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1.0 Introduction and Background

1.1 General Information and Layout

1. RFP Scope
This Request for Proposal [RFP] document;
- Outlines the requirements for a Technical Project Manager/Network Support position.
- Encourages qualified applicants to respond in writing to this request with a C.V., letter of interest, salary proposal, and demonstration of experience and competency in all required elements as noted in Section 2.0.

2. Not an Offer to Contract
This Request for Proposal is not an offer to contract but rather an attempt to establish a common framework within which an agreement may be reached.

3. Response is an Offer to Contract
Responses submitted by an applicant to this Request for Proposal represent a firm offer to contract on terms and conditions described in the applicant's response.

4. RFP and Response Become Part of Contract
This Request for Proposal and the response to this Request for Proposal shall become part of the contract.

5. Applicant's Proposal and Selection
ARCHIE reserves the right to accept or reject any or all proposals, to take exception to this Request for Proposal specifications or to waive any formalities. Applicants may not be accepted for further consideration as a result of failure to fully comply with the specifications as set forth in this document.

6. Competitive Bidding
ARCHIE encourages free and open competition among applicants. Whenever possible, specifications, bid invitations and conditions are designed to accomplish this objective, consistent with the necessity to satisfy the needs and the accomplishment of a sound economical operation. The applicant's signature on its proposal guarantees that the salaries quoted have been established without collusion with other eligible applicants or informed parties and without effort to preclude ARCHIE from obtaining the lowest possible competitive price. At no time shall ARCHIE be considered to be under any obligation or commitment to contract from any respondent to the RFP until after a contract has been entered into. The award will be made to the applicant whose overall proposal is determined to be of greatest benefit and the most cost-effective to ARCHIE.

7. Proposal Preparation Costs
Applicant shall absorb all costs incurred by the applicant in the preparation and presentation of a proposal in response to this Request for Proposal document.

8. Proposal Format
To ensure that all applicants are fairly evaluated, it is mandatory that your responses to this request for proposal follow the prescribed format. Failure to follow these requirements may result in the disqualification of your proposal. Your Proposal must be submitted electronically.

9. Proprietary Information
All data and information contained in your Proposal shall be deemed to be non-proprietary unless specific items in which proprietary interest is claimed are clearly marked and an agreement has been entered into. You are not encouraged to submit such data or information unless such is absolutely required to understand and evaluate your Proposal. If such data and information is submitted, you agree that ARCHIE shall not be liable for disclosure of such data and information.

10. Ownership of Documents
All supporting documentation submitted by the applicant with a proposal shall become the property of ARCHIE. These materials are to be appended to any formal documentation, which further defines or expands the contractual relationship between ARCHIE and the applicant. Title to all plans, drawings, specifications, ideas, concepts, models or other tangible work product produced specifically for this project by the applicant pursuant hereto shall remain with ARCHIE.

11. Proposal Submission
Suppliers should prepare one electronic copy and send to:
cochisenetwork@cableone.net

Proposals must be received no later than 28 days after the 465 is posted to the RHC website.

12. Applicant Terminology
Applicants should make every attempt to use terminology in their proposal that is consistent with that of ARCHIE. Comparable terminology may be substituted where appropriate if the applicant provides clear and concise definitions.

13. Experience/References
Provide a list of references. For each reference listed, please provide the following:
- Company name
- Company address
- Person to contact
- Telephone number of contact
- Project concept and responsibilities – please be specific
- Dates of employment/contract dates

14. Product Literature
Product literature may be included as an attachment to your proposal. Product literature alone does not constitute a response to this RFP

1.2 ARCHIE Participants

<u>Member Organizations</u>
Sierra Vista Regional Health Center [SVRHC] is a full service acute care not-for-profit hospital located in Sierra Vista, Cochise County, Arizona. Many of the county's referred patients end up at SVRHC temporarily, but they will return to their communities and Primary Care Providers [PCP]. It would greatly improve patient safety if their medical information also returned to their communities with them, and to their PCPs.

Chiricahua Community Health Centers, Inc [CCHCI] is a federally qualified community health center with 3 outpatient clinics, a mobile unit, and a dental unit. They provide sliding fees based on income to their healthcare clients. With no inpatient capability, their clients must utilize lab, imaging, emergency, and inpatient services at other locations, preferably within Cochise County.

RW Bliss Army Health Center [RWBAHC] is located at Ft Huachuca, an Army intelligence base located near Sierra Vista. They have no inpatient, emergency, or urgent care services at the center. Therefore, they must send their active duty and retired military patients to other facilities in their area to receive those services. There are more than 27,000 shared beneficiaries between RWBAHC and Sierra Vista healthcare organizations. Currently there is no flow of information between the base health clinic and the outside services offered by other providers. This site is also extremely important in national security, emergency, and surveillance activities to be implemented with the deployment of this regional broadband network.

Southeastern Arizona Behavioral Health Services [SEABHS] provides the only publicly funded behavioral health services in 4 extremely rural counties in Arizona. In Cochise County, SEABHS has an inpatient psychiatric facility and 5 outpatient clinics, as well as a crisis intervention team, housing facilities for SMI clients [Seriously Mentally Ill], and a prevention & community development division. Health organizations in the county have been attempting to better integrate clinical medicine and behavioral health. We see ARCHIE as fundamental in this process.

Southeast Arizona Medical Center [SAMC] is the inpatient and emergency health facility in Douglas. They also have an outpatient clinic, and partner with a dialysis center, which is only the second such facility in the entire county. Douglas is directly on the international border with Mexico. Agua Prieta is their sister town which begins on the other side of the border and is a major crossing point for illegal entry into the US.

The Cochise County Sub-Regional Emergency Medical Services Council [CCEMSC] is a network made up of the 25 fire and EMT agencies in the county (many are small volunteer forces). Approximately 90% of their calls are regarding emergency medical services, fighting fires are no longer their main activity. They work closely with Ft Huachuca, air ambulance services, and all of the hospitals in our county. They are involved with many search and rescue operations related to illegal border crossings.

Southern Arizona Health Information Exchange [SAHIE] is a formational regional health information exchange based in Tucson that has been collaborating with the healthcare entities there to implement a centralized data exchange. ARCHIE's plans are to link into the centralized hub in Tucson when operational.

We have also discussed ARCHIE with the provider community in Cochise County, through meetings of the Cochise County Medical Society, and we anticipate some small IP's will want to eventually join ARCHIE. We plan to have web portals available in our MPLS Network, at a smaller cost to these entities.

We have designed our Network Diagram showing some of these potential future members such as SAHIE, CCEMSC, and IP's, but initially we will begin the project with the Phase I members.

PHASE I

Sierra Vista Regional Health Center [SVRHC] Contact: Bruce Norton, CFO	300 El Camino Real Sierra Vista, AZ 85635	520-417-3003
Chiricahua Community Health Centers, Inc [CCHCI] Contact: Richard Sampson, COO	108 Arizona Street Bisbee, AZ 85603	520-642-2222
R W Bliss Army Health Center [RWBAHC] Contact: Debra Scott, CIO	2240 E Winrow Ave Bldg. 45001 Ft Huachuca, AZ 85613	520-533-9313
Southeast Arizona Medical Center [SEAMC] Contact: Brian Bickel, CEO	2174 W Oak Ave Douglas, AZ 85607	520-364-7931

1.3 ARCHIE Project Overview
Cochise Health Network, the parent of ARCHIE, is leading the Cochise County effort to automate the sharing of health information by connecting and exchanging individual and population health data via a stable, secure, and scalable network infrastructure.
ARCHIE proposes to:
- Develop a regional network infrastructure that is shared among participating facilities
- Enable data access from any facility at any time
- Consolidate and centralize core technical resources for county efficiencies
- Expand existing telemedicine capabilities to all regional facilities

- Introduce telehealth capabilities to exchange electronic data
- Automate patient referral and transfer processes
- Facilitate connecting existing electronic clinical information

ARCHIE's objectives are:
- Aligned with state and federal roadmaps
- Phased, incremental, and manageable implementation
- Using purchased hardware & software tools that are augmented for our business needs
- Negotiating collectively to obtain reduced costs

Project monitoring will include process evaluation, seeing that project steps are implemented in a timely and cost-effective manner, as well as outcome evaluation, ensuring that project goals and objectives are met. Metrics identified include:

- Easy to install and maintain infrastructure
- Reliable uptime of entire network
- Increased physician adoption of electronic applications
- Increased number of local providers with access to telemedicine applications
- Improved ease of communication during emergency and disaster relief efforts
- Enhanced surveillance of disease outbreaks and epidemics
- Decreased adverse events attributable to prescribing errors
- Decreased number of laboratory and imaging studies by eliminating redundant testing
- Reduced unnecessary hospitalizations and procedures

The project will be a phased implementation over multiple years. The initial funding will be grants and member allocated funds with ongoing sustainability covered by membership subscriptions, transaction fees, new memberships, and ongoing investment.

Project Funding
Infrastructure implementation is initially subsidized by the FCC's Rural Healthcare Pilot Program. All FCC and USAC regulations will be followed to insure compliance and audit ability. 85% of the implementation costs will be supplied directly by USAC upon approval of the ARCHIE project coordinator. Bidders should be familiar with the payment structure of this program [see http://www.usac.org/rhc-pilot-program/vendors/] and should be noted in the final contract.

1.4 Project Scope and Long Term Goals

The primary goal for the network is to provide consistent, redundant, bi-directional connectivity between the health care entities in Cochise County, then to extend that connectivity to Tucson or any other healthcare delivery site that ARCHIE finds beneficial

to the Network. This linkage will directly facilitate the telemedicine program, and will also be a building block to assist in the realization of the other telehealth goals. The current connectivity infrastructure has problems regarding speed of transmissions, security and reliability of connections between healthcare entities. Installation times and costs have been prohibitive in the past for high-speed connections. Technical staff is minimal at each entity and telecom network provider contract negotiations have been difficult.

The infrastructure implementation proposed should be robust enough to manage the current telemedicine and telehealth needs, plus accommodate more advanced sharing of information whether that is text based, radiology images, or video images. The costs could include a shared network management service that will be purchased annually from a chosen network provider that will augment the region's technical abilities in security, routing and rerouting of transmissions, and separating private and public access.

There is a multi-faceted teleradiology program linking many of the rural entities with facilities of research and consultation in Tucson, this exchange of critical health information can be shared to less technology-advanced organizations utilizing the centralized management function. We could also share radiological information across entities in Cochise County allowing for better coordination of care closer to the patient's home. There is emergency transport information that is shared through faxes, and phone/radio. This information can be linked into the EMS system that is currently installed in many of the fire and ambulance services to facilitate accurate transfer of patient medical conditions and vital information. There is emergency room transfer information that is shared to many entities by fax, mail, or simple file transfers. This could be facilitated with a standardized Coordination of Care Record [CCR] transfer. This standard has been recommended by federal and state agencies as the appropriate data packet between healthcare providers. Standardizing these paper and simple electronic transfers to a common hub exchange would facilitate more efficient care and leverage the exchanges for other geographic sites.

An additional stage of the telehealth applications would be to build upon the basic one-way data exchanges listed above to a more complete bi-directional exchange of healthcare data that can be integrated into the more advanced entities' health information systems. This stage would need a more functional software toolset that is web-based and service oriented architecture to allow for industry standard data sharing without requiring a huge overhead of services. The software and architecture that we are proposing is currently operational at other healthcare provider data exchanges.

Implementation Approach
The telehealth services implementation is critical to the on going use and effectiveness of the network infrastructure. The work plan for this functional area is to work to automate and/or improve current data exchange projects. The focus will be to make this project more available to the entire county and create more reliable data transfers. The

telehealth functionality in this step will be reengineered using a hub technology, one database and server that are used as the standardizing and dispatching services for these simple data exchanges. This server will be a federated, three tier architecture that will have logging and audit abilities but not a clinical repository for the region. The types of data exchanged will be:

Initial data sets	**Expansion data sets**
Patient Demographics	Video Conferences
Hospital & ED Summaries	Radiology Images
Medications/Allergies	PCP Contact Info
Lab & Radiology Reports	
Eligibility	
Advanced Directives	

2.0 Requirements Definition

The Technical Project Manager/Network Support shall provide technical project management and network management support to the Arizona Rural Community Health Information Exchange (ARCHIE). The Technical Project Manager/Network Support will serve as the ARCHIE technical manager for the build-out of the network and act as their technical liaison to the commercial vendor, coordinating all aspects of the deployment for the member organizations.

The Technical Project Manager/Network Support will provide on-site operations, maintenance, and management of the ARCHIE LAN/WAN at the various locations of member organizations. The Technical Project Manager/Network Support shall support the overall infrastructure and respond to, detect, report, record, diagnose, and resolve the occurrence of network faults as well as measure network performance and connectivity on a daily basis.

The Technical Project Manager/Network Support shall serve as an on-site resource for site coordination, troubleshooting, problem resolution, local inventory interfaces with ARCHIE member organizations, and shall provide customer service and guidance to the various site staff within the member organizations. The Technical Project Manager/Network Support may be required to provide support in the following areas:

- Install, relocate, configure, modify and test routers, hubs, switches and terminal servers.

- Create, maintain and manage Virtual Local Area Networks (VLANs).

- Assist member organizations with installation, testing, terminating and maintaining cable. (Such installation will provide no warranty of installed cable or drops. All material and equipment required will be provided by the member organizations).

- Troubleshoot wiring problems.

- Troubleshoot serial communication lines.

- Operate and maintain Network Management Systems (NMS).

- Manage network operating systems (NOS).

- Support diagnostics and configuration connectivity of ARCHIE site/service specific servers.

- Assist with the establishment and implementation of network policies, procedures and standards to include network security.

- Support the ARCHIE management staff with briefings and updates on network issues.

- Manage security firewalls/Virtual Private Network (VPN) devices.

- Collect Performance Measurement information.

- Assist with ARCHIE infrastructure deployments and technical hardware refresh initiatives. Submit a schedule indicating the projected date(s) when each piece of equipment will be installed.

- Participate in long-range ARCHIE infrastructure planning and technical architecture upgrades.

- Develop, plan and maintain documentation necessary for operations in support of LAN to WAN connectivity.

- Define and recommend minimum standards, as applies to network operations, access to the Internet and its impact on overall network resourcing and operations.

- Oversee the integration of network hardware and software platforms for WAN/LAN connected systems.

- Coordinate telecommunications actions with all applicable agencies and organizations as required.

- Address user concerns with the LAN/WAN service provider and alert users to routine maintenance impacting circuits.

- Provide advice to ARCHIE medical information systems personnel.

- Share information with the ARCHIE staff such as lessons learned and issues requiring higher level technical or management involvement for resolution.

Additionally, the Technical Project Manager/Network Support shall perform infrastructure analysis, integration and support of new technologies and products and communicate with external resources for site-related activities and implementation actions and provide **Technical Reports, Evaluations and Recommendations** to include recommendations on technical solutions for upgrades or network changes, such as:

- Evaluate and recommend new and evolving networking technologies.

- Evaluate vendor products.

- Assess data, voice, and video network requirements.

- Propose implementing strategies.

- Propose enhancements or design changes to improve the efficiency of the networks.

The Technical Project Manager/Network Support shall provide a **Semi-Annual Topology Report** that reflects the ARCHIE infrastructure AS-Builts. The report shall include a description of the equipment, location, and network connectivity parameters.

The Technical Project Manager/Network Support shall provide a **Semi-Annual Inventory Report** that reflects the ARCHIE equipment inventory. The report shall include a description of the equipment, model number, serial number, software version, location and any other pertinent information.

3.0 Salary Proposal

This will be an Independent Contractor position with annual contract renewal. We envision requiring this position for a minimum of three years.

4.0 Bid Selection Matrix

This section outlines criteria that ARCHIE will use to evaluate the applicant's proposal. Each section is worth 10 points, for a total of 100 possible points.

    Knowledge and experience with network systems
    Ability to liaise with federal funders, including grants/reporting experience
    Knowledge and experience in security and standards
    Project management capability
    Prior experience and performance
    Qualifications/knowledge and experience with Cochise County resources and contacts
    Environmental/energy innovations
    Compatibility of goals, mission, work style with ARCHIE
    Knowledge and experience in identifying and locating funding streams
    Salary request

5.0 Qualifications

FCC/USAC experience
Healthcare, HIE experience
Project Manager and staffing experience
Implementation concerns