

# **Marshfield Wireless WAN Project**

## **Update**

**December 12, 2008**

**The Marshfield Wireless Capital Budget project has had the following progress in supplying connectivity the six remote Municipal and School sites. To date the procurement of Hardware and Software and Permits has begun as well as engineering of structures needed at two locations for Line of Site (LOS) communication technologies. The building of Carolina Hill water tank is almost complete and is instrumental in adding wireless options for the town.**

**To recap the original purpose of this project was to supply Business Class connectivity to six remote sites which had limited or no connectivity for purposes of accessing the town's internal service offerings. These services included access to our Financial Management databases, as well as GIS, Email, Security solutions such as Antivirus/Anti-Spam, Security Update Systems services and centralized network and computer management systems.**

**The limited decentralized systems or local LAN's in many of these remote sites if available at all, are costly to maintain and are redundant to our system's in other locations. The cost savings by leveraging wireless connectivity for purposes of eliminating remote servers, software and hardware and introducing centralized management are evident by the projects ROI that the Capital Budget evaluated at time of project submittal. The need for services of these six remote sites combined with the needs of other existing sites within the Wide Area Network (WAN) dictated the needs to supply a hybrid WAN solution for Marshfield.**

**During the cost assessment of Fiber and the testing of other connectivity mediums such as VPN's to provide business class connectivity for databases, Voice over Internet Protocol (VoIP) and remote mobile needs, the Wireless solution was an obvious solution in light of those technology limitations or cost. Wireless would not only supply for the immediate needs of the six sites back to centralized databases, and IP Telephony systems but would extend Marshfield's efficiencies through field personnel updating their own datasets from the field vs. the duplication in processes by internal administrative personnel.**

**Other primary considerations supplied a strong incentive for wireless technologies; these were the First Responders answering calls to residents with support needs. Having our data in the hands of field personnel would help the Municipality to be more effective in Response & Mitigation objectives and in administration of our data. Data and Voice communications absent in some area's of town could also be addressed using this particular technology.**

**The specific locations where structures will be installed are Carolina Hill (Water Tank), Coast Guard Hill (Recreation Facility), and the Municipal Waste Water Treatment facility. These targeted areas were identified through the needs analysis portion of the project and the feasibility section of the engineering study. The Water Tank was designed with a mounting ring fixed to the top of the tank for purposes of mounting Scada Water Monitoring antenna and the Towns Municipal Network antenna used for data and voice communications to specific locations and mobile units.**

**The other two structures are 90' Flag poles (Mono Poles) which will be configured for two flags each, through the use of a mounted Naval Yard Arm which will be illuminated at night. The units are also capable of allowing for the attachment of small radio antennas to different locations for Line of Sight communications to other fixed wireless sights and mobile units as well.**

**The project implementation was started in July and a completion time line of late spring toward early summer is our goal.**

**Respectfully**

**Ron P Menard  
MIS director  
Marshfield**