New England Telehealth Consortium

Healthcare Connect Fund Network Plan

Consortium Overview

The New England Telehealth Consortium (NETC) is a regional healthcare consortium developed in 2007 in response to the creation of the FCC's Rural Health Care Pilot Program (RHCPP). NETC was the recipient of the largest single award (approximately $24.6 million) under RHCPP. The consortium operates a 120 Gbps network with dual, redundant core sites in Maine and New Hampshire, serving over three hundred healthcare providers in Maine, New Hampshire, and Vermont. NETC provides private network services over a high-speed, scalable, quality-of-service network; commodity Internet services; and access to the Internet2 backbone for its participating members.

Network Goals and Objectives

NETC was created to develop an improved healthcare communications infrastructure in New England that enhanced the collaboration, information exchange, electronic health records, and telehealth opportunities for healthcare providers in one of the nation's most rural regions.

Future objectives include increasing the number of participating healthcare providers in the network and leveraging the Consortium's buying power to provide additional services to the participating members. This may include data center services, cloud-based services, software as a service, consolidated or distributed information systems for applications like EHR and PACS, and new technologies and telehealth opportunities as they emerge.

NETC anticipates that its network will continue to grow, both in terms of bandwidth needs and the number of participating healthcare providers. Indeed, over the last twelve months, NETC has increased its redundant network core from 83 Gbps to 123 Gbps to keep up with the growing demand for bandwidth. The anticipated growth and evolution of the consortium is based on a common vision, mission, and strategic plan that is agreed upon, understood, and supported by consortium members, other participating organizations, and the public.

Aggregation Strategy

NETC has adopted a two-phased approach to aggregation. NETC's aggregation strategy under the pilot program was to select a primary vendor to provide leased land-line services for all of its member healthcare providers. By requiring the primary service provider to manage wholesale relationships with a number of last-mile incumbent providers, NETC was able to create a single, consolidated IP/MPLS platform that aggregates the needs of all of its participating members into a single redundant network core. Nine vendors provide connectivity, routers, satellite connectivity to mobile sites, Internet connectivity, Internet2 and network management.

Under the Healthcare Connect Fund, NETC is moving into the second phase of its aggregation strategy, which is to expand the scope of the NETC network influence by incorporating existing and new private networks for its member HCP's under NETC management and helping these healthcare providers obtain HCP subsidy for the extended network.

In order to continue to grow and support collaboration over the long term, the consortium's strategy will be to continue to explore new and emerging technologies that may be implemented on the network, and will continue to assess the needs of its members and improve collaboration opportunities over time.

Technology Strategy

NETC's technology strategy permits for scalability and improves collaboration and information sharing between healthcare providers. The existing network is designed to facilitate current and future information exchange and telehealth services. NETC leverages an MPLS platform specifically because it is an ideal mechanism to interconnect participating members by leveraging both old and new last-mile technologies. The consortium plans to continue to leverage the competitive bidding process to purchase additional services from multiple vendors. These services will use both old and new technologies that will interoperate successfully across NETC's 123Gbps IP/MPLS redundant network core.

Impact on Healthcare Delivery

Interconnecting healthcare providers has improved their ability to interoperate and serve the healthcare needs of their constituent populations with the end result being an improved patient experience. NETC's high quality, reliable, scalable, and redundant Quality of Service network permits healthcare providers to communicate better. This has led to quick, reliable, and secure access to patient data through consolidated EHR systems, faster access to cloud-based application services, and increased access to internal and external healthcare related resources.

The network is designed to be flexible in its ability to integrate new technologies as they emerge and is capable of scaling as bandwidth needs increase. It creates new telemedicine opportunities, permitting remote treatment, reducing travel requirements, and providing a less-stressful and better overall experience for both patients and healthcare practitioners.

The consortium creates efficiencies and economies of scale, and will make use of financial tools to reduce overall operating costs, bringing to bear a united voice with consolidated buying power. NETC will make use of the RFP process to select vendors that cost-effectively meet the network goals. Lastly, the consortium and its member HCPs will benefit greatly from the

Healthcare Connect Fund subsidies, permitting them to improve their network while decreasing operating costs.

Project Leadership & Experience

The NETC Leadership team includes:

- **Brian Thibeau** NETC President
- **Timothy Smith** NETC Treasurer
- **Red Hutchinson** NETC Vice President

NETC leadership has been involved since the beginning of NETC in 2007, and has overseen the development and implementation of NETCs existing telehealth network as described above.

NETC outsources network management and NOC functions to ProInfoNet. ProInfoNet has been instrumental in the design, development, planning, and implementation of many healthcare networks throughout the United States.

The Project Management team for the second phase of the aggregation strategy includes:

- William Jenkins, Senior Project Manager
- Trevor Gordon, Vice President of Operations

Work Plan & Schedule

NETC anticipates a number of projects over the next year as additional healthcare providers and networks are added to the scope of the New England Telehealth Consortium. For purposes of easing the management of these projects, NETC plans to implement these projects on a per-health system basis. Start dates are uncertain at this time as each individual health system makes the decision to move forward individually. However, NETC anticipates a Work Plan and Schedule for each individual project similar to the following:

Project Milestone	Time to Complete
Data Gathering	30 Days
RFP Development	15 Days
Form 461 Submission	1 Day
USAC Posts RFP	14 Days
Bidding Period	28 Days
Evaluation Period	7 Days
Contract Negotiation	30 Days
Implementation	Up to 90 Days

Budget

NETC operates an existing network originally funded under the Rural Health Care Pilot Program that incurs ongoing annual maintenance costs. In addition to annual maintenance, NETC's budget includes leased facilities costs that have a factor of variability related to the number of facilities that will be subsidized.

Some of the budget items include:

- Network Maintenance, per annum: $125,000
- Network Management, per annum: $1,300,000
- Leased Facilities, per annum: $11,500,000
- Equipment Purchases, estimated: $1,500,000

Estimated Budget: $14,425,000

Pursuant to 47 C.F.R § 54.633, the required 35% contribution from eligible sources is currently, and will continue to be part of each HCP's annual IT expense budget.