

## Gap Analysis

# Nebraska Statewide Telehealth Network

## Objective

The Nebraska Statewide Telehealth Network will connect all hospitals and public health departments, providing access to consultations with medical specialists, continuing medical education, and bioterrorism training and alerts.

## Justification

The Nebraska Statewide Telehealth Network (NSTN) will implement the vision of a high-speed health telecommunication information system capable of erasing distance as a barrier to access to high quality health care for all people in Nebraska. Research shows that telehealth telecommunications services will:

- Increase the ability to diagnose patients' illnesses;
- Improve the quality and administration of medical services;
- Strengthen rural physicians' ties to specialty care;
- Alleviate the isolation of rural providers;
- Enhance the ability to attract and retain primary care physicians, medical professionals and support staff;
- Facilitate the training of health professionals in rural communities; and
- Enable patients to stay close to home for their care.

In addition, the Nebraska Statewide Telehealth Network will enable the delivery of bioterrorism alerts and training to hospitals and public health departments across the state.

## Current State

- The Nebraska Hospital Association, in partnership with the Nebraska Public Service Commission, Nebraska Health and Human Services System, Nebraska Information Technology Commission and Office of the Chief Information Officer, Nebraska Division of Communications, University of Nebraska, University of Nebraska Medical Center, Nebraska hospital telehealth hubs and hospitals, Central Nebraska Area Health Education Center, telecommunications providers, the Nebraska Information Network, and the Universal Services Administrative Company (Federal Universal Service Fund Administrator), is leading an effort to create a statewide telehealth network.
- In August, 2004, connections between hub hospitals will be made and the Nebraska State Office Building in Lincoln will be made, connecting all Nebraska hospitals which are currently participating in Nebraska-based telehealth systems.

- Arrangements are being made to secure funding through bioterrorism funds to purchase video conferencing equipment for health departments and hospitals without this equipment.
- The Public Service Commission is expected to approve plans for providing support for the Nebraska Statewide Telehealth Network through the Nebraska Universal Service Fund in September, 2004.

## **Future State**

- All Nebraska hospitals and health departments will be connected to the Nebraska Statewide Telehealth Network in 2005-2006.
- Additional telecommunications infrastructure will be deployed to enable the efficient operation of the Nebraska Statewide Telehealth Network. The plan submitted to the Nebraska Public Service Commission in July 2004 by the Nebraska Hospital Association includes the following components:
  - Connection routers at six hub sites;
  - Accord bridge added at one site;
  - Endpoint routers at 68 endpoint hospitals ;
  - Scheduling software;
  - Endpoint firewalls at 68 endpoint hospitals;
  - Firewalls at 7 hub sites;
  - Gatekeeper technology;
  - Installation costs for T-1 lines and fiber for endpoint hospitals; and
  - Connectivity of the statewide network
- The plan submitted to the Public Service Commission plan envisions a network backbone connectivity scheme for 2004-2005 consisting of the following:
  - Scottsbluff to Grand Island --- 4 T-1 lines
  - North Platte --- Dark Fiber Solutions - 100 mbps line
  - Kearney to Grand Island --- 6 T-1 lines
  - Grand Island to Lincoln --- 4 T-1 lines
  - Grand Island to Omaha --- 6 T-1 lines
  - Grand Island (St. Francis Medical Center) to Central Nebraska AHEC --- 6 T-1 lines
  - Dark Fiber Solutions connection in Grand Island --- 100 mbps line
  - Lincoln (St. Elizabeth Regional Medical Center) to Omaha (UNMC) --- 1 T-1 line\*
  - Lincoln (BryanLGH Medical Center) to Omaha (UNMC) --- 1 T-1 line\*
  - Norfolk to Omaha --- 6 T-1 lines

\*While this may initially be one T-1 line per location, an increase in subsequent years is likely.

- Rural hospitals which currently have multiple lines connecting them to two different hub hospitals will be able to access the services of any hub hospital in Nebraska through just one line in 2005-2006.
- Use of the network for consultations and continuing medical education will increase.

## **Recommended Actions**

- Integrate Nebraska Statewide Telehealth Network with statewide synchronous video network and Network Nebraska.
- Change Division of Communications statutes to include telehealth.
- Provide continued support for telehealth through the Nebraska Universal Service Fund.
- Ensure continued support from the federal Universal Service Fund.
- Ensure continued cooperation of all entities involved including hospitals across the state of Nebraska, the Nebraska Hospital Association, the Nebraska Health and Human Services System; the Nebraska Information Technology Commission/Office of the Chief Information Officer; the Nebraska Division of Communications; The University of Nebraska, the Nebraska Public Service Commission, telecommunications providers, and the Nebraska Information Network.
- Provide assistance to hospitals and to the Nebraska Hospital Association to address issues pertaining to centralized administration and network management.
- Provide assistance in promoting the use of the network to doctors, administrators, and health care providers.

## **Funding Sources**

- The Federal Universal Service Fund will provide support for telecommunications line charges for rural hospitals. Approximately \$536,000 of federal support will be provided for 2003-2004.
- The Nebraska Universal Service Fund will provide further support for telecommunications line charges for rural hospitals, discounting the cost for rural hospitals to \$200 per line. 2003-2004 support requested from the Nebraska Universal Service Funding is \$145,570.
- Bioterrorism funding is being used to purchase video conferencing equipment in hospitals and public health departments.
- Participating hospitals will pay \$200 a month for telecommunications line charges.

## **Supporting Information**

The Nebraska Statewide Telehealth Network plan and supporting documentation submitted to the Public Service Commission is available on the Public Service Commission's Web site (<http://www.psc.state.ne.us/home/NPSC/usf/orders.php>)