The Value of Broadband at Essentia Health

Dennis Smith – Director, Technology Systems
Steve Altendorf – Manager, Networks

July 19, 2017
Geography of Essentia Health
A Bit of History

St. Mary's Hospital

This ticket entitles Mr. J. A. O'Donald to
payment of NINE DOLLARS, for admission, medical and surgical treatment, medicines, subsistence, and nursing at the Hospital at any time during One Year from date hereof, in consequence of injury or sickness hereafter received or contracted, excluding him from general labor, subject to the conditions and restrictions hereon, and signed by the

On entering the Hospital, these vouchers will settle with patient, before a private room.

Expires July 19, 1893

NOT TRANSFERABLE.
Electronic Medical Record (EMR) – An Epic Journey

• Clinic Rollouts: 2002-2003
• Hospitals & Acquisitions: 2008-2014
• Community Connect Program: 2013
Applications Leveraging Broadband

- Epic EMR (Lab, PACS, Pharmacy, Personal Portal)
- Building Security & Control
- Collaboration: Meeting Conferencing & Training
- Cloud Applications: Office365, Training, Human Resources
Broadband Benefits

- Health Record Portability and Access
- Cost Savings: Centralized EMR, Ancillary, Business and Building Control & Security Systems
- Cost Savings: Centralized Functions and Virtualized Teams
- Mergers and Acquisitions – Remote Talent
Technology Architecture

Wide Area Network

Internet

Clinician

Patient

Family

Cloud Based Services

Involta Tech Drive Data Center

6th Avenue Data Center

Buried Fiber Ring
Wide Area Network Architecture

Circuit speeds range from 1GB on the Iron Range to as little as 6MB at rural clinics.

Essentia Health MPLS WAN

- Data Center
- East Market
- Local Fiber Campus Ring
- Regional Clinic
- Central Market
- West Market
- Local Fiber Campus Ring
- Regional Clinic
- Regional Clinic
- Regional Clinic
GMTBI Pilot (2012) FCC Pilot

- Greater Minnesota Telehealth Broadband Initiative
- FCC Pilot valued at $5.4M over 5 years
- 7 other healthcare entities across MN
- 30 Essentia Health sites participated
- Included discounted hardware for circuit terminations
- Estimated savings of $260K over 3 years
Building the Highway

HCF (2015- Present)
  • Healthcare Connect Fund (Current FCC Program)
  • Formed our own Essentia Health Consortium
  • Completed an RFP for all sites
  • 48+ Essentia Health sites participate
  • Cost ranges by 5 carriers submitted RFP’s
     – 10MB $734 to $2,600 (Ada)
     – 100MB $500 to $1,057 (Grand Rapids)
     – 1GB at $1,330 to no bids (Hibbing)
  • Monthly Spend
     – 114 total circuits from carriers
     – $125K per month (Actual cost after program incentives)
Underserved Areas in MN

- Graceville (Big Stone County)
- Ada (Norman County)
- Fosston (Polk County)
- These locations are examples of where local service providers have limited bandwidth and availability
- Limited to single route options. No diverse route to ensure uptime during carrier maintenance or failure of hardware.
- Service pricing is higher in these locations
Questions?