f. Demonstrates the vendor's ability to start operations for all sites in 90 days..

B. Training

The vendor must conduct a training and "hand-off" session with the HCP site personnel. This training shall:

1. Be a minimum of 2 hours
2. Be a live, interactive session
3. May be provided via the web
4. Display training given and confirmation from the site that training was received (preferable web-based display).

C. Startup

Each HCP will nominate a "site manager" who can make decisions (or get decisions made) for the HCP. Each HCP will provide their technical support person (if different from the site manager), reasonable access to facilities, electrical service, and properly built space for equipment.

The service types for the sites were captured at the time the RFP was created (Spring 2010). A few sites may have undergone changes in the interim that affect the optimal service to be provided. The vendor will consult with the HCP site manager to verify the needed level of service.

In starting service at each site, the vendor must:

- 1) Consult with the HCP site manager to verify the level of service proposed is what is needed. If not work together to propose the appropriate service level from the Standard Pricing Proposal. If the service level changes the NCTN-H Administrator must agree in writing to the change.
- 2) Provide the HCP site manager detailed requirements for electrical service, properly built physical space for equipment, needed access, and any other needs for startup.
- 3) Schedule and plan startup activities.
 - a. Strive to minimize disruption to the site's operations. Most sites are in business 24x7x365.
 - b. Plan for a quickly reversible switch-over process (i.e. return to the existing service) in case the new service does not pass acceptance testing.
- 4) With the HCP perform installation tasks.
- 5) Provide training (as discussed above).

- 6) Perform acceptance testing during the site's daily peak usage period including baseline throughput tests demonstrating the required throughput for
 - a. At least one other NCTN-H site
 - b. The internet
 - c. Internet2/NLR (if proposed)
- 7) Provide acceptance testing results (preferably web-based) to the HCP site manager and the NCTN-H Administrator.
- 8) Receive acceptance of test results, confirmation training received, and other acceptance test criteria (preferably web-based). If do not receive acceptance work with the HCP site manager to determine and resolve deficiency.
- 9) Cut over to production.
- 10) Document the event of service startup including date/time, personnel involved, services rendered, training and give to the HCP site manager and NCTN-H Administrator.
- 11) Begin invoicing of service costs (only if acceptance and training have both occurred).

D. Acceptance Testing

It is not the intent of this RFP to dictate how service is provisioned. However, the selected vendor will be required to demonstrate that the installed services are fully compliant with the Contract. Compliance will require demonstration of the following:

1. Installation and configuration of all equipment and other items required by this RFP or the Contract have been completed.
2. All equipment and other items required by this RFP or the Contract comply with the requirements of this RFP and the Contract, including, but not limited to, the applicable connection and speed requirements.
3. Connection to the HCP's internal network has been completed and is fully functional – including any backup facilities
 - a. The HCP is fully and reliably able to access Internet resources. The connection must remain continuously reliable for at least seven (7) days.
 - b. The HCP is fully and reliably able to access Internet2/NLR resources (If offered in the Contract). The connection must remain continuously reliable for at least seven (7) days.
 - c. The HCP is fully and reliably able to access any other resources that are directly attached to the NCTN-H. The connection must remain continuously reliable for at least seven (7) days.
 - d. For the requirements above, "reliably able to access" includes a proven ability to achieve the required throughputs to/from the various resources.
4. Documentation of the configuration and installation, and manuals for any and all hardware installed at the site, have been provided to the HCP's personnel in an organized manner.
5. All equipment has been installed, mounted, and/or secured in an organized and neat manner. All wires are in a wire management device or otherwise secured.
6. All equipment, wires, and connection points have been clearly labeled and match the documentation.
7. Any required training and/or "hand off" to the HCP staff have been completed.
8. The procedure, with contact information, for initiating a support or trouble call/issue has been provided to the HCP's staff in an organized manner.

9. Any information required by the RHCPP program is made available to the NCTN Administrator in a readily usable form.
10. For each HCP site, the selected vendor will be required to provide to CHA and the HCP:
 - a. Detailed information relative to the circuits being installed
 - b. A report on the network and Internet bandwidth provided
 - c. A listing of all hardware components being provided
 - d. Detailed configuration sheets for the hardware and throughput test results
 - e. Pre-tests of throughput on the prior service and on the new service.
11. For each Service type 3 site (operating as a First Responder site):
 - a. Connectivity physical circuit redundancy must be tested (and pass) with a continuing plan to test each segment on a monthly cycle and report findings to the NCTN-H Administrator and the HCP site manager.
 - b. Complete testing of all operating facilities must occur before approval, with a plan to perform this testing each three months and on request in the occurrence of a pending threat.
12. The site will be accepted after the foregoing information has been provided to and reviewed by CHA and the HCP confirms that the above criteria have been met and that the connections have been tested and passed as described above.

E. Ongoing Process Activities

1. Increasing and Decreasing Available Bandwidth

If during two quarters the utilization of a site's connection during prime shift is above 60% then the HCP has the right to request additional bandwidth; and upon approval from the NCTN-H Administrator, the vendor is required to upgrade the individual HCP's bandwidth (based on the Standard Pricing Schedule).

- a. HCP sites may change (increase or decrease) their available bandwidth, up to the connection's full capability, every quarter after the first 12 months of operation.
- b. The cost will be based on the Standard Pricing Schedule.
- c. The vendor must complete the change within 15 days.

2. Site Moves

A minimal number of sites may move their locations during the life of the Contract and/or a minimal number of HCP's may decide to change one site for another.

1. The vendor should be prepared to offer new services and to provide for a short period (a month or so) of concurrent operations at both sites.
2. The site will pay the costs incurred for the move.
3. Should the service at the new site cost more than the previous service, the site will be obligated to pay the difference in full. Their discount amount from the FCC will not change due to the move.
4. Should the site not be approved by the FCC as an eligible site the HCP will be obligated to pay the full cost of the service at the new site.

3. Site Withdrawals

During the life of the Contract, a de minimis number of sites may withdraw from the network. The reasons for these withdrawals would be non-availability of funds or a complete shutdown of the site and all its operations by the HCP. Such withdrawals will eliminate CHA's and vendor's responsibility to provide service and eliminate CHA's obligation to pay the vendor for service at the withdrawn site.

F. Transition

1. The vendor must work with the NCTN-H Administrator to assure a smooth transition to the next phase of the NCTN-H after this initial contract ends.
 - a. This work would start 24 months prior to the end date of the contract.
2. The NCTN-H subscribers have an interest in assuring the network is fiscally sustainable once this initial RHCPP funding ends. To this end:
 - a. Each subscriber will participate in the transition planning mentioned above
 - b. The NCTN-H program managers will seek funding during the transition planning period
 - c. The service types are designed to assure each site gets the network services needed and whose full cost could likely be borne without additional funding.
 - d. The vendor may offer proposals designed to aid in the fiscal sustainability of the NCTN-H.
 - e. In anticipation of the end of RHCPP funding, agree to offer subscribers individual contracts for their then current network services at costs similar to the costs during the RHCPP funding.

G. Cost Management

The vendor must agree to participate in a long-range cost management program in collaboration with the NCTN-H Administrator. The vendor will have the following obligations under this program:

1. Work with NCTN-H Administrator to keep long term costs consistent with realistic funding opportunities.
2. Actively point out opportunities for NCTN-H to keep costs down.

XV. Implementation Project Requirements

The vendor must describe the implementation project. This description must contain at minimum an implementation workplan and project staffing.

A. Implementation Workplan

Once USAC issues a Funding Commitment Letter for the project, a 5-year clock starts during which all RHCPP funds must be paid. The Contract may contain incentives for starting operations sooner than planned along with clear criteria to assure that the quality of the work is not sacrificed to speed. Vendors should provide options for shorter time to starting operations at perhaps greater expense. In constructing the workplan the vendor should pay close attention to methods to speed the design phase and start operations as quickly as feasible.

1. The vendor must provide a high-level (2-week-level) workplan of the implementation project. This workplan:
 - a. Begins at contract signing
 - b. Ends when all services are functioning, the first invoicing cycle is complete, and the first round of quarterly reports are complete.
 - c. Has milestones at least at the 2-week level.
2. The workplan schedule includes:
 - a. milestones for design and implementation
 - b. relative dates for milestones (relative to the contract signing)
 - c. major tasks required to meet each milestone
 - d. showing when each site listed in Appendix D.2. will be networked and fully operational
 - e. resource types and amounts needed by the vendor, NCTN management, subscribers needed for each major task.
3. Provide a brief overview of how the implementation schedule was devised and will be executed.

B. Staffing

Describe the staffing for the implementation project, including:

1. Primary Contact Person and Alternate (complete contact information)
2. Project Management Staffing and Qualifications.
 - a. Provide resumes describing the educational background and work experiences for each of the key staff who will be assigned to the project. CHA prefers some or all of the project management staff to be certified Project Manager Professionals (PMPs).
3. Subcontractors Coordination: Identify and provide the qualifications of key staff that will coordinate subcontractor activities, if any.
4. Subcontractors: Identify and provide the qualifications of at least one (1) key staff person for each subcontractor, if any, as defined entitled "Use of Subcontractors" above.

XVI. Performance Requirements/Penalties

A. Installation Timeframes

Installation of the network must be completed within 3 months of Contract award, although a shorter time frame is preferred. Prior to finalizing the Contract, CHA and the selected vendor will create an installation schedule, including:

- Specific installation benchmarks based on priorities identified by CHA
- “Grace periods” applicable to these benchmarks
- Incentives for faster completion.
- Significant failure to meet the schedule may be treated as a breach of the Contract.

B. Interruption of Service

1. For the purpose of this project, an **interruption of service is defined as:**
 - a. Any two (2) minute interval with a complete interruption of transmission
 - b. A bit error rate of worse than 1×10^{-9} for a particular communication path within a route
 - c. Or any other reduction in throughput on the network below the service type standard.
 - d. An interruption begins as soon as it is noticed by the vendor’s network monitoring staff or notified by the automated network monitoring system, or reported to the vendor by an HCP or NCTN-H Administrator whichever is the earlier event.
 - e. An interruption ends only when full and reliable communication resumes and remains continuously reliable for four (4) hours and is certified as such by the site manager.
2. The following shall not be deemed an interruption:
 - a. Any period during which the customer fails to afford access to any facilities for the purpose of investigating and clearing troubles
 - b. *Force Majeure* events (except for those events described in Service Type FR)
 - c. Interruptions of a service that is in whole or in part off-net to the vendor
 - d. Announced planned maintenance in the acceptable maintenance window
 - e. Interruptions caused in whole or in part by customer equipment.
3. In the event of an interruption of service, allowances for the period of interruption, with respect to each route affected by such interruption, are defined as follows (i.e. interruptions remedied by credits):
 - a. For an interruption lasting four (4) hours or less, the HCP will be credited at the rate of $1/360^{\text{th}}$ of the monthly lease fee for each hour or fraction thereof for the entire outage period.
 - b. When the interruption lasts more than four (4) hours but does not exceed twenty-four (24) hours, the HCP will be credited at the rate of $1/180^{\text{th}}$ of the monthly lease fee for each hour or fraction thereof for the entire outage period.
 - c. When the interruption lasts more than twenty-four (24) hours but does not exceed seventy-two (72) hours, the HCP will be credited at the rate of $1/90^{\text{th}}$ of the monthly lease fee for each hour or fraction thereof for the entire outage period.
 - d. When an interruption exceeds seventy-two (72) hours, the HCP will be credited at the rate of $1/45^{\text{th}}$ of the monthly lease fee for each hour or fraction thereof for the entire outage period.
 - e. The monthly invoice for services must clearly show the credits for service interruptions in the prior month.
4. Interruptions considered to be a failure to perform:

- a. Any 30-day period during which an HCP experiences outages totaling more than 100 hours
- b. any 365-day period during which an HCP experiences outages totaling more than 200 hours, will be considered a failure to perform.
- c. The vendor will be given notice and an opportunity to correct the network performance issues.
- d. Failure to correct the issues will constitute a breach of the Contract. Specifics relating to breach of the Contract and remedies will be a part of the final negotiated Contract.

C. Failure to Meet Repair or Response Time Requirements

In the event that there is a noticeable failure on the part of the vendor to meet Response and Repair Times, using the trouble ticket log and HCP records, an audit of the vendor's Response and Repair Times will be undertaken. Failure to meet contracted Response and Repair benchmarks will be considered a failure to perform. The vendor will be given notice and an opportunity to correct these issues. Failure to do so will constitute a Breach of Contract. Specifics relating to Breach of Contract and remedies will be a part of the final negotiated Contract.

XVII. Other Requirements

A. Requirements of RHCPP

The vendor must abide by the requirements of the RHCPP program that apply to the service providers who receive discounts through the program. FCC Order 07-198 describes the RHCPP program. Details of vendor requirements not explicitly stated there can be elicited from the FCC or USAC.

B. Support CHA and Subscribers

The vendor must agree to participate as the NCTN-H designer, implementer, and operator in a way that supports subscribers and CHA meeting their obligations and exercising their rights as subscribers.

C. NCTN-H Management Succession Plan

The Cabarrus Health Alliance is the contracting party for the services. CHA may choose to change the contracting party to another entity during the life of the Contract. The new party would likely be a new public non-profit entity, but may be an existing party.

Vendors must agree that this change of contracting party will be accepted as long as the other terms of the contract remain in force.

D. Audits

CHA reserves the right to conduct an independent audit of the vendor's records pertaining to this project.

The vendor must participate in various audits as required by the NCTN-H Administrator. These may be FCC, USAC, or other audits. For such audits:

1. The vendor must agree to participate in any audits required by the CHA, as part of its obligations under the RHCPP, obligations under other Federal or State law, or as part of its responsibility to the NCTN-H subscribers. The vendor must agree that audit results may become public.
2. During the contract period and for a period of 5 years following the completion of the work to be performed, keep such books, documents, and records necessary to certify costs incurred by the NCTN-Administrator.
3. In the event any question arises during an FCC/USAC audit of CHA's project records, the vendor is required to reply to auditor questions about the RHCPP project within 3 business days.
4. The FCC and or USAC may audit the winning vendor. Vendors are expected to cooperate fully.
5. Vendor's failure to cooperate at its expense with any audits may result in termination of Contract.
6. If vendor carries out any of his or her duties through a subcontractor the subcontractor shall be contractually bound in their contract with the vendor to perform the same duties in the same time frames.

XVIII. Proposal Submission Requirements

This section of the RFP describes the overall requirements and options for providing a proposal to the RPF for consideration. Only proposals meeting the requirements given here will be considered for contracting.

A. Proposal Size and Format

The proposal should not exceed 100 pages of text, exclusive of attachments and appendices. The font should be clearly readable and no less than Times New Roman 10 point. All pages, exclusive of attachments and appendices, should be in 8.5" x 11" page format and have at least one (1) inch margins. The proposal content is described below.

B. RFP Process Calendar

All dates are offsets of the "Allowable Contract Date" (ACD) posted on the USAC website. The ACD is approximately the date the RFP is posted on USAC's website plus 28 days. If any date falls on a weekend or federal holiday, the event will be moved to the next business day. Once an ACD has been set by USAC, an updated calendar with actual dates will be posted on <http://nctelehealthnetwork.com>.

DATE - NUMBER OF CALENDAR DAYS	EVENT
ACD	
ACD ~ - 28	Date RFP is posted on the USAC website
ACD ~ - 21	Letter of intent to bid due at CHA
ACD ~ -,15	Vendor conference
ACD ~ - 13	Last day to submit questions in writing
ACD ~ - 0	Proposals due from vendors
ACD ~ + 35	Oral presentations/demonstrations by invitation (if applicable)
ACD ~ + 65	Contract negotiations begin
ACD ~ + 70	Contract negotiations end
ACD ~ + 80	Notification of intent to award
ACD ~ + 90	Contract start date
~ = approximately	

C. Media

Each vendor must submit its proposal in ***both*** electronic and paper formats:

- Electronic Submission Required.** One electronic copy of the proposal in Adobe Acrobat PDF format (searchable) must be e-mailed to annette@lafosterassociates.com and Dave@KirbyIMC.com no later than 5 p.m. on the same day as the "Allowable Contract Date" (ACD) posted on the USAC website. This should be approximately 28 days after the RFP is posted. The total size of any single e-mail should not exceed 20 megabytes. If any file(s) will cause the e-mail to exceed that size limit, please separate the submission into two or more separate e-mails and clearly labeled them "1 of *n*", "2 of *n*", and so forth (where *n* = the total number of e-mails).
- Paper Submission Required.** Three hard copies printed on 8.5" x 11" paper, each copy in a separate three-ring binder, must be physically delivered to CHA and Annette Foster no later than

three (3) business days after the e-mail version is due. Delivery may be made by the U. S. Postal Service, by express delivery service, or in person using the following physical address:

2 Copies to:
Cabarrus Health Alliance
Attn: Ryan McGhee, NCTN-H Evaluation Team
1307 S Cannon Boulevard
Kannapolis, NC 28083-6232

1 copy to:
L. Annette Foster, Project Manager NCTN-H
L. A. Foster & Associates, LLC
400 Chatterson Dr.
Raleigh, NC 27615

The submitter must guarantee that the electronic versions are identical to the printed copies.

- **Caveats.** Late bids will not be considered. If there is any variance between the electronic and printed versions, except for signatures, the Evaluation Committee may reject the proposal in whole or in part. Do not submit proposals by fax.

D. Acknowledgement

Within three business days of the receipt of both the electronic and paper versions of the vendor's proposal, CHA will notify the primary contact by e-mail of successful receipt. If receipt of a vendor's proposal is not acknowledged when expected, please contact Annette Foster (annette@lafosterassociates.com, 919.844.1150). Do not contact CHA for acknowledgement until after three (3) days.

E. Restriction on Multiple Submissions

Each vendor (based on federal tax ID) may submit only one proposal as a *primary* contractor. However, any such vendor may be named as a subcontractor in other proposals.

F. Letter of Intent to Bid

Any vendor who intends to respond to the RFP and bid on the project is required to submit a formal letter of intent to bid.

1. Mail a hardcopy of the letter to:
Cabarrus Health Alliance
Attn: Ryan McGhee, NCTN-H Evaluation Team,
1307 S Cannon Boulevard
Kannapolis, NC 28083-6232
2. Email a copy of the letter to both annette@lafosterassociates.com and Dave@KirbyIMC.com.

Letters must be postmarked no later than 21 days before the Acceptable Contract Date posted on USAC's website. Note that this is not a *commitment* to bid. The letter must acknowledge that the potential bidder has read, understands, and will abide by the terms of the RFP. Letters should be printed on company letterhead and be signed by an individual empowered to bind the vendor to the provisions of this RFP and any Contract awarded pursuant to it. Letters of intent to bid will not be acknowledged by

CHA; if a vendor wants proof of delivery, the letter should be sent by certified mail or some other form of service that provides proof of delivery.

G. Vendor Conference

Prospective bidders may ask questions by sending them to annette@lafosterassociates.com and Dave@KirbyIMC.com until the time of the vendor conference (noted below). The questions and responses will be posted on the project web site at <http://NCTelehealthNetwork.com> for public review.

A vendor conference will also be held approximately 15 days before ACD so the project team can respond to (written) questions and provide additional instruction, if necessary. This will be a final opportunity for prospective vendors to meet with the project team in person. Detailed information, including the exact date, time, and location, will be posted on the project website when the RFP is posted on the USAC website.

All vendors who intend to respond to the RFP are encouraged, but not required, to attend the conference. To insure adequate space, vendors are required to pre-register for these conferences by sending an email to annette@lafosterassociates.com and Dave@KirbyIMC.com at least 3 business days before the event. Please include your organization's name and the number of attendees. Pre-registration is not required and will not be acknowledged.

H. Inquiries about the RFP

Any questions concerning this RFP must be submitted in writing to the project team. Vendors are strongly encouraged to review this RFP and any questions and answers posted on the <http://NCTelehealthNetwork.com> website before submitting a question. Questions may be submitted:

- By e-mail to annette@lafosterassociates.com and Dave@KirbyIMC.com.

Each question and answer will be posted on the project website (<http://NCTelehealthNetwork.org>). CHA will do its best to respond in a timely manner, but an answer may require a response from USAC or the FCC. CHA will not identify the source of the question. However, vendors are responsible for phrasing questions in a way that does not reveal their identity, if possible.

I. What to Submit: Mandatory Proposal Content

1. Cover Letter

A cover letter must accompany the proposal documents. The letter should clearly identify the CHA RHCPP RFP; the vendor; the primary contact for the vendor's proposal; and his or her contact information, especially an e-mail address. The cover letter must be signed by an individual authorized and empowered to bind the vendor to the provisions of this RFP and any Contract awarded pursuant to it. Each proposal shall stipulate that it is predicated upon the terms and conditions of this RFP and any supplements or revisions thereof.

2. Vendor Questionnaire

Complete and attach the Vendor Questionnaire found in the Appendix B of this RFP.

3. Certifications and Assurances

Complete, sign, and attach the Vendor Certification and Assurances found in the Appendix C. Also, submit a sworn and notarized affidavit as described in Section XI. G. Conflicts of Interest.

4. Executive Summary

- Overview of the vendor's proposed solution(s).
- Overview of vendor capabilities.
- Overview of similar projects completed.

5. Answer Sections VI. Vendor Requirements through XVII. Other Requirements

Vendors must respond to Sections VI. through XVII. in full and with specificity. There may be special instructions for responding in a particular section.

6. Exceptions/Alternatives to These Requirements

All exceptions to the requirements of this RFP must be delineated in this section; otherwise, all requirements of this RFP will be considered to be acceptable by the vendor. For the proposal to be considered, proposed alternatives must be identified and explained in this section.

7. Miscellany

If any bidder plans to request that CHA include in the Contract all or a portion of the vendor's form of contract, that form must be attached to the proposal. The vendor's form of contract must include a copy of its SLA defining all network performance and uptime expectations as well as any and all remedies for non-performance.

J. Fixed Price Period

All prices, costs, and conditions outlined in a vendor's proposal shall remain fixed and valid for acceptance for 180 days starting on the due date for proposals.

K. Oral Presentations and/or Demonstrations

CHA may require any vendor to make oral presentations to supplement their proposals. CHA will make every reasonable attempt to schedule each oral presentation at a time and location that is agreeable to the vendor. Failure of a vendor to complete a scheduled oral presentation to CHA, if required, before the date established in the RFP Process Calendar may result in rejection of that vendor's proposal.

L. Incurred Costs to Propose

CHA is not liable for any costs incurred by any bidders or vendors prior to the execution of a Contract by all parties.

M. Errors and Omissions in a Proposal

A vendor may revise a proposal on its own initiative at any time before the deadline for submission. The vendor must submit the revised proposal in the same manner as the original was submitted. In no case will a statement of intent to submit a revised proposal, or commencement of a revision process, extend the proposal due date.

N. Errors and Omissions in the RFP

If a vendor discovers any significant ambiguity, error, conflict, discrepancy, omission, or other deficiency in this RFP, the vendor should immediately notify CHA (at Annette@lafosterassociates.com and Dave@KirbyIMC.com) of such error and request modification or clarification of the RFP document. In the event it becomes necessary to provide additional data or information, or to revise any part of this RFP, CHA will provide supplements and/or revisions via email to all vendors who have submitted a letter of intent to bid. CHA will also post the supplements and/or revisions on the project website, <http://nctelehealthnetwork.com>. Each vendor is responsible for ensuring that its proposal reflects any and

all supplements and revisions issued prior to the proposal due date, regardless of how early in the process a vendor submits a proposal.

O. Objections to RFP Terms

Should a vendor object on any ground to any provision or legal requirement set forth in this RFP, the vendor must send a written letter as soon as possible setting forth with specificity the grounds for the objection. The letter must be received before the Allowable Contract Date posted on USAC's website.

Letters should be sent to:

Cabarrus Health Alliance
Attn: Ryan McGhee – NCTN Vendor Objection
1307 S Cannon Boulevard
Kannapolis, NC 28083-6232

The vendor must include a copy of the letter contemporaneously in an email to annette@lafosterassociates.com and Dave@KirbyIMC.com.

The failure of a vendor to object in the manner set forth in this paragraph shall constitute a complete and irrevocable waiver of any such objection and the right to object.

Objections made by vendors may be posted on the NCTN website. Vendors are responsible for monitoring the website for objections and other information.

P. No Waiver of RFP Provisions

No waiver by CHA of any provision of this RFP shall be implied from any failure by CHA to recognize or take action on account of any failure by a vendor to observe any provision of this RFP.

Q. Ownership and Disclosure of Proposals Submitted in Response to This RFP

Proposals submitted in response to this competitive procurement shall become the property of CHA. CHA will share all proposals with internal staff and all the members of the Evaluation Committee. All proposals received shall remain confidential, with the exception of any information CHA is legally required to disclose.

XIX. Evaluation / Selection / Award Process

A. Evaluation Procedure

The evaluation and selection of a vendor will be based on the information submitted in the proposal, references, and any required oral presentations and/or demonstrations. Vendors should respond to ALL requirements of the RFP. Failure to respond completely may lead to rejection of a proposal.

B. Evaluation Committee

CHA's Evaluation Committee is planned to consist of CHA staff, representatives from the NC Hospital Association, representatives from North Carolina hospitals and health systems, and consultants. They will be chosen because of their special expertise and interest in procurement of the product(s) and/or service(s) that are the subject of this RFP or because of their knowledge of the requirements for these product(s) and/or service(s). Vendors may not knowingly contact members of the Evaluation Committee (other than the primary and alternate RFP contacts) except at CHA's request. Any unauthorized contact may disqualify the vendor's proposal. The Evaluation Committee's role is to make recommendations for vendor selection to CHA.

C. Evaluation Criteria and Weighting

The proposals will be reviewed first to determine if all mandatory requirements have been met. Failure to meet any mandatory requirement may result in the proposal being rejected. Both the vendor *and* any or all subcontractors identified in the proposal may be evaluated on these criteria.

Proposals will then be ranked using the following criteria:

- 30% - Cost
 - 20% - Recurring (monthly) cost(s) to participating HCPs, bandwidth rates (if any)
 - 10% - One-time (network construction) costs
- 25% - Technical solution
 - Ability of the proposed solution to meet all technical requirements
 - Resiliency/redundancy of the network; including peering in the state of NC
 - Scalability for existing and future demands and impact on the surrounding community
 - Network management and network administration process; including the use of web site to manage most project/network status/communication tasks.
- 25% - Qualifications, experience, and references
 - Demonstration that the vendor can complete the project on time and on budget and deliver a complete and solid solution
- 10% - Performance responsiveness
 - Overall capacity of the network to meet the anticipated demands
 - The vendor's support and response plan
 - Service Level Agreement (SLA) items
- 10% - Implementation
 - Implementation time frame
 - Implementation plan and approach
 - Vendor's project management process; including the use of web site to manage most project/network status/communication tasks.

D. Contract Award: Right to Reject Proposals and Negotiate Contract Terms

CHA expressly reserves the right to accept or reject any or all bids in whole or in part, to waive any irregularities therein, and to award the Contract(s) to other than the low bidder. CHA reserves the right to request initial proposals be modified to create a best and final bid. CHA reserves the right to approve subcontractors for this project and to require the vendor to replace subcontractors who are found to be unacceptable. CHA reserves the right to award the Contract to a bidder who, in CHA's sole discretion, provides bid quotations that are in the overall best interests of CHA and this project. If a Contract is awarded, it will be granted to the most responsive and responsible vendor with whom CHA is able to negotiate a Contract that meets the objectives of the RHCPP.

Following submission of all bids, CHA will negotiate with bidders regarding the terms of the contract to be executed in connection with the award of this RFP (the "Contract"). The Contract will contain all of the requirements and terms set forth in this RFP, amended/augmented by the resolution of any formal vendor objections, plus such additional terms as are acceptable to CHA to carry out the intent of this RFP and address the information submitted by the vendor in response to this RFP. The RFP and the vendor's response to the RFP will be attached to the contract. All bidders acknowledge and agree that their submissions are subject to these requirements and the ability to agree upon such a Contract, and that if a contract acceptable to CHA cannot be agreed upon, CHA may reject any and all bids.

Any Contract entered into as a result of this RFP will be contingent upon USAC and FCC approval and a Funding Commitment Letter to support the RHCPP discounts for the services provided under the Contract.

E. Notification of Intent to Award

Any selected vendor who responds to this RFP will be notified in writing (e.g., by e-mail) by the Director of CHA of its intent to award a Contract as a result of this RFP.

F. Contract Duration

The Contract shall be effective on the date indicated on the Contract (the "Contract Date"). We expect a Contract length of about 42 months with a total of 3 years (36 months) of operation per site. We expect 42 months to cover the last operation date of any site and the exhaustion of the RHCPP discount funds.

G. Contract Covers Both Eligible and Ineligible Sites but Only Eligible Services

1. The Contract will cover services that the vendor renders to both RHCPP discount eligible sites and ineligible sites.
2. The Contract must only propose Services that are eligible to be paid with RHCPP discount funds.
3. The Contract will include options for renewal that support the interests of the sites and the vendor.

XX. Appendix

A. Acronyms and Definitions

Demarc Site	The term demarc site in this RFP is used for the physical site for the termination of an NCTN-H connection. For independent hospitals the hospital location and the demarc site are generally the same. Demarc sites in a health system may reside in a hospital location but serve many hospitals or may reside in a different building (with a different address) or in an offsite data center.
HCP	Health Care Provider. For the purpose of this project a HCP can be a health system, a hospital within a health system, or an independent hospital.
Hospital Location	For the purpose of this project a hospital location is the main public location of a hospital.
Interruption of Service	For the purpose of this project an interruption of service as defined above. The following shall not be deemed an interruption: a) any period during which the customer fails to afford access to any facilities for the purpose of investigating and clearing troubles; b) planned maintenance outages; c) Force Majeure events; d) interruptions of a service that is in whole or in part off-net to the vendor; e) announced maintenance in the acceptable maintenance window; and f) interruptions caused in whole or in part by the customer equipment.
Internet2	A nationwide internet backbone infrastructure owned by a networking consortium consisting of the research and education communities
Invoice Template	The USAC Invoice Template is used by RHCPP participants to submit invoices.
IP	The Internet Protocol is a protocol used for communicating data across a packet-switched network using the TCP/IP suite of protocols.
IPS	An intrusion prevention system (IPS) is a computer security device that monitors network and/or system activities for malicious or unwanted behavior and can react, in real-time, to block or prevent those activities.
IPv6	Internet Protocol version 6
LOA	A Letter of Agency is required from each health care provider/facility participating in a RHCPP project.
Mbps	Millions of bits per second
Metcalf's Law	The value of the network is proportional to the square of the connections.
North Carolina FCC Pilot Program	The North Carolina FCC Pilot Program Collaborative was a statewide collaborative of health care stakeholders created to provide structure and

Collaborative	direction to North Carolina's effort to participate in the RHCPP.
MPLS	Multi-protocol label switching
MTBF	Mean time between failures
Network Convergence	<p>The IP Multimedia Subsystem (IMS) is a concept for an integrated network of telecommunications carriers that would facilitate the use of IP (Internet Protocol) for packet communications in all known forms over wireless or landline. Examples of such communications include traditional telephony, fax, e-mail, Internet access, Web services, Voice over IP (VoIP), instant messaging (IM), videoconference sessions and video on demand (VoD).</p> <p>IMS was originally conceived in the late 1990s as part of a plan for worldwide deployment of mobile telecommunications networks that would interface with the public switched telephone network (PSTN). IMS is part of the Third Generation Partnership Project (3GPP).</p>
NLR	National LambdaRail nationwide internet backbone infrastructure
Operation Date	<u>The date that is the later of the completion of the installation of a participating HCP site's broadband infrastructure/hardware/software, satisfactory testing of same, and formal acceptance of same.</u>
PC	The Project Coordinator for an RHCPP project.
PR	PR is the USAC-employed Project Reviewer for an RHCPP project. He or she is the direct point-of-contact for the PC/APC and helps guide them through the information submission and funding processes. He or she reviews forms and associated documentation submitted by the PCs.
RFP	Request for proposal
RHC	Rural health care
RHCPP	The Rural Health Care Pilot Program is an FCC project designed to help public and non-profit health care providers deploy a state or regional dedicated broadband health care network and optionally connect it to the larger internet system.
RUCA code	Rural-Urban Commuting Area code
Rural Area	In 2004 the FCC defined "rural area" for purposes of its rural health care support mechanism. While the actual definition is technical, in practical terms, a "rural area" is one that is not within or near a large population base.

Rural Health Care (RHC) Support Mechanism	The rural health care support mechanism is an FCC initiative (funded by monies collected through the Universal Service Fund) that implements the Telecommunications Act of 1996. The RHC support mechanism ensures that rural health care providers pay no more than their urban counterparts for their telecommunication needs in the provision of health care services.
SLA	Service level agreement
SONET	The synchronous optical networking standard for fiber optic networks that allows multiple technologies and vendor products to interoperate by defining standard physical network interfaces
SPIN	A Service Provider Identification Number is required for any entity providing services to RHCPP participants. It is obtained by submitting a Form 498 to USAC and is required to bid on this RFP
SSL	Secure Sockets Layer, a cryptographic protocol that provides secure communications on the Internet
Support Acknowledgement Letter	Letter USAC posts to SharePoint after it receives a completed Form 467
Telecommunications Act of 1996	The Telecommunications Act of 1996 mandated that rural health care providers be provided with "an affordable rate for the services necessary for the provision of telemedicine and instruction relating to such services." To implement this statutory directive, the FCC adopted the current rural health care support mechanism.
Telehealth	Telehealth is the delivery of health-related services and information via telecommunications technologies. Telehealth is an expansion of telemedicine, and unlike telemedicine (which more narrowly focuses on the curative aspect), it encompasses preventive, promotive, and curative aspects of health care.
Telemedicine	Telemedicine is the use of telecommunications technologies to provide health care services to distant locations.
Triple DES Encryption	Triple DES is a block cipher formed from the Data Encryption Standard (DES) cipher by using it three times.
TSP	The Telecommunications Service Priority Program is an FCC program used to identify and prioritize telecommunication services that support national security or emergency preparedness missions, including health care. TSP connections must be repaired first and are given priority in times of emergency.
USAC	The Universal Service Administrative Company is an independent, not-for-profit corporation that the FCC has designated to administer USF programs. USAC administers the RHCPP and ensures the Program's fiscal integrity.

B. Vendor Questionnaire

Corporate
Name:

Federal EIN:

Corporate
Address:

Address (line 2):

DUNS Number:

State of Incorporation:

FCC
Registration
Number (FRN):

USAC Service Provider
Identification Number (SPIN):

Primary Point of Contact:

Name:

Address:

Primary Phone:

Alternate Phone:

Email:

Alternate Point of Contact:

Name:

Address:

Primary Phone:

Alternate Phone:

Email:

Reference 1:

Company:

Point of Contact
Name:

Phone:

Email:

Description of
Project:

(approx. 100 words)

Reference 2:

Company:

Point of Contact
Name:

Phone:

Email:

Description of
Project:

(approx. 100 words)

Reference 3:

Company:

Point of Contact
Name:

Phone:

Email:

Description of
Project:

(approx. 100 words)

Completed By
(Name):

Completed

Date:

C. Vendor Certification and Assurances

The Vendor must complete and sign this document. It must be signed, in the space below, by an individual empowered to bind the vendor to the provisions of this RFP and any Contract awarded pursuant to it.

Vendor's Legal Entity Name: _____

Vendor's Federal Employer Identification Number: _____

I/we make the following certifications and assurances as a required element of the proposal to which it is attached, understanding that the truthfulness of the facts affirmed here and the continuing compliance with these requirements are conditions precedent to the award or continuation of the related Contract(s):

1. I/we declare that all answers and statements made in the proposal are true and correct.
2. The prices and/or cost data have been determined independently, without consultation, communication, or agreement with others for the purpose of restricting competition. However, I/we may freely join with other persons or organizations for the purpose of presenting a single proposal.
3. The attached proposal is a firm offer for a period of 180 days following receipt, and it may be accepted by CHA without further negotiation (except where obviously required by lack of certainty in key terms) at any time within the 180 day period.
4. In preparing this proposal, I/we have not been assisted by any current or former employee(s) of the State of North Carolina, the CHA, or a participating Health Care Provider (HCP) whose duties relate (or did relate) to this proposal or prospective contract and who was assisting in other than his or her official, public capacity. Any exceptions to these assurances are described in full detail on a separate page and attached to this document.
5. I/we understand that CHA will not reimburse me/us for any costs incurred in the preparation of this proposal. All proposals become the property of the CHA, and I/we claim no proprietary right to the ideas, writings, items, or samples, unless so stated in this proposal.
6. Unless otherwise required by law, the prices and/or cost data that have been submitted have not been, and will not be, knowingly disclosed by the above-signed Vendor, directly or indirectly, to any other vendor or to any competitor prior to CHA opening bids.
7. I/we agree that submission of the attached proposal constitutes acceptance of the Request for Proposals (RFP) contents. If there are any exceptions to these terms, I/we have described those exceptions in detail on a page(s) attached to this document.
8. No attempt has been made or will be made by the Vendor to induce any other person or firm to submit or to not submit a proposal for the purpose of restricting competition.
9. I/we grant CHA the right to contact references and others, who may have pertinent information regarding the Vendor's prior experience and ability to perform the services contemplated in this procurement.
10. I/we have read and understand the RFP, all related legal documents, and related laws applicable to this proposal and shall comply with all aforementioned items, including, but not limited to:
 - FCC Order 06-144
 - FCC Order 07-198 including correction
 - The Telecommunications Act of 1996
 - USAC's program process
 - Local, State, and Federal Laws
11. I/we shall refrain from hiring any employee of any participating HCP during the bidding process.
12. I/we understand and, if selected, will comply with the following requirements listed in of this RFP:
 - The acceptance criteria and testing procedures described in the RFP.
 - The training requirements described in the RPF.

D. Participating Health Care Providers with NCTN-H Site ID Numbers

This RFP has 3 accompanying spreadsheets which are posted with the RFP on the FCC website. They are described below.

1. 465 Attachment

The 465 Attachment is used by the FCC and is posted with the RFP on the FCC website.

The 465 Attachment is the definitive list of health systems and independent hospitals that may participate in NCTN-H. The 465 Attachment describes the hospital locations and their eligibility for use of FCC funds under the RHCPP.

Vendors should not contact the HCPs directly. Contact either Annette Foster (Annette@lafosterassociates.com) or Dave Kirby (Dave@KirbyIMC.com) for any needed information.

2. NCTN-H Demarc Site List with NCTN-H Site Identification Numbers

The Demarc Site List is the list of actual NCTN-H connection sites. These are the connection points for which vendors will offer pricing.

The Demarc Site List is below. The Demarc Site List in Excel is on the NCTN-H project website at <http://NCTelehealthNetwork.com>.

The FCC will use this list for cross-referencing hospital locations to demarc sites. The vendors will use this list for the details of the site connections to the NCTN-H backbone.

The spreadsheet contains in columns:

- A. NCTN-H Site ID number—use this on all pricing. Sites with NCTN-H connections have NCTN-H Site ID's under 900. A site with a number 900 or above is a hospital location which will not have a connection (at that address).
- B. Demarc Site Name---The name of the physical site of the NCTN-H connection (where "it terminates in the closet"). Will contain one or more of the following: health system name, hospital name, demarc site name.
- C. Demarc Site Address Line 1
- D. Demarc Site City
- E. Demarc Site State
- F. Demarc Zip Code
- G. Demarc Site Phone
- H. Demarc Site Service Types—all of the services for this connection (explained in Section VIII of this RFP).
- I. Hospital Location Name---This field cross-references the hospital locations to the demarc Sites for the FCC. Hospital locations with no demarc site on the same spreadsheet row are served by a data center.

NCTN-H DEMARC SITE LIST

DEMARC SITE								HOSPITAL LOCATION INFORMATION
NCTN-H ID#	DEMARC CONCATENATED SITE NAME	DEMARC SITE ADDRESS LINE 1	DEMARC SITE CITY	ST	ZIP	DEMARC SITE PHONE	DEMARC SERVICE TYPE	HOSPITAL LOCATION NAME
Health Systems								
								APPALACHIAN REGIONAL HEALTH SYSTEM
H044	Appalachian Regional Healthcare System: Blowing Rock Hospital	418 Chestnut Drive	Blowing Rock	NC	28605	828-295-3136	Service Type 100 Mbps	Appalachian Regional Healthcare System: Blowing Rock Hospital
H045	Appalachian Regional Healthcare System: Charles A. Cannon, Jr. Memorial Hospital, Inc.	434 Hospital Drive	Linville	NC	28646	828-737-7000	Service Type 100 Mbps	Appalachian Regional Healthcare System: Charles A. Cannon, Jr. Memorial Hospital, Inc.
H043	Appalachian Regional Healthcare System: Watauga Medical Center, Inc.	336 Deerfield Road	Boone	NC	28607	828-262-4100	Service Type 100 Mbps	Appalachian Regional Healthcare System: Watauga Medical Center, Inc.
								CAPE FEAR VALLEY HEALTH SYSTEM
H111	Cape Fear Valley Health System: Bladen County Hospital	501 S. Poplar Street	Elizabethtown	NC	28337	910-862-5179	Service Type 500 Mbps, Service Type FR	Cape Fear Valley Health System: Bladen County Hospital
H046	Cape Fear Valley Health System: Cape Fear Valley Medical Center: Cape Fear Valley Hospital	1638 Owen Drive	Fayetteville	NC	28304	910-609-4000	ServiceType 1 GBps	Cape Fear Valley Health System: Cumberland County Hospital Systems: Cape Fear Valley Medical Center
H901	Cape Fear Valley Health System: Data Center	1638 Owen Drive	Fayetteville	NC	28304	910-609-4000	Service Type 500 Mbps	Cape Fear Valley Health System: Highsmith-Rainey Specialty Hospital
H110								
								CAROLINAS HEALTH CARE SYSTEM
H048	Carolinas HealthCare System: Cape Fear Valley Medical Center: Anson Community Hospital	500 Morven Road	Wadesboro	NC	28170	704-694-5131	Service Type 100 Mbps, Service Type FR	Carolinas HealthCare System: Anson Community Hospital
H054	Carolinas HealthCare System: Carolinas Medical Center (flagship hospital)	1000 Blythe Boulevard	Charlotte	NC	28203	704-355-2000	Service Type 500 Mbps	Carolinas HealthCare System: Carolinas Medical Center (flagship hospital)

H049								Carolinus HealthCare System: Carolinus Medical Center - Lincoln
H050								Carolinus HealthCare System: Carolinus Medical Center - Mercy
H051								Carolinus HealthCare System: Carolinus Medical Center - NorthEast
H052								Carolinus HealthCare System: Carolinus Medical Center - Union
H053								Carolinus HealthCare System: Carolinus Medical Center - University
H055								Carolinus HealthCare System: Carolinus Rehabilitation - Mt. Holly
H047	Carolinus HealthCare System: CHS (Data Center)	801 South McDowell Street	Charlotte	NC	28204	704-446-6300	Service Type 500 Mbps	
H057		201 East Grover Street	Shelby	NC	28150	704-487-3000		Carolinus HealthCare System: Cleveland Regional Medical Center
H058	Carolinus HealthCare System: Columbus Regional Healthcare System	500 Jefferson Street	Whiteville	NC	28472	910-642-8011	Service Type 100 Mbps	Carolinus HealthCare System: Columbus Regional Healthcare System
H059								Carolinus HealthCare System: Crawley Memorial Hospital, Inc.
H060								Carolinus HealthCare System: Grace Hospital, Inc.
H063								Carolinus HealthCare System: Kings Mountain Hospital
H102	Carolinus HealthCare System: SHCS Data Center Site (Scotland Health Care System)	404 Hospital Drive	Laurinburg	NC	28352	910-291-7525	Service Type 100 Mbps, Service Type FR	
H064	Carolinus HealthCare System: Scotland Memorial Hospital and Edwin Morgan Center	500 Lauchwood Drive	Laurinburg	NC	28352	910-291-7525	Service Type 100 Mbps	Carolinus HealthCare System: Scotland Memorial Hospital and Edwin Morgan Center
H065	Carolinus HealthCare System: St. Luke's Hospital, Inc.	101 Hospital Drive	Columbus	NC	28722	828-894-3311	Service Type 100 Mbps	Carolinus HealthCare System: St. Luke's Hospital, Inc.
H066	Carolinus HealthCare System: Stanly Regional Medical Center	301 Yadkin Street	Albemarle	NC	28002	704-984-4347	Service Type 100 Mbps, Service Type FR	Carolinus HealthCare System: Stanly Regional Medical Center
H068		720 Malcolm Boulevard	Rutherford College	NC	28671	828-874-2251		Carolinus HealthCare System: Valdese General Hospital, Inc.
H069	Carolinus HealthCare System: Wilkes Regional Medical Center	1370 West D Street	Wilkesboro	NC	28659	336-651-8100	Service Type 200 Mbps, Service Type FR	Carolinus HealthCare System: Wilkes Regional Medical Center

H061	Carolinas HealthCare System (WestCare): Harris Regional Hospital, Inc.	68 Hospital Road	Sylva	NC	28779	828-586-7000	Service Type 10 Mbps	Carolinas HealthCare System (WestCare): Harris Regional Hospital, Inc.
H062	Carolinas HealthCare System (WestCare): Haywood Regional Medical Center	262 Leroy George Drive	Clyde	NC	28721	828-452-8145	Service Type 10 Mbps	Carolinas HealthCare System (WestCare): Haywood Regional Medical Center
H067								Carolinas HealthCare System (WestCare): Swain County Hospital
								FIRSTHEALTH OF THE CAROLINAS
H070	FirstHealth of the Carolinas: FirstHealth Montgomery Memorial Hospital	520 Allen Street	Troy	NC	27371	910-572-1301	Service Type 500 Mbps	FirstHealth of the Carolinas: FirstHealth Montgomery Memorial Hospital
H071	FirstHealth of the Carolinas: FirstHealth Moore Regional Hospital	155 Memorial Drive	Pinehurst	NC	28374	910-715-1000	Service Type 500 Mbps	FirstHealth of the Carolinas: FirstHealth Moore Regional Hospital
H072	FirstHealth of the Carolinas: FirstHealth Richmond Memorial Hospital	925 Long Drive	Rockingham	NC	28379	910-417-3000	Service Type 500 Mbps	FirstHealth of the Carolinas: FirstHealth Richmond Memorial Hospital
								HMC/CAH CONSOLIDATED, INC (SOME FOR PROFIT / INELIGIBLE)
H006	HMC/CAH Consolidated, Inc: CAH Acquisition Company #1, LLC dba Washington County Hospital	958 US Hwy 64 East	Plymouth	NC	27962	252-793-4135	Service Type 100 Mbps, Service Type DR	HMC/CAH Consolidated, Inc: CAH Acquisition Company #1, LLC dba Washington County Hospital
H017	HMC/CAH Consolidated, Inc: Hoots Memorial Hospital, Inc.	624 West Main Street	Yadkinville	NC	27055	336-679-7271	Service Type 100 Mbps	HMC/CAH Consolidated, Inc: Hoots Memorial Hospital, Inc.
H040	HMC/CAH Consolidated, Inc: Stokes- Reynolds Memorial Hospital, Inc.	1570 NC 8 & 89 HWY N	Danbury	NC	27016	336-593-2831	Service Type 100 Mbps, Service Type DR	HMC/CAH Consolidated, Inc: Stokes- Reynolds Memorial Hospital, Inc.
								HMA
H038	Hospital Management Associates LLC: Mooresville Hospital Management Associates LLC dba Lake Norman Regional Medical Center	171 Fairview Road	Mooresville	NC	28117	704-660-4000	Service Type 100 Mbps	Hospital Management Associates LLC: Mooresville Hospital Management Associates LLC dba Lake Norman Regional Medical Center
								MISSION HEALTH SYSTEM
H073	Mission Health System: Blue Ridge Regional Hospital, Inc	125 Hospital Drive	Spruce Pine	NC	28777	828-765-4201	Service Type 100 Mbps, Service Type FR	Mission Health System: Blue Ridge Regional Hospital, Inc

H075	Mission Health System: The McDowell Hospital	430 Rankin Street	Marion	NC	28752	828-659-5000	Service Type 100 Mbps, Service Type FR	Mission Health System: The McDowell Hospital
H074	Mission Health System: Memorial Mission Hospital (Data Center)	980 Hendersonville Road	Asheville	NC	28803		Service Type 100 Mbps, Service Type FR	Mission Health System: Mission Hospital
H902								
H108	Mission Health System: Mission Hospital (Asheville Surgery Center)	5 Medical Park Drive	Asheville	NC	28803	828-213-0740	Service Type 100 Mbps, Service Type FR	
H107	Mission Health System: Reuter Outpatient Center	11 Vanderbilt Park Drive	Asheville	NC	28801	828-213-5099	Service Type 100 Mbps, Service Type FR	Mission Health System: Reuter Outpatient Center
MOSES CONE HEALTH SYSTEM								
H076	Moses Cone Health System: Annie Penn Hospital	618 South Main Street	Reidsville	NC	27320	336-951-4000	Service Type 100 Mbps, Service Type FR	Moses Cone Health System: Annie Penn Hospital
H078	Moses Cone Health System: Moses Cone Behavioral Health Hospital	700 Walter Reed Road	Greensboro	NC	27403	336-832-9600	Service Type 100 Mbps	Moses Cone Health System: Moses Cone Behavioral Health Hospital
H077	Moses Cone Health System: The Moses H Cone Memorial Hospital	1200 North Elm Street	Greensboro	NC	27401	336-832-7000	Service Type 100 Mbps, Service Type FR	Moses Cone Health System: The Moses H Cone Memorial Hospital
H079	Moses Cone Health System: The Women's Hospital of Greensboro	801 Green Valley Road	Greensboro	NC	27408	336-832-6500	Service Type 100 Mbps	Moses Cone Health System: The Women's Hospital of Greensboro
H080	Moses Cone Health System: Wesley Long Community Hospital	501 N Elam Avenue	Greensboro	NC	27403	336-832-1000	Service Type 100 Mbps	Moses Cone Health System: Wesley Long Community Hospital
NOVANT HEALTH								
H081	Novant Health: Novant Health Disaster Recovery Data Center	1718 E. 4th Street	Charlotte	NC	28233	704-384-5419	Service Type 200 Mbps, Service Type FR	
H082	Novant Health: Novant Health Data Center	601 Kingsley Park Drive	Fort Mill	SC	29715	704-316-7469	Service Type 200 Mbps, Service Type FR	
H903								Novant Health: Brunswick Community Hospital (H903)
H904								Novant Health: Forsyth Memorial Hospital (H904)
H905								Novant Health: Franklin Regional Medical Center (H905)
H906								Novant Health: Medical Park Hospital, Inc. (H906)
H907								Novant Health: Presbyterian Hospital (H907)
H908								Novant Health: Presbyterian Hospital Hemby Children's Hospital (H908)

H909								Novant Health: Presbyterian Hospital Huntersville (H909)
H910								Novant Health: Presbyterian Hospital Matthews (H910)
H911								Novant Health: Presbyterian Orthopaedic Hospital (H911)
H912								Novant Health: Prince William Hospital (H912)
H913								Novant Health: Rowan Regional Medical Center (H913)
H914								Novant Health: Thomasville Medical Center (H914)
H915								Novant Health: Upstate Carolina Medical Center (H915)
TENET HEALTHCARE CORPORATION								
H035	Tenet Healthcare Corporation: Central Carolina Hospital	1135 Carthage St	Sanford	NC	27330	919-774-2100	Service Type 100 Mbps	Tenet Healthcare Corporation: Central Carolina Hospital
UNIVERSITY HEALTH SYSTEMS OF EASTERN NC								
H113	University Health Systems of Eastern NC: Albemarle Health: Gates County Medical Center	501 Main Street	Gatesville	NC	27938	252-357-1226	Service Type 10 Mbps	University Health Systems of Eastern NC: Albemarle Health: Gates County Medical Center
H114	University Health Systems of Eastern NC: Albemarle Health: Community Care Clinic of Tyner	2869 Virginia Road	Tyner	NC	27980	252-221-4901	Service Type 10 Mbps	University Health Systems of Eastern NC: Albemarle Health: Community Care Clinic of Tyner
H083	University Health Systems of Eastern NC: Albemarle Hospital	1144 North Road Street	Elizabeth City	NC	27909	252-335-0531	Service Type 1 GBps	University Health Systems of Eastern NC: Albemarle Hospital
H084	University Health Systems of Eastern NC: Bertie Memorial Hospital	1403 South King Street	Windsor	NC	27983	252-794-6601	Service Type 1 GBps	University Health Systems of Eastern NC: Bertie Memorial Hospital
H085	University Health Systems of Eastern NC: Chowan Hospital	211 Virginia Road	Edenton	NC	27932	252-482-6268	Service Type 1 GBps	University Health Systems of Eastern NC: Chowan Hospital
H086	University Health Systems of Eastern NC: Duplin General Hospital, Inc.	401 North Main Street	Kenansville	NC	28349	910-296-2603	Service Type 1 GBps	University Health Systems of Eastern NC: Duplin General Hospital, Inc.
H087	University Health Systems of Eastern NC: Heritage Hospital	111 Hospital Drive	Tarboro	NC	27886	252-641-7120	Service Type 1 GBps	University Health Systems of Eastern NC: Heritage Hospital

H088	University Health Systems of Eastern NC: Pitt County Memorial Hospital	2100 Stantonsburg Road	Greenville	NC	27835	252-847-4398	Service Type 1 GBps	University Health Systems of Eastern NC: Pitt County Memorial Hospital
H089	University Health Systems of Eastern NC: Pitt County Memorial-UHS DR Center on Campus (Data Center)	2100 Stantonsburg Road	Greenville	NC	27835	252-847-4398	Service Type 1 GBps, Service Type FR	
H090	University Health Systems of Eastern NC: Roanoke-Chowan Hospital	500 South Academy Street	Ahoskie	NC	27910	252-209-3175	Service Type 1 GBps	University Health Systems of Eastern NC: Roanoke-Chowan Hospital
H091	University Health Systems of Eastern NC: The Outer Banks Hospital, Inc.	4800 South Croatan Highway	Nags Head	NC	27959	252-449-4515	Service Type 1 GBps	University Health Systems of Eastern NC: The Outer Banks Hospital, Inc.
								WAKE FOREST UNIVERSITY BAPTIST MEDICAL CENTER
H036	Wake Forest University Baptist Medical Center: Davie County Emergency Health Corporation dba Davie County Hospital	223 Hospital Street	Mocksville	NC	27028	336-751-8100	Service Type 100 Mbps	Wake Forest University Baptist Medical Center: Davie County Emergency Health Corporation dba Davie County Hospital
H037	Wake Forest University Baptist Medical Center: Lexington Memorial Hospital	250 Hospital Drive	Lexington	NC	27292	336-248-5161	Service Type 100 Mbps	Wake Forest University Baptist Medical Center: Lexington Memorial Hospital
H101	Wake Forest University Baptist Medical Center: Gray Building/Room G102 (Data Center)	Medical Center Blvd	Winston Salem	NC	27157	336-716-3818	Service Type 1 GBps	Wake Forest University Baptist Medical Center
H039	Wake Forest University Baptist Medical Center: North Carolina Baptist Hospital A1A PTRP (Data Center)	415 East 3rd Street	Winston Salem	NC	27101	336-716-9402	Service Type 1 GBps, Service Type FR	
H100	Wake Forest University Baptist Medical Center: WFUBMC Miller Plaza (Data Center)	2200 Cloverdale Avenue	Winston Salem	NC	27103	336-716-4962	Service Type 1 GBps, Service Type FR	
								WAKEMED HEALTH & HOSPITALS
H097	WakeMed Health & Hospitals: WakeMed Cary Hospital	1900 Kildaire Farm Road	Cary	NC	27518	919-350-2300	Service Level 1 GBps, Service Level FR	WakeMed Health & Hospitals: WakeMed Cary Hospital
H096	WakeMed Health & Hospitals: WakeMed Operations Center (Data Center)	3261 Atlantic Avenue	Raleigh	NC	27604	919-350-0917	Service Level 1 GBps, Service Level FR	
H095	WakeMed Health & Hospitals: WakeMed Raleigh	3000 New Bern Avenue	Raleigh	NC	27610	919-350-8000	Service Level 1 GBps, Service Level FR	WakeMed Health & Hospitals: WakeMed Raleigh
								INDEPENDENT HOSPITALS
H001	Alamance Regional Medical Center	1240 Huffman Mill Road	Burlington	NC	27215	336-538-7000	Service Type 100 Mbps, Service Type FR	Alamance Regional Medical Center
H002	Alleghany Memorial Hospital	233 Doctors Street	Sparta	NC	28675	336-372-5511	Service Type 100 Mbps, Service Type FR	Alleghany Memorial Hospital

H003	Angel Medical Center, Inc.	120 Riverview Street	Franklin	NC	28734	828-524-8411	Service Type 100 Mbps	Angel Medical Center, Inc.
H004	Ashe Memorial Hospital, Inc.	200 Hospital Avenue	Jefferson	NC	28640	336-846-7101	Service Type 100 Mbps, Service Type FR	Ashe Memorial Hospital, Inc.
H005	Beaufort County Medical Center	628 East 12th St	Washington	NC	27889	252-975-4181	Service Type 100 Mbps	Beaufort County Medical Center
H007	Caldwell Memorial Hospital, Inc.	321 Mulberry Street	Lenoir	NC	28645	828-759-5100	Service Type 100 Mbps	Caldwell Memorial Hospital, Inc.
H008	CarolinaEast Medical Center	2000 Neuse Boulevard	New Bern	NC	28561	252-633-8798	Service Type 100 Mbps	CarolinaEast Medical Center
H009	Carteret County General Hospital	3500 Arendell Street	Morehead City	NC	28557	252-808-6000	Service Type 100 Mbps, Service Type FR	Carteret County General Hospital
H010	Catawba Valley Medical Center	810 Fairgrove Church Road, SE	Hickory	NC	28602	828-326-3000	Service Type 100 Mbps, Service Type FR	Catawba Valley Medical Center
H041	Cherokee Indian Hospital	1 Hospital Road	Cherokee	NC	28719	828-497-9163	Service Type 100 Mbps, Service Type FR	Cherokee Indian Hospital
H011	Fletcher Hospital dba Park Ridge Hospital	100 Hospital Drive	Hendersonville	NC	28792	828-684-8501	Service Type 100 Mbps, Service Type FR	Fletcher Hospital dba Park Ridge Hospital
H012	Gaston Memorial Hospital (CaroMont Health)	2525 Court Drive	Gastonia	NC	28054	704-834-2000	Service Type 100 Mbps	Gaston Memorial Hospital (CaroMont Health)
H013	Granville Health System: Granville Medical Center	1010 College Street	Oxford	NC	27565	919-690-3000	Service Type 100 Mbps	Granville Health System: Granville Medical Center
H014	Halifax Regional Medical Center, Inc.	250 Smith Church Road	Roanoke Rapids	NC	27870	252-535-8011	Service Type 100 Mbps, Service Type FR	Halifax Regional Medical Center, Inc.
H015	Henderson County Hospital Corporation dba Margaret R. Pardee Memorial Hospital	800 North Justice Street	Hendersonville	NC	28791	828-696-4651	Service Type 100 Mbps	Henderson County Hospital Corporation dba Margaret R. Pardee Memorial Hospital
H016	High Point Regional Health System	601 North Elm Street	High Point	NC	27262	336-878-6000	Service Type 100 Mbps	High Point Regional Health System
H098	Highlands-Cashiers Hospital, Inc.	190 Hospital Drive	Franklin	NC	28741	828-526-1325	Service Type 100 Mbps, Service Type FR	Highlands-Cashiers Hospital, Inc.
H018	Iredell Memorial Hospital, Inc	557 Brookdale Drive 924 North Howe Street	Statesville	NC	28677	704-873-5661	Service Type 100 Mbps, Service Type FR	Iredell Memorial Hospital, Inc
H019	J. Arthur Doshier Memorial Hospital	509 North Bright Leaf Boulevard	Smithfield	NC	27577	919-934-8171	Service Type 100 Mbps	J. Arthur Doshier Memorial Hospital
H112	Johnston Memorial Hospital	100 Airport Road	Kinston	NC	28501	252-522-7000	Service Type 100 Mbps	Johnston Memorial Hospital
H020	Lenoir Memorial Hospital, Inc.	566 Ruin Creek Road	Henderson	NC	27536	252-438-4143	Service Type 100 Mbps, Service Type FR	Lenoir Memorial Hospital, Inc.
H021	Maria Parham Medical Center	117 East Kings Hwy	Eden	NC	27288	336-623-9711	Service Type 100 Mbps	Maria Parham Medical Center
H022	Morehead Memorial Hospital	3990 East US Hwy 64 ALT	Murphy	NC	28906	828-835-7506	Service Type 100 Mbps	Morehead Memorial Hospital
H023	Murphy Medical Center, Inc.	2460 Curtis Ellis Drive	Rocky Mount	NC	27804	252-962-8000	Service Type 100 Mbps	Murphy Medical Center, Inc.
H099	Nash Health Care Systems	2131 South 17th Street	Wilmington	NC	28402	910-343-7000	Service Type 1 GBps	Nash Health Care Systems: Nash General Hospital New Hanover Regional Medical Center
H024	New Hanover Regional Medical Center							

H025	Onslow Memorial Hospital, Inc.	317 Western Boulevard	Jacksonville	NC	28546	910-577-2345	Service Type 100 Mbps	Onslow Memorial Hospital, Inc.
H026	Our Community Hospital, Inc.	921 Junior High Road	Scotland Neck	NC	27874	252-826-4144	Service Type 100 Mbps	Our Community Hospital, Inc.
H109	Pender Memorial Hospital, Inc.	507 East Fremont Street	Burgaw	NC	28425	910-259-5451	Service Type 100 Mbps	Pender Memorial Hospital, Inc.
H027	Person Memorial Hospital	615 Ridge Road	Roxboro	NC	27573	336-599-2121	Service Type 100 Mbps	Person Memorial Hospital
H028	Pungo District Hospital Corporation	202 East Water Street	Belhaven	NC	27810	252-943-2111	Service Type 100 Mbps	Pungo District Hospital Corporation
H029	Randolph Hospital, Inc.	364 White Oak Street	Asheboro	NC	27204	336-625-5151	Service Type 100 Mbps	Randolph Hospital, Inc.
H030	Rutherford Hospital, Inc.	288 South Ridgecrest Avenue	Rutherfordton	NC	28139	828-286-5000	Service Type 100 Mbps	Rutherford Hospital, Inc.
H031	Sampson Regional Medical Center	607 Beaman Street	Clinton	NC	28328	910-592-8511	Service Type 100 Mbps	Sampson Regional Medical Center
H103	Southeastern Regional Medical Center	300 West 27th Street	Lumberton	NC	28359	910-671-5000	Service Type 100 Mbps	Southeastern Regional Medical Center
H032	Transylvania Regional Hospital, Inc. and Bridgeway	260 Hospital Drive	Brevard	NC	28712	828-884-9111	Service Type 100 Mbps	Transylvania Regional Hospital, Inc. and Bridgeway
H033	Wayne Memorial Hospital, Inc.	2700 Wayne Memorial Hospital	Goldsboro	NC	27534	919-736-1110	Service Type 100 Mbps	Wayne Memorial Hospital, Inc.
H034	WilMed Healthcare: Wilson Medical Center	1705 Tarboro Street SW	Wilson	NC	27893	252-399-8040	Service Type 100 Mbps, Service Type FR	WilMed Healthcare: Wilson Medical Center

E. List of USAC Category, Subcategory, Component, and Speed Options

Description of Equipment or Service			
Category	Sub-Category	Component	Speed
1: Network Design	1: Recurring	1: Antennas / Satellite Equipment	1: 256 to 768 kbps
2: Network Equipment, including Engineering and Installation	2: Non-Recurring	2: Asynchronous Transfer Mode (ATM)	2: Greater than 768 to 1.544 Mbps
3: Infrastructure/Outside Plant (Engineering)		3: Broadband over Power Lines (BPL)	3: 1.544 Mbps (T-1)
4: Infrastructure/Outside Plant (Construction)		4: Cable, copper	4: Greater than T-1 to 8.448 Mbps
5: Internet 2/NLR/Internet Connection		5: Cable, fiber	5: 8.448: 44.735 Mbps
6: Leased/Tariffed facilities or services		6: Channel Service Unit/Data Service Unit (CSU/DSU) and switches	6: 45 Mbps (T-3 / DS-3)
7: Network Management/ Maintenance/ Operations Cost (not captured elsewhere)		7: Connectors / couplers / amplifiers	7: 55 Mbps (OC-1)
Other - please describe		8: Copper-to-Fiber (TX-to-FX) converter	8: 100 Mbps (Ethernet)
		9: Digital Subscriber Line (DSL)	9: 155 Mbps (OC-3)
		10: Ethernet	10: 622 Mbps (OC-12)
		11: Fractional T-1	11: 1 Gbps
		12: Frame Relay	12: 10 Gbps (OC-192)
		13: Gateway to Internet2	13: 13.2 Gbps (OC-256)
		14: Gateway to NLR	14: 2.488 Gbps (OC-48)
		15: Gateway to Public Internet	15: 39.8 Gbps (OC-768)
		16: Integrated Services Digital Network (ISDN, BRI, PRI)	16: N/A
		17: Interface/Edge Device	Other - please describe
		18: Jacks, panels, faceplates and wire managers	
		19: Microwave service	

20: MPLS
21: Multiplexer
22: Network Design
23: Network Hardware on Provider Side of Demarc
24: Network Maintenance
25: Network Management
26: Network Operations
27: Network Switches
28: OC-1
29: OC-12
30: OC-3
31: OC-n
32: Routers
33: Satellite service
34: Switched Multimegabit Data Service (SMDS)
35: T-1
36: T-2
37: T-3 / DS-3
38: Uninterruptible Power Supply (UPS)/Battery Backup
39: Virtual Private Network (VPN)
40: Wireless
41: Construction
42: RFP Creation
Other - please describe

F. USAC Invoice Template



2.7.2 Invoice Template

Project Name Northwestern Pennsylvania Telemedicine Initiative		HCP Number 132456	FOR RHCD USE ONLY Header Verification _____ Number of Records _____ Number of Records Approved _____ RHCD Approved Total Amount _____	
Service Provider Name Verizon		FRN 123456789		
SPIN 12345		Funding Year 2007		
Service Provider Invoice Number 134354789				
Invoice Date to RHCD (mm/dd/yy) 1/25/2008				
Billing Account Number (BAN) 3216547				
Total Invoice Amount \$0.00				

Line Item	NCW ID#	Category	Sub Category	Item	Speed	Total # of Items Approved	# of Items requested this invoice	Approved Cost per Item	Actual Cost Per Item	Total Cost	RHC Funding % Requested (max 85%)	Participant Contribution Amount	Support Amount to be paid by USAC	Code
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														

Service Provider Certification

I certify that I am an authorized representative of the above-named service provider, that I have examined the information provided in the Rural Health Care Pilot Program Invoice, and to the best of my knowledge, information and belief, all costs contained in this invoice are true and correct and represent actual incurred costs for network build-out or related services received by each participating health care provider.

Signature: _____ Date: _____ Phone #: _____

Print Name: _____ Email: _____

Project Coordinator Certification

I certify that I have examined the information provided in the Rural Health Care Pilot Program Invoice, and to the best of my knowledge, information and belief, the participating health care providers have received the network build-out or related services itemized on this invoice. I certify under penalty of perjury that the 15 percent minimum funding contribution for each item on this invoice required by the Rural Health Care Pilot Program rules was funded by eligible sources as defined in the rules and has been provided to the service provider.

Signature: _____ Date: _____ Phone #: _____

PC Name: _____ Jed Carr Email: _____