

Broadband USA Applications Database

Applicant Name: City of Waupaca, WI

Project Title: WOL.net Broadband Expansion Project

Project Type: Last Mile Non-Remote

Executive Summary

The Waupaca area and Waupaca County are rural. In 2000 limited broadband availability existed only in the city limits (DSL). Because of this the city government took it upon itself to expand broadband for our area. In October 2002 WaupacaOnline.net (WOL.net) was launched. Since that time, Charter Cable, the incumbent cable provider rolled out broadband to primarily serve city residents as well as concentrated areas in the towns of Dayton and Farmington in the Chain O Lakes area around Waupaca. However, to this day, broadband is limited or non-existent in the rural areas surrounding Waupaca. Our project seeks to expand the existing WaupacaOnline.net (WOL.net) wireless network in order to provide affordable broadband services to 600 new customers in the Waupaca area. The project consists of the construction of twenty-seven (27) Point of Presence (POP) locations and necessary appurtenances, customer premise equipment (CPE), network upgrades and one bucket truck for system support. We have determined that there is a high level of broadband demand in and around Waupaca, substantiated by a number of sources: 1) Wisconsin Public Service Commission (PSC) state wide broadband survey (July 2009). A survey of over 8,200 respondents found that 52% of those surveyed said that broadband was not available. Ten (10%) of those having broadband said it was too expensive. 2) 2007 Census of Agriculture, US Dept. of Agriculture – this study of Wisconsin farms found that those farms having broadband were 11.4% below the national average. 3) Waupaca Area High School survey (2008) – this survey was performed by an advanced statistics class with 683 respondents saying that 22% of them had dial up services while 12% had no internet access at all. 4) Our own mail survey of the targeted area that we undertook as part of this grant. The proposed area to be served by the grant includes over 8,000 households of which a total of 1,050 surveys were mailed. We received a response rate of 26.4% or 278 respondents. The results showed that 159 respondents did not currently have broadband Internet, and of the 278 respondents, 161 are interested in using WaupacaOnline if we extend service to them. Based on these findings we have designed a project service area that encompasses over 8,500 households with a population of 21,000. A total of eleven (11) governmental jurisdictions make up the targeted service area, eight are towns, one village and two cities, with the city of Waupaca having the largest population at 5,676 (2000 Census). The following U.S. Census tracts and block numbers are included in our proposed area. Census Tract Census Block # 9905 1 9906 1,2,3 9907 1,2,3 9908 1 9910 1,2,3,4,5 The service area includes 41 Critical Community Facilities, Anchor Institutions, & Public Safety Entities along with 563 businesses. Since WOL.net's inception we have been an ISP and propose to continue to do so with this project. Our CLEC with the Wisconsin PSC allows us to do voice and video, however, until new more robust wireless protocols are introduced we are content to continue as an ISP. This makes a great deal of sense at this time given our experience and the affordability issues that would arise trying to roll

out voice and video services. We understand that there is a non-discrimination, open access requirement as a condition of grant approval. We welcome this requirement and have devised a way that will allow 16% of the projected new customer base to be served through this project by providers other than WOL.net. We will do this by selling these potential customers at our cost plus 35%. This pricing allows potential providers to obtain customers at 55% - 68% of the current charges for WOL.net services outside the city limits, depending on customer class. These resellers won't have to maintain the backbone system nor be responsible for tower maintenance and upkeep. They can simply go out and sell the service. They will have costs in doing so but these costs should not be prohibitive in their taking on the endeavor, particularly if they are an established wireless company. WaupacaOnLine.net (WOL.net) is based on a point to point wireless platform utilizing 2.4ghz and 5.8ghz unregulated frequencies. Within the city of Waupaca we desire to build out our modified WiFi meshed network to provide coverage over the entire city. Our goal in doing so is to give our public safety, public works, code enforcement and other public employees the ability to do their jobs in the field more efficiently. We feel that there can be significant time savings and enhanced service by doing this component of the project. In the areas surrounding Waupaca we will construct twenty-seven (27) POPs locations in order to saturate our existing service area, the furthest customer of which would be no more than a couple of miles away from a POP. The city of Waupaca and the WOL.net staff feel strongly that we can make this project quite successful given the experience we already have in running WOL.net. With nearly 400 customers we continue to serve customers that participated in our beta testing back in September/October 2002. There is nothing like experience to guide you. To be sure, we've made some mistakes and course corrections have been made over the years. We've field tested a variety of equipment and have a good understanding of wireless technology capabilities and limitations. We know our area and our proposed project concentrates in those areas where we believe we can get the best coverage. WOL.net is not an idea in someone's head, a concept on paper nor is it a faltering enterprise on the brink of bankruptcy. Our team understands that if this project is funded we will be taking our service to the next level as we will more than double our current customer base. This means we will need to hire additional installers at our cost as well as monitor our customer relations functions through hiring help desk personnel. Since we've been in the business of providing broadband services we already have the management, governance, sales and billing processes already in place and functioning. Ramping up these functions to meet the increased demand will not be problematic. The total project budget for our broadband expansion is \$678,245 of which \$24.1% or \$165,543 is the local in kind cash and labor match the city proposes to bring to the project. We are seeking grant funding from \$339,000 to \$512,700 depending on the agency program. Our project budget includes towers, equipment, CPE, existing network equipment upgrades, professional fees for system design and installation costs. We are also seeking funding for a much needed new truck with pull behind lift for CPE installation and ongoing system maintenance. This project seeks to serve 600 new residential and business customers as well as family farms in the area. We believe this goal is conservative and we built our financial projections around this conservative assumption. With 27 new POPs serving between 25 to 30 customers per POP we have the potential to bring broadband to 800 customers who want it. The Return on Investment (ROI) for the overall project is just 25 months. The funding agency for BTOP would see an ROI for its portion of the cost of 19 months. In both cases the ROI is well within the program funding time horizons. Our project is "shovel ready". We can begin immediately after the grant award. Job creation is a crucial

aspect of the American Recovery and Reinvestment Act of 2009 from which the broadband expansion funds derive. To be sure this is difficult to measure, but some reasonable statements concerning job creation with this project can be made. First, if funded, the city of Waupaca will hire two additional PT installers, working as a .75 FTE. In Wisconsin we would have to pay these individuals retirement and they would qualify for vacation and holiday pay under our current employment rules. These employees will install the backbone equipment on the various towers and CPEs as well as answer service calls. We also propose to hire a PT help desk position. This employee would also qualify for retirement, vacation and holiday pay. A contract installing 27 tower sites and the associated electrical work will keep local firms working. The CPE and backbone equipment is a significant cost of the project. The companies we purchase the equipment from will at a minimum be able to keep existing jobs. One can speculate that the broadband stimulus will be funding a significant number of wireless projects so the manufacturers and vendors selling these products will certainly benefit. Also, think of the end users of the service and how they can prosper, particularly the small home based business or family farm. Broadband may just be what these folks need to stay afloat and viable. How to put a number on that is difficult at this juncture but could be determined later down the road through a project evaluation process. In closing, the Waupaca area is underserved. WOL.net is an established ISP that is poised to take the federal funding that it may qualify for and use it to provide affordable, reliable service to a population that is demanding it. We can do so at an affordable price point for the end user. There is a terrific return on investment with this project, for the funding agency and the city of Waupaca. And finally, WOL.net staff and the city of Waupaca have the experience and capability to manage and sustain the system that is built under this grant application.