



The IRHN is a high-speed, fiber-optic network that links rural Illinois hospitals and clinics with specialists at larger facilities over a dedicated healthcare network.

Ten Reasons to Use the Illinois Rural HealthNet:

- The IRHN meets the standard of the National Broadband Plan for health care networks, providing 100Mbps upstream and downstream, up to 1Gig.
- Specifically designed for TeleHealth and Tele-Medicine Applications.
- Participating hospitals can serve as hubs for their clinics and physicians.
- High speed network transmits radiology scans fast.
- Traffic between locations on the IRHN is not exposed to the public Internet.
- Traffic between locations on the IRHN is low cost for high speed:
\$750/month for 100Mbps – *compared to \$30,000 if using T1 lines.*
\$1200/month for 1 Gigabit/second (*\$30,000,000 on T1 lines*)
- This high speed connectivity has been shown to increase cost efficiencies for clinical and operating applications.
- Traffic that needs to transmit over the public Internet is segmented for security, with low cost connection to ISPs in Chicago.
- IRHN assists health care providers in being HIPAA compliant with guaranteed quality of service, point to point connectivity, network reliability. Perfect for Health Information Exchange and HIT applications.
- Access to health institutions, education, and research facilities via Internet2.

Talk to us about How to Get Connected!



Radiology Transmission on IRHN

As rural hospitals and clinics increase their diagnostic tools, the speed with which diagnostic images and data can be transmitted to specialists becomes increasingly important. According to the Health Care section of the National Broadband Plan, here are data file sizes for two widely used applications:

- Mammography study (4 images) 160 Megabytes
- 64-slice CT scan 3,000 Megabytes

Elapsed Time for Transmission:

Shown below are the time frames to transmit each type of file over a T1 circuit (commonly used by rural hospitals), as compared to using the IRHN, at either the 100Mbps rate, or the 1 Gbps rate:

- *Mammography on T1 (1.5Mbps)* *14 minutes, 29 seconds*
- **Mammography on IRHN (100Mbps)** **16 seconds**
- **Mammography on IRHN (1 Gig)** **1 second**

- *64-slice CT on T1 (1.5Mbps)* *4 hours, 38 minutes, 10 seconds*
- **64-slice CT on IRHN (100Mbps)** **4 minutes, 50 seconds**
- **64-slice CT on IRHN (1 Gig)** **29 seconds**



Project Budget:

\$24,000,000

Funds Already Committed:

\$17,200,000 – Used For:

- | | |
|---|--------------|
| • Over 1000 miles of fiber-based backbone | \$11,500,000 |
| • Optical network switching equipment | \$2,300,000 |
| • Network Operations Center | \$1,000,000 |
| • Last-mile connections to 25 hospitals | \$2,400,000 |

Progress to Date:

- 60% of the fiber backbone is in place;
- The network switching equipment is being installed;
- The Network Operations Center is in place;
- Connections to 25 hospitals are under construction.

Funds Still Available:

\$6,800,000 – to connect additional hospitals and clinics with backbone and last mile fiber and services.



Contract Summary: As of August, 2011, long-term contracts have been signed with:

- CMS ICN – Fiber based services – 10 yrs
- Paetec – Dark fiber – 20 yrs
- NIUNet – Fiber based services – 10 yrs
- IMBCA – Fiber based services – 10 yrs
- TriLightNet – Fiber based services – 10 yrs
- Mediacom – Fiber based services – 10 yrs
- DFO (DeKalb Fiber Optic) – Dark fiber - owned
- G4S Adesta – Dark fiber - owned
- Ciena – Network equipment, 3 years and evergreen
- INOC – NOC Services, 5 years with options to extend

Several additional contracts will be signed in the near future for fiber-based services in Southern Illinois and point-to-point wireless services in Central and Northern Illinois.

The IRHN provides a minimum of 100Mbps, upstream and downstream, with a robust Service Level Agreement.

And the long-term contracts provide assurance of network sustainability, because the long-term costs have already been fully funded.