

## **Broadband USA Applications Database**

**Applicant Name:** Eastern Upper Peninsula ISD

**Project Title:** Sparking Broadband Use in Rural Michigan

**Project Type:** Sustainable Adoption

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### **Executive Summary**

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A consortium of technology ready school districts in rural Michigan have come together to form a Sparking Broadband Use initiative. We have a legion of tech savvy students, engaged in school and content that are the direct links to their families and the larger community. We will leverage them and their appetite for technology to spark broadband adoption in the areas served by this project. Our goal is to spark the adoption of broadband by infusing the homes with broadband capable computers.

For the past decade the Eastern Upper Peninsula Intermediate School District (EUP) has been a leader in Michigan's one-to-one computing efforts. Covering 4000 square miles, the ISD serves one of the most remote and economically disadvantaged student populations in Michigan. Out of necessity, the ISD has employed technology-based solutions to support schools in deploying effective teaching and learning across significant space and time. With the advent of improved mobile and IP technology, EUP seeks to transform schools in rural and remote areas through anywhere / anytime teaching and learning and spike broadband adoption and use in the process.

Regardless how proficient schools are at providing technology rich environments, many rural students go home each afternoon, weekend and summer to 19th Century homes, without computer technology or broadband connectivity. The examination of unserved and underserved maps available for Michigan clearly depict limitations in rural areas with regard to broadband access (see maps in the supplemental information). Closer examination and discussions with local broadband providers creates an even more complex picture. Even in our geographic areas where broadband is available, adoption rates are nowhere near levels that would provide broad enhancement to education and communities.

There are really two distinct broadband access issues in play in rural Michigan. First, and most essential, is simple availability of broadband. Second, in areas where broadband is available, not all potential users are connecting.

What are the barriers to broadband adoption in rural areas?

Access to devices: Do families have access to computers at home?

Cost: Are costs associated with initial connection and/or ongoing monthly fees prohibitive for target families?

Relevance: Do families feel that having broadband access at home will enhance their circumstance?

This project will specifically address all three of these barriers. With regard to access to devices, all partner districts will provide computers to all students at identified grade spans. The computers will be utilized in class daily, employing effective technology integration strategies. As described, these districts have distinguished themselves by having the baseline requirements including a robust network infrastructure and well trained district staff. In addition to effective classroom use, the laptops will be expected to go home with students each afternoon. This goes well beyond past initiatives that provided computers in school with occasional allowance for transport home for “special projects”. There are significant software and hardware advancements that make the timing of this bold step possible.

Districts were selected based on specific readiness indicators beginning with a fundamental belief that technology is essential in any 21st Century learning environment. These small, rural schools have been strategic in the creation of technology rich environments using very limited resources. The environments created are fully wireless and have a level of technology use that is beyond that seen in most in Michigan schools. Parallel to these infrastructure and equipment related efforts has been the implementation of ongoing teacher, administrator and technology staff professional development sessions that have increased individual skills and promoted rich integration efforts at the classroom level.

The populations served will include all school aged children and their families in the 20 partner school districts. This represents over 9,000 students. Maps of district distribution are provided in Supplemental Information. The populations are primarily economically disadvantaged; census poverty rates vary from 8–38% (2007). It should be noted that census poverty rates can be deceiving in rural areas. The retiree and summer resort populations tend to skew the overall census poverty data up. A more accurate measure of poverty for this project may be free and reduced lunch percentages. Those values range from 33-85% with the average at approximately 40%. The areas targeted by this project contain approximately 14% of the total Native American student population in Michigan while comprising less

than 5% of the overall student population in the state. There is also an emerging population of Hispanic and African American students in several of the partner districts. A demographic profile of each district is provided in the supplemental information.

The job creation associated with this project will include the hiring of 12 new staff members. One full time project director, 7 technology specialists and 4 school / community educators will be hired for the three year duration to fully implement and monitor this project. In addition to these positions, all teachers (approximately 360) participating in this project will be upgrading their skills.

With the State's economy in freefall, unemployment and underemployment stands at 22 percent, Michigan must look for innovative models for using broadband technology to sustain innovation. A critical area is the delivery 21st Century teaching and learning via the web. With today's low-cost computing and networking technology, sustainable one-to-one, mobile computer programs hold great promise for changing the way educators and students and their families learn about the world and engage in the global economy.