

Todd County Schools High School 1:1 Project Proposal

“We are embarking on a learning journey with the Todd County community to open the 21st century world to our students, by providing the skills, tools and opportunities to excel.”

Prepared for: Todd County Schools

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It's been more than 25 years since Apple first entered the classroom and helped teachers revolutionize the way students learn. The revolution endures as Apple continues to develop leading-edge education technology solutions, specifically designed to meet the evolving needs of today's teachers and students. Apple looks forward to integrating these unique solutions into your learning environment.

Objective

The objective of the Todd County Schools - Apple Inc. partnership is to provide all students in-district the opportunity to achieve higher order thinking skills through technology, allowing teachers to facilitate learning rather deliver information while creating a highly engaged atmosphere for learning. The creation of such an environment will give students of Todd County Schools the advantage over other students around the state by preparing them for two and four year institutions, and most importantly, for 21st Century employment.

Solution

The concept behind Apple's 1 to 1 Learning Solution is simple: the successful integration of Apple technology into a 21st-century learning environment encourages and nourishes the interest, creativity and imagination of learners. The growing success of such projects throughout the nation supports this concept.

Today, Apple is working with over hundreds of thousands of students and teachers in across the country to create successful, technology-immersed, 21st-century learning environments. Over and over, our experiences have shown that well-designed, well-executed collaboration between schools and Apple can lead to advancements in education and student achievement.

Apple's 1 to 1 Learning solution is designed to address four critical elements necessary for success:

- Leadership
- Learning
- Infrastructure
- Community

Apple's proposed solution for a 21st Century Learning Program focuses on these four elements, all of which will impact Todd County's leadership, students, teachers, and parents.

The solution that Apple 1:1 programs delivers is comprised of multiple parts: Hardware/Software, Infrastructure, Leadership and Teacher Professional Development, Project Management and Finance.

Hardware/Software: MacBook, iLife, iWork, Carts, Extras

Preparing students for the workplace of the 21st Century requires far more than teaching them to use the productivity tools prevalent in today's mainstream business environment. It also requires technology tools that are powerful and easy to use with full integration and advanced multimedia capabilities. Technology should also be easy for teachers to use so that they can adapt to a technology-infused environment quickly.

Student and Teacher MacBooks: 934

Storage Carts at Middle and Elementary Schools

Not all students in the project will be taking their laptops home. It is important to be able to securely store and charge resident laptops in the buildings. For this purpose, Bretford carts of two sizes are recommended.

- For the Middle School – 3 Bretford Carts that hold up to 32 notebooks, 30 computers each, 90 computers total.
- For the Elementary School – 4 Bretford Carts that hold up to 20 notebooks, 2 carts at each school, 16 computers each cart, 64 computers total. *TCPS currently owns 3 carts, will only be purchasing 1 new cart.*

Spare Batteries/Charging Unit

Most schools with take-home laptop programs require that students charge their laptops at home each evening. However, sometimes students forget. Rather than “plug that student in”, spare batteries and a charging station can provide a convenient solution.

- 64 spare batteries are recommended.
- For charging multiple batteries, a Datamation 16-bay battery charger is recommended.

All computers include:

13" Higher Ground Shuttle bag to protect laptop; three-year AppleCare Protection Plan; 36-months of OSX Maintenance (the ability to upgrade to all new Apple operating systems for three years); will have custom image (defined by the district) to be installed including iWork '08. iWork 08 is an Apple software that includes Keynote (for presentations), Pages (for word processing and text/media layout), and Numbers (for spreadsheet activities); DVI Adapter.

Apple Professional Development

Teachers want to reach students in deep and meaningful ways, to find new approaches to the subject matter in order to engage, motivate, and inspire young minds. Today, teachers are expected to employ modern technologies to help students learn, often calling for a complete rethinking of traditional practices.

Apple supports the needs of teachers through Apple Professional Development (APD) courses, which help teachers get the most power from new technologies.

Participants work with content that's relevant to their classroom curriculum, aided by skilled instructors, and learn by doing. Based on design principles extracted from the years of Apple Classrooms of Tomorrow (ACOT) research, Apple Professional Development offerings provide participants with the support that's so necessary for ongoing change.

The goal of the professional development recommendations is to transfer knowledge to participants and establish a learning community based on collaboration and best practices. Toward that end, goals include:

- Active learning; participants learn by doing
- Relevant educational activities based upon participants' roles
- Leaders and participants to provide on-going support
- Deepen their understanding of effective integration
- Develop a vision of technology integration for their classroom
- Learn to coach and mentor their peers.

Proposal Includes

- 8 – 2 Consecutive-Days Sessions for up to 16 participants (for 16 days total).

Content Areas for Apple Professional Development

Apple will work directly with the leadership of Todd County to select content areas for the professional development workshops. Here are samples of the courses to choose from to meet the district's goals.

Digital Literacy

- Mac OS X
- iLife '08
- iWork '08
- And others

Technology Infused Learning

- Communication and Collaboration with Web Tools
- Designing Technology Infused Units and Lessons
- Designing 21st Century Curricula
- Differentiated Instruction

Digital Storytelling
Documentary Filmmaking
Podcasting in your Classroom
Project Based Learning
And others

Leadership and Management

Visioning and Planning for 21st Century Learning Environments
Technology and Curriculum Infusion Strategies
Managing Change and Accountability
Measuring Success – Evaluation and Assessment Toolkit

Infrastructure Solution

Objective:

To provide Todd County Public Schools with a well planned and architected infrastructure capable of supporting their current 1:1 initiative.

Server Solution:

The proposal will be broken into the following categories:

- Directory Services
- Collaboration
- Workflow
- Backup Solution
- Laptop Management and Software Updates

Solution Criteria:

- Provide ability to manage MacBook laptop computers under a 1:1 deployment
- Provide collaborative services supporting 21st Century learning skills
- Provide adequate storage resources for student and teacher work
- Build a workflow that allows for electronic submission of student assignments

Directory Services – One per School Location

Apple Xserve: Two 2.8GHz Quad-Core Intel Xeon (8-core) processors, 8GB RAM

- Providing management of student laptops and enabling users accounts for collaborative services.

Collaborative Services – One per School Location

Apple Xserve: Two 2.8GHz Quad-Core Intel Xeon (8-core) processors, 8GB RAM

- Providing wiki and blogging capabilities. The wiki and blogging abilities will allow students to more easily collaborate on projects and showcase their finished work.
- This server will also be configured to provide services that will allow for rapid return of the student laptops.

Workflow Server – Two per School Location

Apple Xserve: Two 2.8GHz Quad-Core Intel Xeon (8-core) processors, 8GB RAM

- The Xserve will be configured to provide access to student portable home directories. Student homes will be distributed across 2 servers in order to provide optimized access.
- Two Promise V-Trak RAID Subsystems will be configured to provide adequate storage and redundancy for student portfolio's and rich media files.

Backup Server– One at central office

Apple Xserve: Two 2.8GHz Quad-Core Intel Xeon (8-core) processors, 8GB RAM

- The Xserve will be configured to run industry leading Atempo TimeNavigator backup and restore software. This package will provide easy backup and restoration of projects and files in the event of data loss.
- Three Promise V-Trak RAID Subsystems will be configured to provide adequate backup storage for all laptops in the program.

Laptop Management/Software Update Services– One at central office

Apple Xserve: Two 2.8GHz Quad-Core Intel Xeon (8-core) processors, 8GB RAM

- This server will be configured as an Apple Remote Desktop TaskServer. The ARD Taskserver will provide a centralized reporting point for the hardware devices. This system will gather data about the hardware usage and components on a regular basis. Additionally, this ARD TaskServer will provide the TCPS technical staff the ability to update the laptops in the program as new applications are required.
- The server will also provide Software Update Services. A local software update server allows the district to maintain the laptops at current OS and patch level while conserving network bandwidth.

Support Recommendation

- Mac OS X Server Software Support - Preferred
- AppleCare Premium Service and Support for Xserve, Qty: 10
- Mac OS X Server Maintenance 36-Months Unlimited Client (Single Server), Qty: 10
- AppleCare Service Parts Kit for Xserve
- Apple Remote Desktop 3 (Unlimited Managed Systems), Qty: 3

Project Management: 40 total days

Overview

Project Management is the discipline of planning, organizing, and managing resources to bring about the successful completion of specific project goals and objectives. The primary challenge of project management is to achieve all of the project goals and objectives while adhering to classic project constraints—usually scope, quality, time and budget. When deploying laptop learning initiatives into the K-12 environment, two types of project management are required.

Overall Project Management

This Project Manager will oversee the project as a whole. It will be the Project Manager's responsibility to work with Todd County's assigned Project Manager to manage and schedule all technical installations, define scope, be the lead on project communications, risk management, conflict resolution, progress reporting and change controls. The Project Manager will work with the district to assure adherence to timelines, milestones and sign-

offs upon completion. This will be accomplished both in person, electronically and via phone conference. The Project Manager is responsible for the successful completion of the project.

Proposal Includes:

- 16 days of Apple Professional Services: Project Management

Technical Project Management

Technical Management of the project includes technical services to create custom images for the district. This will enable students to access only those areas or applications on the laptop that meet the district's requirements. It also includes server configuration and installation. During these processes the Technical Team from Apple will coach and mentor the district Technical Team on these processes. In addition, all laptops will be imaged and asset tags affixed for inventory and tracking purposes.

Proposal Includes:

- 24 days of Apple Professional Services: Technical Management

Escrow Account

Necessary \$11,445: Atempo Services - Time Navigator Product, Installation and Configuration, to be purchased directly from Atempo using these funds

Recommended \$20,000: Emergency and Other Fund, Recommended by Apple Staff as a protective fund for last minute essentials.

Total: \$1,386,745 Four-Year Lease at 0%