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SQUIRE, SANDERS & DEMPSEY L.L.P.

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Date: November 6, 2009

To: Marlene H. Dortch, Secretary
Federal Communications Commission
Office of the Secretary
445 12th Street, SW
Washington, D.C. 20554

Re: In the matter of: Request for Review or Waiver by the Board of Education of the Columbus Public Schools of Decision of Universal Service Administrator/ Ref. FCC Docket No. 02-6

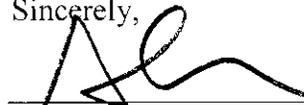
ADDITIONAL DOCUMENTS Requested by Cara Voth, Wireline Competition Bureau
E-Rate Funding Year 2003-2004

From: Columbus Public Schools ("CPS")¹
Contact Person: Wm. Michael Hanna and Amanda Scheeser, Counsel for CPS (216) 479-8500
Billed Entity Number: 129175
Application Number: 365588, 376510
FRN No. 1002370, 1045325

Enclosed, please find the following supplemental information/documents requested by Cara Voth of the Wireline Competition Bureau via email on October 27, 2009. The supplemental information/documents have been mailed and emailed to Ms. Voth. Please let us know if any additional information is needed.

cc: Cara Voth

Sincerely,



Wm. Michael Hanna, Esq. (0020149)
Amanda L. Scheeser, Esq. (0074259)
SQUIRE, SANDERS & DEMPSEY L.L.P.

Attorneys for Appellant Board of Education of
Columbus Public Schools

¹ The Columbus Public Schools are now known as the Columbus City Schools; however, because CPS is the name used through-out the current proceeding, the party seeking review will refer to itself as CPS.

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REQUEST FOR INFORMATION

Scheeser, Amanda L.

From: Cara Voth [Cara.Voth@fcc.gov]
Sent: Tuesday, October 27, 2009 3:04 PM
To: jmccarr@columbus.k12.oh.us
Cc: Hanna, William M.; Scheeser, Amanda L.
Subject: Questions for Columbus Public Schools

Dear Mr. McCarrick:

The Wireline Competition Bureau is in receipt of Columbus Public Schools' appeal letters for application numbers 376510 and 365588. We have the following questions/requests for you:

1. The letter in Exhibit 3 of your appeal, dated October 28, 2003, states that your prior approved technology plan was in effect at the beginning of FY 2003, but expired before your revised plan was approved. In your appeal letter, however, you indicate that your original technology plan had not expired (see page 7) and that no expiration was set by your technology plan approver, SchoolNet. Please explain the inconsistency between the statement that the technology plan had expired in the October, 28, 2003 letter and the argument that it had not expired in the appeal letters.
2. The appeal letter states that CPS began revising its technology plan in the spring of 2002. When was the revised plan submitted to SchoolNet for approval? Please submit any documentation you have to support the timing of the submission to SchoolNet.
3. Exhibit 2 of your appeal letters provides a copy of your technology plan approval letter for 2000 and a half-page copy of what looks to be the title page to the technology plan for 1999-2004. Please submit full copies of the original technology plan and the revised technology plan that was approved on January 29, 2004.
4. Please submit a list of any new or additional services that were covered by the technology plan that was approved from 2003-2006, that were not covered by the original technology plan.

Best regards,

Cara Voth
WCB/TAPD

The contents of this e-mail and any attachments are privileged and non-public. This information is intended for the recipient(s) only. If you have received this e-mail in error, please notify the sender immediately and delete the e-mail.

RESPONSE LETTER

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4900 Key Tower
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Office: +1.216.479.8500
Fax: +1.216.479.8780

Date: November 6, 2009

To: Cara Voth
Wireline Competition Bureau
Federal Communications Commission
445 12th Street, SW
Washington, D.C. 20554

Re: RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION detailed in October 27, 2009 email from Cara Voth to Jack McCarrick regarding E-Rate Funding Year 2003-2004, Application Numbers: 376510 and 365588.

From: Columbus Public Schools ("CPS")¹
Contact Person: Wm. Michael Hanna and Amanda Scheeser, Counsel for CPS (216) 479-8500
Billed Entity Number: 129175

Dear Ms. Voth,

The following is a response to your individual inquires and requests for documents relative to Application Numbers 376510 and 365588. We will address each of your questions in turn.

1. The letter in Exhibit 3 of your appeal, dated October 28, 2003, states that your prior approved technology plan was in effect at the beginning of FY 2003, but expired before your revised plan was approved. In your appeal letter, however, you indicate that your original technology plan had not expired (see page 7) and that no expiration was set by your technology plan approver, SchoolNet. Please explain the inconsistency between the statement that the technology plan had expired in the October, 28, 2003 letter and the argument that it had not expired in the appeal letters.

The reference in Exhibit 3 that the plan had "expired before the revised plan was approved" was based upon the attached email sent by SchoolNet on September 23, 2003 (Exhibit A), indicating that new technology plans were due on August 1, 2003 and CPS had missed the deadline. Based upon this assertion and the fact that the revised plan had not yet been approved through SchoolNet's new online system, CPS assumed that the previous tech plan had expired on that date as well. In addition, CPS relied on USAC's suggestion on its website that technology plans were only valid

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November 6, 2009

for three years. For these reasons, CPS indicated that the 2000 technology plan had already expired when it drafted its October 28, 2003 letter to USAC.

CPS' argument in its appeal letter that "the original 2000 technology plan had not expired and no expiration was set by the technology plan approver" is based upon conclusions made after further review of the law and the 2000 technology plan. While in its September 23, 2003 letter, SchoolNet stated that the technology plan "expired" on August 1, 2003, a review of the 2000 Technology Plan approval letter from SchoolNet revealed no such expiration date or any other expiration date. While USAC urges the use of a maximum three-year technology plan, it appears that this is an arbitrary number proscribed by USAC. CPS' position is once the original 2000 technology plan was approved, there is no reason to assume that such approval expired arbitrarily after three years - especially when the District maintained the same E-Rate funded services which were approved under the 2000 technology plan following the August 1 date of alleged "expiration" or at least until January 2004, when the 2003-2006 technology plan was officially approved.

Moreover, CPS complied with USAC's directives in the event a plan was longer than four years. With its three-year "rule," USAC has also determined that "long-range planning may be important in the case of some lease-purchase arrangements or very large capital investments that require extended commitments. There may also be cases in which an approved plan is longer than three years to conform to federal, state, or local requirements. Whenever an approved plan is longer than three years, there should be a significant review of progress during the third year." CPS performed a significant review of processes during the third year of the 2000 plan as reflected in the attached documents (Exhibit B) and the in-depth analysis of its technology assessments and goal which was ultimately included in the 2003-2006 plan.

2. The appeal letter states that CPS began revising its technology plan in the spring of 2002. When was the revised plan submitted to SchoolNet for approval? Please submit any documentation you have to support the timing of the submission to SchoolNet.

The use of "2002" in the appeal letter is a typographical error, which should read "2003." Beginning in early 2003, SchoolNet began utilizing SchoolNet's new online program to submit technology plans. CPS, like many other Ohio schools, had a difficult time generating the enormous volume of information to fit into the pre-form categories on SchoolNet's online program. However, CPS actively submitted technology plan information throughout 2003 which is documented in the attached email from SchoolNet. (Exhibit A) All portions of the online system were not complete until sometime in January 2004 (an exact date is not known); however, it should be noted that because SchoolNet had the ability to monitor and review the evolving plan while it was being built, the process involved is different from a create, submit and wait process.

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3. Exhibit 2 of your appeal letters provides a copy of your technology plan approval letter for 2000 and a half-page copy of what looks to be the title page to the technology plan for 1999-2004. Please submit full copies of the original technology plan and the revised technology plan that was approved on January 29, 2004.

See attached as Exhibits C & D.

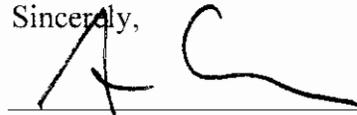
4. Please submit a list of any new or additional services that were covered by the technology plan that was approved from 2003-2006, that were not covered by the original technology plan.

The following new and/or additional technology services were utilized under the 2003-2006 and paid for by E-Rate dollars.²

Cellular Services (2004,2005) Funded - Claims Filed
PRI-ISDN Connections (2005) Funded - Claims Filed

Thank you for providing CPS the opportunity to supplement its E-Rate appeals. We hope this response sufficiently answers your questions. Please contact us if any additional information and/or documentation is needed.

Sincerely,



Wm. Michael Hanna, Esq. (0020149)
Amanda L. Scheeser, Esq. (0074259)
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127 Public Square
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Attorneys for Appellant Board of Education of
Columbus Public Schools

² Please note that other requests for services were made; however they were either not funded by the E-Rate program or CPS did not claim the allotted funds.

EXHIBIT A

**Technology Plan for
Columbus City SD - 043802
School Years: 2003 - 2006**

Status: Draft Started

Printed: Jun 26, 2003

Phase 1 - Initiate Planning

1.1 School District Demographics and Facilities

School District Name: Columbus City SD
District Code (IRN#): 043802
District Address: 270 E State St
Columbus, OH 43215
District Phone #: (614) 365-5000
Superintendent's Name: ,

Category	Grade Levels	# Faculty	# Students	# F/R Lunches	# Schools	# Classrooms
Elementary	K-5	2263.00	31488.00	22083.00	92.00	1979.00
Kdg-8th	K-8	48.00	703.00	278.00	2.00	31.00
Middle School	6-8	1014.00	14886.00	457.00	26.00	845.00

District and Community Demographics

Columbus Public Schools has served the community since 1845. Our current enrollment is approximately 65,000 students drawn from an area of over 120 square miles within Franklin County, Ohio. We educate those students through 93 Elementary Schools, 25 Middle Schools, 18 High Schools, 4 Career Centers, 4 Special Schools, and 3 ESL Centers.

We welcome diversity. Minorities constitute over 60% of our student population.

School District Facilities

The District's oldest schools were built in 1874. Twelve schools are now more than 100 years old. Our six newest schools were built more than 25 years ago. The age and condition of the buildings adds to the challenges of installing and supporting modern technology. Today's technology was not a consideration when our schools were originally built.

In 2002 the community approved a construction bond, levying the first two segments of a seven segment plan for replacement and remodeling of schools. The levy provides support for remodeling or replacement of 31 schools over the next 6 years. Classroom technology is a consideration in the design of each of those projects.

It is important to realize that this facilities update addresses less than one-third of our schools. This is a massive effort that will take years to accomplish. Community support to fund improvements to the remainder of the organization will be requested in the future.

1.2 Planning Process Overview

Technology Planning Committee

Name: Jackson, Christopher
Role/Organization: Consultant/KPMG
Plan Subcommittee(s): Main
Mailing Address: 1091 King
Columbus, OH 43212
Daytime Phone: 614-365-5159
E-mail Address: cajackson@kpmg.com

Name: Rideout, Eric
Role/Organization: Consultant/KPMG
Plan Subcommittee(s): Main
E-mail Address: erideout@kpmg.com

Name: Reynolds, Rick
Role/Organization: Chief Information Officer / CPS
Plan Subcommittee(s): Main
E-mail Address: rreynolds@columbus.k12.oh.us

Name: Ruberg, James
Role/Organization: Consultant/KPMG
Plan Subcommittee(s): Main
Daytime Phone: 216-244-2516
E-mail Address: jruberg@kpmg.com

Name: McCarrick, Jack
Plan Subcommittee(s): Main
Mailing Address: 1091 King Ave.
Columbus, Oh 43212
Daytime Phone: 614-365-6173
E-mail Address: jmccarr@columbus.k12.oh.us

Name: Ousley, Christopher
Role/Organization: Consultant/KPMG
Plan Subcommittee(s): Main
Mailing Address: 10 S. Broadway
St. Louis, MO 63102
Daytime Phone: 314-444-1455
E-mail Address: cousley@kpmg.com

Name: Gialombardo, Neena
Role/Organization: Schoolnet Liason / CPS
Plan Subcommittee(s): Main
Mailing Address: 737 E. Hudson St.
Columbus, OH 43211
Daytime Phone: 614-365-8477
E-mail Address: neena@columbus.rr.com

Name: Phillips, Tim
Role/Organization: Applications Manager / CPS
Plan Subcommittee(s): Main, EAR
E-mail Address: tphillips@columbus.k12.oh.us

Name: Lucas, Paul
Role/Organization: Instructional Technology Director / CPS
Plan Subcommittee(s): Main
E-mail Address: plucas@columbus.k12.oh.us

Name: Fry, Norm
Role/Organization: Technical Support Manager /CPS
Plan Subcommittee(s): Main, ITV
E-mail Address: nfry@columbus.k12.oh.us

Name: Eggleston, Carrie
Role/Organization: Consultant/KPMG
Plan Subcommittee(s): Main
Mailing Address: 1091 King Ave.
Columbus, Oh 43212
Daytime Phone: 614-365-5163
E-mail Address: ceggleston@kpmg.com

Technology Planning Orientation Process

The District implemented a comprehensive approach for developing their 2003 – 2004 District Technology Plan (DTP). In an effort to ensure that the plan represents the interests of all technology departments and schools, an authoring team composed of those directly involved in the utilization of technology at the building and district level was established. The authoring team scheduled bi-monthly meetings to collaborate on development of the plan. This team has included the key educational leadership contacts to obtain input and ensure compliance with the Districts educational goals. The roles involved are as follows:

Chief Information Officer (CIO)
Director of Instructional Information Services
Technical Support Manager
Applications Manager
IT Program Manager

1.3 Technology and Education Reform

Technology in Support of Enhanced Learning and Equity

The benefits of technology inclusion and integration into the Districts schools will:

- Provide an increase in student test achievement performance of state and district test scores.
- Induce student mastery of technology curriculum goals.
- Increase student, teacher, and staff access to technology.
- Connect students, staff and the community of Columbus Public Schools to the vast stores of information and resources available via the Internet and electronic media.
- Facilitate communication between various groups of Columbus Public School students and groups of other students in Ohio and the world.
- Support the professional training network consistent with the guidelines set forth by the State of Ohio and other agencies.
- Provide the students and staff with the necessary technology to implement the goals of the State of Ohio and District Technology Plan.
- Sustained interest and use by students.
- Opportunities for students to use technologies for different learning styles.
- Opportunities for individualized problem solving.
- Provide teachers with greater number of teaching tools for serving a diverse student population.
- Increased teacher creativity and renewal.
- Provide students with alternative ways to learn and express their knowledge.

- Students become capable information technology users
- Allows students to become problem solvers and decision-makers
- Provides for creative and effective users of productivity tools
- Empowers communicators, collaborators, publishers, and producers
- Provides for informed, responsible, and contributing citizens
- Students will be able to compete in a global market.

1.3.1 EQUAL OPPORTUNITY

In addition, students must have equal opportunities to learn. Technology is an excellent tool that students with disabilities may use to access programs and information to enhance learning. When developing this Instructional Technology plan, the technology committee included technology provisions for special needs learners within Columbus Public Schools. While the main focus in this section may be on the disabled, the plan also provides for learners who are classified as gifted and talented or exceptional.

Columbus Public Schools will implement any of the following mechanisms based upon need cited from the Director of Special Services. The following are a few examples of why special needs learners must be considered when planning for technology implementation:

Visual Impairments:

This includes students who are partially sighted or have low vision, as well as those who are blind. Problems include inability to see the screen, orient on the keyboard and read computer printout as well as the inability to write and read printed information. Adaptive technologies, which the technology committee believes, could be adapted for this area in technology are:

- Speech synthesizers
- Large Monitors
- Braille embossers and printers
- Scanners and scan-reading software

Physical Impairments:

This includes students who have limited or no use of their hands and who experience difficulty in writing, holding books or papers, and turning pages. Adaptive technologies to be implemented include:

- Voice recognition systems
- On-screen keyboards
- Enlarged or mini keyboards, trackballs, and joysticks

Hearing/Speech Impairments:

Generally, students with hearing and speech impairments have little difficulty using computers, but they can still benefit from emerging technologies that include:

- Communications software which displays dialog on computer screens
- Speech output devices
- Visual displays and printouts

Learning Disabilities:

Some disabilities that affect learning include dyslexia, dysgraphia, dyscalculia, language deficit and attention deficit disorder. Adaptive technologies are available to enhance the learning capabilities of students with learning disabilities.

Technology in Support of Improved Teaching

To ensure that technology is effectively used in classrooms, a clear connection must be made between technology and the curriculum. Units that integrate technology into the core curriculum and correlate with the standards will ensure teachers use technology to its fullest advantage. To accomplish this, the following actions will have to be developed:

- Utilization and implementation of professional development.
- Enhance core curriculum units with technology connections.
- Develop an online database of model lesson plans and projects.
- Produce teacher-ready core units with integrated technology applications.
- Develop accountability mechanisms to ensure that all teachers use technology to support academic goals.
- Controlled and strategic purchase up-to-date instructional software to support and align with the outcomes of the district's strategic plan.
- Incorporate a variety of technologies (voice, video and data) into the curriculum to support virtual opportunities to learn where students might not otherwise have access to real world opportunities. For example, virtual field trips, WebQuests, and other distance learning opportunities.

Technology in Support of Decision-Making and Efficiency

The benefits of using technology to manage the administrative functions of a school or school district are quite easy to see—student information systems, budget management systems, and administrative reporting systems—make life easier for the harried administrator wearing multiple hats. School networking allows teachers and administrators to share files and applications, communicate with each other and access information resources. Schools of today, like businesses of today, could hardly function without technology.

Technology in Support of Economic Development

Based on the Workforce Development Concept, the Columbus Public School District is committed to ensure that all students become successful, lifelong learners. It is difficult to imagine that this can be obtained without preparing students for the Information Age of the 21st century. Both instructional practice and supporting curricular and management systems must take advantage of the power of current emerging technologies. Learners will be able to interact successfully in a technological environment to achieve their personal, education and workplace goals. Columbus Public Schools views technology as an effective and necessary tool, capable of enhancing both the communication ability and productive capacity of our students, staff and parents. Columbus Public School students must be competitive in an ever-changing world. The opportunity to develop technological proficiency will enable students and staff to maximize their access to information, enhance problem-solving skills and develop effective communication in the Information Age.

Additional Benefits of Technology Infusion

- Independent Learning
- Lifelong Learning

1.4 Technology Mission Statement and Vision

Mission Statement

Columbus Public Schools overall mission, as defined by the District Continuance Improvement Plan, is to provide quality education to all students, enabling them to develop the knowledge, understanding and skills they need:

- To achieve at their highest levels (DPIC-1)
- To think critically (DPIC-2)
- To solve problems (DPIC-3)
- To work independently and cooperatively (DPIC-4)
- To value diversity (DPIC-5)
- To make informed choices (DPIC-6)

MIS's primary role is to support and enable the District to prepare students to achieve the highest learning standards by engaging a high quality staff, involved parents, and a supportive community. In collaboration with the community, Columbus Public Schools will provide a challenging, student-centered curriculum and effective instructional strategies in a safe, stimulating learning environment. Columbus Public Schools Information Technology Team supports this vision by:

IT Mission Statement:

- Supporting CPS Mission Statement

Providing secured electronic access to information and services (MIS-1):

- To achieve at their highest levels (DPIC-1)

Supporting the community's educational and social needs (MIS-2):

- To think critically(DPIC-2)
- To value diversity(DPIC-5)

Ensuring effective and efficient utilization of information technology to improve the social and community services (MIS-3):

- To solve problems (DPIC-3)
- To make informed choices (DPIC-6)

Supporting services for elected officials, CPS, management, and employees (MIS-4):

- To work independently and cooperatively (DPIC-4)

Vision

Provide secured electronic access to information, services, and support the community's educational, community, and social needs.

The District Technology Plan (DTP) is a document that provides insight into where the Columbus Public Schools is going with technology and why. It provides the strategic framework that outlines the district's approach to the integration of technology into 'teaching & learning' and the use of technology to support the

operational/administrative needs of the district. The guiding factors or principles for this plan include:

- The plan must be aligned to the District's Continuum Improvement Plan
- The plan must take into consideration funding sources and availability of funds
- The MIS organization and operational functions must be aligned to the district's needs
- Tactical planning and projects will be aligned to this plan

The DTP is a living document and is reviewed twice-a-year by the CIO and his staff. It is reviewed and updated yearly by the CIO, the Superintendent and the Senior Cabinet.

MIS Transformation was introduced into the district in April, 2002. A strategic program was outlined that addressed four areas of improvement:

1. Instructional Technology
2. Application Design & Replacement
3. Technology Infrastructure & Architecture
4. MIS Processes & Practices

Each of these areas have developed program charters and identified tactical projects that address pertinent issues. The MIS Transformation effort aligns with the DTP and identifies the two primary goals of MIS:

1. MIS enables exceptional academic achievement
2. MIS enables efficient operational/administrative functions within the district

The MIS Transformation Program also identified emerging themes that guides this plan:

- Technology pervades across all academic and administrative functions
- The MIS Department must effectively communicate and coordinate its activities with all functions within the district
- MIS will develop and maintain a strong 'Customer Sense' that provides superior customer service and knowledgeable responses
- MIS must facilitate a significant cultural change within the district to improve the district's effective use of technology

A set of principles and guidelines have been used throughout the DTP that helps the district understand the purposes of technology and the approach that is being taken by the MIS Department. We are not pursuing technologies or programs without a clear roadmap that defines where we are at, where we are going and why.

1.5 Ongoing Stakeholder Communications

Tactical Communications Plan

To gain a broad spectrum of input and support, the District will encourage the following as means for ongoing communications:

- Brochures for the county concerning technology implementation and evaluations.
- School based newsletters distributed to parents and community members.
- Press releases (Print and local PBS)
- Participation of business advisory groups
- Providing information to and seeking input from other school districts, regional partnerships or consortium

- such as the Ohio SchoolNet, Tech Corps and the Central Ohio Education Council.
- Provide information on District's web page.
- School newsletters for parents and students
- With volunteer instructors, offer basic computer skills training to the local community in our schools in the evenings.
- Participate in a "Back-to-School" Night
- Acceptance of community members and parents to be members of the District's technology committee.
- Internet electronic mail to administrators and teachers from parents.
- School based Internet web portals to display school information to parents and community members.
- Community Learning Nights to invite members of the community access to technology related teachings and seminars.
- Evaluate Internet electronic student progress reports.
- Outbound dial systems to inform parents of student absentees and school related information.

Community Relations Strategy

Dr. Lucas???

1.6 Service Agencies, Partnerships, and Community Linkages

Potential Funding Resources

Careful planning and the use of existing and new funding sources will be necessary to ensure that the technology resources and training provided to district schools keeps pace with advancing and emerging technologies. Adequately funding technology for education is a process of identifying and securing funding from multiple sources. Such sources include, but are not limited to:

- Titles I & VI Funds
- Title II Funds
- Title VII Funds
- Technology Literacy Challenge Fund Grants
- Job Training Partnership Act
- U.S. Department of Commerce NTIA
- Universal Service Fund – FCC
- Corporate Foundations
- Private Foundations
- District Allocated Funding for Capital
- DOE Allocated Teacher Training Funds

Current District Partnerships

What ongoing partnerships and collaborations with the school district have been established?

What technology-related cooperative efforts has the district initiated with any of the following groups and organizations?

- Public Libraries - CPS has developed an on-going partnership with Columbus Metropolitan Libraries. This partnership was created to provide the district with additional resources that students could not otherwise have access to.
- Higher Education Institutions - CPS has forged a partnership with Ohio State University and Ashland

University. Partnering with this institution has allowed the district to design a curriculum that will use technologies in a relevant and beneficial manner for students.

· **Parent/Teacher Organizations** - CPS has partnered with _____. This alliance has provided an avenue for major stakeholders to collaborate and develop ideas, standards, and practices that are in the best interest of the students.

· **Businesses** - CPS has developed relationships with the following businesses: _____. These relationships have allowed the district to gather input and data that can be used to prepare students for future careers and opportunities.

· **Technology Vendors/Service Providers** - CPS has developed an on-going collaborative effort with Cisco, SBC, and a number of other vendors. This collaboration was developed to provide the district with _____.

· **Social Service Agencies** - CPS has developed relationships with _____. These agencies and/or groups have provided the district with input and resources that has enabled _____.

Potential District Partnerships and Linkages

CPS has existing partnerships with _____, which will be continued during the technology planning and implementation process. Their input is very important, as they provide resources and/or funding that has helped enable the district's vision. The input from these partnerships provides a road map that can be implemented district wide, and in turn puts students on the proper course for the future.

Phase 2 - Assess Current Status of Educational Technology

2.1 Student and Staff Technology Skills, Knowledge, and Usage

District Technology Standards

The District will use a variety of methods to measure improvement in student achievement with the implementation of technology. Administrators and counselors will monitor student quantitative and qualitative assessment indicators to determine whether or not student performance has increased due to educational technology integration. The use of an integrated software program within the elementary schools will provide teachers and administration timely information for learning assessments and remediation training. Teachers and administration will use technology applications to monitor student achievement. The District shares the beliefs and assumptions outlined in the Ohio Commission on Educational Technology State Plan to Implement Technology to Support Student Learning. In addition, Columbus Public Schools agrees with the basic standards set forth by the International Society for Technology in Education (ISTE) for students, teachers, and administrators.

Student Technology Attitudes

Students are changing from passive learners to active participants in the learning environments. We are changing our curriculum focus from instructional objectives that guide learning to outcomes that are expected of students as they master the curriculum. Students today are charged with more responsibility for their own learning. They need to master curriculum principles and problem solving techniques. New learning environments enhanced by technology emphasize personalized student educational plans, a greater degree of independent small group learning, and a more active learning environment. Technologies help students find and handle more information more quickly, build a more productive knowledge base, and learn more about the real world by engaging in real world simulations that aid in the process of developing logical problem-solving skills.

Student Technology Skills

The goals of instructional technology for elementary schools are to increase student achievement, provide opportunities to develop problem-solving techniques, and establish an environment where students can view and use technology as a tool to enhance the education process. Specifically, technology-related skills and concepts are taught in the elementary computer education curriculum.

Upon completing elementary school, students will be able to:

- Use technology and educational software in concept development and critical thinking
- Access data that can be manipulated for the purpose of determining relationships within the information
- Communicate and exchange ideas with others outside the school through telecommunications.
- Enhance thinking and learning through the use of instructional technology.
- Exhibit increased levels of motivation and self esteem when interacting with instructional technology and other students.
- Access technology to experience educational settings outside of the classroom through electronic field trips.
- Use E-mail to enhance the writing process by writing to express, to inform, and to persuade with local and distant pen pals.
- Improve their skills through self-paced computer programs with drill and practice.
- Demonstrate a level of competence with technology that translates into increased academic performance.

The goal of instructional technology for middle school is to integrate the use of instructional technology in all curriculum areas to produce students who can use technology to communicate effectively and process

information to solve problems. Upon completing middle school, the student will be able to:

- Use word processing, telecommunications, graphics, and mixed electronic media to communicate.
- Use spreadsheets to manipulate numerical data and establish parameters for solving problems.
- Use databases for information storage and retrieval.
- Use the computer to investigate and master subject area disciplines.
- Use the Information super highway to access curriculum resource and take electronic field trips.
- Demonstrate a level of competence with technology that translate into increased academic performance.

The goal of instructional technology for high school is to apply and further integrate the use of instructional technology in all curriculum areas to produce students who can use technology efficiently and effectively to communicate. Students can gather and process information to solve problems; and who are prepared to function in post-secondary education, the world of work, and in a technological society.

Upon completing high school, students will be able to:

- Use word processing and create and manipulate databases, spreadsheets, and related applications software used in all subject areas.
- Improve the quality of their written work by expanding vocabulary and decreasing spelling and grammatical errors.
- Use appropriate technological resources available for research projects, independent research, reporting, creative and critical thinking skills.
- Use the Internet, WWW for research projects, independent research, reporting, creative and critical thinking skills.
- Create multimedia presentations.
- Use graphing calculators to integrate learning experiences in mathematics.
- Use computer applications for drawing and composing in art.
- Increase proficiency in HTML, etc. by developing Web pages.
- Access applications for word processing, databases and spreadsheets.
- Use audiovisual equipment to record activities.
- Use technology to access job opportunities through career-to-work programs coupled with distance learning.
- Demonstrate a level of competence with technology that translates into increased academic performance.

Students Technology Usage

The curriculum our students will learn in school will be carefully developed and articulated PreK-12 to parallel the skills graduates need to be successful for the rest of their lives. It will include the content skills, and abilities identified as essential by national organizations, state requirements, and business recommendations.

The computer and media curriculums will be written emphasizing these major program outcomes throughout a student's educational career:

1. Be comfortable using a computer
2. Possess computer literacy
3. Possess basic input skills
4. Be able to use general computer applications (spread sheet, databases, word processing, desktop publishing, etc.)
5. Be able to use technical tools (scanner, modem, CD-ROM, etc.)
6. Be able to access, process, produce, and present information using a computer

7. Be able to adapt to technological change
8. Understand the importance of computers in the workplace
9. Be receptive to and able to adjust to future media hardware and software developments
10. Be able to analyze and interpret information.

In addition, the articulated PreK-12 technology/computers/media curriculum will be organized into course or grade level outcomes that will define exactly for students, parents, and teachers what students will need to know, and be able to do, in order to complete a course or grade.

Staff Technology Attitudes

Teachers demonstrate a sound understanding of technology operations and concepts. Teachers consistently demonstrate introductory knowledge, skills, and understanding of concepts related to technology (as described in the ISTE National Education Technology Standards for Students). In addition, staff also exhibits continual growth in technology knowledge and skills to stay abreast of current and emerging technologies.

The staff also understand the social, ethical, legal and human issues surrounding the use of technology in PK-12 schools and apply those principles in practice. Teachers model and teach legal and ethical practice related to technology use, while also applying technology resources to enable and empower learners with diverse backgrounds, characteristics, and abilities. In addition, teachers:

- Identify and use technology resources that affirm diversity
- Promote safe and healthy use of technology resources.
- Facilitate equitable access to technology resources for all students.

Staff Technology Skills

Teachers use their skills to plan and design effective learning environments and experiences supported by technology. Consistent throughout the District, staff employees demonstrate skills that can be used in the classroom by:

- Designing developmentally appropriate learning opportunities that apply technology-enhanced instructional strategies to support the diverse needs of learners.
- Identifying and locate technology resources and evaluate them for accuracy and suitability.
- Planning for the management of technology resources within the context of learning activities.
- Planning strategies to manage student learning in a technology-enhanced environment.

Staff Technology Usage

Teachers implement curriculum plans that include methods and strategies for applying technology to maximize student learning. Among other uses, teachers have shown the ability to facilitate technology-enhanced experiences that address content standards and student technology standards, use technology to support learner-centered strategies that address the diverse needs of students, apply technology to develop students' higher order skills and creativity, and manage student learning activities in a technology-enhanced environment.

Teachers also apply technology to facilitate a variety of effective assessment and evaluation strategies. They have demonstrated the ability to apply technology in assessing student learning of subject matter using a variety of assessment techniques, use technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning, and apply multiple methods of evaluation to determine students' appropriate use of technology resources for

learning, communication, and productivity.

Options for Closing the Student Technology Gap

By changing the focus of curriculum and methods for delivery of instruction, and by empowering students through technology, the District can produce a learning environment where students can be expected to achieve at higher levels. The District will use a variety of methods to measure improvement in student achievement with the implementation of technology. Administrators and counselors will monitor student quantitative and qualitative assessment indicators to determine whether or not student performance has increased due to educational technology integration.

Option for Closing the Staff Technology Gap

The District would like to ensure that the skills of the staff are as refined as possible. In order to achieve this, the following objectives have been established to benchmark a method for closing the staff skill gap:

- Develop a district professional development plan that addresses the key changes the district needs to make to achieve its educational vision and goals. This plan should reduce teacher isolation, ground teachers in instructional methodologies to support student learning, provide for a variety of learning opportunities for teachers, including on-line and distance learning options, and should establish district expectations for teacher performance and competency in the use of technology to support instruction.
- Establish teacher competency standards for technology and use them to screen applicants and establish performance goals for staff.
- Provide on-going training in both instructional design and delivery support strategies. Continue to build teacher expertise using technology, especially in spreadsheets, databases, graphics, and presentation skills and their application in subject matter instruction and learning.
- Ensure that technology training includes authentic tasks to demonstrate how to apply the technology in education; give teachers projects to do using the technology for instruction to support student learning and development of higher order thinking skills.
- Provide professional development to foster better understanding of what is actually assessed by the Ohio Proficiency Tests test and how to address identified needs in the classroom using current instructional software.
- Provide professional development to staff on how to monitor instruction through the use of alternative assessments.
- Provide increased development and support for the principal at each school to serve as an effective instructional and technology leader.

2.2 Technology Inventory

Category: "Elementary" Computer Systems

System Type	Instructional	% of Total	Administrative	% of Total
Current	0	0	0	0
Aging	0	0	0	0
Legacy	0	0	0	0
Total	0	100	0	100

Category: "Kdg-8th" Computer Systems

System Type	Instructional	% of Total	Administrative	% of Total
Current	0	0	0	0

Aging	0	0	0	0
Legacy	0	0	0	0
Total	0	100	0	100

Category: "Middle School" Computer Systems

System Type	Instructional	% of Total	Administrative	% of Total
Current	0	0	0	0
Aging	0	0	0	0
Legacy	0	0	0	0
Total	0	100	0	100

Quality of Technology Resources

Dr. Lucas???

Quantity of Technology Resources

Dr. Lucas???

Distribution of Technology Resources

Dr. Lucas???

2.3 District Infrastructure and Connectivity Status

District Network Architecture

Network Architecture file uploaded 2003-06-19 12:46:42.507

Network Architecture

The following refers to and describes the Network Architecture file that is uploaded above:

The Email system, supported by three IBM RS6000 servers, does not interact with any other components in the infrastructure. Specialized servers, such as the PhoneDialer, Trapeze MapNet, and OHM servers, function to provide data to the Student Information System (SIS). SIS runs on Oracle Database 8i and is housed on an EMC Symmetrix platform. The Web Application, Report, Production and Development Database servers are housed on four HP 9000 RP 7400 platforms. They interact with SIS to, among other functions, pull data and generate reports. The EMC Clarion runs on Oracle Database 8i and houses file systems for the Tech Server and a File Server (KDC6 in the diagram), but does not share data with any other components in the current infrastructure. The Notes Application servers, housed on an IBM RS600 and NetFinity 5500, Accountability and Program Evaluation servers are stand-alone application servers and do not interact with any components in the infrastructure.

2.4 Curriculum/Technology Integration

Existing Technology Initiatives

Columbus Public Schools agrees with the basic standards set forth by the International Society for Technology in Education (ISTE) for students. These basic standards are divided into six broad categories. Standards within each category are to be introduced, reinforced, and mastered by students. These categories provide a framework for linking performance indicators found within the Profiles for Technology Literate Students to the

standards. Teachers can use the following standards and profiles as guidelines for planning technology-based activities in which students achieve success in learning, communication and life skills:

1. Basic operations and concepts

- Students demonstrate a sound understanding of the nature and operation of technology systems.
- Students are proficient in the use of technology.

2. Social, ethical, and human issues

- Students understand the ethical, cultural, and societal issues related to technology.
- Students practice responsible use of technology systems, information, and software.
- Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.

3. Technology productivity tools

- Students use technology tools to enhance learning, increase productivity, and promote creativity.
- Students use productivity tools to collaborate in constructing technology-enhanced models, prepare publications, and produce other creative works.

4. Technology communications tools

- Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.
- Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.

5. Technology research tools

- Students use technology to locate, evaluate, and collect information from a variety of sources.
- Students use technology tools to process data and report results.
- Students evaluate and select new information resources and technological innovations based on the appropriateness for specific tasks.

6. Technology problem-solving and decision-making tools

- Students use technology resources for solving problems and making informed decisions.
- Students employ technology in the development of strategies for solving problems in the real world.

Technology Initiatives to Enhance Student Achievement

CPS has identified three focus efforts to enhance student achievement. The first effort will be to provide students adequate access to technology, which will be accomplished by providing students with sufficient hardware and software, scheduling classes and classrooms to maximize student usage, and providing students with the capabilities for remote access to relevant information. The second effort will be to provide ample training for students, which will be accomplished by writing and revising K-12 curriculum that mandates student training in technology use while applying appropriate scope and sequence considerations in coordination with hiring sufficient, qualified staff. The final effort is to use technology to enhance student learning and expand the curriculum. This goal will be realized by budgeting for new technology, integrating goals set forth by the technology plan into K-12 curriculum plans, offering students parts of all technology available in the district, and utilizing all distance learning capabilities available within the district.

2.5 Staff Development

Current Technology-Related Staff Development Programs

In order to meet their specific needs, training is designed around the knowledge and skills required using the technology in their various jobs. Training bridges the gap between what the user knows and needs to know. The following training models will be used within the District:

- Train-the-Trainer
- Coaching and Mentoring
- Self-Study Training
- On-the-Job Training
- Site-Based Training
- Peer-Training Model

Columbus Public Schools will strive to deliver staff development in variety of ways, including:

- Arranging with local universities to obtain college credit for technology coursework
- In-service day technology staff development
- Offering stipends or extended time pay for voluntary training during non-school hours
- Teacher substitutes for extended training sessions

It is important that CPS recruit and retain qualified information technology (IT) professionals. The shortage of IT staff is an ongoing problem that is projected to get worse over the next several years. In addition, the kinds of IT skills needed for the future is changing. These challenges have resulted in a greater reliance on external IT service providers. Not only do these services add to operational costs, but CPS loses the knowledge and expertise when a contract ends. CPS will implement several noteworthy IT recruitment and retention initiatives. If CPS wants to be effective in the 21st century and competitive in the IT human resource marketplace, it must do more. To fully leverage its technology investments and maximize the usefulness of its information resources, we must continue to recruit and retain highly qualified information management professionals. CPS will assess the proper mix of contract versus internal staff for implementing and maintaining information systems.

Role of Technology in Staff Development

One common issue districts face is the need to gain a clearer understanding of the challenge they face in integrating technology into instruction. That challenge is personified by the role of classroom teacher. It is only through the extent to which an individual teacher adopts and adapts technology to her own instructional practice that students will be given the opportunity to learn using technology. Students can independently learn many technology skills, ^{THEIR} but the teacher is instrumental in guiding the student's mastery of academic learning, and technology is one tool a teacher can use to aid that process. In many ways integration of technology in instruction is synonymous with staff development. A successful staff development program for technology integration will recognize that it must be on-going and move teachers through several levels of evolution to reach their highest level of success. Recent research demonstrates this teacher evolution. It begins where many 'teachers are' ^{THAT} by providing a foundation in the basic understanding of the new technology being employed. Gradually, as teachers become more comfortable using the technology, they begin to adopt it into their classroom to support their existing instructional practice. Over time, through interaction with other teachers and successful experimentation with the technology, research has shown that technology can be a powerful motivator for the reform of instructional practice as teachers incorporate project-based learning and change their roles from dispensers of knowledge to facilitators of knowledge.

The job of staff members is much more demanding today than it was ten years ago. Adults need time to experiment and to become comfortable with new job-related techniques and with supporting technology. Staff

members need to be supported in this learning process. They need time to learn to use technology and how to manage the use of technology in the classroom.

Recommendations:

- Continue the Teacher Training Learning Series program with emphasis on the integration of technology into the curriculum.
- Create a Technology Professional Development Position with emphasis on training teachers on how to integrate technology into instruction and incorporating project-based learning methods.
- Ensure that technology training includes authentic tasks to demonstrate how to apply technology in education.
- Hold teacher learning days for curriculum integration of technology.
- Provide staff development training during in-service days.
- Provide incentives for teachers to integrate technology into the classroom.
- Provide additional support for integrating technology into the classroom.
- Utilize the staff development resources within the Central Ohio area.
- Establish a floating substitute to free staff during the school day to participate in technology professional development.
- Modify school schedules to allow minimum days on a regular basis to provide professional development time.
- Modify the role of the District Technology Director to focus more specifically on the instructional use of technology.
- Establish teacher competency standards for technology and use them to screen applicants and establish performance goals for staff.
- Establish more professional development opportunities through the use of compressed video and satellite.

2.6 Technology Support

Support For Learning Resources and Instructional Technology

Quality issues:

Jack???

Quantity Issues:

Jack???

Support For Information Management Functions

Quality issues:

Jack???

Quantity issues:

Jack???

Support For Communications and Network Infrastructure

Quality issues:

Jack???