We have been operating as a Wireless Internet Provider (WISP) since 2001 in northwest Iowa, parts of South Dakota and Nebraska. We also operate an ILEC that has been Fiber to the Home since 2008 in Everly, Iowa.

We have currently deployed over 35 wireless internet sites that are all fed via licensed wireless Point to Points and fiber connections in NW Iowa.

Wireless sites are built with different technologies and in some areas we have built overlaying technologies (2.5, 3.65, 5.8 and 900) to meet customer demand for higher speed packages. Most future wireless sites will be using 2.5 licenses with Telrad equipment - FCC approval ARA-COMPACT2X - to build a private LTE network.

We have available enough resources with our BRS/EBS licenses to serve any areas that we would win in the grant process. Specific areas that we plan on bidding on sites we have 73.5 mhz to 141 mhz available spectrum.

We can demonstrate thru our current network and any future network buildout that we can enable performance tiers, latency and MOS requirements be met.

The proposed Telrad LTE system offers:

    a. Core network EPC, base station eNB, and CPE devices certified by Telrad.

        i. EPC and eNB are SDR (Software Defined Radio) and SDN (Software Defined Networking) platform which allow for quick development and deployment of advanced features.

    b. Current supported capacity up to 105Mb/s per 20MHz carrier. Each base station can support dual sector, and dual carrier, supporting up to 210 Mb/s per base station capacity. Typical subscriber service levels up to 25 Mb/s are supported.

    c. Future enhancements include carrier aggregation, allowing up to 40 MHz, non-contiguous carrier assignment to increase subscriber service levels up to 100 Mb/s.

    d. Multi-user MIMO increase the CPE density in each sector, Soft-frequency reuse allowing for operation in spectrum restricted areas.

Current Evertek Network and Operations:

Network Capacity Planning: 1) Evertek Core network currently has redundant 10GB connections to geographically diverse Internet providers. BGP is used to balance traffic and failover during upstream network maintenance or outage scenarios. 2) Wireless and FTTH client access points are connected via 1GB or 10GB fiber depending on capacity needs. 3) Evertek has redundant voice switch attached directly to Evertek Core routers with multiple 1GB connections. 4) Links between remote access points to the core network are either 1GB or 10GB fiber depending on capacity needs. Network Capacity Monitoring: Evertek network monitoring tracks usage on all site to site links and links to customer access points. When capacity reaches predefined levels, alerts are issued so that technicians can plan for increased capacity. Network Latency monitoring: Evertek network monitoring tracks latency to all customer access points and alerts are issued if it increases beyond predefined levels.