REQUEST FOR PROPOSAL

"Greater Minnesota Telehealth Broadband Initiative"

RURAL HEALTHCARE PILOT PROJECT
FUNDING YEAR 2008 & 2009

RFP01

NETWORK INFRASTRUCTURE
PROCUREMENT

VENDOR LETTER OF INTENT TO BID

Greater Minnesota Telehealth Broadband Initiative

COMPANY: _____

REPRESENTATIVE: _____

Address: _____

_____

Telephone: _____

Fax: _____

Email: _____

SPIN Number: _____

Authorized Signature: _____

Date: _____

This letter of intent may be faxed or emailed to the following: 218-529-7920 or gmtbi@sisunet.org

Written Questions should be emailed in word format to: gmtbi@sisunet.org

i. General Information

i.1. Introduction. SISU Medical Systems, on behalf of **Greater Minnesota Telehealth Broadband Initiative (GMTBI)** is seeking bids for network infrastructure hardware, connectivity, and network management hardware/software to construct a robust, secure, sustainable and interconnected broadband network that links healthcare providers throughout the state of Minnesota and parts of North Dakota. The network infrastructure will increase utilization of information services among public and non-profit healthcare providers serving rural communities across Minnesota and North Dakota.

i.2. The GMTBI is a consortium of five healthcare networks representing approximately 120 healthcare facilities. The Greater Minnesota Telehealth Broadband Initiative will utilize funding provided by the Federal Communications Commission (FCC) under the Commission's order 07-198 ('Rural Healthcare Support Mechanism') of 19 November 2007, selecting participants for the Rural Healthcare Pilot Program, as well as matching and participatory funds as defined in the Order and provided by the Partners and their member sites and organizations.

i.3. SISU Medical Systems has been designated as the centrally managed hub for the GMTBI. The SISU Medical Systems data center will house hardware and connections to aggregate the flow of data throughout the GMTBI state wide network.

i.4. Bidders are asked to provide proposals based on the technical information and hardware listed in this document to construct a centrally managed hub.

i.5. Connectivity – Price is to provide connectivity and carrier services for Centrally Managed Hub and each site separately as defined in this RFP.

i.6. Hardware – Price is to provide hardware, installation, and testing for Centrally Managed Hub defined in this RFP.

i.7. The RFP process will allow The Greater Minnesota Telehealth Broadband Initiative to receive competitive offers for network infrastructure from telephone companies, hardware distributers and manufacturers, and others. These competitive offers will be judged by the GMTBI according to the criteria set forth in Section 2.0 of this document.

1.0 Administrative and Procedural Information

1.1. The Rural Health Care Pilot Program (RHCPP) of the Universal Service Fund, which is administered by the Universal Service Administrative Company (USAC), is a support program authorized by Congress and designed by the Federal Communications Commission (FCC) to encourage the development of rural broadband networks to provide advanced healthcare telecommunications capabilities and services to rural health care providers (HCPs).

1.2. Notice: This project is subject to the USAC Procurement Rules. Vendors must meet all USAC requirements. The Greater Minnesota Broadband Telehealth Initiative (GMTBI) will submit a USAC Form 465 to USAC to be posted on the USAC website. More information on bidding and posting rules can be found at htt://www.lifelinesupport.org/rhc-pilot-program/vendors.

1.3. The following considerations apply to the proposal submission / review process:

1.3.1. Bidders are expected to raise any questions, noted errors, discrepancies, ambiguities, exceptions, additions, or deficiencies they have concerning this bid in writing or email to:

SISU Medical Systems
c/o Greater Minnesota Telehealth Broadband Initiative
Attn: Jeff Plunkett
5 West 1st Street
Suite 200
Duluth, MN 55802
Phone: 218-740-6769
Fax: 218-529-7920
Email: GMTBI@sisunet.org

Questions and answers will be emailed to all bidders throughout the bidding process. Bidders should include an email contact for notification of any Q & A and clarification.

Any communications with GMTBI Rural Healthcare Pilot Program staff members other than via the method described above should not be considered authoritative, are not binding and may be disavowed without notice or explanation.

1.3.2. ADDENDUM OR SUPPLEMENT TO REQUEST FOR PROPOSAL: In the event that it becomes necessary to revise, amend, add to or delete any part of this RFP, an addendum will be faxed and/or emailed if deemed appropriate to each Bidder who received or requested the original RFP. It is the responsibility of Bidders, prior to bid date, to inquire as to addenda issues and to ensure their bid reflects any and all changes. SISU will maintain a register of holders of this RFP.

Any party receiving this RFP in a fashion other than by receipt from SISU should inform SISU of its interest to ensure receipt of any addenda. All addenda must be acknowledged on the Proposal page and copies of the signed addenda.

1.3.3. All Bidders intending to submit a response to this RFP must submit a Letter of Intent to the Project Contact (see Section 1.3.1) no later than 5:00 p.m. CST on the twenty-first day following the posting of this request on the USAC website. In the Letter, the Bidder must provide the following information: 1) Name of the primary contact person, 2) Mailing address, 3) Telephone number, and 4) Email address. Only Bidders that complete and return a Letter of Intent will receive answers to clarifying questions, addenda, or suggestions to this RFP.

1.3.4. Bid proposals must be received by the project contact at SISU Medical Systems/GMTBI office no later than midnight the twenty-eighth day after the posting date by 5:00 p.m. Accordingly, no bid proposals will be accepted after the date and time specified. A late bid proposal will be returned unopened to the bidder.

1.3.5. No bid proposals will be accepted by telephone, electronic mail, or facsimile. The proposal receipt deadline is for actual receipt in the SISU Medical Systems/GMTBI office as identified below. Delivery, whether via postal mail or other service, must be arranged to ensure arrival before the deadline set forth above.

1.3.6. All bidders must complete and sign the RFP Checklist which is provided on the last page.

1.3.7. Bid proposals must be mailed or otherwise physically delivered to the following address:

SISU Medical Systems
c/o Greater Minnesota Telehealth Broadband Initiative
Attn: Kap Wilkes
5 West 1st street
Suite 200
Duluth, MN 55802

It is strongly suggested that certified delivery services be used to verify the receipt of bids by GMTBI.

1.3.8. Bid proposals will be opened at 9:00 CST on the twenty-ninth day after the posting of this RFP. The bid proposals and the evaluation documents created by the GMTBI will remain confidential until all compliant bid proposals submitted in response to this RFP and the selection process is complete.

1.4. Participating Entities/Sites

1. SISU Medical Systems (Centrally Managed Hub), 5 West 1st Street, Duluth, MN 55802
2. Altru Health System (Hub location), 1200 S. Columbia Rd., Grandforks, ND 58201
3. North Region Health Alliance, 115 South Main Street, Suite 4, Warren, MN 56762
4. Fairview Health Services, 400 Roosevelt St. SE., Minneapolis, MN 55413
5. Human Development Center, 1401 East First Street, Duluth, MN 55085
6. Fraser Child and Family Center, 2400 West 64th Street, Minneapolis, MN 55423

1.5. Ownership of Equipment

All equipment becomes the property of the participating entities once it is delivered and accepted by the GMTBI.

1.6. Caution to Bidders

GMTBI reserves the right to accept or reject in part or its entirety, any bid received as a result of this RFP if it is in the best interest of GMTBI to do so. Bids may be rejected for one or more, but not limited to, the following reasons:

A. Failure to complete and return Letter of Intent

B. Failure of the bidder to adhere to one or more of the provisions established in this RFP.

C. Failure of the bidder to submit bid(s) on or before the deadline established the GMTBI.

D. Failure of the bidder to adhere to generally acceptable ethical and professional principles during the bidding and selection process required by the FCC Rural Health Care Pilot Project.

E. Failure of the bidder to respond to a request for oral or written demonstrations or presentations.

F. Failure of the bidder to comply with the intent of any statement in this document which has the word “must”, “should”, “will”, or “shall” in it.

G. Failure of the bidder to have an authorizing officer sign the bid.

H. Failure of the bidder to complete RFP Checklist and return with bid proposal.

1.7. Bid Proposal General Requirements

1.7.1. Failure to comply with or supply any and all information requested to accompany bid proposals may be cause for rejection of the proposal as non-compliant.

1.7.2. Vendors must submit one (1) signed original and three (3) printed copies of their bid response and email and/or place on CD with bid response in Microsoft Word format and PDF.

1.7.3. Bidders must be an eligible service provider under the Universal Service Fund Rural Health Care Pilot Program. Bidders must have a Service Provider Identification Number (SPIN) prior to the submission of the bid. A SPIN is a unique number assigned to each service provider by the Universal Service Administrative Company (USAC). See http://www.usac.org/rhc/service-providers/step01/obtain-service-provider-id.aspx for further information.

1.7.4. Bidders must be able to follow and complete invoicing procedures established by the Rural Health Care Pilot Program. Under the Pilot Program, a service provider must submit invoices to USAC for the support amounts credited to the billed entity for each health care provider location using a standard template designed by USAC. See http://www.usac.org/rhc/service-providers/step08/ for further information.

1.7.5. All bid proposals must be valid for a period of 90 days from the deadline specified for submission proposals.

1.7.6. By submitting a bid proposal the vendor agrees to the terms and conditions contained within this RFP.

1.7.7. By submitting a bid proposal the Bidder agrees not to have any contact with locations listed in the RFP outside of this bidding process regarding what is being proposed unless authorized by SISU/GMTBI. This is to ensure that all bidders follow the competitive bidding process through this RFP and that all site locations listed remain eligible to receive GMTBI FCC Rural Health Care Pilot Project funding.

1.7.8. Unless otherwise specifically stated in the RFP, all specifications and requirements constitute minimum requirements. All bids must meet or exceed the stated specifications or requirements. All equipment and supplies offered must be new, of current production, and available for marketing by the manufacturer unless the RFP clearly specifies that used, reconditioned, or remanufactured equipment and supplies may be offered. Unless specifically stated and allowed in

the General Information and Administrative Information, all pricing submitted in the response to this RFP is firm and fixed.

1.7.9. Whenever the name of a manufacture, trade name, brand name, or model and catalog numbers followed by the words “or equal” or “approved equal” are used in the specifications it is for the purpose of item identification and to establish standards of quality, style, and features. Bids on equivalent items of the same quality are invited. However, to receive consideration, such equivalent bids must be accompanied by sufficient descriptive literature and/or specifications to clearly identify the item and provide for competitive evaluation. The GMTBI will be the sole judge of equality and suitability. Whenever the name of a manufacturer is mentioned in the specifications and the words “or equal” do not follow, it shall be deemed that the article furnished is that designated by the specifications. The GMTBI reserves the right to return, at contractor’s expense, all items that are furnished which are not acceptable as equals to items specified and contractor agrees to replace such items with satisfactory items at the original bid price.

1.7.10. Modifications or erasures made before bid submission must be initialed in ink by the person signing the bid. Bids, once submitted, may be modified in writing prior to the exact date and time set for the bid closing. Any such modifications shall be prepared on company letterhead, signed by a duly authorized representative, and state the new document supersedes or modifies the prior bid. The modification must be submitted in a sealed envelope marked “Bid Modification” and clearly identifying the RFP title and closing time and date. Bids may not be modified after the bid closing time and date. Telephone and facsimile modifications are not permitted.

1.7.11. Bids may be withdrawn in writing on company letterhead, signed by a duly authorized representative and received at the designated location prior to the date and time set for bid closing.

1.8. Reservation

This RFP does not commit the GMTBI to award a contract, to pay costs incurred in the preparation of a bid in response to this request, or to procure or contract for services or supplies. The GMTBI reserves the right to accept or reject (in its entirety), any bid received as a result of the RFP, if it is in the best interest of the GMTBI to do so.

1.9. Pre-Bid Conference and Letter of Intent to Bid From Vendors

A non-mandatory, pre-bid conference will be held for each prospective bidder if requested. Requests can be sent to gmtbi@sisunet.org

Vendors planning to submit a bid as a result of this RFP are required to complete and submit the Letter of Intent to Bid Form before a bid is submitted. Letters of intent must contain the vendor's SPIN number. Bidder Representative must be fully aware of the FCC Rural Health Care Pilot Project, requirements and processes involved.

1.10. Sample Contracts

All bidders are requested to supply a sample of their standard contract(s) and maintenance contract(s) with their bid. Any terms and conditions submitted by the vendor must reflect all the conditions of the RFP and bidder's response.

1.11. Oral Statements and Commitments

Bidder must clearly understand that any verbal representation made or assumed to be made during any oral discussion held between Bidder's representatives and the GMTBI is not binding. Only the information issued in writing and added to the Request for Proposal specifications file by an official written addendum are binding.

2.0 Proposal Evaluation

2.0.1. Proposal and Contract Terms

2.0.1. Vendor's response to the RFP demonstrates a clear and complete understanding of the goals of the overall project.

2.0.2. Implementation timeline must begin no later than 20 days after the winning proposal is selected. Bid proposals must include a project plan and timeline detailing milestones and overall schedule.

2.0.3. Connectivity services – 3 year duration and option for 5 years.

2.0.4. Hardware service and maintenance – 3 year duration and option for 5 years.

2.0.5. Service Level Agreements and/or Performance guarantees, including uptime and response time guarantees.

2.0.6. Proposed system testing and acceptance provisions will be required on all bid proposals. The GMTBI/SISU reserve the right to work in concert with vendors to develop appropriate test and acceptance criteria for a specific installation or configuration, to be defined and accepted by both parties prior to contract initiation.

2.0.7. Vendor's response to RFP must acknowledge that all or portions of their bid may be selected based on several factors. When only portions of bids are selected, prices will not change for the Buyers on services and/or products that are selected.

2.0.8. Any contract resulting from this RFP will contain specific deliverable item acceptance provisions.

2.0.9. Bid proposals will contain acknowledgement of, and provisions for providing, USAC invoicing requirements and formats. Bidder will conform to invoicing procedures and processes as promulgated by USAC.

2.0.10. Bidder agrees to provide a project manager or other individual who will be the primary contact for all dealings with the GMTBI.

2.0.11. The GMTBI may select the bidder(s) which, in its opinion, has made the bid that is the most cost effective as defined by the FCC Rural Health Care Pilot Program. The GMTBI reserves the right to waive minor irregularities. Donations or gifts to the GMTBI/SISU, will not be considered in the evaluation of bids. The GMTBI reserves the right to reject any or all bids, in whole or in part, and is not necessarily bound to accept the lowest cost bid if that bid is contrary to the best interests of the GMTBI. The GMTBI may cancel this Request for Proposal or reject any or all bid in whole or in part.

2.1 Design Compatibility

2.1.1. Connectivity Services

2.1.1.1. Bidder's proposal accounts for existing network design within the network to which its bid applies, and does not require re-grooming or reconfiguration of circuits or transports not directly impacted by the project.

2.1.1.2. Bidders are required to state their installation process of circuits, testing from end-to-end including through multi-vendor circuits. Vendors are also required to supply documentation of a tested circuit to the GMTBI before any hardware from the GMTBI is connected to it. This testing is required in order to verify that all circuits will fully work.

2.1.1.3. **Cross Connect:**

The GMTBI is seeking to avoid cross connection prices. Any pricing for cross connects should be included in the RFP response and include both recurring and non-recurring costs for the initial GMTBI network described. It is possible that after the initial build, the GMTBI will require additional cross-connects as additional health care entities join the network. At locations where these options are available, the Vendor is asked to

describe any cross-connect policies and all related cross-connect non-recurring and recurring costs in its RFP response. Ideally, Vendors should build cross-connect costs into the initial purchase arrangement and reduce recurring long-term cross-connect costs.

2.1.2. Hardware Components

2.1.2.1 Bidder's proposal for hardware meets the stated requirements of the RFP in all respects without substitution or alteration of required functionality. The proposal must assure that MPLS routing protocol is enabled on all devices. The hardware must be capable of being monitored by the network management software listed in this RFP.

2.1.2.2. Bidder's proposal accounts for existing hardware components and network logical and physical topology, and does not impose restrictions or reconfiguration requirements to accommodate specifications of requested equipment that do not meet RFP requirements.

2.1.2.3. Bidder's proposal includes maintenance, support contract options for 3 & 5 years and installation.

2.1.2.4. Bidder's proposal includes only those installation and configuration services specifically requested in the RFP.

2.1.2.5. Hardware configurations are based on Cisco Systems products, but Cisco-brand hardware is not required. Proposals offering alternate brands and configurations are acceptable, with due consideration of the requirements for compatibility and interoperability.

2.1.2.6. Bidders are required to supply detailed information on hardware when non-Cisco products are being proposed.

2.1.2.7. Bidders must include reasons when not giving a bid on complete hardware that is listed in this RFP. This is to ensure that hardware that is proposed will meet the configuration requirements of the network.

2.1.3. Billing and Administration

2.1.3.1. The vendor is expected to operate and maintain a billing and payment function capable of interfacing with all parties involved and with USAC. The Vendor may need to establish a unique Billing Account Number for the GMTBI, to comply with USAC needs.

2.1.3.2. The Vendor agrees that upon successful testing of new facilities, the GMTBI will advise the Vendor that the service has been accepted.

The GMTBI and the Vendor will mutually agree on a process to constitute the acceptance of service definition. Billing for new service must begin only after the GMTBI provides the Vendor with the acceptance of service notice.

2.1.4. Cancellation/Termination

The GMTBI and participating site may terminate any contract resulting from this RFP immediately at any time the Vendor fails to carry out its responsibilities or to make substantial progress under the terms of this RFP and resulting contract. The GMTBI and participating site shall provide the Vendor with advance notice of performance conditions which are endangering the contract's continuation. If after such notice the Vendor fails to remedy the conditions contained in the notice, within the time period contained in the notice, the GMTBI and participating site shall issue the Vendor an order to cease any and all work immediately.

The GMTBI and participating site shall be obligated only for services rendered prior to the date of the notice of termination. The contract may also be terminated by the GMTBI and participating site with thirty (30) days prior notice. If the Vendor defaults in its agreement to provide personnel, equipment and or services to the GMTBI and participating site's satisfaction, or in any other way fails to provide service in accordance with the contract terms, the GMTBI and participating site may take whatever action it deems necessary to provide alternate services and may, at its option, immediately cancel this contract with verbal and written notice. Except for such cancellation for cause by the GMTBI and participating site, either the GMTBI and participating site or the Vendor may terminate this contract by giving 90 days advance written notice to the other party.

2.1.5. Vendor Invoicing and Payment Process

The Vendor shall submit invoices, in arrears, as outlined by the guidelines of the FCC/USAC, (15% participant and 85% USAC) at the address on the face of the purchase order labeled "Invoice To" pursuant to the terms of the contract.

The vendor invoicing process described in this section is mandated by USAC and its various administrative requirements.

Questions regarding the invoicing process should be directed to gmtbi@sisunet.org At a minimum, every vendor invoice submitted to each participating site must contain the Vendor invoice number; Vendor invoice date; Vendor Billing Account Number (BAN); and Total invoice amount.

2.1.5.1 Network Cost Worksheet (NCW)

During the invoicing process USAC mandates use of the Network Cost Worksheet (NCW) to process the charges. This RFP incorporates some elements of the NCW. The GMTBI will the necessary conversions to the NCW format for submission to USAC, but the vendor's cooperation will be required.

2.1.5.2. Allocation of Costs

The vendor must allocate all costs associated with the project to specific HCP participants. Any specific cost attributable to multiple participants must be allocated on a reasonable and demonstrable basis. Any cost that does not directly support the health care network cannot be funded by the RHCPP project.

The vendor must use the GMTBI Site Number listed in section "1.4" in all invoicing transactions. Each and every identifiable one-time (non-recurring) cost for hardware, circuits and to construct the health care network must be allocated to the participating sites and described using the following fields:

- A "Non-recurring" tag;
- Identification of the participating HCP site that will receive the equipment or to whom the network construction costs are being allocated. Use the participating site number shown in section "1.4"
- General description of the item. The description of each hardware item must include manufacture and model number.
- Component, e.g., fiber, network switch, router, T-1, bandwidth fee, connection fee, install fee, etc.
- The number of Items;
- The cost per item
- The total cost for this line item, i.e., the "number of items" times "the cost per item."

2.1.5.3. Funding Sources

The vendor will be reimbursed from two funding sources: the FCC (via USAC and the GMTBI). The FCC (through USAC/GMTBI) will reimburse up to 85% of the costs. The participating entities will cover the remaining amount (15%).

2.1.5.4. Five-step Invoicing Process

The vendor will invoice FCC/USAC/Participating Sites and GMTBI using the following process:

1. **Vendor Invoices and Collects Payment**
The vendor must first invoice the participating sites and collect its 15% share of the cost before it can invoice GMTBI.

2. **Vendor Invoices GMTBI**
After receipt of payment from the participating entities, the vendor may invoice the balance (85% or less) to GMTBI. The vendor must send GMTBI an invoice containing the data detailed below and showing the full cost, the amount paid by the participating sites, and the amount to be paid by USAC/GMTBI; a single invoice may include multiple items. However, each charge must be itemized.
   i. Proof that the HCPs paid its required percentage; and
   ii. A cop of the Network Cost Worksheet (NCW pages that contains the participating entities invoiced items. These items should be highlighted.

3. **GMTBI Processes Invoice**
   i. The GMTBI will review the invoice, proof of the participating entities' payments, and marked-up NCW
   ii. The GMTBI will reformat the invoice to USAC specification, certify the invoice, and return it to the vendor. At the same time, GMTBI will submit documentation supporting the invoice to USAC.

4. **Vendor Certifies Invoice**
The vendor will also certify the invoice the GMTBI has prepared and then submit it to USAC for payment.

5. **USAC Review and Pays**
USAC will review the invoice submitted by the vendor and the supporting documentation submitted by GMTBI and then pay the vendor. USAC currently pays invoices twice a month.

2.1.5. Managed Services Specifications (optional)

2.1.5.1. The GMTBI will possibly seek Vendors to provide some level of Managed Services for the network services and facilities. These services may be procured via this RFP on the GMTBI may issue a separate RFP for this purpose.

2.2. Testing and Acceptance

2.2.1. Prior to the GMTBI finalizing the purchase of services, then Vendor will test the links to certify acceptance.

2.2.2. Vendors must describe the process for conducting the tests and the types of results produced.

2.3. Backbone Network

2.3.1. For purposes of network connectivity, Vendors responding to this RFP may assume the following network hub/access point locations:

- 5 West 1st Street Suite 200, Duluth,MN 55802
- 301 Becker Ave NW, Wilmar, MN 56201
- 1200 S. Columbia Rd. Grandforks, ND 58201

NOTE to Vendors: Vendors are not required to use the hub locations listed above. Vendors may choose to use alternate hub locations. What is required, however, is that proposals must link the end user location(s) to one or more of the above hub locations, for connection to the GMTBI network, as appropriate for the vendor's response. Vendors are encouraged to develop and submit response that are appropriate for the vendor's capabilities.

2.4. Provider / Vendor Qualifications

2.4.1 Bidder possesses the ability to provide proposed products in the manner and within the timeline specified in the RFP, as determined by the GMTBI, based on:

2.4.1.1. Describe the prior experience and qualifications related to accomplishing the work as requested. Bidder must provide a current Service Provider Identification Number (SPIN) in their proposal.

2.4.1.2. References: provide a list of references that identifies services provided for similar work. Include telephone numbers and mailing addresses of individuals who can attest to the Bidder's experience and qualifications of the services requested.

2.4.1.3. Reputation in the industry. Provide background regarding the bidder, including: length of time in business, other activities performed by the Bidder, and number of individuals on staff (including owners, partners, and employees).

2.4.1.4. Past performance in the experience of one or more of the GMTBI and SISU Medical Systems partners (if applicable).

2.4.1.5. Objective qualifications of key staff and proposed project personnel.

2.4.1.6. Bidder's proposal includes only those installation and configuration services specifically requested in the RFP.

2.5. Cost

2.5.1. Bid proposals must identify all cost associated with the proposed solution, including installation, configuration, maintenance and any recurring costs.

Specifically, for connectivity proposals

2.5.2.1 Implementation fees, including one-time connection or provisioning charges, hardware costs, and cabling cost for desired termination point.

2.5.2.2. Monthly recurring charges amortized over the period of the proposed contract, for transmission at the proposed bandwidth, port charges, taxes, fees, and assessments. Must also include any cross connect fees to connect higher facility in the Centrally Managed Hub. Any cross connects would be made at the Central Office – Melrose located in downtown Duluth, MN.

2.5.2.3. Contract termination provisions, including specific penalties, if any, for early termination by GMTBI/SISU Medical Systems. Specifically, an opt-out option if the grant funding, or USF program is terminated, is stipulated.

Hardware Proposals:

2.5.2.4. Purchase price for each unit. Bundled pricing may be cited, but individual components must be identified and detailed pricing provided.

2.5.2.4. One time purchase cost, including 3 years maintenance for all hardware.

2.5.2.6. Shipping costs for each unit or shipment.

2.5.2.7. Design, engineering, configuration and installation charges.

2.5.2.8. Taxes, permits, fees, licenses.

Installation Proposals:

2.5.2.9. Purchase price for each unit. Bundled pricing may be cited, but individual components must be identified and detailed pricing provided.

2.5.2.10. Shipping cost for each unit or shipment.

2.5.2.11. Design, engineering, configuration and installation charges.

2.5.2.12. Taxes, permits, fees, licenses.

2.5.2.13. Maintenance and/or support charges for the proposed contract period.

2.5.2.14. All subcontracting shall be pre-approved by the GMTBI. The Prime Contractor/Bidder shall be responsible for all subcontractor(s) work and payment. The GMTBI/SISU Medical Systems will not pay any subcontractor or third parties directly. Proof of release of liens of subcontractors will need to be submitted prior to invoice approval.

2.5.2.15. All costs may not qualify for RHCPP funding. It is critical that accurate, detailed cost information should be provided for all portions of the bid proposal. Any non-eligible costs must be provided separate from all eligible costs.

2.6. Evaluation and Decision

2.6.1. The selection will be based on all factors indicated in this section, and may not go to the lowest bidder if cost is outweighed by a combination of other features in the winning vendor's bid.

2.6.2. The GMTBI/SISU Medical Systems reserves the right to select all or portions of bids based on a number of factors that is in the best interest of the Buyer.

2.6.3. Any clerical errors, apparent on its face, may be corrected by the Buyer before contract award. Upon discovering an apparent clerical error, the Buyer shall contact the bidder and request clarification of the intended bid. The correction shall be incorporated in the notice of award. GMTBI/SISU Medical Systems reserve the right to request clarification of any portion of the bidder's response in order to verify the intent. The bidder is cautioned, however, that its response may be subject to acceptance or rejection without clarification.

2.6.4. The GMTBI/SISU Medical Systems reserves the right to select bid proposals which, in the sole judgment of the GMTBI/SISU Medical Systems, most nearly conforms to the specifications set forth herein.

2.6.5. The GMTBI/SISU Medical Systems reserve the right to waive any and all issues of form or presentation in considering bid presentations for acceptance or rejection, if, in the sole opinion of the GMTBI/SISU Medical Systems, such a waiver is in the best interests of the project.

2.6.6. The GMTBI/SISU Medical Systems is not responsible for any costs incurred by a vendor related to the preparation or delivery of the bid proposal, or any other activities carried out by the vendor as it relates to this RFP.

2.6.7. Changes in applicable laws and rules may affect the award process or any resulting contracts. Vendors are responsible for ascertaining pertinent legal requirements and restrictions. Vendors are encouraged to visit the official Federal websites pertaining to the Pilot Project, at http://www.lifelinesupport.org/rhc-pilot-program/ and http://www.fcc.gov/cgb/rural/rhcp.html.

2.6.8. The selection decisions made by The GMTBI/SISU Medical Systems and reported to USAC under this RFP are final, and appeals or re-submissions will not be considered.

3.0. Site, Routing, and Technical Information

3.1. The project requires broadband connectivity, site-based network routing hardware and network management tools.

3.2. All hardware bids solicited under this RFP are for new hardware only. No bid may include any change, updating, or "re-organizing" of any hardware currently located at the centrally managed hub location (SISU Medical Systems). Bids failing to meet these requirements will be rejected without further consideration.

3.3. The specification sheet provides site physical and contact information, as well as hardware requirements.

3.4. Site: Centrally Managed Hub (SISU Medical Systems)

3.4.1. All circuits are to be fully provisioned from end-point to core location. Physical facility installation to the demarcation point at the site must be included in the bid.

Street Address:	**5 West 1st Street** **Suite 200** **Duluth, MN 55802**
Facility Contact:	**Bill Sislo**
Phone:	**(218) 529-7905**

3.4.2. **Connectivity Requirements**

3.4.2.1. Internet Bandwidth: 150 Mbps minimum with capacity to increase for future expansion. This bandwidth is to be separate from the multiple circuit termination and handed off via Ethernet connection. Approximately four class C IP Address ranges will need to be reserved on this connection.

3.4.2.2. Multiple Circuit Termination: Many point-to-point circuits will be terminating at the centrally managed hub to allow data traffic to flow throughout the WAN. These circuits may include DS1/T1s, DS3s, OC3s and etc. In order to handle all the potential connections into the building, these connections must be terminated at the main Central Office - Melrose located in downtown Duluth, MN and brought to the centrally managed hub data center in an effective manner. Any connectivity between the centrally managed hub and the main Central Office - Melrose located in downtown Duluth, MN must be able to terminate multiple vendor connections and provide two paths in case of circuit failure. One channelized OC3 is required to terminate future T1s and channelized DS3.Fiber or Ethernet is also required for termination of clear channel circuits and must be able to carry the 45MB connection from the POP location in Grandforks, ND. Any cross connect charges that would be incurred for termination of future incoming circuits must be built into the cost.

3.4.2.3. PRI: Local PRI with 56k Clear Channel to support Video Conferencing and voice conferencing for telemedicine.

3.4.2.4. Latency: Any connection between the GMTBI centrally managed hub and the Central Office that provides the multiple termination points must support Ping times (packet round-trip times) of 20 milliseconds or less through to far end are desirable. Connections with ping times in excess of 30 milliseconds would result in unacceptable responsiveness. Average and maximum ping time should be specified. Network architecture features that will minimize latency should be identified.

3.4.2.5. Jitter: Jitter shall be appropriate for high-definition video transport not exceeding 20 milliseconds.

3.4.2.6. Packet Loss: there shall be no packet loss over any typical 60-minute period. Average packet loss for any month shall be less than 0.5%

3.4.2.7. Reliability: Reliability is extremely important since the connections will support real-time patient care. Network architectural features that will increase reliability should be identified. Error-free uptime shall be 99.999%

3.4.2.8. Support: The quality of support available when problems arise will be considered. Bidders should describe their help desk procedures, capabilities and response to issues when requirements are not being met.

3.4.3. **Hardware Requirements**

3.4.3.1. All hardware listed is dependent on the types of circuits that will be terminating to the main router, LAN-to-LAN VPN connections, and network security needed for data.

3.4.3.2. All hardware must be compatible with existing network hardware located at SISU Medical Systems.

3.4.3.3. General information for the hardware is specified in Appendix A: Hardware Specifications. These configurations are based on Cisco Systems products, but Cisco brand hardware is not required. Proposals offering alternate brands and configurations are acceptable, with due consideration of requirements for compatibility and interoperability.

3.4.3.4. Equipment must support the following

- EIGRP routing
- Hardware-assisted NAT and GRE
- Private VLANs, VRF and MPLS
- Quality of service (QOS)
- Redundancy features of HSRP, VRRP, EtherChannel and GLBP
- Support Management features of NetFlow, RSPAN, ERSPAN and embedded Event Manager (EEM).
- Mulitcast features of PIM sparse mode, dense mode, and bi-directional PIM

3.4.3.5. Refer to Appendix H: Centrally Managed Hub for an overview of how the hardware will be connected

3.4.4. **Hardware Programming Requirements**

Programming and configuration of core routers must utilize MPLS to allow for complete segregation of participating sites subnets. Only cross traffic occurs on firewalls between segregation points. The MPLS configuration must also allow for QOS, VLANs, VRFs NAT, MPLS-VPN and etc.

3.4.5. **Network Management Requirements**

3.4.5.1. Network management tools are important for GMTBI network in order to manage, monitor and maintain network quality.

3.4.5.2. These tools will be software-based and run on a server connected to the network.

3.4.5.3. The network management tools and server specifications specified in Appendix B are based on the quality of network management that is needed. Tools also must support unlimited monitoring with no limitation on the number of nodes.

3.4.5.4. The configuration is based on Solarwinds Orion network management products, but is not required. Proposals offering alternate brand and configurations are acceptable, with due consideration of requirements for management and monitoring.

3.5. Hub **Site: Altru Grandforks**

3.5.1. All circuits are to be fully provisioned from end-point to core location. Physical facility installation to the demarcation point at the site must be included in the bid.

Site:	**Altru Hospital - Grandforks**
Street Address:	**1200 S. Columbia Rd. Grandforks, ND 58201**
Facility Contact:	**Matt Schumacher**
Phone:	**701-708-5587**

3.5.2. **Connectivity Requirements**

3.5.2.1. Transport to be determined by vendor, but must be transparent to layer-2, layer-3 and higher protocols, including MPLS.

3.5.2.2. Bandwidth: 45 Mbps minimum between Grandforks, ND location and terminated on an Ethernet or Fiber level connection that is provided in the Centrally Managed Hub (SISU Medical Systems) portion of this RFP. Desired handoff at Grandforks location is Ethernet or Fiber. 10 MB connection needed to North Region Health Alliance current MPLS network provided by Zayo.

3.5.2.3. Latency: Must support Ping times (packet round-trip times) of 20 milliseconds or less through to far end are desirable. Connections with ping times in excess of 30 milliseconds would result in unacceptable responsiveness. Average and maximum ping time should be specified. Network architecture features that will minimize latency should be identified.

3.5.2.4. Jitter: Jitter shall be appropriate for high-definition video transport not exceeding 20 milliseconds.

3.5.2.5. Packet Loss: there shall be no packet loss over any typical 60-minute period. Average packet loss for any month shall be less than 0.5%

3.5.2.6. Reliability: Reliability is extremely important since the connections will support real-time patient care. Network architectural features that will increase reliability should be identified. Error-free uptime shall be 99.999%

3.5.2.7. Refer to Appendix I: Centrally Managed Hub to Remote Hub and Sites for an overview of how the hardware and connections will be connected

3.5.3. **Hardware Requirements**

3.5.3.1. All hardware listed must be compatible with existing network hardware on a functional, configuration, and physical level.

3.5.3.3. General information for the hardware is specified in Appendix C: Hardware Specifications Altru (Grandforks, ND). These configurations are based on Cisco Systems products, but Cisco brand hardware is not required. Proposals offering alternate brands and configurations are acceptable, with due consideration of requirements for compatibility and interoperability.

3.6. Site: North Region Health Alliance (Warren)

3.6.1. All circuits are to be fully provisioned from end-point to core location. Physical facility installation to the demarcation point at the site must be included in the bid.

Site:	**North Region Health Alliance**
Street Address:	**115 South Main Street** **Warren, MN 56762** **Suite 4**
Facility Contacts:	**Jon Linnell**
Phone:	**(218)-745-3242**

3.6.2. **Connectivity Requirements**

3.6.2.1. Transport to be determined by vendor, but must be transparent to layer-2, layer-3 and higher protocols, including MPLS.

3.6.2.2. Bandwidth: 45 Mbps dedicated internet connection to be terminated on current fiber build in datacenter. 4.5MB connection minimum between Grandforks, ND location and Warren, MN location to be terminated on current fiber build in datacenter. Refer to Appendix "I" for design reference.

3.6.2.3. Latency: Must support Ping times (packet round-trip times) of 20 milliseconds or less through to far end are desirable. Connections with ping times in excess of 30 milliseconds would result in unacceptable responsiveness. Average and maximum ping time should be specified. Network architecture features that will minimize latency should be identified.

3.6.2.4. Jitter: Jitter shall be appropriate for high-definition video transport not exceeding 20 milliseconds.

3.6.2.5. Packet Loss: there shall be no packet loss over any typical 60-minute period. Average packet loss for any month shall be less than 0.5%

3.6.2.6. Reliability: Reliability is extremely important since the connections will support real-time patient care. Network architectural features that will increase reliability should be identified. Error-free uptime shall be 99.999%

3.6.3. **Hardware Requirements**

3.6.3.1. All hardware listed must be compatible with existing network hardware on a functional, configuration, and physical level.

3.6.3.3. General information for the hardware is specified in Appendix D: Hardware Specifications North Region Health Alliance. These configurations are based on Cisco Systems products, but Cisco brand hardware is not required. Proposals offering alternate brands and configurations are acceptable, with due consideration of requirements for compatibility and interoperability.

3.7. **Site: Fairview – St. Paul**

3.7.1. All circuits are to be fully provisioned from end-point to core location. Physical facility installation to the demarcation point at the site must be included in the bid.

Site:	**Fairview Health Services**
Street Address:	**400 Roosevelt St SE Minneapolis, MN 55413-2809**
Facility Contacts:	**Dick Neubauer**
Phone:	**(612)-672-2885**
	Cathy Montour
Phone:	**(612)-672-6828**

3.7.2. **Connectivity Requirements**

3.7.2.1. Transport to be determined by vendor, but must be transparent to layer-2, layer-3 and higher protocols, including MPLS.

3.7.2.2. Bandwidth: 45 Mbps minimum between Minneapolis, MN location and terminated on an Ethernet or Fiber level connection that is provided in the Centrally Managed Hub (SISU Medical Systems) portion of this RFP. Desired handoff at Minneapolis location is Ethernet or Fiber. Refer to Appendix “I” for design reference

3.7.2.3. Latency: Must support Ping times (packet round-trip times) of 20 milliseconds or less through to far end are desirable. Connections with ping times in excess of 40 milliseconds would result in unacceptable responsiveness. Average and maximum ping time should be specified. Network architecture features that will minimize latency should be identified.

3.7.2.4. Jitter: Jitter shall be appropriate for high-definition video transport not exceeding 20 milliseconds.

3.7.2.5. Packet Loss: there shall be no packet loss over any typical 60-minute period. Average packet loss for any month shall be less than 0.5%

3.7.2.6. Reliability: Reliability is extremely important since the connections will support real-time patient care. Network architectural features that will increase reliability should be identified. Error-free uptime shall be 99.999%

3.7.3. **Hardware Requirements**

3.7.3.1. All hardware listed must be compatible with existing network hardware on a functional, configuration, and physical level.

3.7.3.3. General information for the hardware is specified in Appendix E: Hardware Specifications Fairview Health Services. These configurations are based on Cisco Systems products, but Cisco brand hardware is not required. Proposals offering alternate brands and configurations are acceptable, with due consideration of requirements for compatibility and interoperability.

3.8. Site: Human Development Center (HDC)

3.8.1. All circuits are to be fully provisioned from end-point to core location. Physical facility installation to the demarcation point at the site must be included in the bid.

Site: **Human Development Center**

Street Address: **1401 East First Street Duluth, MN 55085**

Facility Contacts: **Scott Frisby**
Phone: **(218)-730-2365**

3.8.2. **Connectivity Requirements**

3.8.2.1. Transport to be determined by vendor, but must be transparent to layer-2, layer-3 and higher protocols, including MPLS.

3.8.2.2. Bandwidth: The bandwidth requirements for each location is listed along with where the circuit needs to be terminated. Refer to Appendix "J" for design reference.

Location	Zip	Bandwidth Required	Termination Point
629 First Ave. Two Harbors, MN	55616	1.5MB T1	1401 East First Street, Duluth MN
1807 West Highway 61 Grand Marais, MN	55604	1.5MB T1	1401 East First Street Duluth, MN

1500 North 34th Street Superior, WI	54880	3MB T1	1401 East First Street Duluth, MN
31 North 2nd Ave West Duluth, MN	55802	1.5MB T1	1401 East First Street Duluth, MN
315 North 2nd Ave West Duluth, MN	55806	1.5MB T1	1401 East First Street Duluth, MN
215 North Central Avenue Duluth, MN	55807	1.5MB T1	1401 East First Street Duluth, MN
40 Eveleth Street Cloquet, MN	55720	1.5MB T1	1401 East First Street Duluth, MN
1730 East Superior Street Duluth, MN	55805	3MB T1	1401 East 1st Street Duluth, MN
1401 East First Street Duluth, MN	55805	20MB	Centrally Managed Hub 5 West 1st Street Duluth, MN 55802

3.8.2.3. Latency: Must support Ping times (packet round-trip times) of 20 milliseconds or less through to far end are desirable. Connections with ping times in excess of 25 milliseconds would result in unacceptable responsiveness. Average and maximum ping time should be specified. Network architecture features that will minimize latency should be identified.

3.8.2.4. Jitter: Jitter shall be appropriate for high-definition video transport not exceeding 20 milliseconds.

3.8.2.5. Packet Loss: there shall be no packet loss over any typical 60-minute period. Average packet loss for any month shall be less than 0.5%

3.8.2.6. Reliability: Reliability is extremely important since the connections will support real-time patient care. Network architectural features that will increase reliability should be identified. Error-free uptime shall be 99.999%

3.8.3. **Hardware Requirements**

3.8.3.1. All hardware listed must be compatible with existing network hardware on a functional, configuration, and physical level.

3.8.3.3. General information for the hardware is specified in Appendix F: Hardware Specifications North Human Development Center. These configurations are based on Cisco Systems products, but Cisco brand hardware is not required. Proposals offering alternate brands and configurations are acceptable, with

due consideration of requirements for compatibility and interoperability.

3.9. **Site: Fraser Child & Family Center**

3.9.1. All circuits are to be fully provisioned from end-point to core location. Physical facility installation to the demarcation point at the site must be included in the bid.

Site: **Fraser Child & Family Center**

Street Address: **2400 West 64th Street Minneapolis, MN 55423**

Facility Contacts: **Shelly Brandl**
Phone: **(612)-331-9413**

3.9.2. **Connectivity Requirements**

3.9.2.1. Transport to be determined by vendor, but must be transparent to layer-2, layer-3 and higher protocols, including MPLS.

3.9.2.2. Bandwidth: The bandwidth requirements for each location is listed along with where the circuit needs to be terminated. Desired handoff for each location is Ethernet. Ethernet handoff is desired at Minneapolis location for termination of remote sites and ability to VLAN traffic. Ethernet is desired for connection between Minneapolis location and Centrally Managed Hub. Refer to Appendix "K" for design reference.

Location	Zip	Bandwidth Required	Termination Point
1801 American Blvd. Suite #1 Bloomington, MN	55425	1.5MB T1 or Ethernet	333 University Ave. S.E. Minneapolis, MN 55414
2400 W. 64th Street Richfield, MN	55423	1.5MB T1 or Ethernet	333 University Ave. S.E. Minneapolis, MN 55414
2829 Verndale, Ave. Anoka, MN	55303	1.5MB T1 or Ethernet	333 University Ave. S.E. Minneapolis, MN 55414
333 University Ave. S.E. Minneapolis, MN	55414	5MB T1s or Ethernet	Centrally Managed Hub 5 West 1st Street Suite 200 Duluth, MN 55802

3.9.2.3. Latency: Must support Ping times (packet round-trip times) of 20 milliseconds or less through to far end are desirable. Connections with ping times in excess of 25 milliseconds would result in unacceptable responsiveness. Average and maximum ping time should be specified. Network architecture features that will minimize latency should be identified.

3.9.2.4. Jitter: Jitter shall be appropriate for high-definition video transport not exceeding 20 milliseconds.

3.9.2.5. Packet Loss: there shall be no packet loss over any typical 60-minute period. Average packet loss for any month shall be less than 0.5%

3.9.2.6. Reliability: Reliability is extremely important since the connections will support real-time patient care. Network architectural features that will increase reliability should be identified. Error-free uptime shall be 99.999%

3.9.3. **Hardware Requirements**

3.9.3.1. All hardware listed must be compatible with existing network hardware on a functional, configuration, and physical level.

3.9.3.3. General information for the hardware is specified in Appendix G: Hardware Specifications Fraser Child & Family Center. These configurations are based on Cisco Systems products, but Cisco brand hardware is not required. Proposals offering alternate brands and configurations are acceptable, with due consideration of requirements for compatibility and interoperability.

Appendix A: Hardware Specifications Centrally Managed Hub (SISU Medical Systems)

Hardware: **Cisco ASR 1002 WAN Router or approved equal**

Quantity	Product	Description
2	ASR1002-5G-K9	ASR1002 w/ESP-5G, AESK9, 4GB DRAM
2	ASR1000-ESP5	ASR1K Embedded Services Processor, 5Gbps, ASR1002 Only
2	SASR1R1-AESK9-26SR	Cisco ASR 1000 Series RP1 ADVANCED ENTERPRISE SERVICES
4	ASR1000-PWR-AC	Cisco ASR1002 AC Power Supply
4	CAB-AC-RA	Power Cord, 110V, Right Angle
2	SPA-4XCT3/DS0	4-port Channelized T3 to DS0 Shared Port Adapter
1	FLASR1-IOSRED-RTU	SW Redundancy Right-To-Use Feature Lic for ASR1000 Series
2	SPA-8X1GE-V2	Cisco 8-Port Gigabit Ethernet Shared Port Adapter

2	SPA-8XCHT1/E1	8-Port Channelized T1/E1 to DS0 Shared Port Adapter
2	ASR1000-SPA	SPA for ASR1000; No Physical Part; For Tracking Only
2	ASR1000-SPA	SPA for ASR1000; No Physical Part; For Tracking Only
6	CON-SNTP-ASR1KESP	SMARTNET 24X7X4 ASR1K Embedded Svc Processor,5Gbps
6	CON-SNTP-25GKP	SMARTNET 24X7X4 ASR1002 w/ESP-5G,AESK9
6	CON-SNTP-ASR1IOS	SMARTNET 24X7X4 SW Redundancy Right-To-USE Feat Lic
6	CON-SNTP-ASR1AESK	SMARTNET 24X7X4 Cisco ASR1000 Series RP1 ADV Enterprise
6	CON-SNTP-8X1GEV2	SMARTNET 24X7X4 8-Pt Gigabit Enet Shard Pt Adptr
6	CON-SNTP-4XCT3DSO	SMARTNET 24X7X4 2-port Channelized T3 to DS0 Shared
6	CON-SNTP-8XCHT1/E1	SMARTNET 24X7X4 8-port Channelized T1/E1 to DS0 Shared

Hardware: MPLS Core Cisco 7604 Routers or approved equal

Quantity	Product	Description
2	CISCO7604	Cisco 7604 Chassis
2	FAN-MOD-4HS	High-Speed Fan Module for 7604/6504-E
2	7604-RSP7C-10G-P	Cisco 7604 Chassis,4-slot,RSP720-3C-10GE,PS
2	2700W-AC	Dummy PID 2700W AC Power Supply for 7604
2	PWR-2700-AC/4	2700W AC Power Supply for Cisco 7604/6504-E
4	CAB-7513AC	AC Power Cord North America (110)
2	S764AIK9-12233SRC	Cisco 7600-RSP720 IOS Advanced IP Services SSH
2	WS-X6724-SFP	Catalyst 6500 24-port GigE Mod: fabric-enabled (Reg. SFPs)
2	WS-F6700-DFC3C	Catalyst 6500 Dist Fwd Card for WS-X67xx modules
2	RSP720-3C-10GE	Cisco 7600 Route Switch Processor 720Gbps fabric, PFc3C 10G
2	PWR-2700-AC/4	2700W AC Power Supply for Cisco 7604/6504-E
2	MEM-XCEF720-1GB	Cat 6500 1GB DDR, xCEF720 (67xx interface, DFC3BXL)
6	CON-SNTP-047C10GP	SMARTNET 24X7X4 Cisco 7604 Chassis
6	CON-SNTP-CSCO7604	SMARTNET 24X7X4 Top Lvl-Svc on each component

Hardware: Internet Edge Cisco 3925 Routers or approved equal

Quantity	Product	Description
2	CISCO3925E-SEC/K9	Cisco 3925E Security Bundle w/SEC license PAK
2	MEM-CF-256U1GB	256MB to 1GB CF factory upgrade for 3900
4	CAB-AC	AC Power Cord(North America),C13,NEMA 5-15P, 2.1m
2	PWR-3900-AC	Cisco 3900 AC power supply
2	3900-FANASSY	Cisco 3925-3945E Fan Assembly (Both system & spare)
2	3900-SPE200/K9	Cisco Services Performance Engine 200 for Cisco 3925E
2	FL-SSLVPN-100-K9	Feature License IOS SSL VPN Up To 100 Users (Incremental)
2	SL-39-IPB-K9	IP Base License for Cisco 3925/3945
2	SL-39-SEC-K9	Security License for Cisco 3900 Series
2	SL-39-DATA-K9	Data License for Cisco 3900 Series
2	HWIC-1GE-SFP	GigE High Speed WIC With One SFP Slot
4	GLC-SX-MM	GE SFP, LC Connector SX Transceiver
2	HWIC-4ESW	Four Port 10/100 Ethernet Switch Interface Card
2	ISR-CCP-CD	Cisco Config Professional on CD, CCP-Express on Router Flash
2	ACS-3900-RM-23=	23 inch rack mount kit for Cisco 3925
2	AIM-VPN/SSL-3	DES/3DES/AES/SSL VPN Encryption/Compression
6	CON-SNT-3925ESEC	SMARTNET 8X5XNBD 3925E Security Bundle w/SEC Lic PAK

Hardware: Internet Edge Cisco Catalyst 3750G Switches or approved equal

Quantity	Product	Description
2	WS-C3750G-24TS-E1U	Catalyst 3750 24 10/100/1000 + 4 SFP + IPS Image; 1RU
2	CAB-STACK-50CM	Cisco StackWise 50CM Stacking Cable
2	CAB-AC	AC Power Cord(North America),C13,NEMA 5-15P, 2.1m
6	CON-SNTP-3750GE1U	SMARTNET 24X7X4 Cat 3750 24 10/100/1000T + 4 SFP EN

Hardware: Internet Edge Cisco Catalyst 2960S Switches or approved equal

Quantity	Product	Description
2	WS-C2960S-24TS-L	Catalyst 2960S 24GigE, 4 x SFP LAN Base
2	CAB-16AWG-AC	AC Power Cord, 16AWG
2	C2960S-STACK	Catalyst 2960S FlexStack Stack Module optional for LAN Base
2	CAB-STK-E-0.5M	Cisco FlexStack 50cm Stacking Cable
6	CON-SNTE-2960S2TS	SMARTNET 8X5X4 Cat 2960S Stk 24 GigE,4xSFP LAN Base

Hardware: Cisco RPS2300 or approved equal

Quantity	Product	Description
2	PWR-RPS2300	Cisco Redundant Power System 2300 & Blower, No Power Supply
2	C3K-PWR-750WAC	Catalyst 3750-E / 3560-E 750WAC power supply
2	CAB-16AWG-AC	AC Power cord, 16AWG
2	CAB-RPS2300	RPS 2300 Cable for Devices other than E-Series Switches
4	CAB-RPS2300=	RPS 2300 Cable for Devices other than E-Series Switches
2	BLNK-RPS2300	Bay Insert for Cisco Redundant Power System 2300
6	CON-SNT-RPS2300	SMARTNET 8X5XNBD PWR-RPS2300

Hardware: Virtual Security Cisco ASR 1002 Router or approved equal

Quantity	Product	Description
2	ASR1002-5G-K9	ASR1002 w/ESP-5G, AESK9, 4GB DRAM
2	ASR1000-ESP5	ASR1K Embedded Services Processor, 5Gbps, ASR1002 Only
2	SASR1R1-AESK9-26SR	Cisco ASR 1000 Series RP1 ADVANCED ENTERPRISE SERVICES
4	ASR1000-PWR-AC	Cisco ASR1002 AC Power Supply
4	CAB-AC-RA	Power Cord, 110V, Right Angle
1	FLASR1-IOSRED-RTU	SW Redundancy Right-To-Use Feature Lic for ASR1000 Series
2	ASR1000-SPA	SPA for ASR1000; No Physical Part; For Tracking Only
2	ASR1000-SPA	SPA for ASR1000; No Physical Part; For Tracking Only
6	CON-SNTP-ASR1KESP	SMARTNET 24X7X4 ASR1K Embedded Svc Processor,5Gbps
6	CON-SNTP-25GKP	SMARTNET 24X7X4 ASR1002 w/ESP-5G,AESK9
6	CON-SNTP-ASR1IOS	SMARTNET 24X7X4 SW Redundancy Right-To-USE Feat Lic
6	CON-SNTP-ASR1AESK	SMARTNET 24X7X4 Cisco ASR1000 Series RP1 ADV Enterprise

Hardware: Cisco ASA5550 Firewalls or approved equal

Quantity	Product	Description
2	ASA5550-BUN-K9	ASA 5550 Appliance with SW, HA, 8GE+1FE, 3DES/AES
2	CAB-AC	AC Power Cord(North America),C13,NEMA 5-15P, 2.1m
2	SF-ASA-8.2-K8	ASA 5500 Series Software v8.2
2	ASA5550-SC-50	ASA 5550 50 Security Contexts License
2	ASA5500-ENCR-K9	ASA 5500 Strong Encryption License (3DES/AES)

2	ASA-VPN-CLNT-K9	Cisco VPN Client Software (Windows, Solaris, Linux, Mac)
2	ASA-180W-PWR-AC	ASA 180W AC Power Supply
6	CON-SNTP-AS5550B	SMARTNER 24X7X$ ASA5550 w/SW,HA,8GE+1FE,3DES/AES

Hardware: Optics and GLC Connectors or approved equal

Quantity	Product	Description
30	GLC-T=	1000BASE-T SFP
20	GLC-SX-MM=	GE SFP, LC connector SX transceiver

Appendix B: Network Management

Network Management Software: Solarwinds Orion Network Performance Monitor or Approved Equal

Quantity	Product
1	Orion Network Performance Monitor SLX – license with 3 year maintenance and CD (unlimited elements)
1	NetFlow Traffic Analyzer for Orion NPM SLX – license with 3 year maintenance
1	Orion Engineer's Toolset v10 – license with 3 year maintenance
1	Orion Network Configuration Manager – DL3000 license with 3 year maintenance

Network Management Server Specifications or Approved Equal:

2 Quad Core Intel Xeon Processor E5430 (2.66GH 12MB L2 80W) 2GB Memory
4GB RAM
2 73GB 10K 2.5" Hot-Swap SAS HDD
1 RAID-1 Disk Controller
2 Port Fiber Channel Controller
Microsoft Windows 2003 R2 Standard
Microsoft SQL Server 2005 Standard

Appendix C: Hardware Requirements (Altru - Grandforks)

Hardware: Cisco ASR1004 Router or approved equal

Quantity	Product	Description
1	ASR1004	Cisco ASR1004 Chassis, Dual P/S
2	ASR1000-ESP10	Cisco ASR1000 Embedded Services Processor 10G, Crypto
1	ASR1000-RP1	Cisco ASR1000 Route Processor 1, 2GB DRAM
1	M-ASR1K-RP-4GB	Cisco ASR1000 RP1 4GB DRAM
1	M-ASR1K-HDD-40GB	Cisco ASR1000 RP1 40GB HDD
1	ASR1000-RP1	Cisco ASR1000 Route Processor 1, 2GB DRAM
1	M-ASR1K-RP-4GB	Cisco ASR1000 RP1 4GB DRAM

1	M-ASR1K-HDD-40GB	Cisco ASR1000 RP1 40GB HDD
1	ASR1000-SIP10	Cisco ASR-1000 SPA Interface Processor 10
1	MEMUSB-1024FT	1GB USB Flash Token for Cisco ASR 1000 Series
1	SASR1R1-AESK9-26SR	Cisco ASR 1000 Series RP1 Advanced Enterprise Services
2	SPA-8XCHT1/E1	Cisco 8-port Channelized T1/E1 Shared Port Adapter
1	SPA-8X1GE-V2	Cisco 8-port Gigabit Ethernet Shared Port Adapter, Version 2
1	SPA-2XCT3/DS0	2-port Channelized T3 to DS0 Shared Port Adapter
2	ASR1004-PWR-AC	Cisco ASR1004 AC Power Supply
2	CAB-AC-RA	Power Cord, 110V, Right Angle
1	ASR1000-Rack Kit	Cisco Rack Kit for ASR1000
1	ASR1000-SPA	SPA for ASR1000, No Physical Part, For Tracking Only
1	ASR1000-SPA	SPA for ASR1000, No Physical Part, For Tracking Only
1	ASR1000-SPA	SPA for ASR1000, No Physical Part, For Tracking Only
6	CON-SNTP-ASRESP10	SMARTNET 24X7X4 Cisco ASR1000 Embedded Services Processor
3	CON-SNTP-ASRRP1	SMARTNET 24X7X4 Cisco ASR1000 Route Processor 1,2GB DRAM
3	CON-SNTP-ASRRP1	SMARTNET 24X7X4 Cisco ASR1000 Route Processor 1,2GB DRAM
3	CON-SNTP-ASRSIP10	SMARTNET 24X7X4 Cisco ASR1000 SPA Interface Processor 10
3	CON-SNTP-ASR1K4	SMARTNET 24X7X4 Cisco ASR1004 Chassis, Dual P/S
3	CON-SNTP-ASRAISK	SMARTNET 24X7X4 Cisco ASR1000 Series RP1 ADV ENT SERVICE
3	CON-SNTP-8X1GEV2	SMARTNET 24X7X4 8-Port Gigabit Ethernet Shared Port Adapter
6	CON-SNTP-8XCHT1E1	SMARTNET 24X7X4 8Prt Channel T1/E1
3	CON-SNTP-2XCT3DSO	SMARTNET 24X7X4 2-port Channelized T3 to DS0 Shared

Hardware: Cisco 3560 POE Switch or equal

Quantity	Product	Description
1	WS-3560G-48TS-S	Catalyst 3560 48 10/100/1000T + 4SFP + IPB Image
1	CAB-AC	AC Power Cord (North America), C13, NEMA 5-15P, 2.1m
1	CON-SNTP-3560	3 years SNT 8x5xNBD

Hardware: Cisco ASA5520 Firewalls or approved equal

Quantity	Product	Description
1	ASA5520-BUN-K9	ASA 5520 Appliance with SW, HA, 4GE+1FE, 3DES/AES
1	CAB-AC	AC Power Cord (North America), C13, NEMA 5-15P, 2.1m
1	SF-ASA-7.0-K8	ASA 5500 Series Software v7.0
1	ASA5520-VPN-PL	ASA 5520 VPN Plus 750 IPsec License
1	ASA5500-ENCR-K9	ASA 5500 Strong Encryption License (3DES/AES)
1	ASA-VPN-CLNT-K9	Cisco VPN Client Software (Windows, Solaris, Linux, Mac)
1	SSM-BLANK	ASA/IPS SSM Slot Cover
1	ASA-180W-PWR-AC	ASA 180W AC Power Supply
3	CON-SNT-AS2BUNK9	SMARTNET 8X5XNBD ASA5520 w/300 VPN Prs, 4GE+1FE,3DES/AES

Appendix D: Hardware Requirements (North Region Health Alliance – Warren)

Hardware: Cisco 3925 Router or equal

Quantity	Product	Description
1	CISCO3925-SEC/K9	Cisco 3925 Security Bundle w/SEC license PAK
1	S39UK9-15001M	Cisco 3925-3945 IOS Universal
1	SL-39-DATA-K9	Data License for Cisco Series

1	FL -39-HSEC-K9	U.S. Export Restriction Compliance license for 3900 Series
1	FL-39-SNA	SNA Feature License for Cisco 3925/3945
1	MEM-CF-256U1GB	256MB to 1GB Compact Flash Upgrade for Cisco 1900, 2900, 3900
1	CON-SNTP-3845	3 years SNT 8x5xNBD

Hardware: Cisco ASA5520 Firewalls or approved equal

Quantity	Product	Description
1	ASA5520-BUN-K9	ASA 5520 Appliance with SW, HA, 4GE+1FE, 3DES/AES
1	CAB-AC	Power Cord,110V
1	SF-ASA-7.0-K8	ASA 5500 Series Software v7.0
1	ASA5520-VPN-PL	ASA 5520 VPN Plus 750 Peer License
1	ASA5500-ENCR-K9	ASA 5500 Strong Encryption License (3DES/AES)
1	ASA-VPN-CLNT-K9	Cisco VPN Client Software (Windows, Solaris, Linux, Mac)
1	SSM-BLANK	ASA/IPS SSM Slot Cover
1	ASA-180W-PWR-AC	ASA 180W AC Power Supply
3	CON-SNT-AS2BUNK9	SMARTNET 8X5XNBD ASA5520 w/300 VPN Prs, 4GE+1FE,3DES/AES

Hardware: Cisco 3560 POE Switch or equal

Quantity	Product	Description
1	WS-3560G-48TS-S	Catalyst 3560 48 10/100/1000T + 4SFP + IPB Image
1	CAB-AC	AC Power Cord (North America), C13, NEMA 5-15P, 2.1m
1	CON-SNTP-3560	3 years SNT 8x5xNBD

Appendix E: Hardware Requirements (Fairview Health Services)

Hardware: Cisco 3925 Router or equal

Quantity	Product	Description
1	CISCO3925-SEC/K9	Cisco 3925 Security Bundle w/SEC license PAK
1	S39UK9-15001M	Cisco 3925-3945 IOS Universal
1	SL-39-DATA-K9	Data License for Cisco Series
1	FL -39-HSEC-K9	U.S. Export Restriction Compliance license for 3900 Series
1	FL-39-SNA	SNA Feature License for Cisco 3925/3945
1	MEM-CF-256U1GB	256MB to 1GB Compact Flash Upgrade for Cisco 1900, 2900, 3900
1	CON-SNTP-3845	3 years SNT 8x5xNBD

Hardware: Cisco 3560 POE Switch or equal

Quantity	Product	Description
1	WS-3560G-48TS-S	Catalyst 3560 48 10/100/1000T + 4SFP + IPB Image
1	CAB-AC	AC Power Cord (North America), C13, NEMA 5-15P, 2.1m
1	CON-SNTP-3560	3 years SNT 8x5xNBD

Appendix F: Hardware Requirements (Human Development Center)

Hardware: Cisco 2911 Router or approved equal

Quantity	Product	Description
7	CISCO2911-SEC/K9	Cisco 2911 Security Bundle w/SEC License PAK
7	MEM-2900-512U1GB	512MB to 1GB DRAM Upgrade (512MB+512MB) for 2901-2921
7	MEM-CF-256U512MB	256 to 512MB CF Upgrade Cisco 1900, 2900, 3900 ISR
7	HWIC-1GE-SFP	GigE High Speed WIC With One SFP Slot
7	VWIC2-2MFT-T1/E1	2-Port 2nd Gen Multiflex Trunk Voice/Wan Int. Card – T1/E1
7	CAB-AC	AC Power Cord (North America) C13, NEMA 5-15P, 2.1m
7	CAB-Console-USB	Console Cable 6ft with USB Type A and mini-B
7	ISR-CCP-CD	Cisco Config Professional on CD, CCP-Express on Router Flash
7	S29UK9-15001M Cisco	2901-2921 IOS Universal
7	PWR-2911-AC	Cisco11AC Power Supply
7	SL-29-IB-K9	IP Base License for Cisco 2901-2951
7	SL-29-SEC-K9	Security License for Cisco 2901-2951
7	CON-SNT-2911SEC	3 years SNT 8x5xNBD

Hardware: Cisco 3925 Router or equal

Quantity	Product	Description
1	CISCO3925-SEC/K9	Cisco 3925 Security Bundle w/SEC license PAK
1	S39UK9-15001M	Cisco 3925-3945 IOS Universal
1	SL-39-DATA-K9	Data License for Cisco Series
1	FL -39-HSEC-K9	U.S. Export Restriction Compliance license for 3900 Series
1	FL-39-SNA	SNA Feature License for Cisco 3925/3945
1	MEM-CF-256U1GB	256MB to 1GB Compact Flash Upgrade for Cisco 1900, 2900, 3900
1	CON-SNTP-3845	3 years SNT 8x5xNBD

Hardware: Cisco 3560 POE Switch or equal

Quantity	Product	Description
9	WS-3560-48PS-S	Cisco 3560 48 Port POE Switch
9	CON-SNTP-3560	3 years SNT 8x5xNBD

Appendix G: Hardware Requirements (Fraser Child & Family Center)

Hardware: Cisco 2911 Router or approved equal

Quantity	Product	Description
3	CISCO2911-SEC/K9	Cisco 2911 Security Bundle w/SEC License PAK
3	MEM-2900-512U1GB	512MB to 1GB DRAM Upgrade (512MB+512MB) for 2901-2921
3	MEM-CF-256U512MB	256 to 512MB CF Upgrade Cisco 1900, 2900, 3900 ISR
3	HWIC-1GE-SFP	GigE High Speed WIC With One SFP Slot
3	VWIC2-2MFT-T1/E1	2-Port 2nd Gen Multiflex Trunk Voice/Wan Int. Card – T1/E1
3	CAB-AC	AC Power Cord (North America) C13, NEMA 5-15P, 2.1m
3	CAB-Console-USB	Console Cable 6ft with USB Type A and mini-B
3	ISR-CCP-CD	Cisco Config Professional on CD, CCP-Express on Router Flash
3	S29UK9-15001M Cisco	2901-2921 IOS Universal
3	PWR-2911-AC	Cisco110AC Power Supply
3	SL-29-IB-K9	IP Base License for Cisco 2901-2951
3	SL-29-SEC-K9	Security License for Cisco 2901-2951
3	CON-SNT-2911SEC	3 years SNT 8x5xNBD

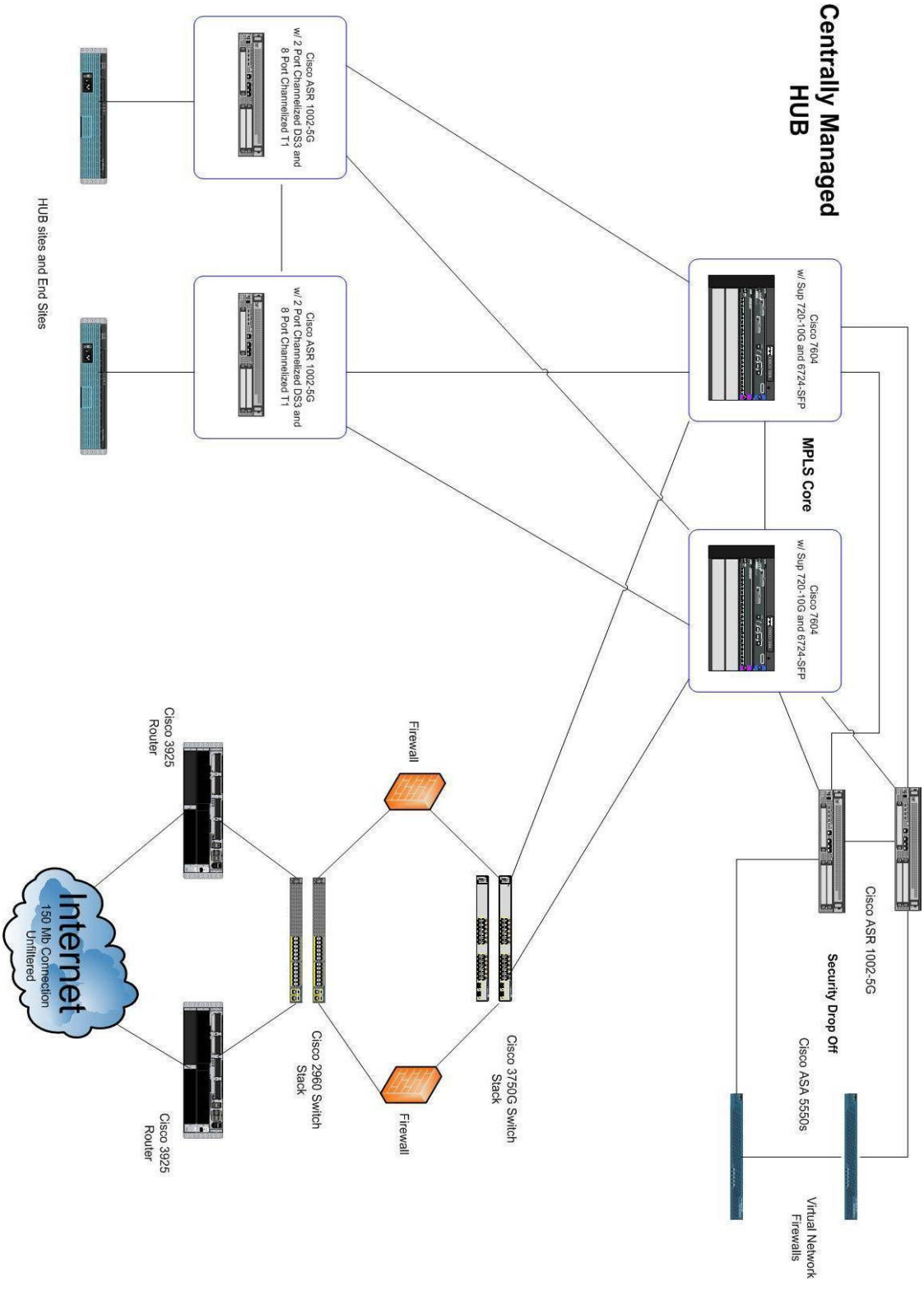
Hardware: Cisco 2921 Router or approved equal

Quantity	Product	Description
1	CISCO2921-SEC/K9	Cisco 2921 Security Bundle w/SEC License PAK
1	MEM-2900-512MB-DEF	512MB DRAM for Cisco 2901-2921 ISR (Default)
1	MEM-CF-256U512MB	256 to 512MB CF Upgrade Cisco 1900, 2900, 3900 ISR
1	HWIC-4ESW	Four Port 10/100 Ethernet Switch Interface Card
1	VWIC2-2MFT-T1/E1	2-Port 2nd Gen Multiflex Trunk Voice/Wan Int. Card – T1/E1
1	CAB-AC	AC Power Cord (North America) C13, NEMA 5-15P, 2.1m
1	CAB-Console-USB	Console Cable 6ft with USB Type A and mini-B
1	ISR-CCP-CD	Cisco Config Professional on CD, CCP-Express on Router Flash
1	S29UK9-15001M Cisco	2901-2921 IOS Universal
1	PWR-2921-51-AC	Cisco 2921/2951 AC Power Supply
1	SL-29-IB-K9	IP Base License for Cisco 2901-2951
1	SL-29-SEC-K9	Security License for Cisco 2901-2951
1	CON-SNT-2911SEC	3 years SNT 8x5xNBD

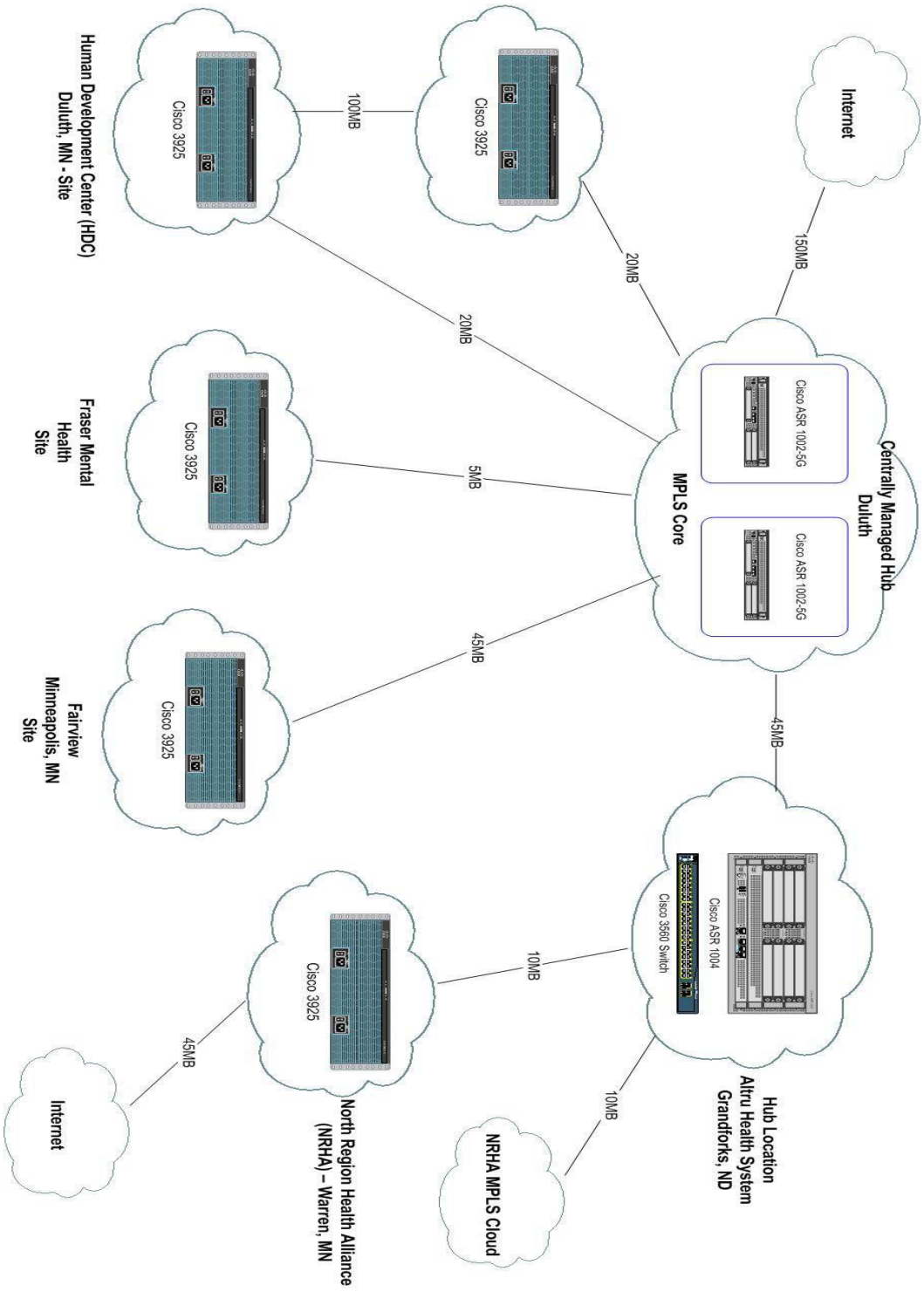
Hardware: Cisco 3560 POE Switch or equal

Quantity	Product	Description
4	WS-3560-48PS-S	Cisco 3560 48 Port POE Switch
4	CON-SNTP-3560	3 years SNT 8x5xNBD

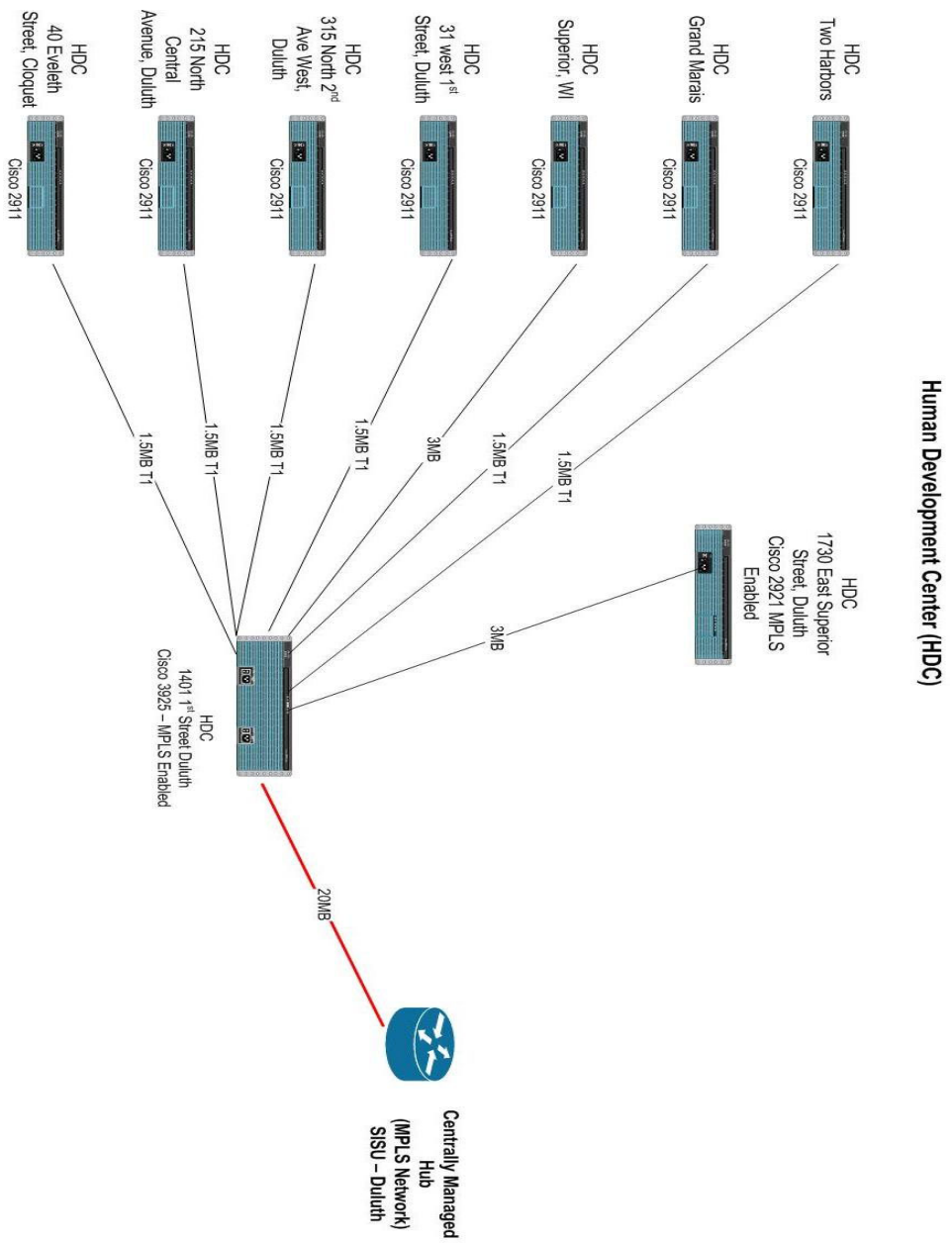
Appendix H: Centrally Managed Hub



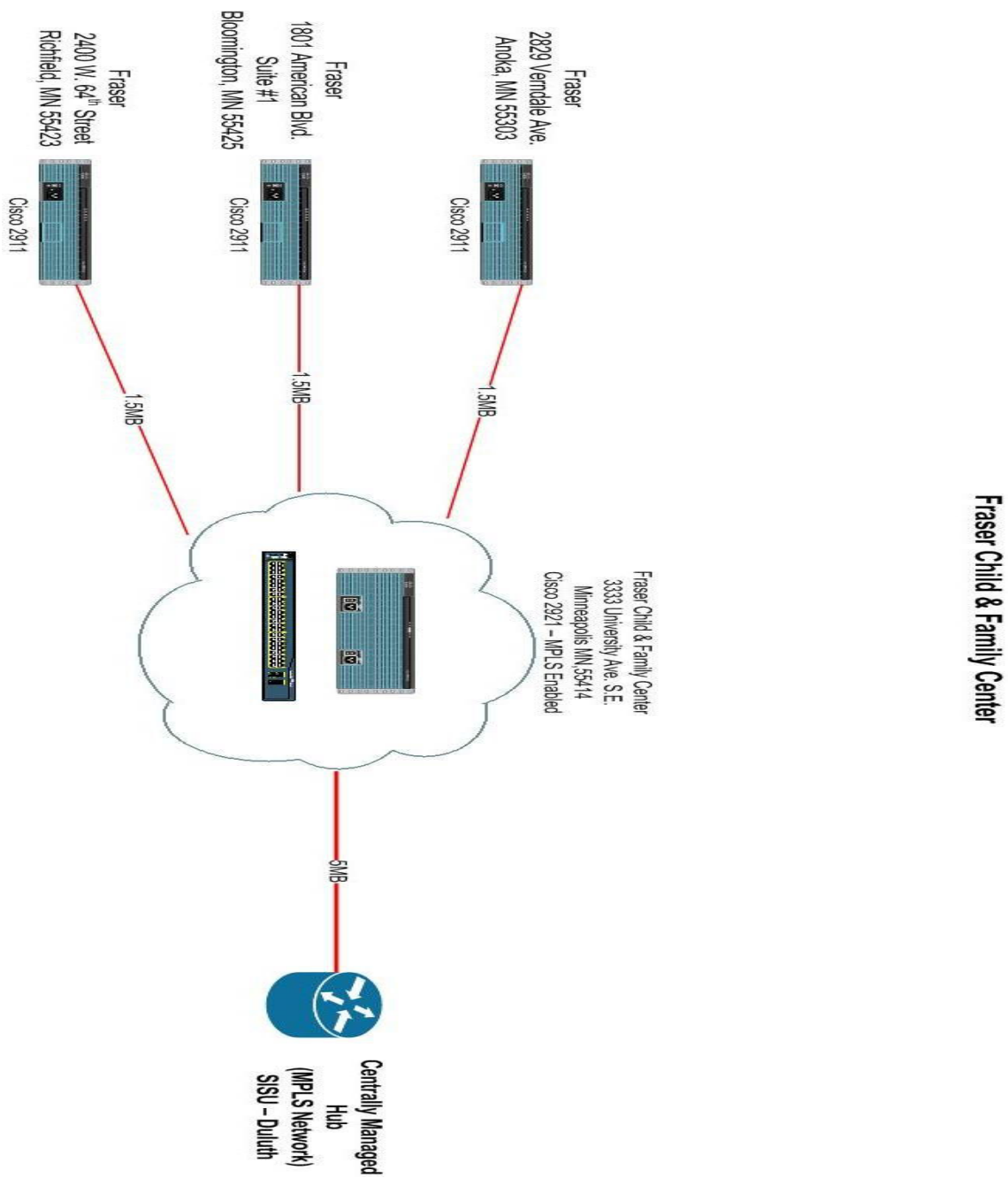
Appendix I: Centrally Managed Hub to Remote Hub And Sites



Appendix J: Human Development Center



Appendix K: Fraser Child & Family Center


Fraser Child & Family Center
Fraser
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Fraser
1801 American Blvd.
Suite #1
Bloomington, MN 55425
Cisco 2911
Fraser
2400 W. 64th Street
Richfield, MN 55423
Cisco 2911
1.5MB
1.5MB
1.5MB
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5MB
Centrally Managed
Hub
(MPLS Network)
SISU – Duluth