**Purpose, Mission and Description**

A critical component of healthcare moving forward in the 21st Century is the need to automate and carry out the delivery of healthcare services and operations using electronic processes and systems to capture and communicate all activities and data across all healthcare systems. These transactions represent the means of providing lifesaving information to providers and individuals that will be the basis for all care treatment and care services in the advancing future. Facilities and providers will be accountable for the efficient use of this technology and will be required to have it effectively installed and used in their facilities in order to be considered a player in the healthcare environment going forward. Failure to do so will affect the quality of the care and the ability to have metrics that effective describes the care delivered since the entity will not be in the required information loop to demonstrate that effectiveness. This document, a business plan, will serve as a implementation guide and outline of detailed services that will be implemented to assist the members of Northland Healthcare Alliance facilities to have the needed support to be effective in the development and ongoing operations to be able to meet standards and provide care according to define standards in the marketplace.

**Mission**

Northland HIT Services will provide services in a direct and centralized way to help member entities have effective technical guidance and operational assistance with all of their information technology services. These services will provide consistency in this aspect of facilities organization with the ability to give resources 24-7 and fill any gaps that may be occurring with the ever changing IT market.

**Description**

With the advent of “meaningful use” and the implementation of electronic software and hardware systems at the forefront of healthcare delivery, it is imperative that the technical assistance in all aspects of the information technology be available to healthcare facilities as they try to acquire the required technology and implement these systems to advance the quality of healthcare delivery. This business initiative has been in planning and processing for a number of years, but until recently has been slow to move forward. The strategy to move this initiative to implementation is based on the hiring of some excellent technical staff and funding available through grants that Northland has received over the past year.

**Value Proposition**

An important piece of the business plan is the value that the service brings to the stakeholders. It is critical that these propositions define the benefits and rewards that come from the services. The list and description of each of these benefits will give a clear idea of the offerings of the company.

**Continuity of Services** – There are many combinations of software systems and hardware configurations established throughout the facilities of Northland. While there is extensive commerce and exchange of patient and medical information that needs to flow between members throughout the network, simplification will come by working with a unified approach and coordinating services, systems and hardware as much as possible. While many of the initial decisions have been made in relation to electronic health records, it is important to realize that a coordinated effort for the exchange of information and more unified approach to maintain systems, establishing secure messaging and saving dollars with vendors can be had by establishing a network wide approach to information technology. It is important to realize that the group approach in this effort will be for the betterment of all facilities in the short term and long run.

**One Source** – Using this plan to establish a one source service for many HIT needs will provide extensive savings and actually provide better service. It is hard to imagine the difficulty of retaining prepared IT staff community by community and have them be effective when the turnover rates are nearly 100% in almost all rural communities for such technical individuals. The pressure on them is extreme and many suffer from burnout because they are the only one that can keep the systems going and they are on call 24-7. It is difficult to believe this situation will ameliorate any time soon with many technical people being hired by oil field companies and others being hire by government or other larger corporations. Working to establish a more centralized staff with the capacity to maintain equipment with regular touch by well-trained staff that may or may not reside in each community is a better model. It is not what we are used to and may not be the model that we have had in the past, but it will be the model that works going forward. It will provide more stability and a wider range of expertise than has been had in the past.

**Cost Savings** – Saving will be generated in a number of specific ways. First, facilities are paying a diverse group of consulting firms to assist them to establish systems and solve their IT problems. Other are regularly hiring IT staff and getting them trained only to have them leave to other work. It may be more effective to share staff and have other ways to regularly service equipment and help in the design of better ways to keep systems and problem solving happening with better savings and less downtime. Each saving considerable dollars and relieving mountains of stress.

**Group Contracts** – There may be some services and applications that may be more effective by using outside vendors and/or purchases that would include a group buy. It may be more efficient to contract for one interface that could be used by multiple sites with an interface engine to consolidate the need for each to purchase the same interface.

**Quick Response Times** – Depending on the issues that arise by having only one level of expertise on site, many problems have to wait for solution. By centralizing services and developing a wider array of technical expertise response times will be reduced considerable. Services will be designed in such a way to insure that the down time is minimized.

**Knowledge Base** - Having access, as mentioned above to a group of technicians is far superior to having one type of expert onsite and having to find additional help to work out problems beyond the levels currently available at any site except the large facilities.

**Healthcare Background and Understanding** – Much of the secondary level of expertise being utilized by rural facilities is through information technologist that are not strictly focused on healthcare and certainly do not have the healthcare background that is sometimes necessary to understand where the solutions lie. By building an inside team, with an understanding of healthcare is key to providing better, more effective service.

**Shared Ownership** - We do not know of a better way of getting the best level of service for the least amount of cost than by owning and controlling the service. Combining resources in this way is the best way to get the synergy to generate good saving and service.

**Centralized Structuring** - Much can be learned from provide the services in a centralized way. Each entity in the spoke can have greater service at the same level of cost or even for less cost. With the shrinking number of available technicians, this may be the only solution in the future and it is very proactive now.

**Member-owned and Directed** – See discussion above

**Diversity of Alternatives Available -** The options available to use jointly are varied and it gives us the benefit of designing systems that meet multiple site’s needs.

**Key Activities**

The activities that can be provided by the service are wide and broad. Several are being provided through grant funding and others are being planned in anticipation of a much larger need going forward. The following sections describe many of those services and also those services that will potentially be needed in the near future.

**Infrastructure Consulting**

Computer Purchase and System Design – Each facility is going through various transitions with the health information systems. Having discussion about options and the technical assistance to know what direction may be best would be important for all facilities.

The following is a list of services that could be provided. Some are already in process and others would be available depending on the need and direction of the membership.

* **Network Design and Maintenance**
* **Firewall and Security**
* **Redundancy and Recovery**
* **System Monitoring and Maintenance**

**Offsite Management** – The Internet makes offsite management a strong service that can be just as reliable and maybe more reliable than having 100% if the technical assistance onsite. Many of the large capital equipment firms such as GE and Siemens have incorporated offsite capacity into their equipment which allows for upgrades and repairs from anywhere. This is also possible for many HIT systems and hardware.

**Technical Assistance**

* Level 1
* Level 2
* Level 3

**Web Development and Consulting**

**EHR Exchange** - This items has been discussed frequently within the network and it is a logical thought to plan to access the State and National exchanges with a group portal or by using a group owned interface engine. While most of the sites have progressed significantly with the development of the necessary Electronic Health Record.

**Software Updates –** Installation of updates can be complex. Doing it together can save time

**Antivirus Protection -** Can be purchased together in bulk. Definite savings available.

**Meaningful Use - Continuing** changes and ongoing training will be useful together**.**

**HIT Training -** As new technicians are hired it will be important to have a core source of information held in a centralized place**.**

**Supply Chain -** Can offer a best of breed system to assist in the automation and management of supplies.

**Microsoft Exchange –** Have licensing available for associations at a reduced price.

**Key Resources**

The key resource needing to make the business plan work includes finding and retaining the most qualified staff to make this service successful. Some key individuals have been hired and others are coming on board in the next few weeks.

IT Staff - The key staff will include a chief technology officer that will administer the services and make sure that the necessary expertise is recruited and made available to members. In addition a interface specialist will be hired to serve as a key resource saving position. We believe that this position in conjunction with an interface engine will save members thousands of dollars and provide an invaluable cost saving tools as information is exchanged in the near future.

**Funding** – Some of the funding to incubate this service is now in place and we are moving forward with implementation. However, contracts for services and sharing of employees may provide the revenue to accomplish great things together.

**Grants** – Currently Northland is working will two grants that are providing exciting tools and manpower to launch several key nodes of this plan. Other funding opportunities will be sought to augment some other needs that exist to fully implement this business plan. Much can be done though cooperative effort.

**Location** – Northland would like to work hand in hand with St. Alexius to find a space on campus to be close to the currently super server and also access St. Alexius staff on a limited basis to serve as a high level resource for some problem solving.

**Hardware** - Northland has the go ahead to purchase an interface engine with grant funds and to provide redundant servers in several locations throughout the network. In addition, Northland owns a super multiserver located at St. Alexius at the Server Farm. Other equipment will be purchased to expand backup capabilities and provide tools to monitor and assist members with their IT operations.

I**nfrastructure** - SEE ABOVE

**Detailed Plan** – One of the keys to establishing a working model is the development of a feasible plan that details all of the components for success. This plan is comprehensive and provides the backdrop for success of this type of program.

**Head start -**

**Key Partnerships**

Northland does not exist in a vacuum. It depends on members to provide feedback and guidance as programs are developed. The partners also participate in the program and that participation provides value to them and enhances the value of Northland as a vehicle of value.

The following is a list and description of the stakeholders of this planning effort and are necessary to carry out the plan.

|  |  |
| --- | --- |
| * St. Alexius * CHI * Benedictine Living Communities * Critical Access Hospitals * Clinics * Nursing Homes | * PACE * Vendors * Patients * Healthland * Others |

The customer relationships will be based on important guiding principles that will be used as operations move forward. They include being responsive in a timely manner, knowing what needs to be done and doing it, and having skillful competent people working to successfully implement the goals and strategies of the company and providing useful and valuable services to the members.

**Key Principles of Partnerships**

* Being Responsive
* Being Knowledgeable
* Being Capable
* Being Committed
* Being Cooperative

**Cost Structure**

Payrolls - Hiring enough of and the right personnel to staff the services in order to meet the demands and save dollars.

Equipment Purchases – It will be cost effective to centralize some of the equipment and software and certainly provide redundancy and backup for most sites. It will also be feasible to purchase larger volumes of equipment through a group buy as necessary.

Ongoing Operational Costs -

Software Fees – We believe that it is possible to saving resources by combining purchases of software and being able to use software for multiple locations.

Down Times – Maintaining continuity and shared personnel will decrease the downtime and the higher level of expertise will provide resources to keep the systems operating more effectively over time.

**Revenue Streams**

Dues – Some fees will be built into dues to be able to cover some of the associated fixed costs of this service.

Services Options – We can build different layers of services based on needs and expertise at each location. Members will contribute base on their share of the costs.

Reimbursement for Costs, Employees - The flexibility of building a team of IT technicians will create some significant savings with an upgrade to the capabilities that will be available. A budget will be built after a needs assessment and letters of commitment will be processed to insure that costs are detailed for administrators and finance personnel.

Return on Investment – After a period of time an extensive financial review and effectiveness survey will be conducted to evaluated the return of investment and determine the value of continuation.

**Channels**

Offsite Management – Work will be organized around the activities and services that will be defined by the advisory committee.

Options and Alternative Arrangements – This program will have extensive flexibility but it will also require the financial commitment and support of all members to be successful.

Collaboration with Trust – an advisory committee will be established initially to meet and review processes and the effectiveness of services developed up front to meet needs. This board will have access to reports and feedback from participants in the program and will make modifications as the program advances.

Virtual Networking – The capability of managing services from any location is critical to the success of this endeavor. Access and response time for critical issues is important for the success of the program.

Web Portals – Portals will create the opportunity to move information around and again are critical to the exchange of medical information.

Onsite Management Options

**Summary and Conclusion**

Northland had been toying around with the concept of providing HIT assistance for a few years. We have acquired some significant funding to assist in this effort. Each facility has moved forward with varying degrees of success in the process of building an electronic health record. Many dollars have been spent and the programs are progressing. The question to be asked is: Is there a better way to do it and can we have better service for the same cost or less. This plan addresses some of those issues and provides guidance on what a service would look like and what would it take to build it. Fortunately some funding is in place to develop some infrastructure and incubate a service. It will not be the decision of Northland member to determine if this is a step that we would like to take going forward.