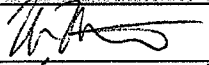
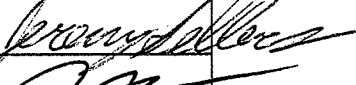
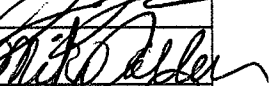
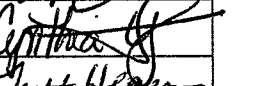
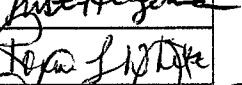
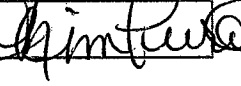




**Technology Plan
2013 – 2016**

Buena Regional School District

	Indicate in the unshaded spaces the page number where the corresponding information is found	
	Req'd by E-Rate	Not req'd by E-Rate
<p>TECHNOLOGY INVENTORY:</p> <p>1. Describe the technology inventory <u>needed to improve</u> student academic achievement in the 2013-2014 school year that informs the basis for the Form 470. Include in the description the internal connections and basic maintenance <i>for 12 months of the e-rate funded year</i>, such as the following areas:</p> <ol style="list-style-type: none"> Technology equipment including assistive technologies Networking capacity Filtering method Software used for curricular support and filtering Technology maintenance and support Telecommunications equipment and services Other services <p>NOTE: If this plan is intended to be used for three years of E-Rate funding, provide anticipated inventory information for all three years. See Inventory Sample Table. Definitions of items eligible for e-rate discounts: http://www.usac.org/sl/applicants/beforeyoubegin/eligible-services/default.aspx</p>	5-6	
<p>NEEDS ASSESSMENT:</p> <p>2. Describe the needs assessment process that was used to identify the necessary telecommunication services, hardware, software, and other services to improve education.</p>	7	
<p>THREE-YEAR GOALS:</p> <p>3. List clear goals for 2013-2016 that address district needs. There must be strong connections between the proposed physical infrastructure (bandwidth, cabling, electrical systems, networks) and goals. Include goals for using telecommunications and technology that support 21st century learning communities.</p> <p>E-Rate requirements: www.ecfr.gov</p>	8	
<p>THREE-YEAR IMPLEMENTATION AND STRATEGIES TABLE:</p> <p>4. Describe the realistic implementation strategies to improve education. Include in the description the timeline, person responsible and documentation (or evidence) that will prove the activity occurred. Address only 'a' and 'b' below to meet e-rate requirements. Address all areas below to continue planning for a technology-rich learning environment.</p> <ol style="list-style-type: none"> telecommunications, information technology, educational technology (including assistive technologies), and student technology readiness in preparation for online testing in 2014-2015. 	9-11	
	9-11	
		9-11
		9-11
<p>PROFESSIONAL DEVELOPMENT STRATEGIES:</p> <p>5. Professional development strategies should ensure that staff (teachers, school library media personnel and administrators) knows how to effectively use the technologies described in this plan to improve education, and will continue to support identified needs through 2016. <i>Address only 'a' below to meet e-rate requirements. Address all areas below to continue planning for a technology-rich learning environment.</i></p> <p>Describe the planned professional development strategies by addressing each of the following questions:</p> <ol style="list-style-type: none"> How will ongoing, sustained professional development be provided to all educators, (including administrators) that increases effective use of technology in all learning environments, models 21st century skills, and demonstrate learning experiences through global outreach and collaboration in the classroom or library media center? 	12	

b) What professional development opportunities, resources and support (online or in person) exist for technical staff?		12
c) How will professional development be provided to educators on the application of assistive technologies to support educating all students?		12
EVALUATION PLAN: 6. Describe the evaluation process that enables the progress and effectiveness of goals to be monitored.	13	
7. Describe the process to make mid-course corrections in response to new developments and opportunities as they arise.	13	
FUNDING PLAN (July 2013 – June 2014): 8. Provide the anticipated costs for 2013-2014 by source of funds (federal, state, local and other) and include expenses such as hardware/software, digital curricula including NIMAS compliance, upgrades and other services including print media that will be needed to achieve the goals of this plan. Allow specific provisions for interoperability among components of such technologies to successfully achieve the goals of this plan.		14-17

Stakeholder Table		
Title	Name	Signature
Superintendent	Walt Whitaker	
Technology Supervisor	Jeremy Sellers	
Instructional Supervisor	Brian London	
Teacher	Mike Coller	
Special Education Teacher	Cynthia Weigl	
Technology Technician	Justin Hegeman	
Parent	Ronnise White	
Community Member	Kim Pierotti	

Technology Inventory

The immediate technology needs of the Buena Regional School District revolve around two primary goals. The first goal is to bring resources to each district classroom on the level of our newly constructed/renovated Middle School and Cleary Elementary School. The second goal, of equal significance, is to improve the resources to enable that which is recommended for the administration of the PARCC examinations. Both of these goals need to be achieved through the improvement of both hardware and network infrastructures to support these expectations. Funding available to the district is nominal, efficiencies in acquiring resources and supporting their use is of significant concern. Ideally upgrades could be scheduled in a timely fashion, but that is unlikely without an increase in available funds. Additionally concerns for the ability to even secure additional bandwidth from providers and continuing to support and maintain additional resources with current staffing are real.

Three-Year Educational Technology Plan Inventory Table			
Area of Need	2013-2014	2014-2015	2015-2016
Technology Equipment including assistive technologies	<p>Upgrade application servers to Windows Server 2008 to meet online testing (PARCC) requirements.</p> <p>Establish teacher workstation in classrooms of Lower Elementary Schools for dedicated interactive white board use.</p> <p>Install interactive white boards in remaining classrooms.</p> <p>Upgrade Xtenda boxes (Ncomputing thin client solution that runs off of a desktop computer instead of a server) in Lower Elementary Schools and High School to newer version that supports Windows 7/8.</p> <p style="text-align: center;">or</p> <p>Replace Xtenda boxes with desktop computers or a thin client solution similar to Middle School and Cleary Elementary School</p>	<p>Continual installation of interactive white boards/computers and upgrade and/or replacement of Xtenda boxes.</p>	<p>Continual installation of interactive white boards/computers and upgrade and/or replacement of Xtenda boxes.</p>
Networking Capacity	<p>Completion of modifications to High School wireless infrastructure to a centrally managed wireless network with support for 802.11n protocol.</p> <p>Increase internet bandwidth to meet PARCC requirements.</p>	<p>Upgrade one of the Lower Elementary School wireless infrastructures to a centrally managed wireless network supporting for 802.11n protocol.</p> <p>Increase internet bandwidth to meet PARCC requirements.</p>	<p>Upgrade the second Lower Elementary School wireless infrastructures to a centrally managed wireless network with supporting 802.11n protocol.</p> <p>Increase internet bandwidth to meet PARCC requirements.</p>

Filtering Method	<p>Current webfilter (Marshall 8e6) is reaching EoL(End of Life) for support and updates. Upgrade to new version now called Trustwave Web Marshal or move to a different solution.</p> <p>Upgrade Microsoft ISA firewall to latest version.</p> <p>Current email filter only scans incoming emails. Move to a filter that scans both incoming and outgoing mail.</p>	Maintain upgrades/updates.	Maintain upgrades/updates.
Software used for curricular support and filtering	See Filtering method		
Technical Support and maintenance	<p>The IT Department currently consists of a full-time Technology Supervisor and three full time Technology Technicians. Most technical support and maintenance is completed by this team.</p> <p>Technical support for hardware that is still under warranty is provided by the respective manufacturers.</p> <p>District receives technical support for its various telecommunications and internet services from the providers of those services.</p> <p>The District maintains service contracts for specific software/advanced technical support and software updates.</p> <p>The District contracts with outside firms for additional specialized services for issues in areas such as networking or telecommunications.</p>	Maintain IT Department and service contracts.	Maintain IT Department and service contracts.
Telecommunications equipment and services	Continue migration of the districts phone system from the old Avaya system to the new Mitel system.	Continue migration of the districts phone system from Avaya to Mitel system.	Continue migration of the districts phone system from Avaya to Mitel system.
Other Services:			

Needs Assessment

The new standard for technology in the classroom was established by the resources developed in our two newest schools, Buena Regional Middle School which opened in January 2010 and Cleary Elementary School which opened in September 2012. The resources used in these two schools have evolved into an integral part of the educational opportunity for our students. The need to improve resources in the older schools in the district has been based on the standards established in these facilities including: network capacities (both wired and wireless), computer access for both instructors and students, interactive white boards, phones, etc. Progress continues for each of these goals but is compromised by the availability of financial resources and compounded by the integrity of building resources including power.

The proposed requirements which reflect on the online testing (PARCC) protocols have serious implications for the districts capacities. The number of computers accessible for students, the functional capacity of our hardware based upon minimum requirements for the testing and the availability of increased bandwidth become paramount issues. Funding becomes consequential issue as well as an impediment to be addressed in pursuing appropriate outcomes

Three-Year Goals

- 1 - Improve and increase the technology available for student education.
 - 1.1 - Upgrade/replace hardware that is used by students.
 - 1.2 - Upgrade existing software and obtain additional software needed to meet curricular as well as PARCC requirements.
 - 1.3 - Install Interactive white boards with dedicated computers in all remaining classrooms that are without.

- 2 - Improve network infrastructure to provide an optimal environment for the use of technology in school.
 - 2.1 - Upgrade wireless network in the high school and lower elementary schools to increase speed and stability.
 - 2.2 - Increase internet bandwidth to meet PARCC requirements.
 - 2.3 - Upgrade filtering equipment to provide a more productive and safer computer environment.

- 3 - Maintain a high level of technology and technology support to minimize downtime and increase productivity.
 - 3.1 - Continue to upgrade/replace hardware as it ages.
 - 3.2 - Maintain service contracts to keep software up to date.
 - 3.3 - Continue growth of IT Department.

- 4 - Encourage the effective integration of technology resources and systems with teacher training and curriculum development to establish research-based instructional methods that can be widely implemented as best practices by state educational agencies and local educational agencies.
 - 4.1 - Increase the proportion of teaching staff using internet resources by increasing training activities on the use of online resources and to integrate training within the district's staff development programs.
 - 4.2 - Teachers will design and implement technology-based learning experiences that promote higher-level learning experiences for students.
 - 4.3 - Teachers will use technology for professional productivity and increase their use of technology.

- 5 - Add computer programming to the high school and middle school curriculum.
 - 5.1 - Introduce a Computer Programming class at the High School level
 - 5.2 - Incorporate computer programming into the existing Middle School computer class.

Three-Year Implementation & Strategies

Three-Year Technology Implementation Activity Table				
District Goal and Objective	Strategy/Activity	Timeline	Person Responsible	Documentation
1 - Improve and increase the technology available for student education.				
1.1 - Upgrade/replace hardware that is used by students.	Upgrade Xtenda boxes(Ncomputing thin client solution that runs off of a desktop computer instead of a server) in Lower Elementary Schools and High School to newer version that supports Windows 7/8 or Replace Xtenda boxes with desktop computers or Classlink thin client solution similar to Middle School and Cleary Elementary School	July 2013 - June 2016	IT Department	Equipment is in place and operational.
1.2 - Upgrade existing software and obtain additional software needed to meet PARCC requirements.	Upgrade ClassLink servers to Windows Server 2008 Upgrade all computers running windows XP to Windows 7/8	July 2013 - August -2014 July 2013 - August 2015	IT Department	Equipment is in place and operational.
1.3 - Install Interactive white boards with dedicated computers in all remaining classrooms that are without.	Place desktop computer in classrooms of Lower Elementary Schools for use with dedicated interactive white boards. Install interactive white boards in remaining classrooms	July 2013 - June 2016	IT Department	Equipment is in place and operational.
2 - Improve network infrastructure to provide and optimal environment for the use of technology in school.				
2.1 - Upgrade wireless network in the high school and lower elementary schools to increase speed and stability.	Finish upgrading High School wireless infrastructure to a centrally managed wireless network with support for 802.11n protocol.	July 2013 - August 2013 July 2014 - August 2014	IT Department	Equipment is in place and operational.

	<p>Upgrade one of the Lower Elementary Schools wireless infrastructure to a centrally managed wireless network with support for 802.11n protocol.</p> <p>Upgrade the other Lower Elementary Schools wireless infrastructure to a centrally managed wireless network with support for 802.11n protocol.</p>	July 2015 - August 2015		
2.2 - Increase internet bandwidth to meet PARCC requirements.	Increase internet bandwidth	Ongoing		Equipment is in place and operational.
2.3 - Upgrade filtering equipment to provide a more productive and safer computer environment.	<p>Current web filter (Marshall 8e6) is reaching EoL (End of Life) for support and updates. Upgrade to new version now called Trustwave WebMarshal or move to a different solution.</p> <p>Upgrade Microsoft ISA firewall to latest version.</p> <p>Current email filter only scans incoming emails. Switch to filter that scans both incoming and outgoing mail.</p>	<p>July 2013</p> <p>July 2013 - August 2014</p> <p>July 2013 - August 2014</p>	IT Department	Equipment is in place and operational.
3 - Maintain a high level of technology and technology support to minimize downtime and increase productivity.				
3.1 - Continue to upgrade/replace hardware as it ages.	<p>Replace old computers with new ones as funds are available.</p> <p>Continue migration of the districts phone system from the old Avaya system to the new Mitel system.</p>	Ongoing	IT Department	Equipment is in place and operational.
3.2 - Maintain service contracts to keep software up to date.	Continue to renew service contracts when they expire.	Ongoing	IT Department	Contract Renewals
3.3 - Continue growth of IT Department.	Provide training for technicians.	Ongoing	Administration & Board of Education	Conference, webinar, class attendance

	<p>Create growth opportunity to maintain quality technicians.</p> <p>Increase department size as tech support demand increases to maintain high level of support.</p>			Existence of new positions
4 - Encourage the effective integration of technology resources and systems with teacher training and curriculum development to establish research-based instructional methods that can be widely implemented as best practices by state educational agencies and local educational agencies.				
4.1 - Increase the proportion of teaching staff using internet resources by increasing training activities on the use of online resources and to integrate training within the district's staff development programs.	Provide training sessions, online training resources, and ETTC.	Ongoing	Administration	Training attendance
4.2 - Teachers will design and implement technology-based learning experiences that promote higher-level learning experiences for students.	Use Interactive white boards and SmartResponse systems as well as online resources.	Ongoing	Administration, Teachers	Lesson plans & evaluations
4.3 - Teachers will use technology for professional productivity and increase their use of technology.	Increase use of SchoolFusion page, SmartNotebook, MS Office, and other online resources.	Ongoing	Administration, Teachers	Lesson plans & evaluations
5 - Add computer programming to the high school and middle school curriculum.				
5.1 - Introduce a Computer Programming class at the High School level.	Use resources at code.org to develop course.	Ongoing	Administration, Guidance, Technology/Math Teachers, Technology Supervisor	Existence of course
5.2 - Incorporate computer programming into the existing Middle School computer class.	Use resources at code.org to add to current course	Ongoing	Administration, Guidance, Technology/Math Teachers, Technology Supervisor	Course Curriculum

Professional Development Strategies

Professional development is coordinated through the Superintendent's Office for management purposes, but evolves from the collective efforts of the Instructional Supervisors, and building Principals commonly referred to as the District Leadership Team. District Protocols require that administrative team members take an active role in all staff development initiatives to insure that administrators are well versed in the concepts defined and expected of the instructors. Dependent on the venue and funding supporting the same, staff development may be structured to support grade level(s), building(s), or some combination of the district. Individual content areas may be addressed uniquely and topically. Staff will also be supported in differentiated opportunities exploring resources available on the internet, specific software applications, website development, student response systems and utilization of interactive whiteboards.

The district avails itself of experiences afforded by membership in the South Regional ETTC. Annually, experiences have been afforded through participation in the venues afforded by the ETTC. Instructional staff has actively participated in those opportunities that included single sessions, single focus workshops as well as more intensive experiences over multiple days in the summer. Topics have included fundamental exposure to the separated elements of Microsoft Office, internet resources, inclusion concepts, website construction, and the integration of instructional resources.

Administrators are required to participate in the same staff development opportunities as instructional staff. Their understanding of these resources dictates their ability to support the use of the same in the classroom. The administrative team has received specific training with respect to the student information system. Imbedded in the format of staff observation protocols are items specific to the utilization of available technology resources.

Follow-up opportunities are necessary to utilize all of these resources, differentiated to meet the unique needs of the individuals engaged. Opportunities to address teacher training will continue to evolve with the availability of resources. Staff development must be established to address the divergent needs of the instructional staff. Individuals have emerged in individual buildings whose expertise is sought and shared.

Educators' Proficiency/ Identified Need	Ongoing, sustained, high-quality professional development planned	Support
OnCourse - lesson planning & evaluation software	Provide teachers with additional training in the use of OnCourse.	Support provided via administration and colleagues.
PARCC - online testing	Training will be required for online test procedures with the introduction of the PARCC testing in 2014-2015 school year.	Continued support will be provided by PARCC, district administration, and the IT Department.
Staff development to support continued use of "Smart Classroom"	Training is provided internally for new staff or introduction of new technology. Training is also available through ETTC.	Ongoing opportunities provided by the IT Department as required.
SchoolFusion - district website	Provide teachers with support in the use of SchoolFusion.	SchoolFusions online HelpCenter as well as the IT Department.
Windows 8	With the planned introduction of Windows 8 to the district for the 2013-2014 school year, training in the major changes will be provided during Teacher In-Service before the beginning of the school year.	Ongoing opportunities to be provided by the IT Department as needed.

Evaluation Plan

Educational Technology Plan Evaluation Narrative

Describe the process to regularly evaluate how...

- a. *Telecommunication services, hardware, software and other services are improving education.*

Utilization of technology in the delivery of instruction is an element of the teacher accountability model. Student progress and academic growth are to be monitored and aligned with benchmark assessments, as well as various standardized and norm referenced evaluations. These outcomes will be beneficial in assessing the potential advantages/value of technology in the classroom.

- b. *Effective integration of technology is enabling students to meet challenging state academic standards.*

As technology is more integrated into the classroom, scores from test such as NJASK, MAP, & PARCC will provide information on how effectively the use of technology is enabling students to meet academic standards by evaluating changes in scores from test to test. Particular focus to be made on blended experiences where basic skills instruction is supported by computer based tutorials and supplemental instruction.

- c. *The LEA is meeting the identified goals in the educational technology plan.*

To ensure that the goals of this technology plan are met, a progress evaluation will be done at the end of each school year. The technology plan will be referenced throughout each school year to help keep the district on the right course.

Funding Plan

As stated earlier and frequently in this document, funding is a significant impediment to the progress of the Buena Regional Schools. Loss of local revenues, relatively flat state funding and decreased federal monies over the past four years has compromised many initiatives within the district. Significant reductions in staff (both certificated and non – certificated personnel) has occurred.

The district has taken advantage of experiences and resources afforded via grants and will continue to seek those opportunities in the future. Serious issues surround our capacity to meet the expectations defined by PARCC and we can only assume that we will be in good company. Existing in a rural area, the local infrastructure made available by telecommunication providers further compromises our abilities to expand beyond our financial where withal.

Three-Year Educational Technology Plan Anticipated Funding Table 2013 - 2014

ITEM	DESCRIPTION OF ITEM TO BE PURCHASED	FEDERAL FUNDING	STATE FUNDING	LOCAL FUNDING	MISC. (e.g. Donations, Grants)
Digital curricula (see NIMAS)					
Print media needed to achieve goals					
Technology Equipment				\$15,000	
Network					
Capacity					
Filtering				\$9,204	
Software				\$87,278	
Maintenance				\$42,300	
Upgrades					
Policy and Plans					
Other services				\$13,452	
Further Explanation:					

Three-Year Educational Technology Plan Anticipated Funding Table 2014 - 2015

ITEM	DESCRIPTION OF ITEM TO BE PURCHASED	FEDERAL FUNDING	STATE FUNDING	LOCAL FUNDING	MISC. (e.g. Donations, Grants)
Digital curricula (see NIMAS)					
Print media needed to achieve goals					
Technology Equipment				\$15,000	
Network					
Capacity					
Filtering				\$9,204	
Software				\$87,278	
Maintenance				\$42,300	
Upgrades					
Policy and Plans					
Other services				\$13,452	
Further Explanation:					

Three-Year Educational Technology Plan Anticipated Funding Table 2015 - 2016

ITEM	DESCRIPTION OF ITEM TO BE PURCHASED	FEDERAL FUNDING	STATE FUNDING	LOCAL FUNDING	MISC. (e.g. Donations, Grants)
Digital curricula (see NIMAS)					
Print media needed to achieve goals					
Technology Equipment				\$15,000	
Network					
Capacity					
Filtering				\$9,204	
Software				\$87,278	
Maintenance				\$42,300	
Upgrades					
Policy and Plans					
Other services				\$13,452	
Further Explanation:					