# Tintic School District

## Five-Year Technology Plan

**May 2007**

# Table of Contents

# Preface:

The Tintic School District is a small rural district covering the western part of Juab County. Three elementary schools Eureka Elementary, West Desert Elementary and Callao School and two high schools Tintic High School and West Desert High School make up the district. The two schools in Eureka are separated from three schools in the West Desert by 135 miles, 50 of it on dirt roads. The small population of the schools and their isolation makes education a challenge for the teachers in the district. Technology gives teachers and students increased opportunities they would not otherwise have without technology.

The following is a brief history of technology use and the development of a technology plan for the Tintic School District along with the current statement of what is being done with technology.

The district has long understood that technology was a key to giving students an advantage in today's world. Our school board has been committed to using technology to improve instruction. Since 1978, the district has invested in computers and other technology to make teaching and learning more effective and enjoyable. It started by constructing a large number of Apple II clone machines, affectionately called "Tintic Computers." About 1988 it was decided that the MS/DOS machines were the wave of the future and the Tintic Machines were replaced with IBM and compatible computers. In 1995 these computers were upgraded with Compaq 486 and Pentium 75 Windows 95 machines and in 2000 these machines were upgraded with Pentium III and Celeron Tangent Computers running Windows 98. Starting in 2003 all machines in the district were standardized to be either Tangent or HP Pentium 4 machines. In 2006 a few Apple Macintosh computers were added in classrooms that needed audio or video creation capabilities.

In 1995 the district developed a District Vision and Belief Statement that has been used to guide all instructional decisions in the district. During the 1997-98 school year, all schools developed their own Site-Based Plan for instruction. They have revised those plans yearly to plan instruction in all subject areas and be a guide for their total school program. The district then put together a five year technology plan using the Milken Seven Dimensions Guide in 1999-2000 and has incorporated that plan into the annual CUSAP Plan that is revised yearly by the school district. This current plan for 2007 represents a major revision of the original 2000 plan with a new vision and includes e-Rate provisions.

Currently, the district has predominantly Pentium 4 machines and a few Apple Macintosh computers in labs and classrooms along with projectors, scanners, digital cameras. There is a strong emphasis on professional development. The district has been involved with Granite, Salt Lake, Ogden, and Duchesne school districts for 5 years in the eMints professional development program. The district has a trained eMints Instructor and about half of the teachers in the district have been eMints certified and have eMints high access classrooms with a 2:1 ratio of students to computers. Participating in eMints has helped to focus all technology acquisitions in the district to look at the desired learning outcomes first and the technology second. Now the teachers in the district plan for the desired learning outcome and then look at the technology needed to

accomplish that outcome. This is why there are both Intel and Apple Macintosh computers in use depending on what is needed for student learning.

The district has also evolved in its use of networks starting with a Corvus Network on the Apple Computer and clones to now having a Novell Network for both file sharing and for hosting the district website.

The district was also a pioneer in the use of distance learning technology starting with a dedicated telephone line between Tintic High School and West Desert High School. Now the district is involved with the state EdNet System in both schools. Many students take college courses and some graduate from high school with associate degrees. The district also has a Polycom system in which has been used for both instruction and meetings within the district and for district employees to attend both regional and state meetings and still be at their school site.

The district has also used other technology to improve instruction and student learning: calculators, televisions, laser disks, DVD, overhead machines, scanners, digital cameras, and LCD projectors. In the last five years the district has made a concerted effort to base decisions on improving core curriculum areas with emphasis on reading and math. The use of technology has been part of that process. It has also become very apparent that technology cannot be viewed as something separate from instruction, but that the use of technology must be guided by the instructional goals of the teacher, school, and district and be tied to local, state, and national standards of instruction.

# Tintic School District 2007 Technology Plan

## Overview:

The original Tintic Five-Year Technology Plan in 2000 was developed using the Milken "Seven Dimensions for Gauging Progress" guide. One of the biggest challenges that faced the Tintic Technology Committee as they began writing the plan was how to seamlessly incorporate technology into the education system in ways that would increase student learning and achievement. In the past technology plans were written to include wish lists for equipment, and very little of the plan dealt with student learning and achievement. The Tintic Technology Committee wanted to focus on student learning and how technology could be used to enhance it.

In the original Tintic School District plan of 2000, Milken has seven dimensions, each with a question that guides the development and writing of the technology plan. The seven dimensions and questions are:

> ***Learners:*** Are learners using the technology in ways that deepen their understanding of the content in the academics standards and, at the same time, advance their knowledge of the world around them?
>
> ***Learning Environments:*** Is the learning environment designed to achieve high academic performance by students through the alignment of standards, research-proven learning practices and contemporary technologies?
>
> ***Professional Competency:*** Is the educator fluent with technology and does he/she effectively use technology to the learning advantage of his/her students?
>
> ***System Capacity:*** Is the education system re-engineering itself to systematically meet the needs of learners in this knowledge-based global society?
>
> ***Community Connections:*** Is the school community relationship one of trust and respect, and is this translating into mutually beneficial, sustainable partnerships in the area of learning technology?
>
> ***Technology Capacity:*** Are there adequate technologies, networks, electronic resources and support to meet the education system's learning goals?
>
> ***Accountability:*** Is there agreement on what success with technology looks like? Are there measures in place to track progress and report results?

The revised technology plan for 2007 has these seven questions turned into six statements. There is no statement for System Capacity because the goals represented by the question in 2000 are manifest in the statements and goals of the other six areas. Also Professional Competency in 2000 is stated as Professional Development in 2007. While the main focus in the development of the 2000 plan was how to seamlessly incorporate technology into the education system in ways

that would increase student learning and achievement, the 2007 plan was written to make sure that district commitment to learning and achievement with technology as demonstrated with the implementation of the 2000 plan was adequately and systemically provided with funding and continued professional development.

The Tintic School District has invested large sums of money in technology for over 25 years. The reason the Tintic Technology Committee originally used the "Milken Seven Dimensions for Gauging Progress" was to make sure that the investment the school district has given to buying technology is realized in increased student learning and achievement. In 2007, the Milken model is again used to gauge the success of the district in achieving its original goals but also in setting a standard for the district that is nationally recognized to work towards in the next five years.

So, this 2007 revision of the Tintic School District Technology Plan also uses the Milken Technology Model. Our district technology committee met and reviewed the original plan, determined if we had met the goals and then set new goals for the next five years. In many cases we had met or exceeded what we originally planned to do in 2000. The new plan has some ambitious goals not only for technology use in our district by students and teachers but also in how to deliver instruction with new and improved technology, how to train teachers to teach in a technology rich environment, how to improve access to technology, particularly in our high schools to get to a 1:1 ratio of student to computers and finally provide meaningful learning experiences with technology to help students gain skills that will be valuable in the 21$^{st}$ .

Each individual section below states what the district has done, is doing, and will do in the future to insure student success. Each section begins with a statement that relates to the overall area being addressed and then contains the vision of the district. This vision includes a short history of past practices, what it is doing presently, and a statement of where the district wants to go with technology in the future as it relates to specific areas within the general topic addressed. There are also district goals stated and finally a Guidance section that outlines what the district has done, is doing and how the district wants to achieve their vision and goals in the future.

## *Learners*

*Learners use the technology in ways that deepen their understanding of the content in the academics standards and, at the same time, advance their knowledge of the world around them.*

### Vision:

In the past learners' accessibility to technology was mainly in the areas of keyboarding, drill and practice, and word processing skills. Learners relied heavily on teacher assistance. Site-based plans were developed which focused on higher learner reading skills.

Presently, decisions in each school relate to the site-based plans. Learners can use technology to process their researching, writing, communicating and problem-solving skills.

In the future vision of the district we specifically want to address these areas.

*Improving on the Basics:* The District will assist students to be able to: access, process, synthesize and publish information in a way that is useful in the 21st Century and that will deepen their understanding of core curriculum concepts.
*Understanding:* The District will provide an opportunity for students to learn core curriculum concepts and to also have access to technology to enhance that learning.
*Ethics:* Because of the ease of gaining and using information today the district will make sure that ethical standards are taught and in place on how to use information and ideas found during research.
*Skills:* Finally, the district wants to make sure that all students and teachers have access to the best tools available to find, manipulate, measure, and present information. Some tools may include spreadsheets, graphic presentation software, word processing, audio or video making software, and Internet research.

### *Goals*

- Learners will ethically use technology for learning activities to develop 21st Century Skills in students.
- The District will use technology during testing to measure achievement as it relates to the district CUSAP.
- Each school will review student achievement on a yearly basis and use technology to give a more comprehensive view of student progress and to plan future instruction.

### Guidance:

In the past, learners were taught basic skills needed to access technology. Such skills allowed them to use technology in word processing, keyboarding, spreadsheets, and drill and practice assignments. Computer labs were available for classroom use. Calculators for each learner were available in the classroom. Franklin Language Masters, overhead projectors, televisions, and

VCRs were in most classrooms. The EdNet system has been available to student learners, teachers, and community members for twelve years. This technology was in place but under utilized.

Presently, the district is involved in eMints, which emphasizes learning with technology as opposed to technology used for learning. Teachers receive professional development on learning theory, technology use, and helping students develop critical thinking skills using technology. Teachers use the district website and other web tools like My-eDesk, UTIPS, or MyUEN, to enhance instruction. Teachers have access to computers in their classroom and in labs so students can have daily access to technology to research and present their completed work. There is also access to other technology like digital cameras, scanners, DVDs, which teachers use to enhance instruction and learning. Students have access to the Electronic High School and it has been used in Credit Recovery in our high schools. Finally our district has been using online CRT testing for the past four years in all subject areas and will continue to do that to obtain testing data in a timely way.

To achieve the goals stated above, the district will continue to use the eMints model of high access to technology and strong professional development that is already in place. The district will also continue to use the state Online Testing system and use state resources like the Electronic High School.

## *Learning Environment*

> *The learning environment is designed to achieve high academic performance by students through the alignment of standards, research-proven learning practices and contemporary technologies. The education system is re-engineering itself to systematically meet the needs of learners in this knowledge-based, global society.*

### Vision:

In the past there was one computer per classroom with most computer instruction taking place in the computer lab. Most instruction revolved around keyboarding and word processing skills. Overhead projectors, televisions, and VCRs were used along with calculators.

Presently, there are computers in every classroom. The computers in the labs and classrooms have been updated. New software has also been purchased. Labs are still used by classes but there are also high access classrooms in every school. Learners use the technology to do research on projects. All classrooms have the Internet, e-mail, printers, and access to scanners, and digital cameras.

The future vision of the school district is to have technology in the learning environment in the following areas:

*Technology Access:* We currently have a ratio of 2:1 students to computers in grades 4-12 and 4:1 in grades K-3. Our goal is to get to a 1:1 computer ratio in grades 7-12.
*Infrastructure:* Currently all teachers have access to the district website with about 30% of teachers actually having a website. Each school has a website. All teachers also currently have eDesk accounts with about 60% of teachers actively using the sites. Teachers also have UTIPS and MyUEN sites. We would like to see all teachers using the district/school websites as well as eDesk, UTIPS, and MyUEN sites.
*Networks:* Each school has network connections but there is need to improve each network for more consistent connections. There is also a need to remove network bottlenecks. Finally there is a need to get more school network administrators and the training needed to help them learn about the network.
*Distance Learning:* The district has in place two UEN EdNet sites. The district also has Polycom Units in 4 of the 5 schools. Each of these sites is used for instruction, meetings, and professional development but they are getting dated and need to be upgraded.
*Integrated Technology:* About 50% of our classrooms have access to Smartboards or Interwrite Boards. There are also projectors in classrooms but they need to be mounted in many places for convenience and safety. There are scanner and digital cameras for teachers use but they may need to be upgraded and made more available to teachers. Finally there are some classrooms that need audio enhancement for teacher use because of the size and layout of the room.

***Goals***

- The District will provide increased student access to computers at the high school level to get to a 1:1 ratio.
- The District will provide current productivity software on computers and provide program specific software for individual classroom programs.
- Teachers and learners will have access to a variety of technologies according to their developmental levels.
- The District will continue to provide 100% U-PASS CRT computer based testing to all students whom tests are available.
- The District will set, revise, and make yearly and long term goals articulated in the technology plan in assessment and technology use

## Guidance:

Technology will be distributed to the schools using a site based budget which will be based on a "Base + Student" funding formula. Each school will then prepare it's own implementation of technology based on the district technology plan and on their own site based plans for instruction. Each school will also be responsible for maintaining the current online testing program where all students are tested with the Online CRT Testing. Technology will also be used with students that need support and supplemental English language acquisition and this will be planned for as needed by the district.

## E-Rate Compliance:

This technology plan will support the complete funding of all e-rate projects, both telecommunications and internal connections that the district will be involved with. The plan also will be used to leverage e-rate funds for improvement of network connections within the schools and district. The district will also participate as a partner on a state and region basis in e-rate projects at those levels.

## *Professional development*

> *The educator is fluent with technology and effectively uses technology to the learning advantage of students.*

**Vision:**

Presently, our schools are participating in eMints and AWED which has increased the number of computers available in the school and the number and range of software applications. Student interest in producing quality projects has increased. Creative use of technology varies between classrooms but it is increasing overall in the district.

A few teachers are not fully utilizing computer capabilities. However, most teachers have satisfactory skills in applications like word processing and have been trained in applications like word processors, spreadsheets, presentation programs and Internet research skills.

The vision of the school district is stated in the following areas:

*Commitment:* The administrators in the school district have been far-sited to commit the district to a strong professional development program in eMints. This program addresses both learning and technology and has been used as a model for district programs outside of eMints classrooms.
*Administrators:* The district was involved in an AWED grant where administrators were trained using technology in observation and presentation. This has helped the district extend its vision for technology use and to give teachers opportunities for technology integration.
*Teachers:* Half of the teachers in the Tintic School District have been trained using the eMints Professional Development Model. The other teachers have had additional professional development in website creation, word processing, spreadsheets, and presentation software. The district is committed to continued use of the "eMints for All" model to train additional teachers in technology use and implementation and on student centered learning.
*Technology Preparation:* Because of the rich technological classrooms that exist in the Tintic School District, one of the criteria used when hiring teachers will be to see if they have had technology training in their pre-service education. This will ensure that they can function in the district's technological environment.
*Continued Learning:* There have been about 40% of the teachers that have received their technology endorsement because of eMints professional development. The district is committed to continuing professional development with the "eMints for All" model to give all teachers access to high quality professional development.
*Resources for Professional Development:* The main district professional development source has been eMints. The district has a certified eMints instructor. The district has also utilized both regional and state specialists to get additional professional development opportunities in Website Creation, UTIPS, and online resources. The district is committed to making sure that new content is taught to teachers but also that some technology components are reviewed in professional development.

***Goals***

- The District will provide the opportunity for teachers to receive professional development using the eMints or "eMints for All" model.
- Professional development will be focused on the Core Curriculum, Learners and how Technology can enhance the learning process.
- The district will review professional development needs yearly and plan for professional development that will improve classroom instructional strategies.

## Guidance:

In the past technology use was often apart from overall curriculum goals. Computers were used as a tool to complete assignments that could have been done without technology. Teachers tended to use technology in ways that were extensions of lectures or direct instruction.

Presently increased numbers of computers and software applications encourage teachers to branch out into new methods of delivering instruction. Assignments are more dependent on technology. Internet research is becoming a staple of teacher preparation and student projects. Using more sophisticated graphics applications and creating interesting lessons are becoming commonplace in multimedia presentations. Teachers are focusing on teaching students to evaluate information and to discard information from dubious sources.
Many of the programs for Professional Development are already in place in the district. The district needs to make sure that all teachers have access to the professional development and the time to complete it.

**E-Rate Compliance:**
The Tintic School District will make sure that teachers are trained to use technology as it is put in place in their classrooms and throughout the school. Professional development will consist of ongoing eMints training and also special training provided by district, region or state specialists on specific issues relating to new purchased technology with e-rate implications.

## *Community Connections*

*The school-community relationship is one of trust and respect with mutually beneficial, sustainable partnerships in the area of learning technology.*

### Vision:

Because of the rural location of our district, key community stakeholders are limited and the schools have had to go outside the local area to form business partnerships. In the past the school district has been committed to providing community education and providing access to school technology for community members. As part of a community education program, the district has offered computer classes for community members. The local school has been the primary access to technology in our communities.

The district is committed to the following vision areas:

*Parents:* The school district will promote parental involvement in technology in teaching and tracking learning. The parent will have access to school information before, during, and after school.
Web Site: The school district will assure that the district and school web sites are current and they provide critical educational information. This will also be a place to highlight and disseminate school improvement information.
*Volunteers:* The district will involve the local community in school community councils and in the implementation of school technology plans.
*Higher Education:* The school district will strive to establish a partnership with an institution of higher education to assist in research and providing best practices models to the school.

### *Goals*

- School and student information such as homework assignments and calendar events will be available to parents through the Internet via the district's SIS system.
- Classroom projects will be related to outside business activities to give students a taste of real-world technology applications.
- Through the district and teacher web sites, the school will share its vision of the value and uses of technology.

### Guidance:

The district has a website that will be monitored to make sure that it provides current information and links to secure critical data parents, students, and teachers may need. The district will continue to participate with the state in providing SIS services for teachers, students, and parents.

## *Technology Capacity*

*There are adequate technology, networks, electronic resources and support to meet the education system's learning goals.*

### Vision

The Tintic School District has always been committed to providing up-to-date technology for students and staff.

Currently we have a strong installed base that is readily available to all parties on demand. Our ratio of computers to students is above the state average. We have servers, hubs, networks, digital cameras, scanners, printers, calculators, etc. We continue to replace obsolete technology.

The vision of the district will be met in the following areas:

*Technology Infrastructure:* Currently four out of five schools and the district office are wired for gigabyte networks. Currently two out of the five schools and the district office have gigabyte Internet service. Wireless Networks are available in all schools and at the district office. The district wants to set a minimum standard of gigabyte networks in all schools with gigabyte Internet access. This will require working with state and regional providers and leveraging e-rate funds for Internal Connection improvements.
*Safety:* Acceptable-use policies are in place for all students and employees. The district also has a filtering system in place in the school and monitored with regional assistance. The district will periodically review AUPs to make sure that they comply with best practices and ISTE standards.
*Support:* There is currently a district support person to assist teachers with technology problems. Students have been used in the past for some technology needs and will be used in the future. New technology purchases will be evaluated with technical support as one of the considerations and will be made to insure that the district does not have hidden technology support issues.

### *Goals*

- School technology committees will establish criteria and a time-line for replacement of out-dated technology. The committee will also establish criteria to migrate older computers to less sophisticated uses. Finally the committee will establish procedure to retire and to resell computers to the community for home use to increase the installed base in the community.
- School technology committees will develop purchasing plans for new technology using negotiated state and district pricing.
- The district will provide adequate technical assistance to school technology committees.
- The district will provide adequate, timely, and sustained technology support.
- Help desk procedures will be established to allow teachers access to fixing their own technology problems.
- The district will investigate leasing options for technology in a cost benefit analysis when making purchases.

## Guidance:

Currently, all of the schools and computers throughout our district are connected to LAN based systems with Novell NETWARE 6.5. Eureka Elementary and West Desert Elementary are connected to their host servers through fiber optics. Tintic School District's Internet services are routed through UEN and CUES who provide e-mail, proxy, logging, and filtering services. All schools have wireless access. Most schools have CAT 6 wiring and two schools and the district office have gigabyte Internet service.

The biggest issue that the schools have to face is not equipment but access to technical support. The district will conduct a TCO survey during May of 2007 and use this to look at its support needs. A plan will then be put in place to distribute support services from the district to the schools. The district will also consider technical support as new purchases are made. The current plan is to replace and upgrade existing equipment and not to expand desktop technology. Expansion of technology in the high schools to meet 1:1 computer ratios will have to include both support and maintenance of the technology in the plan.

### E-Rate Compliance:

The district will commit to conducting a TCO during May 2007 of telecommunication services, hardware, software, and other services needed to improve educational services.

## *Accountability*

*There is agreement on what success with technology looks like. There are measures in place to track progress and report results.*

### Vision

The technology goals and objectives in the past have emphasized the systems and technological capacity of the district. Through these plans new computers, Internet access, and professional development training have been provided in each of the five schools in the district.

Currently the district's technology strategic plan implements the goals of Milken's Seven Dimensions. The goals are clearly stated as desired outcomes for improvement in the learning environment, student learning/performance, and opportunities for staff development. The learners' goals are tied to improvement in academic learning as well as fluency in technological use.

The district will track the implementation of its vision in the following areas:

*Valuing Educators:* The District will support teachers with professional development in the effective use of technology. The district will track teacher technology skill, pedagogy, and teaching practices by using "Walk About" Software by the principals. Teachers will use data analysis to track learning using UTIPS, YPP, and CRT data. Finally the district will work with teachers on applying technology-enhanced teaching strategies to deepen student understanding of curriculum concepts using eMints professional development models.
Research: The district will use research based professional development models like eMints to improve student learning.

#### *Goals*

- The district will implement clear, performance-based assessments incorporating Milken's Seven Dimensions using UTIPS, YPP, and U-PASS in all grades.
- The district will use technology to automate and ease the logistics of learner assessments using Online Testing for all grades that have online CRTs.
- The district will continue to use the eMints professional development model to track efficient use of technology in the classroom.

### Guidance:

Currently, all of the schools and computers throughout our district have teachers that are eMints certified. Also principals have been trained using the AWED Walk-About model. Strategies for technology instruction for effective classroom management will be monitored using Walk-About software and techniques. Instruction will also be evaluated by administrators in the district for effective use of technology for the given learning situation.

## *School Readiness Accountability:*

This section is to give district assurances for the use of technology in the district in the specified areas listed below and to state the district vision, goals and guidance on how to improve technology and instruction in the district for the future in the Tintic School District. Finally there is a statement about e-Rate to give district assurances for an adequate budget and for periodic evaluation and course correction.

**Network Infrastructure:**
The district and its schools will have adequate network infrastructure to support high-access classrooms and technology-engaged learning classrooms.

**Technical Support:**
The district and its schools will have adequate technical support to support high-access classrooms and technology-engaged learning classrooms.

**Trainers:**
The district and its schools will have adequate ratio of trained mentors to support high-access classrooms and technology-engaged learning classrooms.

**Implementation Accountability:**
Hardware Accountability by Grade Level:
District classrooms in K-3 will have a ratio of 4:1 of students to computers:

District classrooms in 4-6 will have a ratio of 2:1 of students to computers:

District classrooms in 7-12 will strive to improve the ratio of 2:1 of students to computers to 1:1 ratio of students to computers:

**Computer-based Testing Implementation by Grade Level and Test:**
District already has and will continue to have 100% computer based CRTs to all students.

**Student Achievement Accountability:**
The district will continue to monitor and report all student progress in meeting CUSAP student achievement goals.

**Professional Development Accountability:**
The district will monitor and report professional development activities for technology engaged and high access classrooms for all teachers.

**Guidance:**
The district will monitor the effectiveness of improving access and use of educational technology by students and teachers in support of academic achievement by conducting an annual review of technology by the technology committee and providing a report to the superintendent in his writing of the CUSAP.

**Budget:**
The Tintic School District Budget will support the goals of the Tintic Technology Plan. The budget will include the following provisions:

**e-Rate:** The District will include all expenditures for eligible e-rate discounts and then the money that will be reimbursed for those discounts.

**Non-Supplant:** The District will include and maintain all current instructional technology funding, excluding one-time grants.

**Vision:**

The district will increase and leverage e-Rate reimbursements to further build 21st Century Classrooms. The district will leverage local and state fund to fully support 21st Century Teaching and Learning. The district technology budget will be detailed and transparent and fully aligned with the Tintic School Districts goals for 21st Century Teaching and Learning. Finally the district will explore leasing and outsourcing specific technical support.

**Goals:**

- The Tintic School District will provide a detailed budget for planned educational/instructional software/hardware purchases with new funds clearly showing non-supplanting of educational technology funding.
- The Tintic School District will provide a detailed budget of all educational technology e-Rate requests for reimbursement and how they will be reinvested into educational technology budgets.
- The Tintic School District will reinvest cost savings generated from educational technology tools and resources (e.g. textbooks, printing costs, etc.) back into educational technology budgets.

**Guidance:**
The Tintic School District will monitor and track non-supplanting educational/instructional funds with its district accounting rules. These funds will be aligned with the goals of this technology plans in all its sections.

**E-Rate Compliance:**
The Tintic School District will provide sufficient budget to acquire and maintain the hardware, software, professional development and other services that will be needed to implement the strategy and plan. This will include an evaluation process that enables the district to monitor progress toward specified the specified goals of the Tintic School District Technology Plan and to make mid-course corrections in response to new developments and opportunities as they arise.