

Michigan Technical Academy

HELPING STUDENTS DISCOVER THEIR FUTURES

Michigan Technical Academy
23750 Elmira
Redford, MI 48239

Jeremy Gilliam, Superintendent

Phone: 313.537.9311
Fax: 313.537.9312
Email: jgilliam@mtacademy.us

FILED/ACCEPTED

DEC 14 2010

Federal Communications Commission
Office of the Secretary

BEN: 16056326

FCCRN: 0019602341

NSLP: 88.3%

E-Rate Discount: 90%

EDU2011 Pilot Program

WC Docket No. 10-222

TITLE: Applicant Wireless Program

DEADLINE: December 17, 2010

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No. of Copies rec'd 041
List ABCDE

- 1) Location of school
 - a) Michigan Technical Academy administration: 23750 Elmira, Redford MI, 48239
 - b) Michigan Technical Academy is an Urban Public School Academy (PSA) serving the greater Detroit area.
- 2) The name of the school applicant, along with a complete list of the individual schools that will be served, including their billed entity numbers

MICHIGAN TECHNICAL ACADEMY						
Building Name	Address	City	State	Zip	Grades	BEN
MTA - Elmira Campus	23750 Elmira Ave.	Redford	MI	48239	5-8	16056327

- 3) A description of the school district or school, including the type of school, such as private, public, charter, or other special type of school
 - a) Type of school/definition of school
 - i) Michigan Technical Academy is a non-profit K-8 institutional day school, including two public elementary charter schools that provide elementary education, and one public middle charter school that provides secondary education, as determined under Michigan state law.
 - ii) Through highly qualified leadership, research-based instructional strategies, high academic achievement and integrated community programs, Michigan Technical Academy will develop and cultivate students who are able to compete on a local, national and global level.
 - iii) Michigan Technical Academy serves approximately 929 students in grades K-8.
 - iv) Michigan Technical Academy Elmira Campus is a Public School Academy (PSA) serving approximately 418 students in grades 5-8.
 - v) Michigan Technical Academy presently has 11 administrators, 60 teachers, 1 technical staff, and 9 other support staff.
- 4) a description of the AWP's curriculum objectives, the grade levels included, and the number of students and teachers involved and/or being served as part of the program
 - a) The MLDs will be used with Michigan Technical Academy's general student population. Initially, the district will pilot the devices in the 7th and 8th grade classroom(s) with planned expansion to 5th and 6th grade students in 2011.
 - b) Summary description of the AWP's Curriculum Objectives by grade level:

GRADE LEVEL	CURRICULUM OBJECTIVES	STUDENTS	TEACHERS
5	To increase educational productivity and proficiency with mobile learning devices (MLDs) that include student access to the Internet both in the classroom, at home, and anywhere learning takes place. To achieve a 10% increase in Math, Science, Social Studies, and ELA proficiency with the use of technology.	100	4
6	To increase educational productivity and proficiency with mobile learning devices (MLDs) that include student access to the Internet both in the classroom, at home, and anywhere learning takes place. To achieve a 10% increase in Math, Science, Social Studies, and ELA proficiency with the use of technology.	100	4

GRAD LEVEL	CURRICULUM OBJECTIVES	# STUDENTS	TEACHERS
7	To increase educational productivity and proficiency with mobile learning devices (MLDs) that include student access to the Internet both in the classroom, at home, and anywhere learning takes place. To achieve a 10% increase in Math, Science, Social Studies, and ELA proficiency with the use of technology.	108	4
8	To increase educational productivity and proficiency with mobile learning devices (MLDs) that include student access to the Internet both in the classroom, at home, and anywhere learning takes place. To achieve a 10% increase in Math, Science, Social Studies, and ELA proficiency with the use of technology.	110	4

- c) Michigan Technical Academy curriculum objectives of the AWP; Exhibit A
- d) The GoKnow Mobile Learning Environment (MLE) consists of three key elements for Michigan Technical Academy's curriculum objectives:
 - i) The MLE, commonly called "My Projects", is the thin client application that runs resident on the Netbooks and manages the learning environment and organizational structure for each lesson and each student for project-based learning.
 - ii) The Classroom Manager which is a hosted, web-based, application that allows teachers to synchronize lesson creation, management, and delivery with student Netbooks.
 - iii) Applications used by teachers and students to animate, illustrate, and modify lessons or assignments. These applications augment common 3rd party applications such as word processors, spreadsheets, picture viewers, cameras, and other tools that can be used within the MLE.
- 5) A summary of any data collected by the school on AWP outcomes and achievement of AWP objectives
 - a) Data is collected and housed in Michigan Technical Academy's District Data Warehouse (Data Director); a system that allows users to compare multiple sets of data ("all data over time") so that they may identify needed interventions, devise enhanced curriculums, and drive the academic achievement of all students. For example, recently collected data identified middle school students' MEAP test scores in Math, Science, Social Studies, and ELA to be a weakness in the comprehensive student needs assessment report. Other systems used to collect data and house in Data Director include but are not limited to:
 - i) Study Island; a system that collects and compiles summative student data in Math and Reading to identify individual students need for improvement or remediation to master the proficiency levels required by MEAP Test / MME and NCLB/AYP.
 - ii) GoSync and GK Classroom Manager; a system that allows teachers to easily collect and assess student created work, as well as send out applications, assignments, and feedback to the mobile devices will be used to manage the classrooms with mobile devices and the work created on those mobile devices.
 - iii) SOTI MobiControl; a system installed on every Netbook that allows teachers and administrators to monitor and collect data relative to content, Internet sites visited, downloads, and homework assignments completed.

- iv) Michigan Technical Academy will also seek to monitor and collect some or all of the following data from the (EDU) 2011 pilot program:
- (1) Quarterly or more often, surveys with teachers to assess usage.
 - (2) Usage of the devices including time spent using device versus other mediums.
 - (3) Synchronization data by student and teacher.
 - (4) Time on task with Netbooks and mobile applications versus other mediums.
 - (5) Relative performance, by grade-level, of students with Netbooks versus those who may not be using the Netbooks. This may or may not allow for a true control group depending on funding and other factors.
 - (6) End-of-course, standardized, or other test scores that might indicate progress over previous year(s) data.
 - (7) Student surveys on the effectiveness of Netbooks in their studies.
- b) At the end of the AWP pilot program period, Michigan Technical Academy will perform a comprehensive look at the total cost of ownership of the Netbooks including hard and soft costs, all support plans, overages (if any) on data plans, the actual usage of the data plans and data transfer totals by student, percentage participation by all teachers, and external costs that will have to be borne by parents or outside entities in order to pay for a full 1:1 implementation in the future.
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- 1) A full description of the current or planned Applicant Wireless Program (AWP), including but not limited to:
- a) The nature of the AWP, including the extent to which the use of connectivity is interactive and utilizes the Internet.
 - i) Michigan Technical Academy seeks to continue to offer and fund a comprehensive Mobile Learning Environment (MLE) for its students in grades 5-8.
 - ii) Michigan Technical Academy has successfully piloted and used Netbooks with its students and teachers to achieve the following goals:
 - (1) 1:1 availability of devices for each student versus shared devices that allow them access to all available school resources and applicable Internet resources that relate to their curriculum.
 - (2) 24 x 7 access to Netbooks so that the learning environment is not "supplemental" but ongoing and allows students to use the Internet and access to lessons both at school and at home; removing the "digital divide" barrier.
 - (3) Provide filtered, CIPA compliant, always-on Internet access on either the school Wi-Fi network or via low-cost 3G/4G data plans that will be funded as part of this pilot.
 - (4) Increase time on task for all students by allowing them to use devices that they are familiar with, enjoy using, and can interact with versus being forced to use pencil/pen and paper for all lessons.
 - (5) Improve results on standardized test scores.
 - (6) Allow students to interact with their teachers, through the mobile devices, by being able to retrieve or submit lessons; receive corrections or notes from the teachers, and do this inside or outside the classroom.
 - b) How long the AWP has been in operation and the mobile wireless device(s) being used.
 - i) Michigan Technical Academy has already implemented a successful mobile learning program with plans to expand the program in 2011 and has an established relationship with Sprint Communications Co. L.P. (SPIN: 143005695) and GoKnow, Inc. to provide both on-premise and off-premise connectivity to students through the use of mobile learning devices (MLDs)
 - (1) The AWP program start date is September 7, 2010 and the current length of operation is approximately (4) four months.
 - (2) The utilization of the MLDs enables students to increase educational productivity with mobile access to the Internet both in the classroom and at home.
 - ii) The mobile wireless devices (MLDs) used by Michigan Technical Academy for the program include the Dell Mini-10 Netbook with an embedded Sprint broadband card and the GoKnow mobile learning environment application.
 - (1) Michigan Technical Academy will use Netbooks along with a comprehensive mobile learning platform from GoKnow, Inc., existing curriculum and novel new lessons created for mobile use, and combine Wi-Fi access with a 3G/4G data plan for students and teachers. The Inspiron Mini 10 3G/4G Features Include:
 - (a) Intel ATOM Processor N450 (1.66GHz)
 - (b) Operating System Genuine Windows 7 Starter – 32 bit
 - (c) 10.1" Wide screen Display (1024x600)

- (d) 3.0 lbs. with 6 cell battery (2600mAh) supports up to nine hours depending on usage
 - (e) 1 GB Memory
 - (f) Hard Drive 250 GB
 - (g) Graphics Intel GMA 3150
 - (h) Wireless connectivity via Wireless 802.11b/g/n
- c) A description of any technical issues associated with implementing the AWP, including an analysis of any problems with the availability of wireless access to students or patrons off the school or library premises and how those issues are being or will be addressed by the school or library.
- i) Technical issues for the mobile learning installation primarily fall into three categories:
 - (1) The lack of ubiquitous Wi-Fi access and connectivity to all classrooms and the associated bandwidth that would be required to support all students and teachers sharing limited resources.
 - (a) The use of Wi-Fi to connect all students to the Internet can work in many cases on campuses. The challenge has been with how to let students access research and study sites while not in their primary class, in study hall, in a library not attached to the school, or at their homes. This connectivity issue associated with implementing the AWP will be addressed by:
 - (i) Using 3G/4G cellular data connectivity to provide 24x7 external coverage
 - (ii) In-line filtering provided by the school for Wi-Fi access and proxy settings within the NETBOOK to point all campus traffic through the school filter and connection
 - (iii) In-line network filtering provided by the mobile service provider (carrier) that is CIPA compliant and largely mirrors the school settings
 - (iv) Providing exception handling for education sites that have been blocked by the filters but are germane to specific lesson plans
 - (v) Using carrier support personnel to survey cellular access prior to deployment or selection in order to guarantee 100% coverage at the campus and off-campus.
 - (2) Appropriate routing and filtering of Internet access requests from students.
 - (a) Although schools are required to filter access for students, not all carriers have supported filtered Internet access through their networks. To address this issue, Michigan Technical Academy will select and implement filtered Internet access through a carrier 3G/4G network that:
 - (i) Will seek to cover elementary and middle school level filtering that is age appropriate.
 - (ii) Force local Internet traffic through a dedicated proxy and firewall-filter at the school or through a 3rd party.
 - (iii) Attempt to limit or control access to secondary SSIDs through the NETBOOK where possible. This might include a roll-down list of authorized SSIDs.
 - (iv) Send all cellular data traffic through a dedicated filter at the carrier.
 - (v) Work with GK and carrier partner to simplify exception processing of URLs that are unreasonably blocked by the filters. Teachers in other pilots have pointed to this as an issue that comes up frequently and can take a long time to resolve.
 - (vi) Implement a modified "acceptable" or "responsible" use policy that covers the use of Netbooks at the school and is consistent with promoting trust, maximum

availability of the device for students, and expanded learning opportunity outside of the school. (Exhibits C & D)

- (3) Support of off-campus use of Netbooks by students and their parents/guardians.
 - (a) Students will, in many cases, take their devices home in order to increase their ability to conduct research, home work, projects, or other class work. The following issues and problems along with suggested solutions are noted as follows:
 - (i) Parents/guardians may object to the use of the Netbook at home on the grounds that their children have access to games or other materials that do not relate to studies. It will be incumbent on the school to explain to parents the limited range of content that their children may access. GK and the carrier partners will work with the school to filter access to content where possible.
 - (ii) Students may want to use their home Wi-Fi networks to access the Internet. This will be a rare occurrence but in these cases, the school will either have to allow the use of that network, with the parents' permission, or force the students to access an intermediate firewall or filter out on the public network. The initial configuration will be to only allow access to school, public libraries, or other SSIDs that are authorized.
 - (iii) Students may lose their portable device or they may break. In this case, the school and the carrier will work together to support a spares program that is acceptable to parents and allows for rapid replacement of units in order to keep learning environment active.
 - (iv) Teachers may need assistance finding suitable research sites for students to use while out of the school. GK and Michigan Technical Academy will work together to supply teachers and students with publicly available lists of sites that have mobile-ready lessons and labs and videos that relate to existing curriculum. All parties will work to ensure that these links are accessible and available through filters both on and off campus.
 - (4) Additional technical issues include but are not limited to insufficient power due to a (4) four hour battery life, and/or lack of power cord.
- d) What training has been or will be provided to teachers, librarians, students or parents to implement the AWP?
- i) Research has clearly shown that teachers have had difficulty making the leap to the use of new technologies and the simplicity of the GoKnow platform is clearly aimed at teachers, versus their students who rarely have issues with mobile phones, PCs, or web-based technology. Michigan Technical Academy's plans for professional development is consistent with this research whereby;
 - (1) This pilot implementation follows "best practices" used by other districts in the United States that are currently using and piloting mobile programs and that will include involvement of all stakeholders in making the pilot a success.
 - (2) Teachers will be supplied with professional development that will not only train them on the specifics of the Netbooks but also will bring actual lessons, lesson plans, and ideas for new customized lessons into their training session and implement these lessons using the Netbooks.
 - (3) Students will be supplied with training on acceptable use policies as well as the specifics of caring for the Netbooks and the appropriate educational uses on-premises and off-premises for completing assignments, accessing the Internet, and conducting research.

- (4) Parents/guardians will be supplied with training on student acceptable use policies as well as the specifics of caring for the Netbooks and the appropriate educational uses on-premises and off-premises by their child(ren).
- ii) The following training sessions have already been provided:
- (1) An initial (2) two day professional development training on the use of the GoKnow mobile learning environment occurred (1) one week before school started. During this time, a group of (10) ten students were invited to participate in the program. The student's participation enabled the teaching staff to utilize them as student mentors for the 7th and 8th grade student body when the program initialized in the fall 2010.
 - (2) In mid-September 2010, each 7th and 8th grade staff member had also participated in a webinar refresher on the use and functionality of the GoKnow software. A site visit from the GoKnow field representative on 12/7/10 was scheduled to assist in the official roll-out of this initiative. An additional webinar is set to be scheduled for early 2011 (late January) to provide an additional refresher for after the holiday break and to address any questions or issues that have developed after the initial few months of implementation.
 - (3) Other state-wide professional development offerings including "The 21 Things"; an on-line interface for K-12 educators that are based on the National Technology Standards for Teachers (NET-T).¹
- e) The extent to which the AWP is integrated with federal, Tribal, state, regional or local governmental or non-profit initiatives to achieve educational or community access outcomes
- i) According to the FCC Sixth Report and Order, "Access to broadband at home or at anchor institutions is a critical component of enabling everyone in America to develop the digital skills they need to prosper in the 21st century". Consistent with this order, the FCC is seeking proposals for a limited pilot program to establish "best practices" to support off-campus wireless connectivity for portable learning devices outside of regular school or library operating hours.
 - (1) The federal planned initiatives include a platform and devices that have been selected by the district and already in place with plans to immediately expand off-premises implementation upon receipt of appropriate supplemental E-Rate funding for the EDU2011 Pilot Program.
 - (2) This federal initiative is consistent with the federal Broadband Data Improvement Act wherein the definition includes: "A structured learning activity that utilizes technology with intranet/internet-based tools and resources as the delivery method for instruction, research, assessment, and communication" is vital for improving educational opportunities and a better quality of life for all Americans².
 - ii) The state planned initiatives include the MDE Educational Technology Plan 2010 Goal 1 Teaching For Learning whereby "Michigan students will have meaningful technology-enabled learning opportunities, including assistive technologies and virtual learning opportunities that develop proficiencies as defined by the Partnership for 21st Century Skills (<http://www.21things4teachers.net/index.html>), required to become lifelong learners, including ethical, safe, and discerning behavior while using information and media technology".

¹ The purpose of this course is to provide "Just in Time" training through an online interface for K-12 educators based on the National Educational Technology Standards for Teachers (NETS-T). Participants who fulfill all of the requirements have the opportunity to earn SBCEU's.

² The deployment and adoption of broadband technology has resulted in enhanced economic development and public safety for communities across the Nation, improved health care and educational opportunities, and a better quality of life for all Americans.

- (1) Starting with the class of 2011, Michigan students will need to have an online learning experience in one of the following ways:
 - (a) Online course - A course delivered through an Intranet or Internet connection (inside or outside the school/county network)
 - (b) Online experience - A combination of structured, sustained, integrated, online experiences accessed via a telecommunications network utilizing teacher led, blended, teacher facilitated, or self paced courses
 - (c) Integrated experience - Integration of an online learning experience into each of the required credits of the Michigan Merit Curriculum (MME).
- (2) These state planned initiatives include public funding through the Michigan Department of Education (MDE) and State of Michigan research grants that funded mobile learning studies in actual classrooms.
- iii) The GoKnow (GK) platform non-profit initiatives were developed over the course of the past eight years using a combination of private and public funding. The output of these trails can be seen in the use of over 25,000 Mobile Learning Devices (MLDs) in the field that have used a combination of Palm™, WindowsMobile, XP(Netbooks), and Android smart-phone devices with the GK mobile learning platform.
- iv) MiCTA, a national non-profit group conducted E-Rate competitive bids for both Priority 1 and Priority 2 products and services for its members on FCC Form 470 number 526520000796986 and FCC Form 470 638840000811798 (Exhibit B).
- 2) The poverty level based on the percentage of students eligible for a free or reduced price lunch under the national school lunch program (NSLP) or a federally approved alternative mechanism, and the current discount rate of the school or library
 - a) NSLP - The poverty level based on the percentage of students eligible for free or reduced price lunch under the NSLP is **88.3%**.
 - b) E-Rate Discount - As an Urban school district, the current discount rate based on the E-rate Matrix is **90%**.
- 3) The financial need of the school, including any additional budgetary hardships, notwithstanding the school or library's current discount rate
 - a) Due to an economic downturn in Michigan's economy and statewide budget cuts for schools, Michigan Technical Academy's hardships include:
 - i) Lack of funding for improving educational opportunities and experiences for highly impoverished students whose needs include access to computers and the Internet during school hours, at home, and anywhere learning takes place.
 - ii) Increased need for student access to technology at school and at home.
- 4) All costs, including those eligible for E-rate support and those not eligible for E-rate support, associated with implementing the AWP, including but not limited to costs for equipment such as e-readers or laptops, access and connection charges, teacher training, librarian training, or student/parent training
 - a) E-Rate "Eligible" Costs for implementing the AWP, Grades 5-8

	Intra-Access Service	Wide-Area Access Service	Discount Amount	Non-Discount Amount
On Premises	\$36,000.00	\$139,500.00	\$157,950.00	\$15,790.00
Off Premises	\$0.00	\$46,500.00	\$41,850.00	\$4,650.00
TOTALS	\$36,000.00	\$186,000.00	\$204,450.00	\$20,440.00

b) E-Rate "Ineligible" Costs for implementing the AWP; Grades 5-8

INELEGIBLE COSTS	
Equipment (MLDs)	\$100,000.00
Software	\$15,000.00
Staff Training	\$10,000.00
Parent/Student Training	\$2,500.00
Staffing Costs	\$111,750.00
Monitoring Services (SOTI)	\$22,500.00
Consulting Fees	\$3,400.00
Non-Discount Amount (Eligible Costs)	\$20,440.00
TOTAL	\$286,590.00

5) The committed school resources available to implement the entire AWP, including whether those funds are from the school or library's general budget or from an outside funding source

a) Available resources for implementing the entire AWP, Grades 5-8

SOURCE	AMOUNT
General Fund	\$229,390.00
Title I Fund	\$33,700.00
Grant Fund	\$22,500.00
E-Rate (Discount Amount)	\$204,450.00
TOTAL	\$489,950.00

6) The effect EDU2011 support for off-premise connectivity is likely to have upon the school's projects

a) The GoKnow Mobile Learning Platform for Michigan Technical Academy includes:

- i) A comprehensive suite of tools that allow students and teachers to use mobile technology within their learning environment.
- ii) Simple, user-friendly, interfaces and applications that provides a layer between the teacher or student and the actual operating system, workflow and files and applications that are needed.
- iii) The platform does not impose new curriculum or any supplemental requirements on the teachers but allows them to use existing texts, lessons, images, digital files, videos, or animations and quickly create, manage, and distribute those elements to the students via the GK platform and across the mobile Internet.

b) The likely effect on Michigan Technical Academy's EDU2011 initiatives include but are not limited to:

- i) Expanded access to technology including the Internet, increased exposure to 21st century technology skills and learning opportunities, and improved productivity, proficiency and standardized test scores for the students served.
- ii) Adherence to both state and national educational technology standards for students, teachers and other stakeholders.
- iii) Improved student proficiency and MEAP test scores in Math, Science, ELA, and Social Studies.
- iv) Promote and successfully deploy equitable teaching and learning opportunities consistent with the Broadband Data Improvement Act.
- v) Compliance with NCLB wherein all schools will meet or exceed Adequate Yearly Progress (AYP) for the students served.

7) An analysis of the cost-effectiveness of the current or planned AWP as compared to the use of other types of technology that would also meet the AWP's objectives

- a) Michigan Technical Academy has chosen Netbook devices with built in wireless broadband cards as the most cost effective solution for meeting the AWP objectives.
 - i) The Notebook devices (MLDs) serve as a one to one computing device for students while providing access to the Internet through either Wi-Fi or wireless broadband services.
 - ii) The selected solution also allows students access to technology and the Internet at school, home, or anytime, anywhere learning takes place.
 - iii) Selecting the Notebook devices for the AWP program is the most cost effective solution because they provide both one to one computing as well as Internet Access for students served at a low cost to the district. Some features of the Netbooks include:
 - (1) Net/Note Book requires Sprint Broadband Service at \$31.00/mo for unlimited 3G/4G service or
 - (2) 3G service capped at 5GB/month for \$26.00/month with \$0.03 MB overage.
- b) Competitive bid process through MiCTA; a Telecommunications Association for Nonprofit Organizations.
 - i) One purpose of MiCTA is to influence the development of voice, data and video services to members at reduced costs and improved quality and to participate in governmental and regulatory proceedings affecting technology issues.
 - ii) Michigan Technical Academy purchased the wireless broadband service from the MiCTA National E-rate award which was competitively bid on FCC Form 470 number 526520000796986 (Exhibit B).
- c) Alternate off-campus technology and Internet solutions were considered during the planning process and prior to making a decision about which type of technology to use for the AWP.
 - i) The alternate solution was to provide Internet access to each student's home within the Community through a local Internet service provider.
 - ii) The annual cost for these services compared to the type of service selected is similar in cost; however, the total cost of ownership is much higher for the alternate solution because monitoring the student use as well as providing CIPA protection would require a tremendous amount of management time and increased costs.
 - iii) This solution also limited the students' Internet access to their homes and did not promote the anytime, anywhere goals of the program.
- 8) Any relevant technology planning documents and, *if applicable*, a statement of long-term objectives for the AWP
 - a) Draft Technology Plan; enclosed with this application
 - b) Statement of long term objectives:
 - i) Internet access is a necessary and required element for successful use of mobile learning devices and Michigan Technical Academy will augment Wi-Fi access currently available only on the campus with secure Internet access through a 3G plan. Additionally, some areas and some campus locations may not have reliable Wi-Fi coverage available which points out the requirement for 3G/4G coverage to be available in those cases as well.
 - ii) The Netbooks will allow Michigan Technical Academy to individualize instruction for each student. The MLDs will also be used to encourage and promote "project based learning" where students work in teams to solve problems while using technology as the primary tool.
 - iii) The platform and combination of devices that have been selected by Michigan Technical Academy is currently being implemented and can be expanded immediately upon receipt of appropriate supplemental E-Rate funding.

- 9) A description of the specific measures taken, or that will be taken, to ensure compliance with the Children's Internet Protection Act and measures to protect against waste, fraud, and abuse
- a) Description of CIPA compliance
- i) Michigan Technical Academy has and will continue to comply with the requirements of the Children's Internet Protection Act, as codified at 47 U.S.C. § 254(h) and (l).
 - (1) Internal policies and procedures are in place for acceptable use of the Netbooks.
 - (2) All Internet traffic is directed through the district's Virtual Private Network (VPN) which is secured through the use of DansGuardian web filtering software.
 - (3) Reasonable public notice was provided about Michigan Technical Academy's Internet safety policies, including the technology protection measures.
 - (4) Parents, guardians, and other stakeholders have access to information about the acceptable use of the Netbooks both on-premises and off-premises.
 - (5) In compliance with the Broadband Data Improvement Act of 2008, students are taught Internet safety including appropriate on-line behavior, interacting with other individuals on social networking websites and in chat rooms, and cyber-bullying awareness and response.
 - ii) SOTI MobiControl will be installed on every Netbook which allows teachers and administrators to monitor content, Internet sites visited, downloads, and other management tools to prohibit unauthorized use.
 - (1) Each Netbook is assigned to a specific student, checked periodically for inappropriate content, and collected for re-imaging during academic breaks/vacations.
 - (2) Staff will monitor acceptable use of each student's Netbook to ensure appropriate use for educational purposes both on-premises and off-premises.
- b) Protection against waste, fraud, and abuse
- i) Michigan Technical Academy will include all stakeholders to identify and use "best practices" when deploying the AWP pilot program.
 - ii) Each student will be assigned a specific Netbook to be used solely by the student both on-premises and off-premises.
 - iii) Every Netbook will be collected periodically to monitor and evaluate both on-premises and off-premises use by students.
 - iv) The most cost effective solution will be determined based on competitive bid responses in the future as well as available General Funds, Title I Funds, grants, and E-Rate discounts.
 - v) Eligible E-Rate services for both on-premises and off-premises use will be submitted on separate FCC Form 471s for funding year 2011.
 - vi) E-Rate ineligible product(s) and/or service(s) costs will be allocated out of the total cost of implementing the AWP prior to submittal to USAC for eligible reimbursements.
- 10) A description of internal policies and enforcement procedures governing acceptable use of the wireless devices used in the AWP off the school or library's premises
- a) Acceptable Use Policies (AUP); Exhibit C
- i) Michigan Technical Academy's acceptable use policy states that all computers and other district technology is to be used in a responsible, efficient, ethical and legal manner. Michigan Technical Academy's AUP guidelines are listed as follows:
 - (1) Use of the School District's network must be consistent with the School, and the School District's primary goals.

- (2) The School District network will not be used for inappropriate or illegal purposes of any kind, nor for activities that could be dangerous to me or to others.
 - (3) The School District network will not be used to send or receive threatening, obscene, or harassing materials. The District will not be held responsible if the user participates in such activities.
 - (4) The School District network will not be used to interfere with, disrupt, or cause damage to network users, services, software, equipment, or files that do not belong to the student.
 - (5) User of the School District network will respect copyright and fair use practices as is appropriate, legal, and ethical. The user will not use the network for financial or commercial gain without the written consent from Michigan Technical Academy.
 - (6) Students will not access multi-user talk sites (chat rooms) and Internet games, except those designated as permissible.
 - (7) Students are prohibited from gaining or attempting to gain unauthorized access to resources or data.
 - (8) Students are prohibited from posting anonymous messages including using the District technology to send messages to other District computers. Students are also prohibited from using the identification or name of another to access another person's account, programs, or files.
 - (9) Students are prohibited from distributing personal information without consent of that individual.
 - (10) Students are not to tamper with technology equipment except when authorized.
 - (11) Students are not to use District Technology or District Network without adult supervision or permission.
- b) Acceptable Use Agreements / Enforcement; Exhibit D
- i) Michigan Technical Academy has an acceptable use student technology agreement that must be signed by all students prior to using of the district's technology, including the Internet network.
 - (1) Any student that violates this agreement will lose all computer privileges with disciplinary action that may result in suspension or expulsion from the academy.
 - (2) Any parent/guardian that does not want their child(ren) to access the Internet on the network must sign a waiver form.
 - (3) All students assigned MLDs must also sign a separate supplemental agreement for using their individual unit.
 - ii) Michigan Technical Academy declares irresponsible, inappropriate, unethical, obscene, or illegal behavior, or support of such activities, as unacceptable behavior and as just cause for taking disciplinary action, revoking information network access privileges, and/or initiating legal action.
 - iii) Michigan Technical Academy reserves the right to review any material stored in files to which users have access and remove any material which the district, in its sole discretion, believes may be unlawful, indecent, obscene, pornographic, abusive, or otherwise objectionable. The use of technology is a privilege, which may be revoked by MTA upon notice.

Exhibit A: AWP CURRICULUM OBJECTIVES

Michigan Technical Academy

The GoKnow Mobile Learning Platform

The GoKnow (GK) platform is a comprehensive suite of tools that allow students and teachers to use mobile technology within their learning environment. The GK platform was developed over the course of the past eight years using a combination of private and public funding. Public funding has largely been through DOE and state of Michigan research grants that funded mobile learning studies in actual classrooms. The output of these trails can be seen in the use of over 25,000 MLDs in the field that have used a combination of Palm™, WindowsMobile, XP(netbooks), and Android smart-phone devices with the GK mobile learning platform.

The GK platform uses simple, user-friendly, interfaces and applications and provides a layer between the teacher or student and the actual operating system, workflow and files and applications that are needed. Research has clearly shown that teachers have had difficulty making the leap to the use of new technologies and the simplicity of the GK platform is clearly aimed at teachers, versus their students who rarely have issues with mobile phones, PCs, or web-based technology.

The platform does not impose new curriculum or any supplemental requirements on the teachers but seeks to allow them use existing texts, lessons, images, digital files, videos, or animations and quickly create, manage, and distribute those elements to the students via the GK platform and across the mobile internet.

Mobile Learning Environment (MLE) - MyProjects

MyProjects serves as the "home base" for the student and organizes the learning activities available as part of the MLE. The intended usage pattern is that the student goes to MyProjects whenever they use the mobile device.

Main Features:

- Displays and links to available applications (such as GK apps, Word, Excel, PDF, internet, etc.)
- Provides teacher created assignment directions and resources
- Organizes and links to student work, regardless of file type
- All items can be filtered by class/subject matter/project unit

Devices: Windows Mobile 6.1 and 6.5, Windows XP/7, Android 2.2

GoSync and GK Classroom Manager

The GoSync and GK Classroom Manager system allows teachers to easily collect and assess student created work, as well as send out applications, assignments, and feedback to the mobile devices. Without this piece, it would be almost impossible to manage a classroom of mobile devices and the work created on those mobile devices.

Main Features:

- Backs up files and assignments on mobile devices
- Distributes files and assignments from teacher
- Installs/Uninstalls applications on mobile devices
- Allows viewing of files from mobile devices within web browser on desktop computer
- Controls user authorization and access issues

Devices: Windows Mobile 6.1 and 6.5, Windows XP/7, Android 2.2

Sketchy™

Sketchy is for creating frame-by-frame animations to express students' ideas through the combination of text and images. Frames are drawn on with an assortment of tools and when put together can explain a complex topic. Creating animations is exciting for students, as well as valuable for the learning process. Sketchy is designed to limit the drawing tools and color palette to strike a balance that allows creativity while still focusing students on the topic.

Main Features:

- Simple drawing tools including text tool
- Ability to work on a single frame and easily switch to or add additional frames
- Playback of frames to see animation
- Import of images found on mobile device

Devices: Windows Mobile 6.1 and 6.5, Windows XP/7, Android 2.2

PiCoMap™

PiCoMap is a concept-mapping product. Students use the product to build complex representations of data while researching a given topic. Concepts are placed in nodes with additional information in the notes and links are placed between nodes to show relationships between concepts. Concept maps have been used in schools for many years, and across all subjects, and PiCoMaps allows students or teachers the ability to create these maps easily.

Main Features:

- Clean, simple UI
- Create nodes and the links between them
- Move nodes around as needed

Devices: Windows Mobile 6.1 and 6.5, Windows XP/7, Android 2.2

GoKWL (Know, Wonder, Learn)

GoKWL follows the K-W-L instructional technique. Given a topic of study, students are first asked what they know about it. Then students, normally within a small group, come up with what they wonder about the topic. After learning about the topic (however the teacher decides to teach this), the students discuss what they learned. This teaching method aides student' brainstorming and research skills. Similar to PiCoMap, GK research early-on showed that this activity could be applied to almost any lesson or subject.

Main Features:

- Quickly allows students to chart each section
- Allows students to review each section as they work through a unit or project
- Teachers can use as a gauge of individual student understanding

Devices: Windows Mobile 6.1 and 6.5, Android 2.2

StopWatch

Helpful for science classes, StopWatch has a stopwatch with a lap feature and a countdown timer.

Main Features:

- Simple UI
- Counts up with laps and Countdown

Devices: Windows Mobile 6.1 and 6.5, Android 2.2 (3rd Party)

GoWeb

While web browsing is pretty standard on mobile devices, GoWeb provides a way for students to search for useful pages and save those resources within their projects for quick access. Teachers can send out specific sites (URLs) relating to a project as either a live link or a saved local copy – the latter being useful if the internet connection is not always available and in case the site content might change.

Main Features:

- Display saved web resources
- Allow live web browsing
- Save URL links or all needed files for local copy of web resources

Devices: Windows Mobile 6.1 and 6.5, Windows XP/7, Android 2.2

Word Processing, Spreadsheets, Pictures, PDF Files, Etc

While we do not currently create any software to handle this, the MLE is designed to work with 3rd party applications that can improve the mobile device experience. For XP and Windows Mobile deployments, Mobile Office supports compact versions of Word, Excel, and Powerpoint, for example.

GoKnow Installer

Takes the installation process of many applications and simplifies it to one program. This has been distributed on a SD Card or flash drive in the past and has now moved over to internet installation if required. The internet installation process would involve accessing the GK Classroom Manager site, downloading the GoSync installer, and retrieve the rest of the needed applications from the first sync. However, for schools trying to set up large numbers of mobile devices at one time the SD Card, or flash-installing multiple devices using a 3rd party, may still be the faster option.

Main Features:

- Allows user to choose from a list of applications to install
- Can also preset GoSync/GKCM settings

Devices: Windows Mobile 6.1 and 6.5, Windows XP/7

Exhibit B: MiCTA COMPETITIVE BID

MiCTA GPO GoKnow Pricing – Data Only – Voice plan is NOT required

SPRINT SOLUTIONS, INC., (“Sprint”) provides MiCTA (“Customer”) with a price quote for the services described in this document. This price quote is Sprint's confidential and proprietary information and Customer agrees not to disclose this price quote or its contents to any third party, except as may be permitted by a non-disclosure agreement between Customer and Sprint. This price quote will remain valid until its Expiration Date. The prices contained in this quote are subject to change in Sprint’s sole discretion without notice. This price quote is not an agreement for services and Sprint is not obligated to accept orders for the described services until an agreement is executed between the parties. Sprint's provision of services will be subject to additional terms and conditions, including, but not limited to, applicable Sprint schedules and tariffs, Sprint standard credit application terms and conditions, Standard Terms and Conditions for Communications Services, and product specific annexes.

A. Approved Pricing and Terms

(Additional terms and conditions will apply):

SPRINT PRIMARY DATA PLAN (flat rate equipment)

Net MRC (Service Pricing Discount does not apply)	\$24	\$26	\$31
Data Services in Megabytes (“MB”), Web and Data Access	10	50	Unlimited
Overage per Kilobyte	\$0.0003	\$0.0003	Not applicable

Note 1 – All pricing and available KBs are the same whether Corporate-Liable Active Units use the Sprint Power Vision (EVDO) network or the Sprint Vision (1xRTT) network. The Sprint Primary Data Plan may be used only for Sprint phones or PDAs. The Sprint Primary Data Plan may not be used for machine-to-machine transmissions. All data usage is used against this Business Plan, including, but not limited to, web-browsing, downloading, email, etc.

Note 2 – Additional charges apply for messaging service.

Note 3 – Phone as Modem may be added for an additional \$15 MRC.

MUST BE ATTACHED TO MiCTA CORP ID

Public Non-Profit Education Corporate Liable

GMCTA

Exhibit C – ACCEPTABLE USE POLICIES

Michigan Technical Academy Bylaws & Policies

TECHNOLOGY PRIVACY

The Board of Education recognizes its staff members' right to privacy in their personal lives. This policy serves to inform staff members of the Board's position with respect to staff-member privacy in the educational and workplace setting and to protect the Board's interests. All computers, telephone systems, electronic mail systems, and voice mail systems are the Board's property and are to be used primarily for business purposes.

The Board retains the right to access and review all electronic and voice mail, computer files, data bases, and any other electronic transmissions contained in or used in conjunction with the Board's computer system, telephone system, electronic mail system, and voice mail system. Staff members should have no expectation that any information contained on such systems is confidential or private. Review of such information may be done by the Board with or without the staff member's knowledge. The use of passwords does not guarantee confidentiality, and the Board retains the right to access information in spite of a password. A staff member's refusal to permit such access may be grounds for discipline up to and including discharge.

Computers, electronic mail, and voice mail are to be used for educational purposes. Personal messages via Board-owned technology should be limited in accordance with the Superintendent's guidelines. Staff members are encouraged to keep their personal records and personal business at home. Because the Board's computer and voice mail systems are to be used primarily for educational purposes, staff members are prohibited from sending offensive, discriminatory, or harassing computer, electronic, or voice mail messages.

The Board is interested in its resources being properly used. Review of computer files, electronic mail, and voice mail will only be done in the ordinary course of business and will be motivated by a legitimate business reason. If a staff member's personal information is discovered, the contents of such discovery will not be reviewed by the Board, except to the extent necessary to determine if the Board's interests have been compromised. Any information discovered will be limited to those who have a specific need to know that information. The administrators and supervisory staff members authorized by the Superintendent have the authority to search and access information electronically.

All computers and any information of software contained therein are property of the Board. Staff members shall not copy, delete, or remove any information or data contained on the Board's computers/servers without the express permission of the Superintendent or designee or communicate any such information to unauthorized individuals. In addition, staff members may not copy software on any Board computer and may not bring software from outside sources for use on board equipment without the prior approval of the Superintendent or designee. Such pre-approval will include a review of any copyright infringements or virus problems associated with such outside software.

COMPUTER USAGE

At Michigan Technical Academy, we believe that the use of technology and Internet on-line services is a privilege extended to students and staff to enhance learning and information exchange. It is for this reason all students at Michigan Technical Academy will have Internet access unless parent or guardian fills out a Parent Waiver Form for Non-Internet Use which can be obtained in the office or library.

Policy for Acceptable Use of Computers and Other Technology

It is a general policy that all computers and other technology are to be used in a responsible, efficient, ethical and legal manner.

Michigan Technical Academy declares irresponsible, inappropriate, unethical, obscene, or illegal behavior, or support of such activities, as unacceptable behavior and as just cause for taking disciplinary action, revoking information network access privileges, and/or initiating legal action. The AUP guidelines are listed below:

- Use of the School District's network must be consistent with the School, and the School District's primary goals.
- The School District network will not be used for inappropriate or illegal purposes of any kind, nor for activities that could be dangerous to myself or to others.
- The School District network will not be used to send or receive threatening, obscene, or harassing materials. The District will not be held responsible if the user participates in such activities.
- The School District network will not be used to interfere with, disrupt, or cause damage to network users, services, software, equipment, or files that do not belong to the student.
- User of the School District network will respect copyright and fair use practices as is appropriate, legal, and ethical. The user will not use the network for financial or commercial gain without the written consent from Michigan Technical Academy.
- Students will not access multi-user talk sites (chat rooms) and Internet games, except those designated as permissible.
- Students are prohibited from gaining or attempting to gain unauthorized access to resources or data.
- Students are prohibited from posting anonymous messages including using the District technology to send messages to other District computers. Students are also prohibited from using the identification or name of another to access another person's account, programs, or files.
- Students are prohibited from distributing personal information without consent of that individual.
- Students are not to tamper with technology equipment except when authorized.
- Students are not to use District Technology or District network without adult supervision or permission.

Michigan Technical Academy reserves the right to review any material stored in files to which users have access and remove any material which the District, in its sole discretion, believes may be unlawful, indecent, obscene, pornographic, abusive, or otherwise objectionable. The use of technology is a privilege, which may be revoked by MTA.

APPROPRIATE USE OF TECHNOLOGY

Any student who does not comply with the "Technology Policy" may lose computer privileges. Repeated or severe infractions of the policy may result in permanent termination of privileges. Students will be required to make full financial restitution for any unauthorized or any damages caused.

In order to achieve our educational goals and ensure that the use of the technology resources available at Michigan Technical Academy you should have filled out:

1. Computer Equipment Acceptable Use Agreement
2. Internet Acceptable Use Agreement

These agreements are required so that you are aware of the proper use of these resources and the responsibilities expected of you and your child. Please read these agreements and discuss them with your child.

Your signatures on these agreements indicate that you understand and accept the terms and conditions that govern the use of technology at Michigan Technical Academy. If you have any questions about these agreements, please contact the office.

Michigan technical Academy students will have access to the internet in the lab during computer time. Our goal in utilizing this resource is to:

1. Enable our students to access educational resources from all over the world.
2. Enhance the teacher's ability to individualize the development of their students.

Teachers will be responsible for making sure that students research educationally appropriate information.

STAFF NETWORK AND INTERNET ACCEPTABLE USE AND SAFETY

The Superintendent is directed to prepare guidelines which address students' safety and security while using e-mail, chat rooms and other forms of direct electronic communication, and prohibit disclosure of personal identification information of minors and unauthorized access (e.g., "hacking") and other unlawful activities by minors online. Staff members are reminded that personally identifiable student information is confidential and may not be disclosed without prior written parental permission.

Building principals are responsible for providing training so that Internet users under their supervision are knowledgeable about this policy and its accompanying guidelines. The Board expects that staff members will provide guidance and instruction to students in the appropriate use of the Internet. All Internet users are required to sign a written agreement to abide by the terms and conditions of this policy and its accompanying guidelines.

Staff members are responsible for good behavior on Board's computers/network and the Internet. General school rules for behavior and communication apply. The Board does not sanction any use of the Internet that is not authorized by or conducted strictly in compliance with this policy and its accompanying guidelines. Users who disregard this policy and its accompanying guidelines may have their use privileges suspended or revoked, and disciplinary action taken against them. Users granted access to the Internet through the Board's computers assumes personal responsibility and liability, both civil and criminal, for uses of the Internet not authorized by this policy and its accompanying guidelines.

The Board designated the Superintendent as the administrator responsible for initiating, implementing, and enforcing this policy and its accompanying guidelines as they apply to the use of the Network and the Internet for instructional purposes.

The Superintendent may disable the technology protection measure to enable access for bona fide research or other lawful purposes.

ELECTRONIC DATA PROCESSING DISASTER RECOVERY PLAN

The Board of Education is committed to maintaining and protecting the District's Information System. The Board believes that a complete and accurate Information System which includes educational, student, fiscal and personnel information is vital to the Board's ability to deliver uninterrupted educational service to the community it represents. To this end, the Superintendent is directed to develop, test and maintain an Electronic Data Processing Disaster Recovery Plan for use in the event a disaster should disable the District's electronic data processing equipment.

Exhibit D: - ACCEPTABLE USE AGREEMENTS / ENFORCEMENT

Michigan Technical Academy STUDENT TECHNOLOGY AGREEMENT

All students are expected to use the Academy's technology in an appropriate and professional manner at all times.

Students should:

1. Respect licensing agreements and copyright laws that protect software, owners, artists, and writers.
2. Understand and practice appropriate techniques to protect hardware, software and networks from damage and viruses.
3. Maintain privacy of passwords
4. Keep all computers, keyboards, and mouse clean at all times.

Students should not:

1. Transmit or publish defamatory, abusive, profane or threatening illegal material.
2. Access inappropriate Internet websites
3. Use computers in the classroom for personal purposes during instructional time
4. Violate computer security systems
5. Download freeware or shareware material
6. Install software they have brought from home
7. Use computers for political or commercial purposes
8. Utilize electronic mail in any manner that is contrary to school policy
9. Take any hardware or software from the computers labs or classrooms at any time
10. Play music, or damage screens or speakers.

Additionally the student agrees:

NO FOOD OR DRINK ALLOWED IN COMPUTER LABS OR CLASSROOMS AT ANY TIME.

If this agreement is violated, the student will lose all computer privileges. Additionally disciplinary action may result in suspension or expulsion from the academy.

I have read and understand this Student Technology Agreement and agree to comply with the above regulations.

Parent/Guardian Signature

Date

Student Signature

Date

Supplement to Computer and Technology Usage Agreement

Computer # _____

Student:

To help you learn, Michigan Technical Academy is loaning to you a laptop computer and other tools to use at school and home. The computer is expensive and your personal responsibility - do not let your parents or your school down by losing or damaging the device.

You agree to the following:

1. I will always be careful with my computer and other devices my school loans to me. I will keep them safe.
2. I will use my computer to do my school work and use learning games first, and do anything else only after.
3. I will not allow any other person to use the school's computer except my parents.
4. I will bring the computer to school every day I am supposed to. I will not forget it.
5. I am personally responsible for the computer and will have to pay for its repair or replacement if I damage or lose the device, or if the device is stolen.
6. I will not access sites that are inappropriate, and I understand that if I do I will face disciplinary action at school and home.

Date: _____

Student Signature _____

Parent:

Your child is being provided a computer and internet access card to help him/her learn. Your child may be bringing the computer home with him/her frequently and may have assigned work to do from time to time. We request your help in ensuring your child does the work and uses the computer responsibly.

You agree to all of the following:

1. I will ensure my child uses the computer to do his school work and improve his/her learning.
2. I will ensure my child takes care of the computer and other technology.
3. I will not allow other children to use the computer. As a parent, I am welcomed to use it anytime.
4. I will help my child to remember to bring the computer to school, and understand that s/he may be disciplined if s/he does not.
5. There are scary sites on the internet. Monitoring software can only do so much. I promise I will do my best to shield my child from these things.
6. I will not install personal programs on the computer.
7. I understand that my child and I have no expectation of privacy regarding our usage -- this is the school's computer.
8. I am personally responsible for the computer and other equipment and agree to reimburse the Academy if the equipment is lost, stolen or damaged. Normal wear and tear is expected, however.

Date: _____

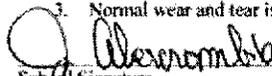
Parent Signature _____

School:

We are providing a laptop computer to this student and his/her parents. We are doing so to help him/her learn. We hope that we can show this affects positively student learning and look to expand the program to other children.

We agree to the following:

1. We will provide technical support to parents and student so that both can use the computer to their full advantage.
2. We will provide the student with challenging school work and other learning opportunities using the computer.
3. Normal wear and tear is expected and we will not charge student or parent for this.


School Signature

Date: 11/5/10