

North Orange County Regional Occupational Program

District Technology Plan

July 1, 2010 – June 30, 2013

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INTRODUCTION

The North Orange County Regional Occupational Program (ROP) is a joint powers agency serving five school districts (Anaheim Union High School District, Brea-Olinda Unified School District, Fullerton Joint Union High School District, Los Alamitos Unified School District, and Placentia-Yorba Linda Unified School District) and 16 communities over a 175 square mile area (Anaheim, Brea, Buena Park, Cypress, Fullerton, La Habra, La Habra Heights, La Mirada, La Palma, Los Alamitos, Placentia, Rossmoor, Seal Beach, Stanton, Yorba Linda, and Whittier). The ROP offers classroom instruction at 5 ROP sites (Education Center, Acacia, East Ball Road, Culinary Arts Institute, and Trident facilities) and at 29 local high school and elementary school sites and at three juvenile probation sites. The ROP also offers work-based learning opportunities at over 600 community sites. All facilities are accessible by public transportation. The ROP serves over 20,000 high school and adult students yearly.

The ROP offers year-round career technical training as part of the public school system in California in almost any career field where there is a promising job market. The ROP offers nearly 300 class sections in approximately 80 courses, grouped within the following career pathways: Agriculture Careers, Arts and Communication, Business and Marketing, Consumer and Human Services, Health Sciences, Industrial and Technical Careers, Information Technology, and Science and Technology. Courses cover the range of career technical preparation—introductory, entry-level, advanced, skills upgrading, and apprenticeship—reflecting the ROP’s commitment to providing all students with access to career preparation and lifelong learning opportunities. All classes include essential employability skills, in addition to career-technical skills.

The ROP also offers students a broad range of services, including career guidance at each high school, counseling and assistance for special populations, the Career Development Center (academic and career assessment, job counseling, job placement assistance, and Internet access), and basic skills labs at two sites.

The ROP’s vision for technology use is to create an environment where all students use technology as a tool to enhance the understanding and learning of basic academic and workplace skills, acquire content area competencies, and promote positive attitudes toward lifelong learning.

Teachers proficient in the integration of technology in the classroom will use technology resources to enhance the instructional process, to improve student performance, and to prepare students for a successful transition into careers and higher education.

The ROP’s goals are broad and comprehensive, focusing on teaching and learning needs of all students. To achieve those goals, both students and teachers must have convenient access to worldwide technological resources such as the Internet, audio-video equipment and materials, and local networks. Teachers needing the appropriate technology proficiency must go through a well designed professional development program to acquire technology skills and to seamlessly integrate those technology-based skills into the learning environment, thereby enhancing and facilitating student learning.

The ROP uses technology in both its instructional and administrative areas. The purpose of technology in the schools is to support the learning process and academic achievement of students. This three-year plan outlines the needs, current resources, and goals of the following areas of technology use and support:

- I. Curriculum
- II. Professional Development
- III. Infrastructure, Hardware, Technical Support and Software
- IV. Funding and Budget
- V. Monitoring and Evaluation

Since technology is rapidly changing and every now and then a moving target, this three-year plan will go through continuous review after the first year to ensure appropriateness to shifting conditions. The review will also provide an opportunity to perform a general evaluation of the plan relating to its effectiveness and institute mid-term corrective measures, if necessary.

SECTION I: CURRICULUM

Presently, our student-to-computer ratio within the ROP is 5.0:1; meaning that for every five students there is one computer available for use. The location of these computers on each campus varies depending on each school site's course offerings.

Students use technology as a tool to facilitate learning. ROP students have access to technology in various settings, including the classroom, computer labs, and remote locations. Students have access to technology tools that support and promote their learning experiences.

Special needs students, including the physically-challenged students, have access to assistive high-technology devices to learn in the classroom. English language learners benefit from the use of computers using English language development software. Students enrolled in computer technology-based courses in office, graphics, multimedia, and computer/network career pathways have access to the latest industry-standard application software programs. Other career pathways such as in retail, medical, restaurant, recreational, etc., also gain from the enormous knowledge base and ease of learning through the internet and multi-media resources.

- Teachers utilize technology and software in a wide variety of ways. Lessons are increasingly being delivered in classrooms by way of Powerpoint presentations. Shown via television or computer monitors or multimedia LCD projectors, the presentations contain digital images of subject matter. DVD and video-based classroom course materials are presented via standard television sets in the classroom or LCD projectors. Almost all classrooms currently wired to the Internet utilize the resources on the World Wide Web for the students. If a classroom ever needs equipment, the ROP's Technology Services department can provide technology equipment loaners. The recently completed SharePoint portal system allows teachers to post homework and instructional materials entirely on their own, without the help of a webmaster, that are fully accessible from students' home or libraries where there is internet access.

The ROP offers powerful learning opportunities through specialized academic programs. These programs include academies in culinary arts, business and marketing, medical and dental careers, and many, many more. Technology resources are integrated into all of these programs.

Administratively, teachers and administrators use technology to promote effective classroom and school management. The ROP uses the Schoolhouse Software's AIM2000 to maintain student records related to students' enrollment, grades, attendance, and competencies. Teachers have access to these electronic records from their respective classrooms, homes, or wherever there is internet access. The installation of the AIM2000 eClassManager module coupled with enabling internet access in all classrooms allowed 100% of program's instructors to connect to the system in 2005.

Most teachers have direct 4-digit landline telephone access to the Education Center with voice mail capability. Teachers with no landline telephone access were provided cellular phones or pagers to promote administrative communication and ensure security and safety in the classroom.

Curriculum Goals

The ROP's mission is to provide a diverse high school and adult population with high quality, relevant career technical preparation training programs and services. These programs and services focus on preparing students for employment, career change or advancement, further education, technological competency, and life-long learning. These skills and attitudes will enable students to succeed and contribute in a rapidly changing, global society.

Instructional Uses for Students

During their course of study with ROP, students will receive training in the use of technology as a tool. ROP will systematically infuse technology into all course offerings as appropriate. Each subject area plan must contain a technology component with specific expectations that support concepts, aid understanding, and encourage critical thinking and skill reinforcement.

Listed below are general technology expectations for students at ROP:

1. Students demonstrate proficiency in the use of appropriate technology as a tool to access, apply, analyze, interpret, evaluate and synthesize information. By doing this, they become "information" literate.
2. Students use a variety of technology tools to effectively manipulate synthesized information to solve problems in and beyond the classroom.
3. Students apply skills in critical analysis to evaluate the context and content of media-presented information. By doing this, they become "media" literate.

Basic technology skills are necessary to fully access, manage, organize, apply, communicate, and evaluate information to solve problems in and beyond the classroom. The eight skills will be developed and augmented as students advance through supplied standardized software and hardware.

The eight basic skills identified from the onset of the original technology plan in 1997 will continue to be addressed, reinforced and augmented to address the higher level of sophistication of high school and industry applications. In addition, specialized applications of technology will be introduced in general subject areas and technology specific courses.

1. PERSONAL COMPUTER CONCEPTS

Students will have a working knowledge of the basic parts of a computer and the relationship of programs and data to the operation, ethical use, and proper care of technology as an appropriate tool.

2. KEYBOARDING

Students will have the ability to communicate with a computer via keyboard, mouse and video display. They will have a basic understanding as to how data is entered, programs initiated, and how to respond to screen displays.

3. WORD PROCESSING

Students will be able to create and manipulate text electronically to improve writing skills.

4. SPREADSHEET

Students will be introduced to the basic functions of an electronic spreadsheet and its practical applications to interpret, sum and display information.

5. PERSONAL DATABASE

Students will be able to use electronic databases to gather, sort, and analyze information.

6. PRESENTATION GRAPHICS, MULTIMEDIA, DESKTOP PUBLISHING

As an extension of word processing, students will be able to use presentation and desktop publishing tools to create and edit reports and presentations.

7. TELECOMMUNICATIONS TO INFORMATION SERVICES AND DATABASES

Students will be able to access selected resources through external electronic databases and research topics on national networks. Keyword and Boolean (and/or/not) search capabilities will be introduced and reinforced to help students efficiently search for and locate electronically stored information on the internet, electronic databases, and online library catalog.

8. MEDIA ANALYSIS

Students will be able to understand visual literature, developing the skills and knowledge needed to view and to use the visual media of our culture critically and intelligently. Media literacy means teaching our children to ask questions about what they watch so they can process what they've seen, rather than absorbing it passively and uncritically" so they can form their own opinions.

Instructional Uses for Teachers

It is now common belief that teachers who have technology available know it well, and use productivity software effectively. Teachers always need dependable workstations and printers in their classroom; they constantly need training to keep pace with changing technology; and they need technology assistance. Teachers see the need for more student access, increased telecommunications, and the need for updated software/hardware.

Technology in the Curriculum

Technology is a tool used in the instructional process, rather than the product itself. The instructional needs of students of any age and teachers must remain the focus in all technology decisions. Technology will continue to have a significant role in the reshaping of daily life at work

and home. Education, as it mirrors societal changes, needs to undergo major change as it adjusts to a world increasingly influenced by technology. ROP teachers and staff work with students who will experience several evolutions of technology later in the worlds of higher education and of work. Therefore, ROP believes that technology should be infused appropriately into the curriculum for both instruction and assessment at all levels and in all areas to create “information”, “media” and “technology” literate students, teachers, and staff.

In support of the on-going curriculum alignment efforts, ROP moved to a standards-based approach per State of California guidelines with realistic application of learning and a focus on problem solving and critical and creative thinking, and skills introduction/reinforcement. To prepare every student for this level of success ROP incorporates new ideas and approaches that impact all students. The development of student standards will lead to the identification of curriculum indicators for each outcome and a review of current testing practices resulting in standards-based curricula supported and measured by a variety of assessment activities. Incorporating this type of change demands a focused training program. At the crux of the changes is a clear focus on curriculum, which is content and process-based. Extensive staff development occurs prior to and during implementation.

Technology will be used to support student learning and successful teaching strategies at all levels. All of these efforts to align curriculum, instruction and assessment into a coherent system will require specific technology applications that conform to guidelines set by state and national standards committees for each curriculum area. Standards for each curriculum are in a continual process of development.

It's a well known fact nowadays that infusing technology throughout the curriculum has its benefits.

- Introducing technology into the learning environment has been shown to make learning more student-centered, to encourage cooperative learning, to improve students' self-concept and attitudes toward learning, and to stimulate increased teacher/student interaction.
- Student cooperation and sharing increase when students compete against the computer rather than against each other.
- Factors that maximize the benefits of educational technology include:
 - 1) extensive teacher training in the integration of technology into the curriculum,
 - 2) active participation by teachers in learning activities that incorporate tool software,
 - 3) opportunities for students to participate in self-directed learning activities and interact with classmates.
- Positive changes in the learning environment brought about by technology are more evolutionary than revolutionary. They occur over several years, as teachers become more experienced with technology.

CURRICULUM PLANNING PROCESS

The curriculum planning process must include annually budgeted, on-going staff development to provide for continuous improvement of student-centered instruction. As

students enter the world of continuing education and of work, they are expected to be proficient with a wide variety of hardware and software technologies. There are many appropriate technologies that can be used in the teaching-learning process, so there can be no single standard limiting student and staff exposure to a single vendor, product, or platform. However, each department and pathway grouping should establish standards appropriate for it to meet its educational objectives, but that fall within ROP guidelines for connectivity, compatibility, and support. The current curriculum committees and the Technology Services Advisory Group (TSAG) will need to work together closely.

These standards are intended to:

- support the rationale to annually budget for needed technology personnel, equipment, software, telecommunications, maintenance, training, and support.
- fit into an effective and efficient information infrastructure for the entire ROP that allows professionals easy access to information about budget, students, materials, resources, curricular standards, test item banks, lesson plans, etc.
- enable teachers to collaborate using improved telecommunications and the standard workstations and similar software in the subject area via electronic mail.
- provide opportunities for school and ROP staff to help train and support one another.
- provide the possibility of sharing electronic lesson plans across the ROP.
- help unify the curriculum development process in the use of technology by aligning curriculum, instruction and assessment into a coherent system.
- reduce the cost for computer classroom management and application purchase through site licensing where appropriate.
- Teachers deserve a lead role in an open-ended curriculum improvement process. The process should be action-oriented, focused directly on school goals and student activities, and should evolve through practice.

Common national student goals that have emerged are:

- the development of strong basic skills;
- a mastery of core content;
- the ability to think critically and creatively;
- the ability to work collaboratively and cooperatively;
- a commitment to life-long learning;
- the ability to select appropriate problem-solving strategies and solve problems efficiently; and
- an understanding of the plurality of American society.

The ROP Board of Trustees establishes and uses goals, objectives, and standards as the primary method to provide direction to the ROP Superintendent and staff. The goals, objectives, and standards have evolved over a period of years with broad-based community and staff participation. The continued evolution has now produced a set of statements that constitutes basic core goals and objectives for reporting ROP progress and status in a consistent manner and on a biennial basis.

The ROP's curricular mission is "to provide high-quality programs of sufficient breadth and depth so that students, upon graduation, will have reached or surpassed ROP achievement standards and will have a satisfactory level of knowledge and skills to continue their formal education and/or enter a productive education."

SECTION I. CURRICULUM GOALS

<p>Goal 1 (<i>Curriculum</i>): All students will have consistent and regular access to instructionally appropriate technology resources that enhance and expand student learning, including access to library/media centers, career centers, and classroom-centered technology (online both before and/or after school).</p>		
<p>Objective 1 of 1: Site-based learning plans for media centers, career centers, specialized academic programs, and instructional classrooms will ensure access to hardware with instructionally appropriate software for use by all ROP students.</p>		
<p>Action Plan: Students have regular access to technology resources outside regular school hours, including before and/or after school, through specially designed academic programs.</p>		
<p>Action Plan: On an annual basis, students are informed of appropriate access and use of technology based on the ROP's Acceptable Use Policy.</p>		
<p>Action Plan: On an annual basis, students, including special populations such as English learners, special education, at-risk, are provided with instructionally appropriate technology resources that enhance and expand learning.</p>		
<p>Action Plan: On an annual basis, all students will have regular access to content-based technology resources that are integrated seamlessly within the standards-based curriculum of each subject area classroom.</p>		
<p>Action Plan: On an annual basis, all students will have regular and online access to career centers located in high schools and the Education Center that provide a variety of technology resources to assist students in achieving life and career goals.</p>		
<p>Action Plan: On a regular basis, adult students with special needs will be provided appropriate assistive technologies and devices as deemed necessary.</p>		
Evaluation Instrument(s): Data To Be Collected	Schedule for Evaluation	Program Analysis and Modification Process & Position(s) Responsible
Technology inventory of hardware and software in classrooms, media centers, career centers, and computer labs	Annually	ROP site administrators annually review usage and access within their sites and modify access and availability as necessary.

<p>Goal 2 (<i>Curriculum</i>): All students, including special populations, will use technology resources as tools for learning curricular content.</p>		
<p>Objective 1 of 1: All students will demonstrate improved academic achievement based on multiple school-wide academic assessments, including results of classroom assessments.</p>		
<p>Action Plan: All students enrolled in core content subject area classes will use technology tools to acquire standards-based course content.</p>		
Evaluation Instrument(s): Data To Be Collected	Schedule for Evaluation	Program Analysis and Modification Process & Position(s) Responsible
Student test score results on standardized instruments and individual classroom-based assessments	Annually	Instructional administrators review test scores and other assessments and modify site-based learning plan.

<p>Goal 3 (<i>Curriculum</i>): All students will acquire technological and higher-order thinking skills based upon Information Literacy (task definition, information seeking strategies, location and access of information, use of information, synthesis, and evaluation of the completed project) to attain higher-level achievement in a standards-based learning environment.</p>		
<p>Objective 1: Most ROP graduates demonstrate proficiency in Information Literacy skills in information search and retrieval.</p>		
<p>Action Plan: On an annual basis, students enrolled in most classes will successfully complete a research project utilizing Internet search and retrieval skills.</p>		
Evaluation Instrument(s): Data To Be Collected	Schedule for Evaluation	Program Analysis and Modification Process & Position(s) Responsible
Most classes will have copies of student projects.	Annually	Instructional administrators monitor and analyze course completion and project records and make modifications as required.

<p>Goal 4 (<i>Curriculum</i>): ROP staff members will support the instructional process through the use of technology to expeditiously process and expand communication among colleagues, students, parents, and the community at large.</p>		
<p>Objective 1 of 2: All teachers use technology-based record keeping and assessment tools to expedite the individual learning needs of students.</p>		
<p>Action Plan: On a semester basis, school site counselors review student academic achievement records and grades in AIM2000 to assist students with their individual learning plan.</p>		
<p>Action Plan: All teachers will utilize technology resources to assess student performance and to measure student achievement.</p>		
<p>Action Plan: All teachers will have access to grading and assessment software from classrooms and home.</p>		
Evaluation Instrument(s): Data To Be Collected	Schedule for Evaluation	Program Analysis and Modification Process & Position(s) Responsible
Availability statistics on student academic records and assessment data.	Daily	The ROP Department of Technology Services reviews availability statistics to quickly rectify network or software issues. The Departments of Curriculum and Instructional Support, the Student Support Services, and the Technology Services review annually software tools for appropriateness in meeting ROP needs.
<p>Objective 2 of 2: Using technology all staff members will communicate with students, families, colleagues, and the community through a variety of media regarding the ROP's curricula and expected levels of student accountability.</p>		
<p>Action Plan: All ROP staff will have email addresses through which they communicate with students, families, colleagues and the community.</p>		
<p>Action Plan: By June 2010, ROP courses and teachers will have Web sites or portals that are updated regularly.</p>		

Action Plan: On an annual basis, school site administrators provide technology-based information to parents and community members about the ROP's curricula and ROP student academic achievement.		
Evaluation Instrument(s): Data To Be Collected	Schedule for Evaluation	Program Analysis and Modification Process & Position(s) Responsible
Review of websites.	Annually	Instructional administrators review teacher websites. Asst. Superintendent of Educational Services reviews ROP website.

Monitoring and Evaluation (*Curriculum*):

The Superintendent of Administrative Services will report on the achievement of technology goals annually. During the regular school year, the managers of Technology Services, Curriculum and Instructional Support, and Student Support Services departments, will meet with the Instructional Administrators periodically to review the progress of the goals and action plans listed in this section, based on the established plan indicators. As necessary, modifications to this plan will be made or recommended for consideration by the Superintendent and the Board of Trustees.

SECTION II: PROFESSIONAL DEVELOPMENT

ROP administration will survey staff technology skills and the needs for professional development. The technology proficiency levels of ROP teachers and administrators and staff surveys will be taken annually, either at the beginning or end of each school year. The results of this technology proficiency survey will provide a site-based and ROP-wide profile of staff technology proficiency. Teachers just entering the profession are likely to be personally proficient, based upon California Teaching Credential requirements. Veteran teachers are less likely to have had the opportunity for professional development in technology skills and are therefore more likely to be in need of professional development.

In addition to ROP and site opportunities for professional development in technology, staff can plan their own professional development through a variety of other opportunities. These include site-based staff development days and community resources, local community colleges, California Association of Regional Occupation Centers and Programs (CAROCP), Computer Using Educators (CUE) conferences and trainings, and private technology institutions and corporations. In addition, site-based technology mentors or highly competent staffs, including certificated and classified personnel, are frequently able to provide informal support and coaching to those eager to learn technology skills.

ROP provides professional staff development to meet the needs of the teachers and administrators as identified through needs assessments and established curriculum priorities. On an annual basis, ROP Curriculum and Instructional Services surveys teachers regarding professional development needs. Included in this survey are areas related to the integration of technology use within the curriculum and state standards.

ROP professional staff development is implemented in a variety of ways in order that teachers and administrators can frequently be involved with training that builds competencies and supports opportunities to apply those computer competencies to the workplace. Under the direction of the Assistant Superintendent, Education Services, the ROP provides staff with technology training. Training plans are coordinated with the Technology Services Department. ROP Curriculum Committees meet monthly and provide guidance in identifying ongoing professional development needs for standards-based curricular workshops. Both certificated and classified staffs are offered technology training opportunities which may occur during the work day or after school hours. ROP has subscribed to web-based software training site Atomic Learning which is accessible on the internet 24 hours a day. As professional development funds become available, staff training opportunities are made more accessible by the site or ROP providing substitute teachers and/or hourly pay for those staff participating in the training.

Those staff members participating in professional development have access to the technology tools they need to apply new skills immediately following the training. Each ROP teacher has a minimum of one computer to individually practice newly acquired technology skills and to apply these skills in the classroom. Technology support staff are available to address staff needs at each ROP site.

As new technologies become available and are deemed applicable for ROP teaching and learning, instructional hardware and software are upgraded. Staff are encouraged to review and try out curricular software to determine the usefulness and appropriateness for instruction that

improves teaching and learning in a standards-based curriculum. In addition, classroom management strategies are guided by ROP policies and regulations that provide teachers with clear directives related to the appropriate use of technology, including grading guidelines, course outline expectations, and the ROP's Acceptable Use of Technology Policy.

It is the intent of ROP to continue to provide its instructional staff with appropriate facilities, tools, training, and supplies to maximize effectiveness in the classroom. For all teachers (as they demonstrate readiness) to use technology owned and supported by the ROP, the ROP will provide or continue to provide appropriate access to technology and training to perform the following functions:

1. WORD PROCESSING

Electronic document and text management for reports, letters, lesson plans, etc.

2. SPREADSHEET

Electronic worksheets for charts, graphs, and tabular data management.

3. PERSONAL DATABASE

Computer database management for creating/editing input screens and ad hoc reporting.

4. STATISTICAL ANALYSIS AND TESTING

Applications which compute statistics on data collected and entered by the user.

5. PRESENTATION GRAPHICS/DESIGN/DESKTOP PUBLISHING

Applications which enable the creation and organizing of graphic images and charts for presentation in the classroom or to other large group audiences.

6. WEB BROWSER

Applications which permit the access to various external information database services. These applications permit teachers to access relevant research databases on the internet.

7. ELECTRONIC MAIL

This permits the electronic communication between staff, students, and the community.

8. ELECTRONIC GRADEBOOK

This permits the electronic collection of teacher-specified information such as attendance, grades, homework assignments, etc.

9. CLASSROOM MANAGEMENT

These are tools, which enable teachers to plan and monitor classroom activities and resource utilization.

10. INTEGRATED LESSON DEVELOPMENT

These are applications which help teachers develop individual classroom plans to implement ROP curriculum.

11. VOICE MAIL

This allows for a caller to leave a message for a teacher or program staff not currently available.

12. INTERFACES TO INSTRUCTIONAL SUPPORT (ADMINISTRATIVE) SYSTEMS

These applications permit teachers to get access to relevant ROP informational AIM2000 databases regarding their particular students (address, phone number, parent name, grades, attendance, test scores, class schedule, transcript, etc.) and courses of study by grade level. These applications should permit teachers with both the ability to view relevant information and to download or print information such as class lists, parent phone numbers, individual student attendance, standards, lesson plans, record of competencies, etc. (Administrative Systems are outlined in Section 4.0).

13. DOCUMENT MANAGEMENT SYSTEMS

These systems allow teachers to scan hard copies for paperless archiving, online publishing, and dissemination via email.

14. ONLINE SERVICE REQUEST SYSTEM

The web-based Order Processing and Requisition Accelerator (OPRA) application accepts and stores staffs' requests for technology and facilities support, assigns and schedules staff to address those requests, and tracks / monitors each and every requests.

15. ELECTRONIC CALENDAR

This permits the creation, storage and management of scheduled meetings and appointments.

Professional Development Goals

ROP has developed clear goals and a specific implementation plan for providing professional development opportunities based on annual ROP and site needs assessments, ROP priorities for teaching and learning a standards-based curriculum, and the ROP's Professional Development Plan.

<p>Goal 1 (<i>Professional Development</i>): Staff will be competent users of computer technology applications for professional use.</p>		
<p>Objective 1 of 1: All ROP teachers will continue to be trained to demonstrate proficiency in the use of email, word processing, spreadsheets, database, electronic publishing, statistical analysis and testing, Internet and intranet access and utilization, electronic grade book, classroom management, integrated lesson development, voicemail, automated remote media access, instructional support systems, document management systems and service request system.</p>		
<p>Action Plan: ROP will provide regularly scheduled training for ROP staff to acquire proficiency in email, word processing, spreadsheets, database, electronic publishing, statistical analysis and testing, Internet and intranet access and utilization, electronic grade book, classroom management, integrated lesson development, voicemail, automated remote media access, instructional support systems document management systems, and service request system.</p>		
<p>Action Plan: ROP will provide annually scheduled training for ROP departmental staff to acquire proficiency in the use of curricular courseware for classroom use.</p>		
Evaluation Instrument(s): Data To Be Collected	Schedule for Evaluation	Program Analysis and Modification Process & Position(s) Responsible
Assessment surveys, staff development records, site technology surveys, training evaluations, and personal technology plans.	Annually	Coordinators of Curriculum and Instructional Support and Technology Services collect and analyze evaluation data and make recommendations to the Assistant Superintendent, Education Services for modifying staff training programs.

<p>Goal 2 (Professional Development): All teachers will use technology proficiency skills to enhance student learning experiences and seamlessly integrate the use of technology in the content learning process.</p>		
<p>Objective 1 of 2: All teachers will continue to be trained in computer applications and the use of technology applications and implement a minimum of one lesson each semester that integrates computer applications.</p>		
<p>Action Plan: All teachers will acquire technology-based skills to plan, design, and execute a minimum of one standards-based lesson using technology each semester.</p>		
<p>Action Plan: Instructional Administrators will offer teachers opportunities for technology training in curricular integration through on-site professional staff development days, virtual training, CTAP training, and other training opportunities.</p>		
<p>Evaluation Instrument(s): Data To Be Collected</p>	<p>Schedule for Evaluation</p>	<p>Program Analysis and Modification Process & Position(s) Responsible</p>
<p>Teacher Lesson Plans;; teacher surveys; training surveys</p>	<p>Annually</p>	<p>Professional development activities, lesson plan development, and instructional staff surveys are monitored and analyzed regularly by the Assistant Superintendent, Education Services, who will suggest modifications, as needed.</p>
<p>Objective 2 of 2: All teachers will be trained in the effective use of Information Literacy strategies that enable students to find, evaluate and use a variety of electronic and other resources in support of the curriculum.</p>		
<p>Action Plan: On an annual basis, Technology Services staff provides teachers with training on the principles and classroom applications of technology resources.</p>		
<p>Action Plan: On an annual basis, Technology Services staff provides teachers with training in technology resource integration, activities such as Internet search and retrieval and Website evaluation.</p>		
<p>Evaluation Instrument(s): Data To Be Collected</p>	<p>Schedule for Evaluation</p>	<p>Program Analysis and Modification Process & Position(s) Responsible</p>
<p>Data: Training records, Media Center staff training</p>	<p>Annually</p>	<p>Instructional Administrators and Coordinator of Curriculum and</p>

<p>records, staff survey results, teacher records, teacher records and research project assignments.</p>		<p>Instructional Support review training annually. The Assistant Superintendent, Education Services reviews annual training schedules assuring information literacy strategies are integrated into all teacher professional development opportunities.</p>
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<p>Goal 3 (Professional Development): ROP staff will be proficient in technology tools that expeditiously support the learning environment and management of the classroom.</p>		
<p>Objective 1 of 1: All teachers will demonstrate proficiency in technology-based student assessment and classroom management tools.</p>		
<p>Action Plan: All teachers will be trained in and demonstrate proficiency in technology-based student assessment and classroom management tools.</p>		
<p>Action Plan: All teachers will be trained in and demonstrate proficiency in email and Web page design as technological tools to expand communication with students and their families.</p>		
<p>Action Plan: All ROP teachers will be trained in and demonstrate proficiency in technology-based grading assessment programs for classroom use.</p>		
<p>Evaluation Instrument(s): Data To Be Collected</p>	<p>Schedule for Evaluation</p>	<p>Program Analysis and Modification Process & Position(s) Responsible</p>
<p>Review of teacher web pages and evidence electronic assessments transferred to administrative offices at the appropriate times.</p>	<p>Annually</p>	<p>The Technology Services Department staff and Instructional Administrators review web page publishing as an element of the improvement plan. The Coordinator of Technology Services investigates products when introduced that will make electronic assessment and web page design less technical and more secure.</p>

Monitoring and Evaluation (*Professional Development*):

ROP administration maintains a successful communication and assessment process to monitor whether the professional development strategies and methodologies utilizing technology are being implemented according to the benchmarks and timeline. Key staff is designated specific responsibility for monitoring progress toward the stated objectives. Ongoing staff surveys, professional development surveys immediately following training workshops, and informal feedback as a result of professional development activities provide significant input to staff members who are responsible for program implementation. Course corrections, modifications, or deletions to the three-year plan for ROP professional development are possible consequences of staff input.

The Technology Services and the Curriculum and Instructional Support Services will monitor and review the annual ROP Professional Development Survey, site-based assessment results of teacher proficiency, the ROP Biennial Survey results, and the ROP Three-Year Technology Plan for information and guidance that is critical to decision making about the appropriate direction of subsequent professional development. Issues to be considered are: whether the Action Plans and Timeline are on-track as planned and if all planned aspects of the professional development program are implemented, or, if not, why they are not; whether or not teachers and administrators feel supported after an initial training when questions or new situations arise; if teachers and administrators use what is taught; and if the professional development program results in changes in instruction over time that have a positive effect on student learning. For example, shifting the instructional environment to focus on the standards-based curriculum in which technology use in teaching and learning is fully integrated, and seamlessly used as any other previous tool in the classroom.

The status of implementation of the Professional Staff Development component is reported to the Superintendent at weekly Cabinet and monthly Leadership meetings as necessary. Status reports about professional development are given to the Board of Trustees on an ongoing basis. The Board also is formally presented with information about the status of professional development that is incorporated into the Goals and Objectives Report, based upon a biennial ROP survey of staff, students, and parents. The Superintendent makes recommendations for any necessary modifications to ROP practice as a result of both the on going informal and the formal reporting processes.

SECTION III: INFRASTRUCTURE, HARDWARE, TECHNICAL SUPPORT, AND SOFTWARE

At the core of this plan's successful implementation is a well-built network, adequate bandwidth, capable workstations and appropriate educational and administrative software. Currently, each remote ROP facilities are directly connected to the ROP's main facility on a high-speed WAN, via 1.54Mbps point-to-point T-1 line. High school sites are connected to the internet through their respective districts.

The ROP is now connected to the Orange County Office of Education (OCDE) now via twin frame relay T-1 lines for access to the internet and OCDE-based finance, human resources, and payroll application programs. The recent T1 addition was installed February 2009 and effectively doubled the available bandwidth. This will allow the ROP to utilize rich Internet resources including downloading full-motion video for professional development, using distance education software, video conferencing, or receiving streaming video for the classrooms.

Network bandwidth availability currently and in the near term are sufficient to meet all ROP internet and business application traffic needs. Future expansion would still be necessary to support the ever growing needs.

Remote facility sites have combined administrative and instructional Local Area Network (LAN). Each of these LANs utilizes 100-megabit switches and hubs. The Education Service, being at the hub of all the remote sites, utilizes a 1-gigabit LAN network to support both the remote and main sites. Site routers are used to direct network traffic. Additional routers would be put in place should increased use in the future in administrative and instructional areas deem it necessary. This will separate and secure the administrative from the instructional network. Currently the internal LAN speeds at each of the sites can accommodate users' needs. Since almost all software applications are run from local machines, sites have sufficient bandwidth to enjoy a robust computing environment.

Current network specifications will support any of the software packages presently used in the ROP. But ROP anticipates a steady growth in the need for bandwidth to run applications such as online professional development or streaming video. As these applications are used, bandwidth will continue to be monitored to assure a high quality-of-service (QOS). Additional bandwidth will be acquired when pipeline bandwidth reaches 60% saturation.

Since most ROP high school classrooms are wired to the internet via the WANs of their respective school districts, these classrooms are subject to the specific guidelines of those school districts. The ROP Coordinator of Technology Services would confer with the Directors of Information Technology of those districts to resolve technology issues should it arise.

The implementation of the eClassManager module in Fall, 2002 as expected, posed some degree of challenge to the disparate connectivity between the classrooms, districts, remote sites and the ROP Education Center office. The ROP utilizes the Citrix Metaframe XP server application software to provide real-time access of AIM2000 from teachers and administrative staff located from those sites. Notwithstanding, successful implementation of the Citrix/eClassManager

systems coupled with extensive hands-on trainings successfully led to 100% teacher utilization by 2005.

ROP utilizes most of its computers for at least six years. Unless updated software applications require the need for more power, memory and/or disk space, or operating system, computers are not upgraded. With the current speed of innovation and hardware improvement, by the time a computer is six years old, it is often more cost effective to purchase a new machine than it is to try to upgrade an older model.

ROP requires that all computers be purchased with a minimum 1-year warranty on parts and labor. There is also a widely held belief of acquiring only high quality computer components based on industry research and field experience. These initiatives have led to very minimal level of hardware failures even long after warranty has expired. This has led also to a dramatic decrease in repair costs program-wide.

ROP maintains a minimum computer specification that is reviewed every 3 months by the Coordinator, Technology Services. This review determines: 1) if the current specifications meet the technological demands of software use both current and foreseeable, and 2) if prices for the current computer specification need to be renegotiated with vendors. At this time, the minimum ROP specification for PC includes a Pentium Core2 Duo 2.0 gigahertz processor, 2-gigabyte random access memory (RAM), 160-gigabyte hard drive, and Windows XP operating system. Effective fiscal year 2010-2011, ROP will officially upgrade to the Microsoft Windows 7 64-bit operating system with every new computer purchased. Existing Windows XP machines will continue to be supported until the hardware is retired.

Each classroom within ROP has at least one multimedia, Internet-connected, computer available for student and teacher use. Each of these computers arriving in the classroom effective FY 2010 will come with Microsoft Office suite, version 2007. Within ROP only eight percent of the computers are Macintosh, the rest are IBM compatible PCs. IBM-compatible PCs utilize at a minimum the Windows 2000 operating system, with the majority being Windows XP systems; all Macintosh computers are equipped with OS 10 or better.

The Microsoft Windows Vista operating system is mostly found in ROP's two-year old or newer notebook computers—standard factory install at time of purchase. The ROP intends to purchase new desktop and notebook replacements with Windows 7 operating system.

Increasing access to appropriate learning resources through the effective use of technology is one of the ROP's highest priorities. At the same time, ROP has taken measures to assure that computer technologies are not utilized in an inappropriate manner. All ROP students, teachers, and staff are required to sign an Appropriate Use Agreement that includes policies relating to copyright, plagiarism, pornography and other issues. Also included are web-publishing guidelines for staff, teachers and students.

To prevent the viewing of inappropriate material, ROP contracts with OCDE to filter all Internet traffic that may be directed purposefully or accidentally to offensive or potentially harmful sites on the Internet. Currently the Orange County Department of Education utilizes the software product *8E6 R3000 Internet Filter* to filter Internet traffic. Districts that contract with the OCDE

for filtering have immediate access to county employees to modify the filter list if they encounter inappropriate material that has not been blocked.

ROP is increasing the number of computer classrooms installed with teacher-operated and monitored SynchronEyes software. This software permits the teacher to control and remotely monitor student work on the computer, including displaying teacher or student screen to everyone in the network for purposes of presentation and enhancing learning.

ROP is always searching for ways in which it can remove any excess, ongoing costs associated with technology. ROP personnel attend seminars to investigate software and hardware solutions that could reduce the total cost of ownership (TCO) associated with the purchase, upkeep, and upgrading of computers. Some of the possible TCO reducers that ROP will continue to investigate are virtualization environment (virtual machine/ server), thin-client solutions, terminal services, disk-imaging software, remote-installation and control software, and centralized storage capacity. *DeepFreeze*, a system recovery package, and the *Norton* anti-virus protection software are installed on ROP workstations to reduce the number of class disruptions, to protect the system from malicious or accidental system deletion of files or reconfiguration, and increase the ability of the technicians to quickly recover damaged systems. Technology Services staff utilize the *Ghost Corporate Edition* imaging software to clone multiple identical computers in minutes, rather than hours or days. *Citrix GotoAssist* software is being used to remotely diagnose and fix a computer, saving countless hours in travel time to remote sites and enabling teachers to quickly regain use of the computer. An investment in multiple disc duplicators cuts precious time when copying CD and DVD projects for teachers and staff.

Anti-virus software is also used to protect the ROP's email and networked servers. Also, to stop intrusion and hacking, ROP servers are strategically situated behind a Cisco PIX firewall using Network Address Translation (NAT). All routers at ROP sites have appropriate access lists to prevent unauthorized access. All servers including the all-important student information system files are backed up daily by way of automatic disc-to-disc backup and further archived weekly onto tape autoloader machine. Administrative computers are backed up constantly twenty-four hours a day to a network-attached storage (NAS). Data is kept from unauthorized access through built-in security measures. Server room environmental monitors are installed to remotely monitor room temperature and humidity.

Infrastructure, Hardware, Technical Support and Software Goals

<p>Goal 1 (<i>Infrastructure, hardware, technical support, and software</i>):</p> <p>ROP will provide the necessary network infrastructure to support current and anticipated educational and administrative needs.</p>		
<p>Objective 1 of 1:</p> <p>Sufficient network bandwidth and hardware will be maintained, modified, or upgraded to meet educational and administrative application needs.</p>		
<p>Action Plan:</p> <p>Equipment to measure network bandwidth and identify problems will continue to be used and upgraded if necessary.</p>		
Evaluation Instrument(s): Data To Be Collected	Schedule for Evaluation	Program Analysis and Modification Process & Position(s) Responsible
Review of network bandwidth statistics	Weekly	Coordinator of Technology reviews statistics to assure the network continues to meet site classroom and administrative needs. Assistant Superintendent, Administrative Services and Coordinator of Technology will review process every six months.
Review of performance statistics for switches, routers, security and filtering devices, and hubs.	Weekly	Coordinator of Technology reviews performance to assure the network continues to meet site classroom and administrative needs. Assistant Superintendent, Administrative Services and Coordinator of Technology will review evaluation process every six months.

<p>Goal 2 (<i>Infrastructure, hardware, technical support, and software</i>):</p> <p>ROP and its schools will supply the personnel and expertise necessary to provide efficient and timely technical hardware and software support to its teachers, staff and administrators.</p>		
<p>Objective 1 of 1:</p> <p>ROP will maintain the technical staff necessary to meet the hardware and software technology needs of ROP.</p>		
<p>Action Plan:</p> <p>High school and remote sites will receive as-needed technical support as quickly as OPRA-based schedule will allow, with high priority calls receiving on-demand assistance.</p>		
<p>Action Plan:</p> <p>ROP will employ the necessary technology personnel to meet the technology needs of all campuses and other ROP sites.</p>		
<p>Action Plan:</p> <p>Technical personnel will have received and continue to receive preset training programs for the necessary knowledge to stay current with technological advances.</p>		
<p>Action Plan:</p> <p>By June 2010, an FAQ website will have been installed to post information about typical technology hardware/software problems and solutions. It will contain “helpful hints” and “tips” to more efficient use of technology.</p>		
<p>Evaluation Instrument(s): Data To Be Collected</p>	<p>Schedule for Evaluation</p>	<p>Program Analysis and Modification Process & Position(s) Responsible</p>
<p>Skill level of personnel compared with the current technological requirements</p>	<p>Annually</p>	<p>The Coordinator, Technology Services and Instructional Administrators will review the technological needs of campuses and other sites and prescribe training. If specific problems arise between evaluation periods, the Coordinator, Technology Services will find expertise outside of ROP as needed to resolve all issues.</p>

<p>Goal 3 (<i>Infrastructure, hardware, technical support, and software</i>): ROP technical staff will provision, install, and support high-quality, up-to-date instructional software, approved by advisory committees, to teachers and students in the most efficient and flexible manner possible while still assuring that the network remains secure and all software legal requirements are met.</p>		
<p>Objective 1 of 2: All technical staff will understand the installation and support requirements of instructional software packages not covered under maintenance agreements.</p>		
<p>Action Plan: Technology staff at ROP sites will understand the current installation and support requirements for instructional software packages before they are installed.</p>		
<p>Action Plan: Technology staff at ROP sites will understand the implications of installing software on networked computers and will be able to assess and troubleshoot possible technical drawbacks installation might present.</p>		
Evaluation Instrument(s): Data To Be Collected	Schedule for Evaluation	Program Analysis and Modification Process & Position(s) Responsible
Skill level of personnel compared with the current technological requirements of instructional software.	Annually	The Coordinator, Technology Services and Instructional Administrators will review the instructional software needs of campuses and prescribe training. If specific problems arise between evaluation periods, the Coordinator, Technology Services will find expertise outside of the Program as needed to resolve all issues.
<p>Objective 2 of 2: The number software licenses purchased and the software installed on each ROP computer will be catalogued.</p>		
<p>Action Plan: The Technology Services Department will maintain the software license database, record new software purchases, and inventory software used on each ROP computer.</p>		
<p>Action Plan: The Technology Services Department will always have an accurate accounting of all software licenses and installed software being used on ROP computers.</p>		
<p>Action Plan: ROP will perform an annual software license review.</p>		

Evaluation Instrument(s): Data To Be Collected	Schedule for Evaluation	Program Analysis and Modification Process & Position(s) Responsible
Progress toward maintaining the database containing software licensing information	Every 6 months	The Assistant Superintendent, Administrative Services will review progress with the Coordinator, Technology Services.
ROP software audit performed by ROP technicians	Annually	The Coordinator, Technology Services will review annual audit results with Instructional Administrators to either delete or purchase unlicensed software.

Monitoring and Evaluation (*Infrastructure, hardware, technical support, and software*)

The success of the infrastructure, hardware, technical support and software efforts of ROP are measured on a regular basis both formally and informally. Formal methods include the ROP's Biennial Survey that measures the level of satisfaction that ROP staff, parents, and students have with the amount of computer hardware and software and the maintenance of the machines and the network. Also, the ROP's Council, made up of instructional administrators, the Coordinator, Instructional Support, and the cabinet, allows an open forum in which questions, concerns and/or inadequacies in equipment or service can be discussed and action plans developed to address any issues. Finally, the Coordinator, Technology Services monitors service request lists on a periodic basis to look for unusual trends or reoccurring issues that might point to problems larger than that of normal maintenance and repair.

Additionally, there is an informal network of key, tech-savvy teachers, technicians, and administrators that feel comfortable in calling any member of the Technology Services Department to report possible issues and to discuss future direction.

SECTION IV: FUNDING AND BUDGET

A. Funding Resources

Within ROP, significant General Fund monies are budgeted annually to provide technology support services and sustainability. In addition, federal, state, or local categorical programs provide funding for technology.

These programs include:

- State lottery funds; the ROP received \$18.0M in 2009-10.
- E-Rate discount program (typically 40% discount on telecommunication services including telephones and Internet), \$53,500 requested in 2009-10.
- Federal revenues such as Carl Perkins Vocational-Technical Grant program, Title I funds to support the learning of identified students; the ROP received \$760K;
- State Revenues, including EIA-LEP to support the learning of identified students; the ROP received \$685K; and
- North Orange County Regional Occupation (NOCROP) program support.

The annual ROP budget adopted by the Board of Trustees includes allocations to acquire the hardware, electronic learning resources, infrastructure, professional development, and technical support necessary to implement the plan. Within each year's budget, one-time costs and funding, as well as ongoing costs and funding are identified.

The process for determining technology needs and resource assessment is ongoing and involves representatives of key stakeholder groups and ROP decision-makers. The process involves a broad-based decision-making and information gathering process and includes both informal and formal formative and summative assessment procedures. These processes are described in detail in the monitoring and evaluation procedures later in this section.

Providing the funds associated with implementing all sections of this three-year plan is an important task. Provisions for technology expenditures have been made in the current budget and options exist to fund technology over time. For example, significant General Fund monies are budgeted annually to address technology support services and sustainability of technology programs. In order to improve the ability of ROP to monitor the gradual implementation of the plan, separate standardized account code structure (SACS) codes have been established for all expenditures related to technology support and enhancements.

ROP's commitment to continuing this level of technology support in subsequent school years is contingent upon the capacity of the State of California to continue to provide special funding, as well as continuance of the E-Rate federal program to provide discounted telecommunication services.

In fiscal year 2009-10, the North Orange County ROP received one-time federal stimulus money and accordingly set aside approximately \$1,000,000 for new desktop and laptop computers, software, printers, LCD projectors, document cameras, digital still and video cameras, and related peripherals to help implement or refresh technology in the classrooms and administrative

offices. Implementation was planned to begin in May, 2010 and expected to complete in September, 2010.

B. Sustainability of the Plan for Curriculum, Professional Development and Infrastructure

During the first ten years of the existence of the Technology Services Department, several key technology initiatives were implemented. Among them:

- ROP wide area network (WAN) was established;
- All classrooms are networked and have internet access;
- the old telephone system was upgraded to Centrex while telephones were placed in classrooms not so equipped;
- mobile phones or pagers were provided to staff working in positions or conditions that required an immediate way of communication; Managers have email/calendar/contacts instant access on cellular telephones.
- email with web access capability was provided for all teachers, staff and administrators;
- the NOCROP internet and intranet websites were established;
- the new student information system, AIM2000, took over from the old VAX legacy system; student information and management reports, including ad-hoc custom reports are created locally by staff
- a network of digital copiers along with a new faster, digital reprographics system were put in place; and
- the number of computer workstations used in instruction increased over 80%.
- the number of digital multimedia equipment for teacher checkout increased by 300%
- formation of the Technology Services Advisory Group
- student information system is now using eClassManager
- OPRA online service request system
- Online course catalogue
- Online registration
- Bi-tech fiscal services system available online to staff and teachers
- NOCROP website
- All instructors are provided online access and now use eClassManager resulting in reduction of paperwork.
- All Career Guidance Specialists and administrators now have the ability to run attendance reports
- Electronic staff directory is available
- All facilities except Acacia now have electronic entry using proximity key fob system.
- All facilities except Acacia now have digital video surveillance system with 24-hour recording
- Microsoft SharePoint Portal technology for each classroom to extend class activities online accessible from homes and libraries or wherever there is internet access.

As outlined in the Professional Development section of this plan, funding for teacher training is a joint effort between ROP and other sources. ROP also provides staff development for classified

personnel. Other curriculum-based training funding from ROP also incorporates technology training when appropriate.

Professional development resources paid for from school funds can include conference attendance, CTAP trainings, vendor sponsored workshops, or other technical classes. Some professional development is provided by CTAP at a reduced cost to ROP. In addition, other sources of low-cost professional development are recommended by CTAP and utilized to “stretch” the dollars available to provide technology support and sustainability.

C. Cost of Implementation

The estimated cost of implementing technology at the North Orange County ROP is presented in the table below.

Estimated Budget to Implement North Orange County ROP Technology Plan Fiscal Years 2010 - 2013

Budget Code	FY 2010-11	FY 2011-12	FY 2012-13	Description
2340	\$111,739	\$111,739	\$116,208	Coordinator of Technology
2253	159,600	159,600	165,984	Technical Support Specialists
2254	36,763	36,763	38,234	Reprographic Technician
2412	49,389	49,389	51,365	Administrative Assistant, Technology
3402	65,298	70,522	76,164	Health & Welfare Benefits
4370	20,800	20,800	22,000	Equipment Parts and Supplies
4450	109,284	109,284	115,000	Hardware and Equipment
5630	155,900	155,900	155,900	Rent of Equipment
5640	4,300	4,700	5,500	Maintenance Agreement- Equipment
5900	92,752	92,752	94,000	Internet, Phones, Pagers

C. Options for Reducing Costs

Operating under the principle that ROP has a critical responsibility to safeguard taxpayers’ assets and to ensure that all financial resources are maximized to the fullest; ROP considers all options available when purchasing hardware for ROP courses. Piggy-backing on contract agreements with much larger government agencies having immense purchasing clouts, utilizing the California Education NASPO (DGS) Contract price options, solicitation of multiple vendor

pricing quotes, online store price comparisons including purchases from online auction giant eBay are always considered and utilized when purchasing technology equipment to most prudently maximize the use of available funds. ROP staff members are continually renegotiating purchase price with vendors to ensure the most competitive prices. Nationwide hardware vendors such as Dell, HP, and Apple computers, including software vendors Microsoft, Adobe, and many more provide much cheaper academic pricing to schools which the ROP takes advantage of.

To maximize financial resources, potential technology acquisitions are compared against available surplus items advertised in the community for possible donation. The County of Orange, for example, makes periodic announcements of equipment available for donation.

The on-site expertise of business technology and computer teachers, as well as administrative staff with expertise in certain software applications is used effectively in the professional staff development plan. The teachers have had a most important role in facilitating the effective integration of the use of technology across the curriculum in such a way as to enhance student learning.

D. Oversight of Funding and Budget

The Assistant Superintendent, Administrative Services reviews all costs associated with implementing each of the plan components and identifies current and future funding sources. Working closely with the Coordinator, Technology Services, the Assistant Superintendent, Educational Services identifies areas of cooperation to leverage dollars across ROP. Through discussion with the Coordinator of Technology Services and the Instructional Administrators, the Assistant Superintendent, Administrative Services ensures ongoing technical support, the replacement of obsolete equipment, and the establishment of feedback loops for evaluation of ROP technology activities.

E. Replacement

North Orange County ROP is determined to replace any computer that meets any of the following criteria:

- 1). the installed software or required software upgrade requires a more powerful computer in order to achieve satisfactory computing use, or
- 2). the computer is more than 6 years old.

Replaced computers will be appropriately recycled or disposed of. Replacement computer may be brand new or, depending on the required computing power, may originate from the pool of much powerful donated machines from the Orange County government or other organizations.

District routers, servers, and network devices are replaced on as-needed basis. Appropriate consideration is also given to accommodate increasing need for bandwidth speed, new technology features and security requirements.

The Coordinator of Technology Services will monitor these devices and request replacement when deemed necessary. There is budget allocated yearly for this purposes. For fiscal year 2009-2010, \$11,000 was budgeted and is expected to remain at the same level or increase slightly in the next three years.

D. Monitoring Process:

Technology budgeting has been integrated into the ROP budget process in a manner consistent with the funding and budget component. As part of this integration, a process for monitoring modification of the physical plant, acquisition of equipment, and updating of the budget and budget process has been agreed on. This process involves utilization of the regular communication and decision-making channels. The Assistant Superintendent, Administrative Services is responsible for administering this monitoring process.

Establishing and maintaining funding for ROP priorities is a process based on negotiation and feedback. To assure that funding priorities in technology are met, the Assistant Superintendent, Administrative Services meets on an ongoing basis with the Cabinet members. As part of the overall budgeting process, the Budget Study Committee meets 5-6 times each year to make recommendations to the Superintendent regarding the development of the subsequent year's ROP budget.

ROP staff members, including the Assistant Superintendent, Administrative Services, the Assistant Superintendent, Educational Services, Instructional Administrators, and the Coordinator, Technology Services will continue to be proactive and monitor the progress of the plan's implementation schedule, especially in light of shifting State of California funding priorities. As required or necessary, such monitoring may require minor adjustments to the funding and budget component of the plan in order to ensure efficient and effective implementation of the plan.

SECTION V: MONITORING AND EVALUATION

A comprehensive effective and efficient feedback loop to monitor and improve progress is already firmly established and institutionalized ROP-wide. Within the feedback loop, technology issues are constantly discussed, reviewed, revised, and implemented in a continual process that includes both informal and formal formative and summative assessment processes. The “loop” allows for the continual two-way flow of information, involving the Board of Trustees, the Superintendent, students, teachers, classified employees, parents, community partners, and administrators and includes the following components:

- Assessments take place biennially by surveying students and staff members to assess levels of satisfaction with kinds and qualities of technology support services and degree to which technology enhances the ROP’s instructional programs.
- Teachers annually complete staff development surveys to identify technology training needs.
- Members of the Technology Services Department meet on a regular basis to review capabilities of the Department to meet technology support and modify work plans as needed to provide more efficient and effective services.

Information from all groups is provided to the Assistant Superintendent of Administrative Services, who, in turn, shares this information with the Superintendent, Superintendent’s Cabinet and Leadership team. Regularly scheduled Administrative Council and Cabinet meetings and through communications to the ROP’s governing board of trustees provide for (1) keeping updated on progress on implementation of the plan; (2) assessing difficulties; and, (3) opportunity to offer revisions to the plan to resolve issues.

Ultimately, the Assistant Superintendent of Administrative Services, the Assistant Superintendent of Educational Services and the Coordinator of Technology Services will work closely together to assure all plan goals are being implemented and met. This team monitors and evaluates the success of each of the plan components as demonstrated in the *Goal* charts in each of the sections corresponding to *Curriculum, Professional Development, Infrastructure* and *Funding*. Together, the evaluative elements form a comprehensive picture of the effective technology use within the ROP.

Technology and the Classroom

ROP staff members use technology to motivate students to learn and to prepare them for lifelong education and careers. The ROP Educational Services and the Technology Services Department will continue to search for best practices and research findings that clearly define technology’s ability to increase student performance. ROP will continue to garner advice and guidance from outside resources like academic research institutions, technology seminars, other ROPs and educational bodies.

ROP also maintains close ties with the Orange County Department of Education (OCDE) that represents CTAP Region 9 in Orange County. Quarterly meetings held at OCDE for the

directors of technology allow the Coordinator, Technology Services to stay current with the latest findings from the ROP, state and national levels and to take advantage of state and local resources and programs. During these meetings, knowledge, resources and research are shared and then disseminated to the appropriate ROP personnel.

Technology is having a positive effect in ROP classrooms. Accounts of teachers successfully integrating technology into the curriculum are shared both informally among staff members and formally through annual board meeting presentations, ROP publications, and survey participant comments transmitted to the Board of Trustees through the Goals and Objectives Report presented at ROP board meetings.

APPENDIX 1:

Minimum Computer Workstation Specifications (July 2010)

A. Personal Computer

Specified Components:

Intel-based motherboard with built-in video and sound processing
Intel® Core2 Quad Processor 8400/ 2.66GHz, 4M, 1333MHz FS)
4-Gigabyte DDR3 RAM, (8GB for CAD/CAM or 3D Classrooms)
Seagate or Western Digital 320-Gigabyte Serial ATA 7200RPM hard drive
Sony/LG DVD+/- RW drive
Integrated 1000 MBps Wired Network Connection
Inwin Mid-tower or Desktop ATX case with UL-listed 350-watt power supply & fan
Keytronic PS/2 104-key keyboard M/N E03601QuS201-C
Logitech First Mouse+ 2 buttons, Optical, w/ Scroll, PS2 /USB
Microsoft Windows 7 64-bit Operating System
One year carry-in warranty on parts and labor

B. Monitor: Acer 20-inch LCD Monitor AL2016W

C. Laser Printer: Brother Laser networkable duplex printer HL5250DN

APPENDIX 2:

North Orange County Regional Occupational Program

Policy

ROP BP 4040

All Personnel

EMPLOYEE USE OF TECHNOLOGY

The Governing Board recognizes that technology can enhance employee performance by improving access to and exchange of information, offering effective tools to assist in providing a quality instructional program and facilitating operations. The Board expects all employees to learn and to use the available electronic resources that will assist them in their jobs. Staff shall receive training, as needed, in the appropriate use of these resources.

Employees shall be responsible for the appropriate use of technology and shall use the ROP's electronic resources only for purposes related to their employment. Such use is a privilege which may be revoked at any time.

Employees should be aware that computer files and communications over electronic networks, including Internet, e-mail and voice mail, are not private. This technology should not be used to transmit confidential information about students, employees, or ROP business.

To ensure proper use, the Superintendent or designee may monitor the ROP's technological resources, including e-mail and voice mail systems, at any time without advance notice or consent. If passwords are used, they must be known to the Superintendent or designee so that he/she may have system access when the employee is absent.

Employees may be given cellular phones for official ROP use. Employees shall be responsible for the appropriate use of this technology and shall use the cellular phones only for purposes related to their employment. Such use is a privilege which may be revoked at any time.

The Superintendent or designee shall establish administrative regulations which outline employee obligations and responsibilities related to the use of technology. Employees who fail to abide by these regulations shall be subject to disciplinary action, revocation of the user account, and legal action as appropriate.

The Superintendent or designee shall establish guidelines and limits on the use of technological resources.

Approved: April 24, 2001

APPENDIX 3:

North Orange County Regional Occupational Program

Administrative Regulation

ROP AR 4040 (a)

All personnel

EMPLOYEE USE OF TECHNOLOGY

User Obligations and Responsibilities

Employees are authorized to use the ROP's on-line services and cellular phones in accordance with user obligations and responsibilities specified below.

1. The employee in whose name the workplace on-line service account is issued is responsible for proper use at all times for purposes related to their employment. The privacy of personal account numbers, home addresses and telephone numbers is the sole responsibility of the user.
2. Commercial, political and/or inappropriate use of the system is strictly prohibited. The ROP reserves the right to monitor any on-line communications for improper use.
3. Users shall not use the system to promote unethical practices or any activity prohibited by law or ROP policy.
4. Users shall not transmit material that is threatening, obscene, disruptive or sexually explicit, or that could be construed as harassment or disparagement of others based on their race, color, natural origin, ancestry, religious creed, age, marital status, pregnancy, physical or mental disability, medical condition, veteran status, gender or sexual orientation.
5. Copyrighted material may not be placed on the system without the author's permission. Users may download copyrighted material for their own use only and only in accordance with copyright laws.
6. Vandalism will result in the cancellation of user privileges and may include disciplinary action up to and including termination. Vandalism includes uploading, downloading or creating computer viruses and/or any malicious attempt to harm or destroy ROP equipment or materials or the data of any other user.
7. Users shall not read other user's mail or files; they shall not attempt to interfere with other users' ability to send or receive electronic mail, nor shall they attempt to read, delete, copy, modify or forge other users' mail.
8. Users are encouraged to keep messages brief.

9. Users shall report any security problem or misuse of the network to the Superintendent or designee.

Employees are authorized to use cellular phones assigned to them by the ROP in accordance with user obligations and responsibilities specified below.

1. Employees shall use ROP cellular phones for purposes related to their employment with the ROP.
2. Personal use (both incoming and outgoing calls) of all ROP phones is limited to infrequent, incidental and emergency use. A personal call is defined as any call that is not required to accomplish an employee's official business duties.
3. Cellular phones should not be used when a less costly alternative is safe, convenient, and readily available.
4. Attention to safety is of prime consideration when using cellular phones. Employees should not use cellular phones while driving automobiles.
5. Cellular transmissions are not secure and employees should use discretion in relaying confidential information on cellular phones.
6. Supervisors will review cellular phone invoices. Allocation of free minutes is prioritized for ROP official calls.
7. Employees with assigned ROP phones are expected to take appropriate precautions to prevent theft or damage to the unit, including exposure to moisture and extreme temperatures.

Approved: April 24, 2001