Los Angeles Unified School District

Education Technology Plan

July 1, 2006 to June 30, 2009

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Acknowledgements

A number of key stakeholders, including cabinet members, board members, directors, and bargaining unit leaders, were invited to be interviewed or participate in focus groups in the preparation of this Education Technology Plan. Listed below are those who gave of their valuable time and participated in interviews and focus groups.

Table 1. Key Stakeholder Interviews

Name	Position
David Tokofsky	Member, LAUSD Board of Education
Robert Collins	Chief Instructional Officer – Secondary
Ronni Ephraim	Chief Instructional Officer – Elementary
Michelle Bennett	Chief Operating Officer
Rowena Lagrosa	Deputy Superintendent, Education Services
Charles Burbridge	Chief Financial Officer
Megan Klee	Chief Information Officer
Dr. Michael O'Sullivan	Associated Administrators, Los Angeles (AALA)

Table 2. ITD Director Focus Group

Name	Position
Themy Sparangis	Chief Technology Director, Educational Technology
James Alther	Chief Technology Director, Infrastructure Group
Shahryar Khazei	Chief Information Systems Director
Paul Ishimaru	Director, IT Training
Tony Atienza	Deputy Director, IT Support Services
Patrick Luce	Director, IT Security

Table 3. ITAF Focus Group

Name	Position
Joe Oliver	Director, Instructional Technology
Cliff Bender	ITAF
Robert Rodriguez	ITAF
Chrystal Maggiore	IMaST Lead Coach
Fred Von Dolclen	IMaST Lead Coach

Name	Position
Hal Helsley	IMaST Lead Coach
Jack Bloom	IMaST Lead Coach
Jeff Smith	IMaST Lead Coach
Paul Burns	IMaST Lead Coach
Paul Guenther	ITAF Update
Bob Sachs	Central Liaison ITAF, LD 1
Russ Swanson	Central Liaison ITAF, LD 2
Bob Doornbos	Central Liaison ITAF, LD 3
John Kuun	Central Liaison ITAF, LD 4
Martha Valencia	Central Liaison ITAF, LD 5
Rudy Rizo	Central Liaison ITAF, LD 6
Jean Sais	Central Liaison ITAF, LD 7
John P. Lenhardt	Central Liaison ITAF, LD 8
Beverly Royster	Specialist, Education Technology
Henry Anker	ITAF, LD3
Jeff Williams	LACOE Consultant
John Rivera	ITAF LD5
Janice Stearns	ITAF LD6
Preston Williams	ITAF LD7
David Kotkosky	ITAF LD8

Table 4. Local District 3 Focus Group

Name	Position
Marlene Felix	AP
Bob Doornbus	ITAF - ITD
David Way	AP Hamilton High School
Andrew Uy	Teacher, Hamilton High School
Olympia Ekine	Student, Hamilton High School
Rick Jyles	Technology Coordinator, Mann High School
Anne Morschauser	BTI Leader, Hamilton High School
Allen Marks	Technology Coordinator, Paseo Del Ray
Stephanie D. Harris	APEIS, Short Elementary
Robert Burke	Open Charter
Pat Pernin	Secondary Math Coordinator

Name	Position
Doug Waybright	DSS
Henry Anker	ITAF - LD3
Sean Gaston	AP Mann Middle School
Ana Naval	Student, Hamilton Music Academy

Table 5. Local District 4 Focus Group

Name	Position
Carmelina Gonzalez	Community Liaison, Virgil Middle School
Cliff Bender	LD4 ITAF
ME Appel	TA, Union Avenue
Christine Zardeneta	Principal, Le Conte Middle School
Jutti Marsh	Teacher, Monte Vista Elementary School
Linda Santana	Technology Coordinator, Plasencia EL
Mary Kurzeka	Instruction, LD4
Jeanette Stevens	Principal, Berendo Middle School
Hall Davidson	Parent
Wing Kau Fung	AP, Magnolia Elementary School
Jose E. Aleman	Teacher, Le Conte Middle School
Thomas Yee	Science Specialist, LD4
Catherine Devine	Advisor, LD4

Table 6. Local District 5 Focus Group

Name	Position
Sylvester Harris	AP
Isaius Montx	LAT
Jose Rodriquez	Title 1, Bilingual Coordinator
Bob Scott	Secondary Science Expert
Dan Madsen	Technology Coordinator, Nightingale MS
Pam Todd	South LA Area New High School # 1
Kris Carbone	Technology Coordinator, Wilson
Carol Arocha	AP
John Berntsen	Technology Coordinator
Daniel Durain	Technology Coordinator, Dena ES
V Jamieson	Technology Coordinator, Teacher, Harrison EL

Table 7. Local District 6 Focus Group

Name	Position
Teri Walsh	Specialist, LD6
Janice Stearns	ITAF, LD6
Carol Askia	LD6
Kate Weber	Montara ES
Joe Reid	Resource Specialist, Roosevelt HS
Rudy Rizo	ITAF, ITD
Mike Albert	Teacher, South Gate Middle School
Youssef Elias	Technology Coordinator, South Gate MS
Devery Rodgers	Technology Lead, South East HS

Table 8. Local District 8 Focus Group

Name	Position
Kevin Baker	Local District 8 Elementary Director
Barbara Chanaiwa	Local District 8 Secondary Literacy Coordinator
Debra Evers Allen	Principal Broad Avenue School
Greg Naclerio	Chapman ES Parent Involvement
Linda Williams	Towne Avenue Teacher
Beverly Tabet	Curtiss Middle School Technology Lab Teacher
Mona Kaneshiro	Local District 8 Elementary Reading Advisor
John Lenhardt	Central ITAF Supporting Local District 8
Carol Takemoto	Local District 8 Elementary Science Specialist
Joanne Choe	Peary MS Math Coach
Mary Ann Cole Math	Teacher and Math Coach, Carson SH
Sue DiJulio	Teacher, Carson ES
Janet Hite	Principal, Chapman ES
Daveda Shapiro	Local District 8 Elementary Director
Dr. Gail Garrett	Principal, Peary MS
Bob Kawamoto	Assistant Principal, Peary MS

In early October 2005, a special digital town hall was conducted using videoconferencing from schools in eight local districts. During this Digital Town Hall, feedback regarding technology in LAUSD was solicited. The list below contains the participants of this Digital Town Hall. Their contributions are gratefully acknowledged:

STUDENT PANELISTS

Michelle Ramirez	Magnolia ES	Jackie Castillo	Hunt. Park HS
Byron Osorio	Leo Politi ES	Dominique N. Lloyd	Figueroa St. ES
Agustin Salvador	Magnolia ES	Daisy Flores	Gompers MS
Oscar Gutierrez	Los Angeles ES	Kiara Damian	Gompers MS
Kervin Fuentes	Berendo MS	Yoselin Quintana Barrera	Figueroa St. ES
Tiffany Fuentes	Berendo MS	Estefany Damian	109th St. ES
Johnny Oliva	Berendo MS	Richard Parker	Gompers MS
Gilberto Castellon	Belmont HS	Alexis Martinez	Mulholland MS
Mark Cervantes	Belmont HS	Ashley Lugo	Mulholland MS
Jackelyn Baustista	Loredo HS	Anthony Rudd	High Tech HS
Mitchell Avalos	Farmdale ES	Spencer Cox	Lorne Street ES
Adrian Cañez	El Sereno MS	Megan Cox	Cleveland HS
Brenda Cañez	Bravo HS	Ian Haraldson-Decker	Lorne Street ES
Lily Ruiz	Farmdale ES	Linda Chavez	Cleveland HS
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Román Salgado	El Sereno MS	Kelli Drumright	Northridge MS
Cheng Wei Zhu	El Sereno MS	Brenda Hernandez	
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Brian Félix	Gage MS	Ana Ontiveros	Peary MS
Isabel Aviles	San Miguel ES	Nicola Ponds	Peary MS
Noa Hernandez	Hunt. Park HS	Keshon Ponds	Peary MS
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Carlos Anthony Vasquez	Gage MS	Alma Gomez	Sutter MS
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STUDENTS

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Judith Fernández	El Sereno MS	Pablo Cuellar	
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Jesse Castillo	Gage MS	Jazmin Moore	Stagg Street ES
Curtis L. Thornton Jr.	Mann MS	Daniel Ramos	
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Maria Romero		Deula Ponds	
Naimonu James	Mann MS	Perry Ponds	Denker Ave ES
Lesire Molefi James	Mann MS	Andres Soto	
Uriel Martinez		Aundray Bradley	
Chryssy Miranda		Varaun Bradley	
Arlene Muñoz		Hosea Serrano	Tulsa Street
Lily Torres		Carlos Sanchez	Tulsa Street
		Manka Sandoval	

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Mayra Osorio	Leo Politi ES	Evelyn Lloyd	Figueroa St. ES
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Rosa Roches		Theresa Daviston	
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Juana Martinez	El Sereno MS	Irene Martinez	Mulholland MS
Eduardo Jimenez	El Sereno MS	Cecilia Catarain	
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Ninnette Cañez	El Sereno MS	Rosario Chavez	
Heather Ruiz	Farmdale ES	Claudia Gamino	
Annette Trujillo	T. S. King MS	Robin Bernstein	
Rosa Gomez	El Sereno MS	Flor Romero	
Hui Jin Zhu	El Sereno MS	Jim & Charlotte Cox	
Maridely González	El Sereno MS	Laura Hernandez	
Robin Moore	Quizdom	Guadalupe Hernandez	
Alan Amundsen	El Sereno MS	Gregoria Barron	
Maria Sandoval		Greg Naclenco	
Noe Sarabia	Gage MS	Sharon Rodriguez	
Alicia M. Peña		Francisco J. Soto	
Leticia Mendoza	Gage MS	Velta Bradley	
Maria E. Rivera		Maria Gomez	
Agripina Lopez		Anna Serrano	
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Teresa Alvarez	Gage MS	Peggy Dickey	

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Loret Landavazo	Gage MS	Patara Yontrarak	Gompers MS
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Mark Crosser	Gage MS	Karen Sachs	
Angela Beltran	Gage MS	Stephan Muniz	
Sonje Berg	Gage MS	Winona Kriegel	
Agnes Acieda Kumi	Gage MS	Carolyn Willie	
Sonia Arteaga	Gage MS	Joel Domine	Sutter MS
Simeen Muneer	Gage MS	Tamarin Walsh	Sutter MS

Joy Burton	Sutter MS	Josie Torres	Sutter MS
Maninder Gill	Sutter MS	Brian Siok	Sutter MS

OTHER STAFF AND COMMUNITY MEMBERS

Don Ginder	CELT	Henry Anker	ITAF
Joseph Buckner	Tech Coord.	Bob Doornbos	ITAF
Hal Helsley	Lead Coach	Hans Meckler	
Cliff Bender	ITAF	Joanna Orozco	
John Kwan	ITAF	Doug Taylor	ITAF
Renee Barron	Bilingual Coord.	Russ Swanson	ITAF
Elías de la Torre	AP	Pete C. Salaza	AP
Fred von Dohlen	Lead Coach	Judi Greenberg	
John Rivera	ITAF	Deborah Wiltz	Principal
Martha Valencia	ITAF	Albert Alfasso	Tech Coord.
Lawrence Lun		Stephen L. Bartlett	
Susan J. Goldman	Librarian	Cornelia Romey	
Carmen Morgana	Comm. Rep.	Richard Feay	Lead Coach
Chrystal Maggiore	Lead Coach	Bob Sachs	ITAF
Janice Stearns	ITAF	Olivia Fields	
Rudy Rizo	ITAF	Lauri Willian	
Edgar Rodriguez	Science Coach	Keith Nelson	
Jules Benne	Math Coach	Maribel Haro	
Diane Kuntacle	Tech Coordinator	Getsemani Haro	
David O. Calderón	Math Specialist	Ernesto Haro	
Nora Arroyo	AP	Shirley Gideon	Principal
Jack Bloom	Lead Coach	Bob Kawamoto	AP
Luis Castillo	ITAF	Jeff Smith	Lead Coach
Preston Willians	ITAF	David Kotkosky	ITAF
Jean Sais	ITAF	John Lenhardt	ITAF
Roni Parker		Paul Guenthner	ITAF
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Janice Yorksmith	AP	Beverley Royster	Specialist
Sean Gaston	AP	Joe Oliver	Director, Inst. Tech
Jennie Garnes		Themistocles Sparangis	Chief Tech Dir.
Paul Burns	Lead Coach		

Statement of Intent

The Los Angeles Unified School District will make every effort to accomplish the goals set forth in this plan. This plan and its goals are subject to the District's annual budget and determinations made by the Board and Superintendent on appropriate funding distribution. On an annual basis, LAUSD staff will review progress and make adjustments accordingly based on budgetary restrictions, policy decisions, and any other unforeseen factors. Should these budgeting forecasts change at any time through budget restrictions, revised policy, changes in the Board's or the Superintendent's priorities, changed circumstances, or other similar factors, the goals identified in this plan, and/or their implementation will be reviewed, modified, deleted and/or supplemented, as appropriate.

1.0 Introduction

> *"The teachers, administrators, and staff of the Los Angeles Unified School District (LAUSD) believe in the equal worth and dignity of all students and are committed to educate all students to their maximum potential."*
>
> —LAUSD Mission Statement

To understand the education system in Los Angeles, one must first grasp the nature of the city it serves. This section describes the demographics of the city of Los Angeles and the Los Angeles Unified School District and the duration of this Education Technology Plan.

1.1 District Profile

Los Angeles, California is the second most populous city in the United States with an estimated 2004 population of 3.9 million. It is the principal city of a metropolitan region stretching from San Buenaventura to the north, San Clemente to the south, and San Bernardino to the east.

The city's 470 square miles contain 11.5% of the area and 38.7% of the population of the County of Los Angeles. Los Angeles County is a top ranked county in manufacturing in such diverse items as aircraft, aircraft equipment, aluminum, dental equipment, games and toys, gas transmissions and distribution equipment, guided missiles, space vehicles and propulsion units, and women's apparel. The ports of Los Angeles and Long Beach combined rank first in the nation in volume. Los Angeles is home to the film, television, and recording industries, as well as important cultural facilities, and serves as a principal global cultural center. In 2004, the average unemployment rate of the residential labor force was 6.6% (higher than the average of 6.2% for the state of California or 5.5% in the U.S).

The Los Angeles Unified School District (LAUSD) administers public instruction for grades K-12, adult, and occupational schools in the city and all or significant portions of a number of smaller neighboring cities and unincorporated territory. LAUSD encompasses approximately 710 square miles and is governed by a seven-member Board of Education, elected by voters in eight (8) local districts to serve alternating four-year terms.

The District's total enrollment (November, 2005), including early education centers and adult school was 877,010.

Source: *2005 City of Los Angeles Economic & Demographic Information* (http://www.lacity.org/cao/econdemo.htm)

- 727,000 K-12 students (as of Jan 2006) attend 858 schools and centers (K-12), plus 194 "Other Schools and Centers" that include Community Adult and Early Education Centers and 79 Independent K-12 Charter Schools and Centers.
- Student racial/ethnic composition is largely Hispanic (72.8%), Black (11.6%), and White (9.0%) with Asian (3.8%), Filipino (2.2%), and other (0.6%).

- 315,439 English Learners (EL) (2005-06) speak mostly Spanish as a first language, while others speak Armenian, Cantonese, Korean, Filipino, Russian, Vietnamese, and approximately 73 others as their primary language.
- LAUSD has 37,026 regular teachers (including K-12, adult and early education teachers), 5,234 other certified support personnel, and 2,825 certified administrators.

Teachers' salaries constitute 40% of the annual budget while administrators' salaries are 5%, excluding employee benefits.

1.2 Plan Duration

The 2006-2009 LAUSD Education Technology Plan begins on July 1, 2006 and concludes on June 30, 2009. This plan guides the District's integration and procurement of technology resources and systems specifically for the next three years, with implementation projections into years four and five. Many of the large initiatives described in this Plan will take more than three years to accomplish. Hence, the implementation plans defined in the Plan reflect a five-year timeline for staging and phasing whereas three years are reflected in the budget and funding section. Larger initiatives will require continued funding to manage and implement beyond the proposed three-year budget cycle.

1.3 Superintendent's Strategic Goals

The *Los Angeles Unified School District Superintendent's Strategic Plan* outlines a plan for "changing the face of education" in the District and outlines sixteen goals whose outcomes will collectively work towards the ultimate goal of "preparing our students to succeed as members of our global community and workforce.[1]" The goals in the Superintendent's plan encompass all aspects of District life and all members of the District community. The curricular and professional development goals in this Education Technology Plan align to the Superintendent's goals and support the advancement of quality education in the District. Table 1.1 lists the Strategic Goals as listed in the *Superintendent's Strategic Plan and indicates whether there is a direct(D) or indirect (I) alignment to the* curriculum and professional development goals in this *Education Technology Plan*.

[1] Romer, R. (2002). *Los Angeles Unified School District Superintendent's Strategic Plan*.

Table 1. Superintendent's Strategic Goals

Superintendent's Strategic Goal	Curriculum	Prof Dev
Goal #1 Literacy All students will achieve grade level standards for literacy to enable them to be globally competitive in the 21st century.	D	
Goal #2 Mathematics All students will achieve grade level standards for mathematics to enable them to be globally competitive in the 21st century.	D	
Goal #3 Educator Quality Every student will be taught by a highly qualified teacher and all para-educators shall meet rigorous standards. All principals will have the skills, and the time, to be instructional leaders.		D
Goal #4 Professional Development Professional development will ensure that all classroom instruction reflects our beliefs that effort counts and that all students can learn. Instruction will be characterized by clear expectations and academic rigor focused on grade level standards.	D	D
Goal #5 Classroom Space All students will have an opportunity to attend a "modern" two-semester school in their neighborhood.	I	
Goal #6 Efficiency Every tax dollar will be used responsibly and accountably in support of the education of our children.	I	I
Goal #7 English Learners and Standard English Language Learners English Learners and Standard English Language Learners will acquire the language skills they need to be successful in demonstrating mastery of grade level content standards.	D	
Goal #8 Special Education All students, including students with disabilities (according to their Individualized Education Plan goals) meet and exceed District/State content performance standards. All vestiges of a hostile environment for students with disabilities will be eliminated.	D	D
Goal #9 Classroom Technology All teachers will be proficient in utilizing technology in the classroom to support and enhance instruction and develop student skills to enable them to be globally competitive in the information age.	D	D
Goal #10 Early Childhood Education District-provided early childhood education will result in attendees with the pre-literacy and math skills to be successful in achieving grade level standards in kindergarten.	D	D
Goal #11 Magnet and Academy Programs All students and communities will have access to specialized curriculum through programs such as magnets or academies, should the family and the instructional staff believe it would provide an appropriate educational setting.	D	D

Superintendent's Strategic Goal	Curriculum	Prof Dev
Goal #12 After School Programs Every child and youth should have a safe place to be in the presence of a responsible, caring adult with engaging activities that support achievement and promote social, emotional and physical development beyond the regular school day.	D	D
Goal #13 Parent Involvement All parents will be full partners in the education of their children.	D	D
Goal #14 Campus Safety All students have a right to attend campuses that are safe, secure and conducive to learning.	I	I
Goal #15 Student Health and Human Services All students will have optimal states of social, mental, emotional and physical health to enable them to fully engage in the learning process.	I	I
Goal #16 Arts Education All students, K-12, will participate in a comprehensive, integrated standards-based arts education instructional program in dance, music, theatre and visual arts.	D	D

2.0 Stakeholders

> *"If we take time to reflect together on who we are and who we choose to become, we will be led to territory where change originates."*
>
> —Margaret Wheatley, Myron Kellner-Rogers

The Los Angeles Unified School District (LAUSD) 2006 Education Technology Plan reflects all aspects of the Superintendent's strategic goals and system-wide initiatives. The *2006 Education Technology Plan* further defines the technology strategies to use in conjunction with the District's educational programs.

This plan will assist District staff in identifying new ways to help schools provide every student with the most appropriate learning technology resources and contemporary learning opportunities. It will support school board leadership in making timely, informed, and student-centered decisions. The outcomes of the plan will underscore the major benefits of technology use for students, parents, and teachers as well as document the potential impact of 21st Century technology skills on economic development.

The overall objective for the plan preparation was to develop recommendations and strategies for using technology to improve student learning and staff productivity in a cost-effective manner. The planning process was divided into three stages. The first stage concentrated on information gathering using focus groups, key stakeholder interviews, document reviews, and other strategies. The second stage addressed key findings derived from the information gathered. The final stage of the process was the development of this three-year Education Technology Plan that offers guidelines in the areas of Curriculum, Professional Development, Hardware and Software Infrastructure, Tech Support, Funding and Budget, and Monitoring and Evaluation as required by the California Department of Education and outlined in the state's *District Technology Use Planning* document.

2.1 Planning Methodology

Overview

A methodological approach that combines both qualitative and quantitative elements was used. By synthesizing the two elements, an assessment of the information technology needs in LAUSD using quantitative measures was designed to gain a generalized understanding of information technology across the District and qualitative methods that included conducting focus-group sessions, interviewing key stakeholders, and reviewing LAUSD documents. These components serve to provide an outline of the information technology needs of specific individuals, groups, schools, and departments. The combination of these methodologies provided an overview of information technology needs while offering an understanding of the diversity of individual voices within the District.

Qualitative Methods

Qualitative data were gathered using a variety of approaches listed below:

Key Stakeholder Interviews — In-depth interviews were conducted with leaders in the LAUSD education community, AALA, UTLA, and one board member. Interviewees responsible for areas such as District administration, human resources, professional development, curriculum and assessment, school improvement, school board, management, and technology support services responded to questions as they related to their specific roles within the District. These interviews allowed further identification and understanding of each individual's opinion regarding the implementation and use of technology.

Focus Groups — Seven focus group sessions were conducted, including an Instructional Technology Applications Facilitator (ITAF) focus group, a director level focus group, and five regional focus groups, that allowed members of the school community to offer their views on numerous issues and topics. In each of the sessions, 12 to 15 educators and school community members gathered to provide perspectives on the current status of technology and future objectives based upon their own unique experiences. In addition, a Digital Town Hall was conducted using the District's videoconferencing equipment so that groups representing all eight regions could participate in a discussion about the District's vision for technology. The Digital Town Hall was accessible over the Internet and call-in lines were provided.

This extensive collection of qualitative data offered valuable information from a wide sampling of both individuals and groups of individuals who have a stake in Los Angeles Unified School District's technology decision making. Although the quantitative data obtained from audit reports and other sources uncover patterns that initiate the formulation of recommendations, the extensive qualitative data provide a critical perspective, ensuring that forthcoming recommendations and implementation approaches are both applicable and useful to all.

Quantitative Methods

The quantitative portion of the audit consisted primarily of document and inventory review, analysis of previous planning documents, and results from recent District surveys.

Document and Inventory Review – Numerous existing documents were obtained from the District to provide recent background on the availability and use of technology. These documents were reviewed to provide additional data as well as clarification on current status.

Upon collection, an analysis of quantitative data resulted in the generation of an extensive set of descriptive data.

2.2 Organizational Structure for the Project

The following organizational design was developed to conduct this study.

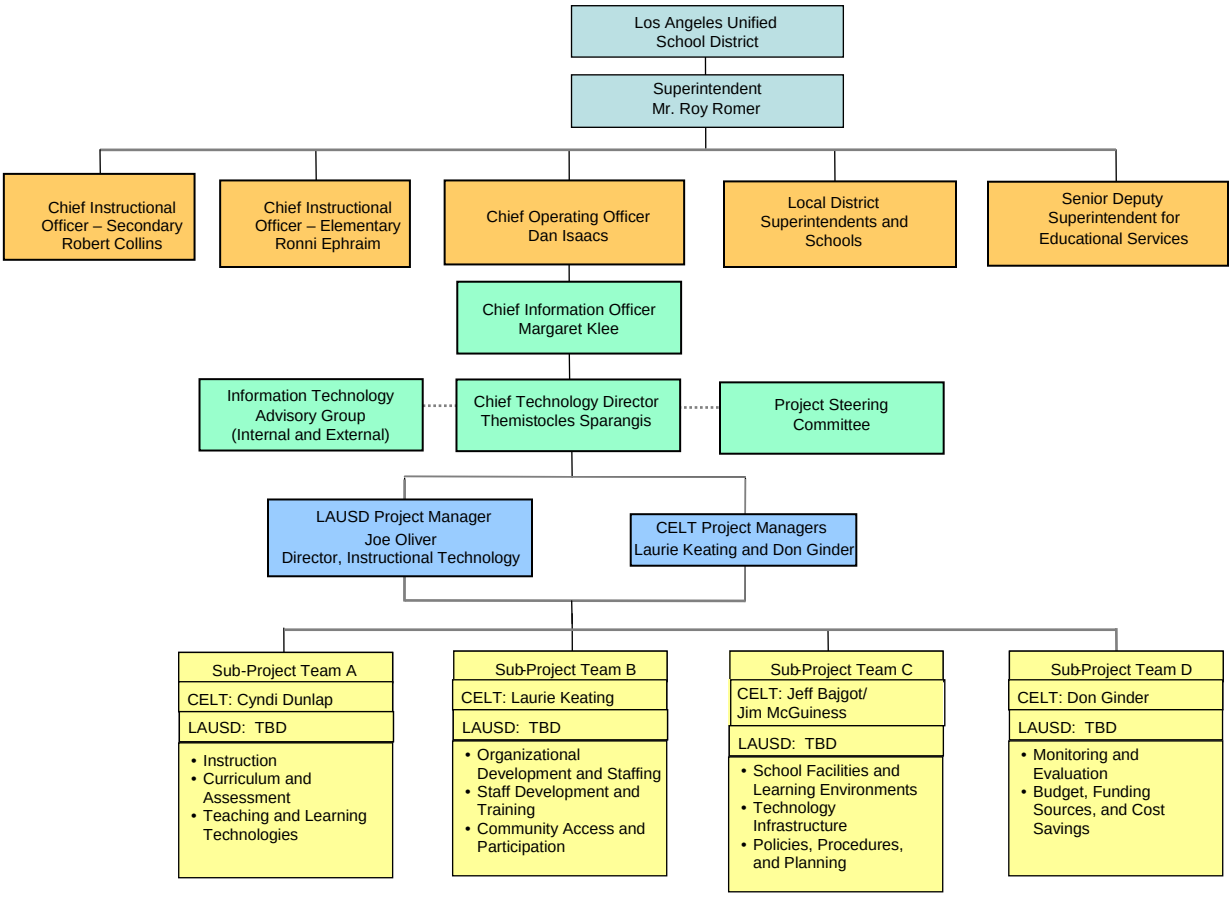


Figure 2: Educational Technology Plan Organizational Structure

3.0 Curriculum

> *"Today's students need to master more complex skills than any previous generation; with more demanding requirements for college and careers, we must work together to ensure that our students are well equipped with the academic skills and civic values in order to be successful."*
>
> —Roy Romer, LAUSD Superintendent

To support the District in reaching its strategic goals that all students achieve grade-level performance in literacy and mathematics, effective integration of best practice technology initiatives must take place in all schools across the curriculum. The many recommendations included in this technology plan provide 1) increased access to technology learning resources for all students, 2) increased technical and integration support for teachers, 3) improved access to information for decision-makers, and 4) professional/staff development for all audiences. Combined, these enhancements within LAUSD schools are likely to decrease the achievement gap between different groups of students.

The **Curriculum** section of this Education Technology Plan focuses on the role of technology resources to enhance the delivery of curriculum content and support the assessment of student achievement. The integration of scientifically researched, best-practice teaching and learning technologies enables students and teachers to learn in ways not available without these resources. To maximize the potential of these resources, students require technology proficiencies as defined in the National Education Technology Standards for Students (NETS•S) and Information and Communication Technology (ICT) standards. The introduction, practice, and mastery of these standards will be woven throughout the grade levels and across the disciplines. Information literacy (research) has become the fourth "R" in the 21st century.

Technology resources in LAUSD are deployed to assist teachers with the development and delivery of assessments, the organization and analysis of assessment data, and the delivery of instruction that matches the learning needs of aggregated and disaggregated groups of learners. Components of instructional management are underway that will link content/standards with assessments, student academic achievement, and teaching and learning resources.

3.1 Current Status

A component of updating the LAUSD 2006-2009 Education Technology Plan was a comprehensive needs analysis in the fall of 2005. The complete results of this needs analysis comprises the Key Findings and Recommendations Report (January 2006), which is located on the LAUSD Website. The information included in this Current Status is a summary of the findings that resulted from key stakeholder interviews, focus groups, and critical LAUSD document review.

3.1.1 Access to Technology Tools

Most of the students, teachers, and administrators have some access to technology tools and digital content at nearly every school within LAUSD. This in itself is an accomplishment of significant proportion in a district of this size and breadth. The District has spent the last six years building this capacity in

accordance to the goals and strategies outlined in their previous two technology plans. This accomplishment represents a significant investment in District, state, and federal funds and a number of well-coordinated implementation efforts. It is the degree and quality of access that still varies from school to school across the District. Challenges with respect to the Digital Divide remain and continue to be addressed by this Education Technology Plan. Access is determined by three primary factors: quality, quantity, and configuration. These three factors are addressed with respect to their impact on access to technology tools by students, teachers, and administrators.

Quality of Technology Resources in LAUSD

Age is the primary determinant when assessing the quality of technology resources, especially computers, servers, and network infrastructure, somewhat less so with software and peripheral devices. In an industry where Moore's law prevails, "every eighteen months, the cost drops by nearly half and the capacity increases two-fold," it does not take long for computers to become obsolete. LAUSD is currently in need of upgrading and/or replacing many aging computers (less than 128K RAM memory) that were purchased five years ago. Planning for and deploying a refresh cycle for computers within the District is one of the critical recommendations resulting from the recent needs analysis process.

An upgrade of the network infrastructure is nearly complete, the results of Measure K and Measure R, and recently passed (November 2005) Measure Y. Some servers at the school level are in need of an upgrade, as is the internal wiring in a few schools. These schools will be addressed in Measure Y initiatives. Most schools are connected to the District network with at least one T1 circuit, providing quality bandwidth capacity. Classrooms with Internet connectivity rose from 1,200 in 2000 to 30,766, representing an estimated 90% of the classrooms. User accounts have increased over 20-fold since 2000.

Full implementation of the new Business Tools for Schools (BTS), Centralized Library Automation System (CLAS), Integrated Student Information System (ISIS), Decision Support System (DSS), and Welligent system to prepare Individualized Education Programs (IEP) require that all teachers and administrators have on-demand access to modern computers with maximum browser capacity. Specifically, the implementation of ISIS and BTS is highlighting the need for additional computer resources at the school level. This includes network access, end user workstations, and specific browser capacity (Safari or Explorer). Milestones and benchmarks are reflected in the sections that follow.

Quantity of Technology Resources in LAUSD

Since 2000, the number of computers in the District has increased from 70,000 to 185,000. Using a variety of funding sources, LAUSD has more than doubled its computing capacity in the past five years, but this increase is still not sufficient to keep up with demand at either the administrative or instructional environments. Many of the original 70,000 computers purchased before 2000 have limited functionality and are nearing "retirement." The proposed refresh

cycle, based on the Total Cost of Ownership model (TCO) will assist the District with achieving and maintaining over time a critical mass of computing resources as an on-going, consistently funded replacement process.

As a component of the implementation of the CLAS library system an analysis and update of workstations was conducted within all school libraries. Any library without 256 MB main memory in the master library station was provided with a new workstation (512 MB main memory/40 GB harddrive/3 GHz processor). This upgrade impacted approximately 50% of the District libraries, primarily at the elementary schools.

To achieve the goals and obtain the outcomes reflected in this Education Technology Plan, a refresh of computing systems (likely to include a combination of desktops, and laptops) will be necessary.

Configuration of Technology Resources in LAUSD

The configuration of available technology resources impacts the accessibility of these resources. For years the "in the classroom" versus "in a computer lab" debate has raged. The deployment of mobile labs (laptop carts) containing classroom sets of wireless, laptop computers has essentially won the either/or "classroom versus lab" debate. The current strategy of creating a 6 to 1 ratio of students to computer, located primarily in classrooms, does not appear to be achieving desired levels of integration that LAUSD leadership envisions. Target ratios, which will include mobile labs within each school and will be defined as the number of wireless mobile labs per student population within each school, are being considered to replace the current 6 to 1 ratio of students to computer.

Most classrooms in LAUSD have at least 3 or 4 computers for instructional use. Many schools have two 20-unit laptop carts to supplement computers in the classroom. The District has installed wireless access points in many areas to support these carts. There is interest in continuing to move computers to the classroom and out of lab configurations. This transition will require the expansion of wireless networks coverage in most schools.

Although future emphasis will be on the deployment of computers into the regular classroom, computer labs for courses where computers are a required and integral component of the course work, such as graphic design, desktop publishing, Web design and development, CAD/CAM, pre-engineering, business education, and programming courses will still be included in configuration strategies throughout LAUSD.

District leadership and LAUSD educators acknowledge the value of on-demand access to technology resources within the school environment. There is interest in making computing devices (calculators/handheld computers) and/or laptops available for check out for students without these resources at home. Some LAUSD schools are experimenting with handheld computers, laptops, and other portable computing devices, but widespread implementation has not yet been achieved.

Access to Technology Resources Beyond the School Day in LAUSD

Schools exist in LAUSD where more than 50% of the student population does not have a computer or access to the Internet from home beyond the school day. These students have not gained the technology skills that their peers with home access have achieved. Most schools do not have sufficient technology resources or support staff to provide "take-home" computers for this student population. In some cases, the schools whose students have the least home computer/Internet access are the schools that have the greatest in-school access. This Internet access has been leveraged in many cases by intervention and after-school programs at these schools. Most neighborhoods in LAUSD have computers with Internet access for public usage at community centers or the public libraries.

School Board leadership does not view a one-to-one laptop initiative where the District provides every student with a laptop to take home daily as feasible given the size of the District. However, it acknowledges the need for all students to have access to digital resources providing connectivity to the Internet and thus to the school and its multiple resources. Leveling this playing field presents challenges, but also creates significant opportunities within LAUSD. A set of laptops that can be checked out by students is a strategy that was mentioned to address this "access inequity."

LAUSD currently offers an extended day program called "Extended Learning Community" that includes tutoring in 30-hour units for low-achieving middle school students using Concept 6. The Literacy, Arts, Culture, Education, and Recreation program (LACER) and Beyond the Bell are two other programs that extend the school's resources and computer lab to students before and after traditional school hours.

District leadership would like to see at each high school a "Parent Center" that is equipped with computers, printers, and fax machines. These centers would also offer computer classes (productivity and communication applications such as email, Internet browsing, word processing, spreadsheets, desktop publishing) for parents, including classes on Saturdays. Parents are requesting these computer classes; some classes are currently offered. LAUSD envisions expanding the adult education program with technology training for parents that would include advice on securing technology and instructional resources for the home and Internet safety for students.

3.1.2 Current Use of Hardware and Software

The degree of technology and curriculum integration at the classroom level varies widely across LAUSD. The use of word processing for writing; the Internet for research; spreadsheets for collection, manipulation, and analysis of data; graphic organizers for planning and project development; and multimedia tools for creating presentations, songs, and movies are found across this vast district. The data in the following table is extracted from the most recent EdTech Profile report for LAUSD in Standard 9 (Using Technology in the Classroom) and Standard 16 (Using Technology to Support Student Learning). Summarily, this data demonstrates that less than one third of LAUSD teachers

are currently using technology-enhanced activities that align with the curriculum and less than one-fifth are using technology for record-keeping or using student assessment data to inform instruction.

	Number of Responses			
	None	**Low**	**Medium**	**High**
Management and alignment of technological resources with lesson content	2001	4648	2445	966
Knowledge of student level of technology use and academic accomplishment	3323	4237	1730	756
Record Management with technology	5028	1427	2182	1402
Use of educational technological resources to address student needs	3129	4250	1316	1302
Use of assessment data	3942	3680	1682	685
Development of Information literacy skills	3349	3684	2059	818

Schools with a dedicated technology integrations support person have advanced further in weaving technology skills and technology-enriched activities into daily instruction to increase student achievement. The lack of a defined scope and sequence of technology skills to be introduced, practiced, and mastered at specific grade levels and within suggested subject areas also contributes to the lack of consistency across the District with respect to the integration of technology. LAUSD instructional guides currently embed many required technology skills across the disciplines at various grades, but these skills are not currently monitored or tracked for mastery. A summary of the various uses of technology resources within LAUSD in the area of curriculum follows in the areas of:

- Technology in Support of Teaching and Learning
- Technology in Support of School and Classroom Management
- Technology in Support of Assessment
- Technology in Support of Professional Development
- Technology in Support of Communication

These summaries present just a small snapshot of the many technology-based resources used to support exemplary activities, programs, and practices occurring on a daily basis in this district of 727,000 K-12 students attending 858 schools and centers in grades K-12.

Technology in Support of Teaching and Learning

The Microsoft Office productivity suite is one of the few applications that is included as a part of the District-wide software load for all purchases of LAUSD computers. This software package provides at a minimum word processing,

spreadsheet, and presentation applications for instructional use. A reduced pricing structure exists for Inspiration, a graphic organizer application that is used across multiple content areas and grade levels.

Math programs such as Compass Learning, Bridge to Algebra, Kaplan Essential Skills Program, and Cognitive Tutor are used as intervention strategies to support the reading program and the writing process for middle and high school students. Math Online by Carnegie Learning and Vantage Writing are being introduced at the secondary level. Vantage Writing is currently in four of the eight local districts. The Waterford Early Learning System is being used in grades K, 1, & 2 to support English language development. Waterford is implemented in all Title 1 schools (90% of elementary schools) as a supplement to the Open Court reading system. Read 180 is used in middle and high schools for students who are reading below the 3rd grade level.

Intellitools, a software toolset for K-8 curriculum support designed to boost the achievement of lower-performing students (struggling students, English language learners, and students with special needs), is being introduced in the fall of 2005. High Point is also used with middle school ELL students. ELL students have shown significant progress with the Waterford Early Reading Program.

A wide array of peripheral devices are installed within the District including printers (color, black and white, standalone, networked, inkjet, and laser), projection devices (projectors, document cameras, digital white boards), video capture devices (digital cameras, digital video cameras, scanners), calculators (numeric, scientific, graphing), and digital probes, sensors, meters, and microscopes are used in many schools around the District.

The Los Angeles Virtual Academy (LAVA) offers some online courses and expects to expand its offerings to include both science and math courses. Many students are also taking online Advanced Placement (AP) courses. Online education supports independent learning, greater diversity of course offerings, and the ability to more effectively individualize learning for all students.

Videoconferencing is available at some LAUSD facilities, but is currently underutilized. The District would like to see this form of technology used for meetings and distance education for both students and teacher professional development. Other emerging technology topics of interest within the District include RSS technologies (for example, podcasting) and instruction through digital gaming.

Career kiosks with career software and college reference materials have recently been placed in many middle school and high school career centers. The goal is to establish these career kiosks in all high schools so that these resources would be available to community members as well as students.

Technology in Support of School and Classroom Management

Online progress reports (OPR) and elementary report cards are currently generated with the existing legacy student information system and are being implemented in the new ISIS system. As this component of ISIS is fully

implemented, teachers will be able to access and manage grades from their home computers. Some teachers are currently using various stand-alone grade book programs for grade reporting.

ISIS, the new student information system, is being implemented systematically throughout the District. ISIS includes demographic data, health, grades, and discipline records, as well as the capacity for online, period-by-period attendance.

Task Stream is a curriculum development tool that was purchased with Enhancing Education Through Technology (EETT) funds and is being used in the EETT grant schools. LAUSD leadership would like to eventually expand or replace this tool with a centralized curriculum development and learning management system. Neither EduSoft nor the DSS (Decision Support System) currently being implemented will provide teachers with access to and links between content standards, student assessment data, learning resources, and test banks for on-going periodic assessments. A comprehensive curriculum development and learning management (CDLM) system would allow LAUSD educators' access to all the resources needed to inform instruction on a daily-basis for each learner. This CDLM system is included in Implementation Plan C-1.3.

The California Learning Resource Network (CLRN) is a Web-based resource used by teachers to access standards-aligned software, video, and Internet learning resources. Hundreds of Electronic Learning Resources (ELRs) that have been identified, reviewed, and organized are available in a searchable database. Web Information Links (WILs) enable searching and/or browsing of hundreds of free primary, secondary, and reference resources.

Technology in Support of Assessment

The Open Court reading program assessment modules used at the elementary level generate Student Online Assessment Reports (SOAR) for teacher use. LAUSD leadership would like to see the SOAR reports integrated into the ISIS system.

MY Access!, by Vantage Learning, is a Web-based writing instructional tool that holistically scores writing samples, and is used by some secondary schools in LAUSD, primarily in one local region.

Technology in Support of Professional Development

The Learning Zone is a user-friendly and widely used online registration program that enables teachers, administrators, and paraprofessionals to identify and register for professional development available within LAUSD.

UPDATE (Uniting Professional Development and Technology for Education) provides face-to-face and online training for LAUSD teachers in basic technology skills and curriculum integration. UPDATE will be providing some of the training for the new IMaST middle school grant for math, science, and technology.

LAUSD has recently conducted an analysis of their Messaging and Communication Needs and Solutions. A presentation by Megan Klee, CIO, to the Augmented Audit, Business, and Technology Committee in February of 2006 noted the following communication requirements that are not currently being met to the District's satisfaction:

- Emergency notification of safety or health issues
- Parental notification of student absence/other notices
- Public notification of new or enhanced district services
- Staff need to receive calls and messages from parents and students
- Communication of operational information to affected staff

A diverse collection of site-based systems is currently in use to meet some of these communication requirements. Many of these requirements are currently unmet. For example, only 39% of K-12 schools have absentee reporting equipment and only 13% of K-12 schools have voice messaging systems. Schools have few phone lines to make and receive calls, with elementary schools averaging 3-7 lines, middle schools averaging 10-13 lines, and high schools averaging 13-25 lines.

LAUSD leadership is in the process of developing a comprehensive communication system that will meet the needs of all audiences within the District. This system may be fully distributed, fully centralized, outsourced, and/or a hybrid combining multiple solutions. An analysis of benefits, challenges, and estimated cost of each prototype is included in the process currently underway. Upon implementation of the selected solution, the greater LAUSD school community seeks to realize improved communication across the District.

3.2 District Curricular Goals and Academic Content

The District Superintendent, Roy Romer, outlines goals for LAUSD in his Superintendent's Strategic Plan. These sixteen goals cover all areas of education from basic academics for all students to magnet and special programs for various populations, from educator quality and professional development to physical plant and campus security, from classroom technology to budget efficiency, from parent involvement to early childhood education and after school programs. The curricular goals that are defined in this technology plan align directly or indirectly to the Superintendent's strategic goals by providing specific plans and objectives for promoting them. A list of related goals from the *Superintendent's Strategic Plan* is included in parentheses with each goal in this section.

Two recent academic initiatives in the District with the potential to increase student achievement include 1) "Putting Students First," a three-part plan for restructuring secondary school instruction and 2) "Closing the Achievement Gap," an action plan for a culturally relevant education that benefits all students. Putting Students First is designed to improve academic achievement of middle and high school students and proposes to provide secondary students with:

- a personalized educational experience
- an assessment of individual student progress every 6 weeks

- a return to a consistent 180-day school calendar wherever possible with expanded learning opportunities available during breaks

This plan is based on the success of a similar plan for restructuring elementary school instruction that has dramatically improved elementary student achievement.

The Blueprint for the Implementation of the Action Plan for a Culturally Relevant Education for African-American Students and all Other Students (Closing the Achievement Gap) covers:

- increasing student learning through culturally relevant/responsive instruction
- college-prep and academic English mastery for Standard English Learners
- preparing the highest quality teachers through professional development
- engaging parents and the community
- ensuring District planning, monitoring and accountability

The blueprint, currently administered by LAUSD Instructional Support Services, was produced in 2002 by a Steering Committee comprised of District staff, representatives from the community, and educational organizations and after involvement of national experts on forging change in educational outcomes for African American students.

3.2.1 Summary

Each school's instructional program requires implementation of District guidelines and courses of study that are aligned with State-adopted frameworks and model curriculum guides for all grade levels and subject areas. The State of California periodically revises and adopts academic content standards. Through the California Standardized Testing and Reporting (STAR) program, students in grades 2-11 are tested annually in various subject areas in order to determine how well students are doing in relation to the state content standards. Currently, the STAR program includes California Standards Tests (CST) and a norm-referenced test (NRT). The CST tests English-language arts and mathematics in grades 2-11, science in grades 5, 9, 10, and 11, and history/social science in grades 8, 10, and 11. The NRT tests reading, language, and mathematics in grades 2-11, spelling in grades 2-8, and science in grades 9-11.

According to the *Academic Success Fact Sheet —Test Scores*, "LAUSD students demonstrated their ability to succeed by scoring above the national average in many areas on the 2001-2002 Stanford 9 test in 2nd through 11th grade. To achieve these results, LAUSD has emphasized a cohesive approach to teaching reading and math that aligns with State standards. High quality training is provided for all teachers and principals, which includes ongoing coaching and support."

After analyzing the STAR data on the California Department of Education Website, one can see areas of need:

- While still below the State average, the District has made gradual increases in ELA and Mathematics scores, improving from 24.9% at or above the proficient level in English Language Arts in 2003 to 25.5% in 2004 and 29.2% in 2005. Similar improvements are reported in Mathematics, from 29.2% at or above the proficient level in 2003 to 31.3% in 2004 and 35.1% in 2005.
- Among LAUSD's different ethic groups, the Asian, Filipino, and White students far surpass the percent of State students who are meeting or exceeding the state content standards.
- While the Academic Performance Index increased by 16 points, the District failed to achieve its Adequate Yearly Progress goals in either mathematics or English. Groups that significantly underperformed included English Language Learners (ELL) and Students with Disabilities (SD). Also failing to meet AYP was the Graduation Rate, which decreased.

The overall objective for the data gathering and analysis phase of the *2006 Education Technology Plan* was to develop recommendations and strategies for using technology to improve student learning and staff productivity in a cost-effective manner. The resulting Key Findings and Recommendations Report (January 2006) identifies the benchmarks of the *LAUSD Instructional Technology Plan 2002-2005* that are incomplete. The *2006 Key Findings and Recommendations Report* covers the areas of: Curriculum; Human Resource Management and Staff Development; Technology Infrastructure, and Hardware, Technical Support and Software; Funding and Budget; and Monitoring and Evaluation.

3.2.2 List of Reports and Documents

In order to summarize the preceding information about LAUSD, several key reports and documents were obtained. They include the following:

- LAUSD Superintendent's Strategic Plan
- LAUSD District Mathematics Program Instructional Guides, Elementary
- LAUSD English-Language Arts Guidelines for Instruction
- LAUSD Science Instructional Guide, Grades 6, 7, 8
- LAUSD History/Social Science, Guidelines for Instruction, Secondary
- California Standardized Testing and Reporting (STAR)
- 2005 City of Los Angeles Economic & Demographic Information
- LA City/County Statistics and Facts
- LAUSD Fact Sheet: Fingertip Facts 2005-2006
- LAUSD 2004 Accountability Report Card (ARC) which includes the STAR results
- LAUSD Fact Sheet: Academic Success — Test Scores
- LAUSD Fact Sheet: Restructuring Secondary Education

- LAUSD Instructional Support Services "Closing the Achievement Gap," updated October 2004
- *LAUSD 1999 Instructional Technology Plan*
- *LAUSD 2002 Instructional Technology Plan Update*
- *LAUSD 2006 Education Technology Plan: Key Findings and Recommendations,* January 2006
- Miami-Dade County Public Schools *Best Practices and Implementation Guidelines,* October 2005

3.3 Curriculum Goals and Benchmarks

The following **curriculum** goals result from the comprehensive needs analysis conducted during preliminary stages in the development of the *2006 Education Technology Plan.* The goals from the *LAUSD Superintendent's Strategic Plan are listed in parentheses after each of the technology-related curriculum goals.*

3.3.1 Goal C-1: Improving Teaching and Learning

LAUSD will align and deploy the resources needed for the integration of technology tools, including digital resources, to support attainment of state content standards for all student populations. (Supports Superintendent's Strategic Plan Goals 1, 2, 5, 7, 8, 9, 10, 11, 15, and 16).

Benchmarks	Indicators of Success	Evaluation Schedules
• A Scope and Sequence for the integration of technology tools and digital resources to support content standards will be defined for grades K-12 within LAUSD by December 2006.	The Scope and Sequence is endorsed by the School Board and the process to advance at the school level is defined.	ITD presents to Board for approval/endorsement. ITD updates Scope and Sequence annually.
• 50% of LAUSD teachers embrace the technology integration scope and sequence and will incorporate it into instructional practice by June 2007.	Classroom observations of teachers will indicate effective integration skills according to the target percentages outlined for each year. EdTech Profile results will demonstrate competency at the proficient level.	Principals evaluate teachers' technology integration skills according to existing Stull evaluation form on current evaluation cycle. EdTech Profile is currently administered every eighteen months. The recommendation is to shorten that period to every twelve months.
• 75% of LAUSD teachers embrace the technology integration Scope and Sequence and will incorporate it into instructional practice by June 2008.		
• 95% of LAUSD teachers embrace technology integration Scope and Sequence and will incorporate it into instructional practice by June 2009.	Refer to Indicators of Success above.	Refer to Evaluation Schedules above.

3.3.2 Goal C-2: Technology and Information Literacy Skills

By the end of grade 8, LAUSD students will attain critical technology and information literacy skills that allow them to further their education and become independent learners. (Supports Superintendent's Strategic Plan Goals 1, 2, 7, 8, and 9.)

Benchmarks	Indicators of Success	Evaluation Schedules
• A multifaceted strategy (incorporating content area teachers, library media staff, specialists, and commercially available products) to support the attainment of Information and Communication Technology (ICT) literacy skills is introduced in grades 4-8 by December 2006.	ITC literacy skills are endorsed by the School Board and the process to advance at the school level is defined.	ITD presents to Board for approval/endorsement. ITD reviews Scope and Sequence annually and updates as needed.
• 35% of all grade 8 students promote with core technology and information literacy skills by June 2007.	Teacher observations indicate effective application of technology skills in daily practice. Selected ITC assessment strategy (test, portfolio, EdTech Profile) demonstrate growth at the targeted percents.	Teachers observe students throughout the school year. Formal assessment of 8th grade students is conducted annually.
• 65% of all grade 8 students promote with core technology and information literacy skills by June 2008.		
• 95% of all grade 8 students promote with core technology and information literacy skills by June 2009.		

3.3.3 Goal C-3: Technology Access

LAUSD will provide equitable access to technology tools and digital resources by LAUSD students in all schools across the District by adopting, aligning to content standards, and deploying minimum technology configurations with the intent to enable each student to reach their full potential and demonstrate academic achievement. (Supports Superintendent's Strategic Plan Goals 5, 7, 8, 9, 10, 11, 12, 14, 15, and 16.)

Benchmarks	Indicators of Success	Evaluation Schedule
• Minimum configurations for learning resources by school population are defined for all instructional levels and audiences within LAUSD by December 2006.	Minimum technology standards are defined and endorsed. Baseline data is determined by current inventories.	Minimum standards are reviewed annually and updated as needed. Inventories are updated annually.
• 40% of all schools have technology resources inventories that meet or exceed the minimum technology configurations providing equitable access to these resources by all students for learning on a daily basis by June 2007.	Inventory of technology resources show growth towards providing equitable access is reaching target percents.	Conduct inventories annually.
• 60% of all schools have technology resources inventories that meet or exceed the minimum technology configurations providing equitable access to these resources by all students for learning on a daily basis by June 2008.		
• 90% of all schools have technology resources inventories that meet or exceed the minimum technology configurations providing equitable access to these resources by all students for learning on a daily basis by June 2009.		

3.3.4 Goal C-4: Record-Keeping and Assessment

LAUSD will deploy centralized systems and processes to support instructional planning, grades and classroom management, and assessment strategies to enable teachers to use existing information and data to inform instruction. (Supports Superintendent's Strategic Plan Goals 6, 8, and 13.)

Benchmark	Indicator of Success	Evaluation Schedule
• Pilot implementations of ISIS concludes and systemic implementation of school-based record keeping and assessment modules of ISIS are scheduled and in process prior to June 2007.	Number of teachers using ISIS from the classroom.	Attendance module usage is monitored quarterly to determine usage.
• 20% of school-based ISIS implementations are complete by June 2007.		
• 100% of school-based ISIS implementations are complete by June 2008.		

3.3.5 Goal C-5: Parent Communication and Outreach

LAUSD will increase and enhance current communication and outreach strategies to provide more members of the greater LAUSD community with timely and simple access to information and resources they need to participate in their child's education and their own continued learning. (Supports Superintendent's Strategic Plan Goals 12 and 13.)

Benchmark	Indicator of Success	Evaluation Schedule
• The District communications plan, currently in the revision stages, is completed (incorporating the recommendations included in this technology plan) and endorsed by June 2006.	The District communication plan is endorsed by the School Board.	The communications plan is reviewed annually and updated as needed.
• The LAUSDnet Website is restructured to include "portals" custom designed to service the needs of multiple LAUSD community members (students, parents, staff, community members) by June 2007.	A frequency counter of Website usage indicates increased usage.	A frequency counter is tracked and a quarterly report compiled.

3.4 Implementation Plans in Support of Goal C-1: Improving Teaching and Learning

These implementation plans and their respective recommendations, implementation steps, timeline, and monitoring and evaluation activities support the following goal:

Curriculum Goal:	**C-1**	**Improving Teaching and Learning** *LAUSD will align and deploy the resources needed for the integration of technology tools, including digital resources, to support attainment of state content standards for all student populations.*	
Recommendations addressed by this Implementation Plan:	**C-1.1** Develop guidelines and modify job descriptions (where appropriate) for existing school staff that include responsibilities and required competencies and experience to support school-based curriculum and technology integration in elementary, middle, high, and special schools. (GR 3)	**Recommendation Benchmarks:**	1. A scope and sequence for the integration of technology tools and digital resources to support content standards will be defined for grades K-12 within LAUSD by June 2006. 2. 50% of LAUSD teachers in elementary, middle, high, and special school/programs will integrate technology tools into the curriculum on a monthly basis by June 2007. 3. 75% of LAUSD teachers in elementary, middle, high, and special school/programs will integrate technology tools into the curriculum on a monthly basis by June 2008. 4. 95% of LAUSD teachers in elementary, middle, high, and special school/programs will integrate technology tools into the curriculum on a monthly basis by June 2009.
Leadership Responsibility:	**Information Technology Division** Division of Instruction (Elementary & Secondary) Local Districts Schools	**Potential Funding Sources:**	Federal/State Grants Federal Entitlements General Fund Private Grants

Implementation Steps/Activities: **Timeline Code:** P for Prepare/Pilot; I for Implementation Roll-out; C for Conclude/Continue	**Timeline:** (* Projections only beyond Year 3) Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	**Monitoring & Evaluation Activities:**
1. Collect and analyze data about the staffing patterns of certified and classified staff at each instructional level to determine current FTE allotment and assignments.	P					FTE allotments and assignment data will be analyzed, summarized, and reported to Instructional Technology and Instruction Divisions, District superintendents, and principals.
2. Determine tasks/assignments that will **not be needed** when ISIS, BTS, DSS, CLAS, and Welligent are fully implemented.	P					Analysis report of tasks and assignments that will be phased out following the full implementation of ISIS, BTS, DSS, CLAS, and Welligent.

Curriculum Goal: C-1 Improving Teaching and Learning

LAUSD will align and deploy the resources needed for the integration of technology tools, including digital resources, to support attainment of state content standards for all student populations.

Implementation Steps/Activities: Timeline Code: P for Prepare/Pilot, I for Implementation Roll-out, C for Conclude/Continue	Timeline: (* Projections only beyond Year 3) Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	Monitoring & Evaluation Activities:
3. Determine tasks/assignments that **will be** needed throughout ISIS, BTS, DSS, CLAS, and Welligent implementation and maintenance.	P					Analysis report of tasks and assignments that are required during the implementation of ISIS, BTS, DSS, CLAS, and Welligent and following implementation through maintenance is developed.
4. Develop and implement a process to assist school leadership with the realignment and reassignment of school-level, site-based staff to support technology and curriculum integration.	P	I	I	C	C	Process is designed and deployed to assist school principals determine how they can best deploy and reassign certified and classified staff in support of technology integration in 75% of schools by the end of 2008 and all schools by the end of 2009.
5. Continue to expand the use of technology integration coaches/mentors for on-going support and development.	C	C	C	C	C	Monitor number of technology integration coaches/mentors used throughout LAUSD for going support and development.

Curriculum Goal:	**C-1**	**Improving Teaching and Learning** *LAUSD will align and deploy the resources needed for the integration of technology tools, including digital resources, to support attainment of state content standards for all student populations.*	
Recommendations addressed by this Implementation Plan:	**C-1.2**	Develop and implement curriculum and technology integration strategies for each instructional level (primary, elementary, middle, and high school) that maximizes existing resources, builds upon current best practice, and meets or exceeds all local, state, and federal requirements. (KFR 2.1.1)	**Recommendation Benchmarks:** 1. A Scope and Sequence document defining strategies that teachers will use to integrate technology tools and digital resources to support content standards is defined for grades K-12 within LAUSD by December 2006. (This scope and sequence will provide the map for professional development activities outlined in IP PD-1.2.) 2. 50% of LAUSD teachers by June 2007, 75% of LAUSD teachers by June 2008, 95% of teachers by June 2009 embrace the technology integration scope and sequence and incorporate it into their instructional practice by June 2009.
Leadership Responsibility:		**Information Technology Division** Division of Instruction (Elementary & Secondary) Local Districts Schools	**Potential Funding Sources:** Federal/State Grants Federal Entitlements General Fund Private Grants

Implementation Steps/Activities: **Timeline Code:** P for Prepare/Pilot; I for Implementation Roll-out; C for Conclude/Continue	**Timeline:** (* Projections only beyond Year 3)					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
1. Broadly research examples, best practices, and scope and sequence for technology skills that are systemically embedded and integrated into all disciplines across all grades.	P					Samples of best practice scope and sequence for embedded technology skills are collected and evaluated.
2. Define required minimal hardware and software configurations to integrate these technology skills into all grades/disciplines.	P	I	C	C	C	Alignment matrix for hardware and software configurations and technology skills scope and sequence are defined.
3. Secure funding resources to attain these minimal configurations. (links to GR 1)	P	I	C	C	C	Funding sources and strategies are identified and targeted to secure minimal technology configurations.
4. Develop and disseminate through a variety of media, a collection of "best practice integration examples and strategies" for each grade and discipline. This includes embedding these strategies into existing LAUSD instructional guides.	P/I	I	C	C	C	ITAFs lead teacher teams develop a collection of "best practice integration examples and strategies" and it is disseminated throughout the District

Curriculum Goal: C-1 Improving Teaching and Learning

LAUSD will align and deploy the resources needed for the integration of technology tools, including digital resources, to support attainment of state content standards for all student populations.

Implementation Steps/Activities: Timeline Code: P for Prepare/Pilot, I for Implementation Roll-out, C for Conclude/Continue	Timeline: (* Projections only beyond Year 3)					Monitoring & Evaluation Activities:
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
5. Educate/inform school leadership teams as needed with appropriate staff development to understand the impact of the technology scope and sequence on human resources, expenditures, physical space, and learning.	P/I	I	I	C	C	Professional development activities (online and face-to-face) regarding the impact of integrating the technology scope and sequence on human resources, expenditures, physical space, and learning are offered to local district superintendents and principals.
6. Provide professional development for all staff in areas where technology skills are embedded into content area instruction.	P/I	I	I	I	C	Professional development activities (online and face-to-face) on technology scope and sequence are offered to local district superintendents, principals, and teachers.

Curriculum Goal:	**C-1**	**Improving Teaching and Learning** *LAUSD will align and deploy the resources needed for the integration of technology tools, including digital resources, to support attainment of state content standards for all student populations.*	
Recommendations addressed by this Implementation Plan:	**C-1.3**	Modify or align the decision support system (DSS) to include curriculum standards, assessment items, lesson and unit plans, and teaching resources. Investigate the availability of curriculum development and management modules to incorporate into a DSS. (KFR 2.4.1)	**Recommendation Benchmarks:** 1. Gap analysis of current DSS capacity (current and future) is completed by June 2007. 2. Bid process for comprehensive curriculum development and management modules/applications is completed by June 2009.
Leadership Responsibility:	**Information Technology Division** Planning Assessment Research Division		**Potential Funding Sources:** Federal/State Grants Federal Entitlements General Fund Private Grants

Implementation Steps/Activities: **Timeline Code:** P for Prepare/Pilot; I for Implementation Roll-out; C for Conclude/Continue	**Timeline:** (* Projections only beyond Year 3) Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	**Monitoring & Evaluation Activities:**
1. In the process of implementing the new Decision Support System (DSS), determine the current capacity within the DSS to include curriculum standards, assessment items, lesson and unit plans, and teaching resources. This implementation step links to recommendation C-4.3.	P					Gap analysis of current DSS capacity with existing modules and potential modules to meet LAUSD curriculum development and management needs is conducted.
2. Investigate the availability of additional curriculum development and management modules to complement the DSS and provide teachers with instruction support information linked to the DSS.	P					List of specific features and functionality desired by LAUSD educators to assist with curriculum development and management at the classroom level is developed and disseminated.
3. Review "best of breed" curriculum development and learning management applications available in the market place and conduct gap analysis to determine best strategy to provide classroom-level instructional management of curriculum standards, assessment items, lesson and unit plans, and teaching resources.	P					List of centralized, Web-based, enterprise curriculum development and learning management applications that provide classroom level instructional management of curriculum standards, assessment items, lesson and unit plans, and teaching resources is researched and documented.

Curriculum Goal: C-1 Improving Teaching and Learning

LAUSD will align and deploy the resources needed for the integration of technology tools, including digital resources, to support attainment of state content standards for all student populations.

Implementation Steps/Activities: Timeline Code: P for Prepare/Pilot, I for Implementation Roll-out, C for Conclude/Continue	Timeline: (* Projections only beyond Year 3) Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	Monitoring & Evaluation Activities:
4. Develop RFPs and bid specifications as warranted.		P				When warranted, LAUSD develops bid specifications and initiates the bid process to obtain an existing or customized curriculum development and management solution.
5. Secure and implement curriculum development and management modules/applications for all school-based educators.		P	I	I	I	LAUSD implements a phased approach to provide curriculum development and management modules/applications to teachers for informing instruction daily, weekly, and monthly.

Curriculum Goal:	**C-1 Improving Teaching and Learning** *LAUSD will align and deploy the resources needed for the integration of technology tools, including digital resources, to support attainment of state content standards for all student populations.*		
Recommendations addressed by this Implementation Plan:	**C-1.4** Envision and adopt a process within the District to align the processes of updating the current curriculum documents with the integration of technology across the curriculum (links to REC 2.1.1) and the attainment of NETS•S and ICT standards (links to REC 2.2.1) using one central curriculum development and management tool/process. (KFR 2.4.2)	**Recommendation Benchmarks:**	1. A comprehensive K-12 technology skills and ICT standards scope and sequence that meets local, state, and national requirements is developed by June 2007. 2. A centralized curriculum development and management tool/process is selected to manage the attainment of these skills and competencies is selected and deployed by June 2009 3. K-12 technology skills and ICT standards scope and sequence is initiated and integrated into all LAUSD schools by June 2009.
Leadership Responsibility:	**Information Technology Division** Division of Instruction (Elementary & Secondary) Local Districts	**Potential Funding Sources:**	Federal/State Grants Federal Entitlements General Fund Private Grants

Implementation Steps/Activities: **Timeline Code:** P **for Prepare/Pilot** I **for Implementation Roll-out** C **for Conclude/Continue**	**Timeline:** (* Projections only beyond Year 3) Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	**Monitoring & Evaluation Activities:**
1. Create a cross-divisional team from Instructional Technology and Instructional Support Services to initiate the task of creating an embedded scope and sequence of technology skills and ICT standards.	P					A cross-divisional team from Learning Technologies and Instruction is formed and develops a monthly schedule of meeting either face-to-face or via videoconference.
2. Define scope of work and timeline for developing technology skills and ICT standards scope and sequence.	P					The scope of work and timeline for developing technology skills and ICT standards scope and sequence is created.
3. Determine human resource needs to accomplish task and select development strategy – in house or outsourced.	P					Human resource needs to accomplish task are identified. A development strategy (in house or outsourced) is selected.
4. Using chosen strategy, develop a comprehensive K-12 technology skills and ICT standards scope and sequence that meets local, state, and national requirements.	P					A comprehensive K-12 technology skills and ICT standards scope and sequence that meets local, state, and national requirements is developed by June 2007. A centralized curriculum development and management tool/process is selected to manage the attainment of these skills and competencies.
5. Phase-in implementation over time as support, hardware, software, and infrastructure capacity allows.	P/I	P/I	I	I	C	A staging and phasing plan that aligns with the refresh of hardware, software, and infrastructure and both integration and technical support staff is initiated during the 2006-2007 school year and completed in all schools at all grade levels by June 2009.

Curriculum Goal:	**C-1 Improving Teaching and Learning** *LAUSD will align and deploy the resources needed for the integration of technology tools, including digital resources, to support attainment of state content standards for all student populations.*		
Recommendations addressed by this Implementation Plan:	**C-1.5** Integrate, document, and implement a comprehensive Career Awareness program that begins in the elementary grades and continues through high school. Integrate and expand existing strategies to orient people regarding the technology competencies involved in most career choices. (KFR 2.6.1)	**Recommendation Benchmarks:**	1. Analysis of Best Practices in Career Awareness and survey of current status at each school is complete by June 2006. 2. Best Practices in Career Awareness models are distributed to schools with guidance for selecting ones best suited to their individual needs. 3. All schools begin phasing in age-appropriate Career Awareness programs by September 2007.
Leadership Responsibility:	**Division of Adult and Career Education** Information Technology Division Division of Instruction (Elementary & Secondary) Schools	**Potential Funding Sources:**	Federal/State Grants Federal Entitlements General Fund Private Grants

Implementation Steps/Activities: **Timeline Code:** P for Prepare/Pilot; I for Implementation Roll-out; C for Conclude/Continue	**Timeline:** (* Projections only beyond Year 3) Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	**Monitoring & Evaluation Activities:**
1. Research and document best practices currently instituted in LAUSD with respect to Career Awareness programming, including the ACME animation training model that emphasizes "expert to student" interactions.	P					Best practice sites in LAUSD for Career Awareness program are identified using a common set of criteria. Sites meeting this criteria area documented.
2. Conduct a needs analysis tool to determine schools (elementary though secondary) with strong Career Awareness programs and those that need fortifying.	P					District-wide analysis/survey is conducted and results analyzed to determine schools (elementary though secondary) with strong Career Awareness programs and those that need fortifying.
3. Based on best practice models, develop and implement a comprehensive Career Awareness program that begins in the elementary grades and continues through high school. • Emphasize the need for technology literacy in all career choices, including careers requiring certifications, 2-year, 4-year, and advanced degrees. • Include high tech areas such as robotics, engineering, biotechnology, and environmental sciences.		I	I	I		Best practice Career Awareness model strategies for elementary, middle, and high schools (special programs included) are identified and disseminated to all schools. Development activities are offered to enable school leadership to review and select models for implementation that best meet their individual needs.

Curriculum Goal: C-1 Improving Teaching and Learning

LAUSD will align and deploy the resources needed for the integration of technology tools, including digital resources, to support attainment of state content standards for all student populations.

Implementation Steps/Activities: Timeline Code: P for Prepare/Pilot, I for Implementation Roll-out, C for Conclude/Continue	Timeline: (* Projections only beyond Year 3)					Monitoring & Evaluation Activities:
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
cont'd: • Provide internship programs for authentic experiences. • Recommend visits from practitioners in all career categories.						Refer to the Monitoring and Evaluation Activities above.
4. Develop budget and funding stream to support implementation and expansion of comprehensive Career Awareness program.	P	P	I	I	C	Resources and funding are identified and a timeline developed to replicate best practice Career Awareness models in all LAUSD schools.
5. Expand access to career awareness resources and career counseling to parents as time and resources allow.			I	I	I	Parents are offered access to appropriate Career Awareness resources. Data is collected at the local level and reported annually to the District as to number of parents taking advantage of these resources.

3.5 Implementation Plans in Support of Goal C-2: Technology and Information Literacy Skills

These implementation plans and their respective recommendations, implementation steps, timeline, and monitoring and evaluation activities support the following goal:

Curriculum Goal:	**C-2** **Technology and Information Literacy Skills** *By the end of grade 8, LAUSD students will attain critical technology and information literacy skills that allow them to further their education and become independent learners.*		
Recommendations addressed by this Implementation Plan:	**C-2.1** Align the plan/process to integrate technology skills into the curriculum (REC 2.1.1) with the need for attainment of the NETS•S and ICT competency by all students. (KFR 2.2.1)	**Recommendation Benchmarks:**	1. NETS•S and ICT competency alignment process is complete by December 2006. 2. Strategies and resources for grades 4 to 8 are developed and deployed by June 2007. 3. Advanced strategies and resources for grades 9 to 12 are developed and deployed by June 2008.
Leadership Responsibility:	**Information Technology Division** Division of Instruction (Elementary & Secondary) Local Districts	**Potential Funding Sources:**	Federal/State Grants Federal Entitlements General Fund Private Grants

Implementation Steps/Activities: **Timeline Code:** P **for Prepare/Pilot** I **for Implementation Roll-out** C **for Conclude/Continue**	**Timeline:** (* Projections only beyond Year 3)					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
1. Develop and implement a system/process for identifying and coding which NETS•S and ICT standards are embedded into which 1) content areas and grades at the *primary and elementary levels* and 2) courses at the *middle and high school levels*.	P/I	I	I			Alignment process and coding system are determined for embedding NETS•S and ICT standards into all content areas and grades at the primary and elementary levels and courses at the middle and high school levels.
2. Define and implement a strategy for tracking demonstration of individual skills by individual students from grades K-12. (links to REC 2.4.1) Determine the hardware, software, and human resources to manage the tracking of this information.	P	P	I	I	I	Process and program/application are determined to track the attainment of NETS•S and ICT standards by each student in grades K-12. This process might be a centralized database or individual portfolios managed at the school level.

Curriculum Goal: C-2 Technology and Information Literacy Skills

By the end of grade 8, LAUSD students will attain critical technology and information literacy skills that allow them to further their education and become independent learners.

Implementation Steps/Activities: Timeline Code: P for Prepare/Pilot, I for Implementation Roll-out, C for Conclude/Continue	Timeline: (* Projections only beyond Year 3) Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	Monitoring & Evaluation Activities:
3. Educate/inform school leadership teams as needed with appropriate staff development to understand how student technology skills and information and communication literacy standards will be measured and tracked at their respective levels.		P/I	I	I		Development is offered (face-to-face, online, video conferencing) to school leadership teams so they understand how student technology skills and ICT standards are assessed and tracked at their respective levels.
4. Provide professional development for all staff in areas where NETS•S and ICT standards are embedded into content area instruction that directly impacts the delivery of curriculum. Provide training on assessment and tracking strategies.	P	I	I	C	C	Development is offered (face-to-face, online, video conferencing) to teachers so they understand where NETS•S and ICT standards are embedded into content area instruction that directly impacts the delivery of curriculum. Training on assessment and tracking strategies is also provided for teachers and support staff who may be involved with monitoring student attainment of technology and ICT skills.
5. Create a package of best practices and training materials for teachers so that they will receive all of this information at once and not be dependent on the extended training cycle that is necessary in a District this size.	P	P				Professional development packets of best practices and training materials are made available for all teachers/coaches mentors via the District Website.
6. Submit strategy to state DOE as a model to demonstrate attainment of NCLB Grade 8 ICT literacy requirement.			I			LAUSD model for ensuring that grade 8 students promote meeting NCLB Grade 8 ICT literacy requirement is endorsed by the CA DOE.

Curriculum Goal:	**C-2**	**Technology and Information Literacy Skills** *By the end of grade 8, LAUSD students will attain critical technology and information literacy skills that allow them to further their education and become independent learners.*	
Recommendations addressed by this Implementation Plan:	**C-2.2**	Continue to investigate alternative and complementary products and strategies to develop students with 21st century skills. (KFR 2.2.2)	**Benchmarks:** 1. A multifaceted strategy (incorporating content area teachers, library media staff, specialists, and commercially available products) to support attainment of specific technology and information literacy skills is introduced in grades 4-8 June 2007. 2. Grade 8 students promote with core technology and information literacy skills according to the following schedule: - 35% by June 2007 - 65% by June 2008 - 95% by June 2009
Leadership Responsibility:	**Information Technology Division** Division of Instruction (Elementary & Secondary)s		**Potential Funding Sources:** Federal/State Grants Federal Entitlements General Fund Private Grants

Implementation Steps/Activities: **Timeline Code:** P for Prepare/Pilot, I for Implementation Roll-out, C for Conclude/Continue	**Timeline:** (* Projections only beyond Year 3) Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	**Monitoring & Evaluation Activities:**
1. Expand and continue to integrate the EdTech Profile (formerly CTAP^2) as one indicator of student technology competency.	C	C	C	C	C	Timeline, resources, schedule are in place for all middle school students to take the EdTech Profile annually as one indicator of student technology competency. Scores are reviewed annually by school leadership team and then reported to Instructional Technology.
2. Further investigate options such as Tech Knowledge by SRA or other similar online alternatives.	P					ITAFs explore online resources to support the embedded technology skills and ICT standards scope and sequence.
3. Pilot options/strategies with the potential to address significant clusters of technology skills/ICT standards.		P/I				Monitor and analyze pilot results
4. Deploy systemically any proven strategies to enable LAUSD grade 8 students to promote with core technology and information literacy skills.		P/I	I	I		LAUSD grade 8 students attain benchmarks identified above.

Curriculum Goal:	**C-2**	**Technology and Information Literacy Skills** *By the end of grade 8, LAUSD students will attain critical technology and information literacy skills that allow them to further their education and become independent learners.*	
Recommendations addressed by this Implementation Plan:	**C-2.3**	Formally define the role of library/media center staff at each type of school facility (elementary, middle, high, and special schools) with respect to assisting students attain ICT standards. (KFR 2.2.3)	**Benchmarks:** 1. Strategy for assisting students to attain ICT standards (Big 6 Model or alternative) is selected and deployed by June 2007. 2. All library media staff and elementary school teachers receive ICT standards (Big 6 Model or alternative) by June 2008. In addition, 80% of secondary school teachers will be trained by June 2009. 3. 100% of teachers receive training on complementary ICT skills that apply across all disciplines by June 2008.
Leadership Responsibility:		**Information Technology Division** Division of Instruction (Elementary & Secondary) Schools	**Potential Funding Sources:** Federal/State Grants Federal Entitlements General Fund Private Grants E-rate Discounts

Implementation Steps/Activities: **Timeline Code:** P for Prepare/Pilot; I for Implementation Roll-out; C for Conclude/Continue	**Timeline:** (* Projections only beyond Year 3) Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	**Monitoring & Evaluation Activities:**
1. Clarify which information literacy skills library/media staff will address and which ones classroom teachers will address.	P					ICT instructional roles and responsibilities are defined.
2. Assess the effectiveness and feasibility of integrating Big 6 training and reinforcement via the library media center staff in elementary and middle schools.	P					Effectiveness of integrating the Big 6 Model into library media instructional time is assessed. Determination is made District-wide to embrace Big 6 or alternate strategies are selected to address ICT skills.
3. Provide Big 6 training to all library media staff and elementary teachers. Train secondary staff as well to enable them to reinforce skills learned in grades k-8.	P	I	I	I		Training on the Big 6 Model or alternative is offered to all library media staff and elementary school teachers. In addition, 80% of secondary school teachers will be trained by June 2008.
4. Determine the impact on hardware, software, and human resources.		I	I			Funding sources are identified and allotted for elementary ICT instructional materials, staff, and technology resources.
5. Consider the continued use of online modules for middle and high school students.	P	I				Middle and high school online ICT modules are piloted and data analyzed to determine feasibility and effectiveness of continued direct instruction on ICT literacy.

Curriculum Goal: C-2 Technology and Information Literacy Skills

By the end of grade 8, LAUSD students will attain critical technology and information literacy skills that allow them to further their education and become independent learners.

Implementation Steps/Activities: Timeline Code: P for Prepare/Pilot, I for Implementation Roll-out, C for Conclude/Continue	Timeline: (* Projections only beyond Year 3)					Monitoring & Evaluation Activities:
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
6. Identify resources/strategies for addressing research skills in the content areas by the regular classroom teacher to complement and reinforce formal instruction.	P	I	I	C	C	Resources/strategies for regular classroom teacher to complement and reinforce formal instruction are identified and disseminated.
7. Provide professional development for teachers on strategies to identify student work where references are not properly cited or materials are plagiarized.	P	I	I	I	C	Eighty percent (80%) of teachers are integrating ICT standards/strategies by June 2008. Incidences of plagiarism and improper citations District wide decreases.

3.6 Implementation Plans in Support of Goal C-3: Technology Access

These implementation plans and their respective recommendations, implementation steps, timeline, and monitoring and evaluation activities support the following goal:

Curriculum Goal:	**C-3**	**Technology Access** *LAUSD will provide equitable access to technology tools and digital resources by LAUSD students in all schools across the District by adopting, aligning to content standards, and deploying minimum technology configurations with the intent to enable each student to reach their full potential and demonstrate academic achievement.*
Recommendations addressed by this Implementation Plan:	**C-3.1**	Develop guidelines for school leadership teams to analyze and assess the best technology configurations to meet their individual needs that present, compare, and contrast the benefits, issues, and challenges of various options. (KFR 2.1.2) (links to GR #1)
Benchmarks:	1.	Minimum configurations for learning resources by school population are defined for all instructional levels and audiences within LAUSD by December 2006.
	2.	Schools have technology resources inventories that meet or exceed the minimum technology configurations providing equitable access to these resources by all students for learning on a daily basis according to the following schedule: - 40% of all schools by June 2007 - 60% of all schools by June 2008 - 90% of all schools by June 2009
Leadership Responsibility:	**Information Technology Division** Local Districts	
Potential Funding Sources:	Federal/State Grants Federal Entitlements General Fund Private Grants	

Implementation Steps/Activities: **Timeline Code:** P **for** P**repare/**P**ilot** I **for Implementation Roll-out** C **for** C**onclude/**C**ontinue**	**Timeline:** **(* Projections only beyond Year 3)**					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
1. Create a cross-divisional team from Instructional Technology and Instructional Support Services to define age-appropriate technology configurations designed to meet the needs of students in elementary, middle, high, and special schools/programs such as English learners, Special Education, and GATE.	P					A cross-divisional team from Learning Technologies and Instruction is formed and develops a monthly schedule of meeting either face-to-face or via videoconference.

Curriculum Goal: C-3 Technology Access

LAUSD will provide equitable access to technology tools and digital resources by LAUSD students in all schools across the District by adopting, aligning to content standards, and deploying minimum technology configurations with the intent to enable each student to reach their full potential and demonstrate academic achievement.

Implementation Steps/Activities: Timeline Code: P for Prepare/Pilot, I for Implementation Roll-out, C for Conclude/Continue	Timeline: (* Projections only beyond Year 3) Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	Monitoring & Evaluation Activities:
2. Define scope of work and timeline for developing age appropriate technology configurations designed to meet the needs of students in elementary, middle, high, and special schools/programs such as English learners, Special Education, and GATE.	P					The scope of work and timeline for developing model technology configurations is created for age appropriate technology configurations designed to meet the needs of students in elementary, middle, high, and special schools/programs such as English learners, Special Education, and GATE.
3. Determine human resource req1uirements to accomplish task and select development strategy – in house or outsourced.	P					Human resource requirements to accomplish task are identified. A development strategy (in house or outsourced) is selected by September 2006.
4. Consider the following options in model technology configurations: • Wired and wireless strategies • Laptop and desktop strategies • Mobile and stationary strategies • Networked and standalone strategies	P					A matrix of benefit and challenges aligned to model configurations is developed for each model configuration.
5. Incorporate and describe the following factors when designing model technology configurations: • Technical challenges associated with specific configurations • Support required to maintain and upgrade specific configurations • Software licensing strategies (school site licenses, District high volume purchasing plans, lab packs, and individual products) best suited to specific configurations	P					A summary of factors, including technical sophistication, support implications, and software options, is developed for each model configuration.

Curriculum Goal: C-3 Technology Access

LAUSD will provide equitable access to technology tools and digital resources by LAUSD students in all schools across the District by adopting, aligning to content standards, and deploying minimum technology configurations with the intent to enable each student to reach their full potential and demonstrate academic achievement.

Implementation Steps/Activities: Timeline Code: P for Prepare/Pilot, I for Implementation Roll-out, C for Conclude/Continue	Timeline: (* Projections only beyond Year 3) Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	Monitoring & Evaluation Activities:
6. Based upon the proposed technology configurations, develop guidelines for school leadership teams to analyze and assess the best technology configurations to meet their individual needs that present, compare, and contrast the benefits, issues, and challenges of various options		P/I				Guidelines are developed to assist leadership teams with an analysis and assessment of the model technology configurations to meet their specific school needs by December 2006.
7. Conduct development opportunities for school leadership teams to enable them to use these guidelines to compare and contrast the benefits, issues, and challenges of various options		P/I	I	I	C	Development opportunities are provided for 75% of school leadership teams by June of 2007 and 90% by June 2008.

3.7 Implementation Plans in Support of Goal C-4: Record-Keeping and Assessment

These implementation plans and their respective recommendations, implementation steps, timeline, and monitoring and evaluation activities support the following goal:

Curriculum Goal:	**C-4**	**Record-Keeping and Assessment** *LAUSD will deploy centralized systems and processes to support instructional planning, grades and classroom management, and assessment strategies to enable teachers to use existing information and data to inform instruction.*
Recommendations addressed by this Implementation Plan:	**C-4.1**	Provide local District and school administrators and teachers with a single "assessment portal" for accessing, analyzing, and interpreting the significant amount of assessment data resulting from standardized testing. This portal is likely to be aligned with ISIS/DSS, the new student information system. (KFR 2.3.1)
Benchmarks:	1.	Custom portals designed to support local district superintendents and directors with accessing, analyzing, and interpreting assessment data are integrated into ISIS/DSS by June 2007.
	2.	Custom portals designed to support principals and teachers with accessing, analyzing, and interpreting assessment data are integrated into ISIS by June 2008.
Leadership Responsibility:	**Information Technology Division**	
Potential Funding Sources:	Federal/State Grants Federal Entitlements General Fund Private Grants	

Implementation Steps/Activities: **Timeline Code:** P **for Prepare/Pilot** I **for Implementation Roll-out** C **for Conclude/Continue**	**Timeline:** **(* Projections only beyond Year 3)**					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
1. Examine and analyze report components/features of other LAUSD applications currently reporting data to teachers and administrators to determine the "comfort zone" and desired features of these applications to integrate into the DSS centralized repository.		P				List of highly desired features for assessment data reporting tools is developed from end-user surveys and discussions.
2. Based upon this analysis, develop custom portals for unique audiences (local district superintendents, principals, teachers) with the capacity to present scores, charts, trends, and challenges in a format that is clear and consistent.			P/I	I		Custom portals that meet the needs of local district superintendents, principals, and teachers are developed to provide access for accessing, analyzing, and interpreting the significant amount of assessment data resulting from standardized testing.

Curriculum Goal: C-4 Record-Keeping and Assessment

LAUSD will deploy centralized systems and processes to support instructional planning, grades and classroom management, and assessment strategies to enable teachers to use existing information and data to inform instruction.

Implementation Steps/Activities: Timeline Code: P for Prepare/Pilot; I for Implementation Roll-out; C for Conclude/Continue	Timeline: (* Projections only beyond Year 3)					Monitoring & Evaluation Activities:
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
3. Ensure that the portal provides secure access to student information only by teachers directly involved with instruction of individual students. Continue the development of "dashboards" for differentiated audiences. Develop secure strategies to share assessment data with students and parents.			P	I	I	Security features and safeguards are in place that simultaneously provide easy access for appropriate audiences yet offer high levels of confidentiality and data protection.
4. Provide direct on-going training and support to superintendents and directors in each local district on accessing, understanding, and interpreting student data such that they may share this information and their analysis strategies with other school leaders and teachers.			P/I	I	I	Workshops, online information, and on-going support are developed and deployed to inform superintendents and directors in each local district about accessing, understanding, and interpreting student data. Attendance at training sessions, surveys, and support logs are monitored to access development effectiveness.
5. Provide teachers with professional development that highlights ways to inform instructional planning and modify current instructional techniques to improve student achievement and enhance the learning environment.			P/I	I	I	Workshops, online information, and on-going support are developed and deployed to inform teachers about ways to inform instructional planning and modify current instructional techniques based upon assessment data. Attendance at training sessions, surveys, and support logs are monitored to access development effectiveness.

Curriculum Goal: C-4 Record-Keeping and Assessment

LAUSD will deploy centralized systems and processes to support instructional planning, grades and classroom management, and assessment strategies to enable teachers to use existing information and data to inform instruction.

Recommendations addressed by this Implementation Plan:	**C-4.2** Investigate strategies that will enable classroom teachers to conduct all periodic assessments online, thus shortening the time it takes to garner results and inform instructional planning. (KFR 2.3.2)	**Benchmarks:**	1. Assessment portals designed to enable student online classroom and school-based periodic assessments are integrated into ISIS by June 2008. 2. Assessment portals designed to enable student online state standardized assessments are integrated into ISIS by June 2010.
Leadership Responsibility:	**Information Technology Division** Planning Assessment Research Division	**Potential Funding Sources:**	Federal/State Grants Federal Entitlements General Fund Private Grants

Implementation Steps/Activities: **Timeline Code:** P **for Prepare/Pilot** I **for Implementation Roll-out** C **for Conclude/Continue**	**Timeline:** (* Projections only beyond Year 3)					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
1. Analyze the diverse collection of periodic assessment currently used throughout the District and select the "best of breed" for online administration at primary, elementary, middle, and high school levels.	P					A timeline for staging and phasing online periodic assessments at all instructional levels is developed.
2. Customize periodic assessments to align with LAUSD curriculum/content standards.		I	I			Periodic assessments are aligned to LAUSD curriculum/content standards, thus ensuring that assessment results will identify student strengths and weakness as they directly relate to content standards.
3. Merge data from all assessments into a single portal for administrator, director, principal, teacher, student, and parent access (links to KFR 2.3.1).		P	I	I		Administrators, directors, principals, teachers, students, and parents have unique portals for accessing student assessment information.
4. Investigate strategies and resources required to administer state assessments online.			P	P/I	P/I	Preparedness checklist is developed for elementary, middle, and high schools to offer state assessments online when available.

Curriculum Goal:	**C-4**	**Record-Keeping and Assessment** *LAUSD will deploy centralized systems and processes to support instructional planning, grades and classroom management, and assessment strategies to enable teachers to use existing information and data to inform instruction.*
Recommendations addressed by this Implementation Plan:	**C-4.3**	Continue to move forward with DSS implementation and the various modules that impact assessment and the management of classroom assessment data by the classroom teacher. (KFR 2.3.3)
Benchmarks:	1.	Pilot implementations of ISIS conclude and systemic implementation of school-based record keeping of ISIS are scheduled and in process prior to June 2007.
	2.	20% of school-based ISIS implementations are complete by June 2007.
	3	100% of school-based ISIS implementations are complete by June 2008.
Leadership Responsibility:		**Information Technology Division** Division of Instruction (Elementary & Secondary) Planning Assessment Research Division
Potential Funding Sources:		Federal/State Grants Federal Entitlements General Fund Private Grants

Implementation Steps/Activities: **Timeline Code:** P **for Prepare/Pilot** I **for Implementation Roll-out** C **for Conclude/Continue**	**Timeline:** (* Projections only beyond Year 3)					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
1. Standardize on a pre-K, elementary, secondary, and adult grade management solutions/strategies that integrate with ISIS.	P					Grade management solutions/strategies that integrate with ISIS are selected and embraced by schools at each instructional level.
2. Provide teachers with the ability to access grade management and grade reporting applications from remote computers located at home or while they are out of District.	P/I	I	I			Remote access to grade management and grade reporting applications that is secure and maintains required confidentiality is available to most teachers by June 2007.
3. Provide ongoing and sustained professional development for teachers on grade management applications. This could best be achieved by school-based staff. (links to GR3)	P/I	I	I	C	C	Workshops, online information, and ongoing support are developed and deployed to inform teachers about grade management and grade reporting applications selected for their instructional level. Attendance at training sessions, surveys, and support logs are monitored to assess development effectiveness.

3.8 Implementation Plans in Support of Goal C-5: Parent Communication and Outreach

These implementation plans and their respective recommendations, implementation steps, timeline, and monitoring and evaluation activities support the following goal:

Curriculum Goal:	**C-5 Parent Communication and Outreach** *LAUSD will increase and enhance current communication and outreach strategies to provide more members of the greater LAUSD community with timely and simple access to information and resources they need to participate in their child's education and their own continued learning.*		
Recommendations addressed by this Implementation Plan:	**C-5.1** Research, analyze, and advance strategies for LAUSD to bring access to the Internet and digital content to a broader audience of LAUSD school community of stakeholders. (KFR 2.5.1)	**Benchmarks:**	1. The District communications plan, currently in the revision stages, are completed (incorporating the recommendations included in this technology plan) and endorsed by June 2006. 2. Workshops and course offerings on technology tools (computers, digital cameras, and scanners) and applications increase by 10% each year and participation increases by 20% each year.
Leadership Responsibility:	**Information Technology Division** Division of Instruction (Elementary & Secondary)	**Potential Funding Sources:**	Federal/State Grants Federal Entitlements General Fund Private Grants

Implementation Steps/Activities: **Timeline Code:** P for Prepare/Pilot; I for Implementation Roll-out; C for Conclude/Continue	**Timeline:** (* Projections only beyond Year 3)					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
1. Develop partnerships with ISP providers and other public entities, such as city, county, and state agencies, to explore strategies for community access to the Internet.	P	P				Surveys are conducted and ISP contracts/usage analyzed to identify true targets of need within the District by December 2007.
2. Investigate, disseminate, and encourage a variety of options for schools to bridge the technology gap among students within their respective facilities.	P/I	I	I			Summary of strategies and options to provide students with access to digital resources beyond the school day are developed for elementary, middle, and high school audiences and disseminated throughout the District.
3. Present a variety of one-to-one computing models to help level the technology playing field. Many of these models do not supply all students with a computer to take home every day or for use in every class every day, but rather provide access on an "as needed" basis within the school.	P	I	C	C	C	One-to-one computing models are piloted and assessed from the perspective of reducing the Digital Divide by providing greater access to the Internet for more LAUSD students.

Curriculum Goal: C-5 Parent Communication and Outreach

LAUSD will increase and enhance current communication and outreach strategies to provide more members of the greater LAUSD community with timely and simple access to information and resources they need to participate in their child's education and their own continued learning.

Implementation Steps/Activities: Timeline Code: P for Prepare/Pilot; I for Implementation Roll-out; C for Conclude/Continue	Timeline: (* Projections only beyond Year 3)					Monitoring & Evaluation Activities:
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
4. Continue successful after school, extended day, and beyond the school walls strategies/programs that make technology resources available to parents and students in environments that are both safe and secure. (KFR 2.5.2)	C	C	C	C	C	Before, extended day, and beyond the school walls strategies and programs that offer access to the Internet and digital content in environments that are safe and secure, day and evening programs are expanded by 20% annually.
5. Provide additional workshops and courses on technology tools (computers, digital cameras, scanners) and applications for interested community members. (KFR 2.5.2)	P/I	I	I	C	C	The number of workshops and courses offered and the number of parents and community members attending are recorded and monitored for increased numbers. Satisfaction levels are determined by workshop surveys and interviews.

Curriculum Goal: C-5 Parent Communication and Outreach

LAUSD will increase and enhance current communication and outreach strategies to provide more members of the greater LAUSD community with timely and simple access to information and resources they need to participate in their child's education and their own continued learning.

Recommendations addressed by this Implementation Plan:	**C-5.2** Develop a comprehensive adult education/outreach program for community members interested in furthering their education and enhancing their skills. (KFR 2.7.1) (links also to KFR 2.5.2)	**Benchmarks:**	1. Parent Centers with technology resources are established and maintained in 75% of LAUSD schools by June 2008. 2. A calendar of course offerings, seminars, and workshops for parents are available on a monthly basis in all local districts by June of 2008.
Leadership Responsibility:	**Division of Adult and Career Education** Information Technology Division	**Potential Funding Sources:**	Federal/State Grants Federal Entitlements General Fund Private Grants

Implementation Steps/Activities: **Timeline Code:** P for Prepare/Pilot; I for Implementation Roll-out; C for Conclude/Continue	**Timeline:** (* Projections only beyond Year 3) Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	**Monitoring & Evaluation Activities:**
1. Designate space for and equip school-based parent centers (in some cases the centers might be located outside of the school facility) with computers, printers, and fax machines for parent use.		P	P/I	I	I	Space is identified in or near LAUSD schools providing access to technology resources.
2. Offer adult education courses and/or classes on productivity and communication applications (email, Internet browsing, word processing, spreadsheets, desktop publishing).	P/I	P/I	P/I	C	C	Calendar of adult education course offerings and workshops is published and disseminated monthly.
3. Conduct seminars providing advice on purchasing computer, peripheral, and software resources for the home.		P/I	P/I	C	C	Calendar of seminars and special events is published and disseminated quarterly.
4. Develop guidelines and recommendations (pros and cons for differing options) to help parents select an ISP and/or Internet/cable service provider.		P/I	P/I	C	C	Guidelines and recommendations for selecting an ISP and/or Internet/cable service provider are developed and disseminated/ distributed broadly to parents.
5. Develop informed parents in the areas of Internet safety and online precautions for students.	P/I	P\I	I	C	C	Advice on Internet safety and precautions for students is shared with parents during open-houses, via Websites, through workshops, and in school newsletters and communications.

Curriculum Goal: C-5 Parent Communication and Outreach

LAUSD will increase and enhance current communication and outreach strategies to provide more members of the greater LAUSD community with timely and simple access to information and resources they need to participate in their child's education and their own continued learning.

Recommendations addressed by this Implementation Plan:	**C-5.3** Develop a "public portal" to the District Website that ensures parents and community members are readily able to find and access necessary information. (KFR 2.7.2) (Links also to KFR 2.3.3)	**Benchmarks:**	1. The LAUSDnet Website will be restructured to include "community portals" custom designed to service the needs of multiple LAUSD community members (students, parents, staff, community members) by June 2007. 2. The LAUSD Communications Plan introduces comprehensive solutions to encourage and support efficient and effective two-way communication across the District.
Leadership Responsibility:	**Information Technology Division** Division of Adult and Career Education	**Potential Funding Sources:**	Federal/State Grants Federal Entitlements General Fund Private Grants

Implementation Steps/Activities: **Timeline Code:** P for Prepare/Pilot; I for Implementation Roll-out; C for Conclude/Continue	**Timeline:** (* Projections only beyond Year 3) Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	**Monitoring & Evaluation Activities:**
1. Fully implement the iParent module of ISIS.		P/I	I	I	C	Access to school and student information via the parent portal will be monitored electronically to determine baseline levels and determine/evaluate increased usage over time.
2. Investigate models in other districts with desirable features, functionality, and "look/feel" that is desirable and user friendly for LAUSD parents.	P/I	I				Survey target audience (teachers and parents) for their priorities and highly desired features. Develop a list of features and functionality for parent portal.
3. Include components such as homework assignments, special events, school/District calendars, menus, fees, school cancellations, and contact information for core staff at District and school levels.		P/I	I	I	C	Continue to monitor parent usage and survey representative subsets of parents to continue to grow and improve the LAUSD parent portal.
4. Fully implement the District-wide communication solution currently under investigation to support 2-way communication across the District.	P	I	I			Communication solutions to address 1) Emergency notification of safety or health issues, 2) Parental notification of student absence/other notices, 3) Public notification of new or enhanced district services, 4) Staff need to receive calls and messages from parents and students, and 5) Communication of operational information to affected staff are implemented across the District.

Curriculum Goal: C-5 Parent Communication and Outreach

LAUSD will increase and enhance current communication and outreach strategies to provide more members of the greater LAUSD community with timely and simple access to information and resources they need to participate in their child's education and their own continued learning.

Implementation Steps/Activities: Timeline Code: P for Prepare/Pilot; I for Implementation Roll-out; C for Conclude/Continue	Timeline: (* Projections only beyond Year 3)					Monitoring & Evaluation Activities:
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
5. Conduct/provide teachers, parents, and administrators with the instruction needed to fully access the features of selected communications solutions to ensure two-way communication between homes and schools/district.	P	I	I			Training sessions are conducted, FAQs are posted, notifications are sent home, and other appropriate dissemination strategies are employed to ensure that the selected communication solutions are used to their maximum potential.

3.9 Benchmarks and Timeline

Benchmarks and timelines for implementing planned strategies and activities are included in the implementation plans in support of their respective goal statement. The benchmarks and timelines for the five Curriculum goals are found on pages 18-47.

3.10 Process Monitoring

As LAUSD has moved forward with the District-wide implementation of ISIS, the new student information system, and CLAS, the centralized library management system, District leadership has recognized both the value and challenges associated with process monitoring in a district of this size. They are constantly developing new and refining existing process monitoring strategies to ensure that implementations are tracked in a manner that is efficient, productive, and as seamless as possible, without adding to the burden of staff with significant workloads. The Process Monitoring Methods and Activities listed in the following matrix are proposed to track the progress of the Curriculum Implementation Plans to achieve the targeted benchmarks. These methods will be refined and improved throughout specific implementations as additional communication channels and monitoring processes become available.

Curriculum Goal C-1: Improving Teaching and Learning

LAUSD will align and deploy the resources needed for the integration of technology tools, including digital resources, to support attainment of state content standards for all student populations. (Supports Superintendent's Strategic Plan Goals 1, 2, 5, 7, 8, 9, 10, 11, 15 and 16.)

IP #	Benchmarks	Process Monitoring Methods/Activities
C-1.1	1. Guidelines, rubrics, and a process for school-level self-assessment to determine curriculum and technology integration support needs are developed by June 2007. 2. Guidelines, rubrics, and processes are applied and needs determined in 75% of schools by June 2008. 3. School-level curriculum and technology integration support needs are met in all schools by June 2009.	1. Development teams consisting of ITAFs and mentor teachers will develop a curriculum and technology integration self-assessment instrument and an accompanying self-assessment process. (This process is most likely to be Web-based for easy access and analysis.) Process is piloted in schools at all grade levels. 2. Project teams consisting of ITAFs and integration specialists will collect data and aggregate school-level self-assessments to determine the nature and level of professional development needs in the area of curriculum and technology integration. 3. Principals will monitor the progress of teachers' integration skills annually within their respective schools using the integration rubric and report data to Instructional Technology.

IP #	Benchmarks	Process Monitoring Methods/Activities
C-1.2	1. A scope and sequence document defining strategies that teachers will use to integrate technology tools and digital resources to support content standards is defined for grades K-12 within LAUSD by December 2006. 2. 50% of LAUSD teachers by June 2007, 75% of LAUSD teachers by June 2008, 95% of teachers by June 2009 embrace the technology integration scope and sequence and incorporate it into their instructional practice by June 2009.	1. Project teams consisting of ITAFs and integration specialists will develop a scope and sequence for the integration of technology tools and digital resources to support content standards. District curriculum leadership endorses/embraces scope and sequence. 2. Teacher cohort teams within each school will observe their peers throughout the school year. Progress noted during these observations toward effectively incorporating scope and sequence into instructional practice to technology integration is recorded and data reported to the principal, who will summarize and relay to Instructional Technology.
C-1.3	1. Gap analysis of current DSS capacity (current and future) is completed by June 2007. 2. Bid process for comprehensive curriculum development and management modules/applications is completed by June 2009.	1. The ITD will carry out the gap analysis. Progress reviews will be done periodically with executive sponsors. 2. A CDLM Project team developed specifically to design the RFP will conduct out a comprehensive needs analysis of curriculum development and management systems for annual review. 3. The monitoring of application specifications and Requests for Proposals will be carried out by review of ITD and executive sponsors to assure bids processes can be completed by the target date.
C-1.4	1. A comprehensive K-12 technology skills and ICT standards scope and sequence that meets local, state, and national requirements is developed by June 2007. 2. A centralized curriculum development and management tool/process is selected to manage the attainment of these skills and competencies is selected and deployed by June 2009. 3. K-12 technology skills and ICT standards scope and sequence is initiated and integrated into all LAUSD schools by June 2009.	1. Project teams consisting of ITAFs and integration specialists will examine other K-12 technology skills and ICT standards scope and sequence. 2. A cross-divisional team from Learning Technology and Instruction will determine target skills and standards. Reviews will be conducted bi-monthly 3. The monitoring of application specifications and Requests for Proposals will be carried out by review of ITD and executive sponsors to assure bid processes and implementation can be completed by the target date.
C-1.5	1. Analysis of Best Practices in Career Awareness and survey of current status at each school is complete by June 2006. 2. Best Practices in Career Awareness models are distributed to schools with guidance for selecting ones best suited to their individual needs. 3. All schools begin phasing in age-appropriate Career Awareness programs by September 2007.	1. Best practice sites in LAUSD for Career Awareness programs are identified using a common set of criteria. Progress will be monitored monthly by the Division of Adult and Career Education. 2. School leaders review best practices and the Career Awareness project team reviews selections. 3. Career Awareness Project team will follow the progress of each school in initiating their Career Awareness programs.

Curriculum Goal C-2: Technology and Information Literacy Skills

By the end of grade 8, LAUSD students will attain critical technology and information literacy skills that allow them to further their education and become independent learners. (Supports Superintendent's Strategic Plan Goals 1, 2, 7, 8, and 9.)

IP #	Benchmarks	Process Monitoring Methods/Activities
C-2.1	1. NETS•S and ICT competency alignment process is complete by December 2006. 2. Strategies and resources for grades 4 to 8 are developed and deployed by June 2007. 3. Advanced strategies and resources for grades 9 to 12 are developed and deployed by June 2008.	1. Progress in aligning competencies is monitored by periodic reviews of the ICT project team. 2. A grades 4-8 ICT project teams at each school will be formed to develop strategies and resources with periodic review by representatives of the Learning Technology and Instructional Divisions.
C-2.2	1. A multifaceted strategy (incorporating content area teachers, library media staff, specialists, and commercially available products) to support attainment of specific technology and information literacy skills is introduced in grades 4-8 June 2007. 2. Grade 8 students promote with core technology and information literacy skills according to the following schedule: - 35% by June 2007 - 65% by June 2008 - 95% by June 2009	1. The ICT project team determines the strategies at each targeted grade level with periodic review by representatives of the Learning Technology and Instructional Divisions 2. All Grade 8 students will be assessed regarding their core technology and information literacy skills. ICT project teams will aggregate performance data and specific weaknesses will be identified and addressed in classroom programs.
C-2.3	1. Strategy for assisting students to attain ICT standards (Big 6 Model or alternative) is selected and deployed by June 2007. 2. All library media staff and elementary school teachers receive ICT standards (Big 6 Model or alternative) by June 2008. In addition, 80% of secondary school teachers will be trained by June 2009. 3. 100% of teachers receive training on complementary ICT skills that apply across all disciplines by June 2008.	1. An ICT review committee will assist ICT staff in reviewing alternative strategies and selection of the most appropriate. Progress reviews will be conducted on a bi-monthly basis. 2. The ICT project team will monitor the deployment of ICT standards and assess the effectiveness of training. 3. Training on complementary ICT skills that apply across all disciplines will be monitored on a quarterly basis.

Curriculum Goal C-3: Technology Access

LAUSD will provide equitable access to technology tools and digital resources by LAUSD students in all schools across the District by adopting, aligning to content standards, and deploying minimum technology configurations with the intent to enable each student to reach their full potential and demonstrate academic achievement. (Supports Superintendent's Strategic Plan Goals 5, 7, 8, 9, 10, 11, 12, 14, 15, and 16.)

IP #	Benchmarks	Process Monitoring Methods/Activities
C-3.1	1. Minimum configurations for learning resources by school population are defined for all instructional levels and audiences within LAUSD by December 2006. 2. Schools have technology resources inventories that meet or exceed the minimum technology configurations providing equitable access to these resources by all students for learning on a daily basis according to the following schedule: - 40% of all schools by June 2007 - 60% of all schools by June 2008 - 90% of all schools by June 2009	1. Members of ITD and Educational Technology will develop alternatives for minimum configurations for learning resources with bi-monthly team reviews. 2. The ICT project team will monitor rates of adoption of minimum configurations for learning resources on a quarterly basis.

Curriculum Goal C-4: Record-Keeping and Assessment

LAUSD will deploy centralized systems and processes to support instructional planning, grades and classroom management, and assessment strategies to enable teachers to use existing information and data to inform instruction. (Supports Superintendent's Strategic Plan Goals 6, 8, and 13.)

IP #	Benchmarks	Process Monitoring Methods/Activities
C-4.1	1. Custom portals designed to support local district superintendents and directors with accessing, analyzing, and interpreting assessment data are integrated into ISIS by June 2007. 2. Custom portals designed to support principals and teachers with accessing, analyzing, and interpreting assessment data are integrated into ISIS by June 2008.	1. Needs assessments will be conducted in each local district to determine custom portal needs. 2. Progress in integrating custom portals to ISIS will be monitored bi-monthly.
C-4.2	1. Assessment portals designed to enable student online classroom and school-based periodic assessments are integrated into ISIS by June 2008. 2. Assessment portals designed to enable student online state standardized assessments are integrated into ISIS by June 2010.	1. The Communications project team will design standardized assessment portals for integration into ISIS. 2. Progress in integrating assessment portals to ISIS will be monitored bi-monthly.
C-4.3	1. Pilot implementations of ISIS will conclude and systemic implementation of school-based record keeping and assessment modules of ISIS will be scheduled and in process prior to June 2007. 2. 20% of school-based ISIS implementations will be complete by June 2007. 3 100% of school-based ISIS implementations will be complete by June 2008.	1. The ISIS project team will develop a schedule for ISIS system-wide implementation at the conclusion of the pilot phase. 2. Progress in implementing ISIS school-based record keeping will be assessed quarterly

Curriculum Goal C-5: Parent Communication and Outreach

LAUSD will increase and enhance current communication and outreach strategies to provide more members of the greater LAUSD community with timely and simple access to information and resources they need to participate in their child's education and their own continued learning. (Supports Superintendent's Strategic Plan Goals 12 and 13.)

IP #	Benchmarks	Process Monitoring Methods/Activities
C-5.1	1. The District communications plan, currently in the revision stages, will be completed (incorporating the recommendations included in this technology plan) and endorsed by June 2006. 2. Workshops and course offerings on technology tools (computers, digital cameras, and scanners) and applications increase by 10% each year and participation increases by 20% each year.	1. The Communications project team will integrate recommendations included in this technology plan Into the overall District communications plan. Progress will be monitored quarterly. 2. Professional development and procurement will monitor the increase in activities and technology acquisitions.
C-5.2	1. Parent centers with technology resources are established and maintained in 75% of LAUSD schools by June 2008. 2. A calendar of course offerings, seminars, and workshops for parents are available on a monthly basis in all local districts by June of 2008.	1. Local Communications project teams will assist in the planning and initiation of parent centers. Progress will be monitored quarterly. 2. Learning opportunities for parents on a monthly basis with quarterly review. 3. Participation levels will be tracked on an ongoing basis.
C-5.3	1. The LAUSDnet Website will be restructured to include "community portals" custom designed to service the needs of multiple LAUSD community members (students, parents, staff, community members) by June 2007. 2. The LAUSD Communications Plan introduces comprehensive solutions to encourage and support efficient and effective two-way communication across the District.	1. ITD and executive sponsors will design and implement multiple community member portals. 2. Project progress will be monitored quarterly by Communications project team. 3. RFP for selected communications solution is conducted, solution purchased, and implemented district-wide.

4.0 Professional Development

> *"Concentration on technology to the exclusion of human factors is a prescription for failure under the conditions of innovation diffusion."*
>
> *—Kim Dooley*

The **Professional Development** section focuses on the technology proficiencies of several different groups of employees: (1) instructional staff, such as teachers and media specialists, (2) administrative staff, such as school, local district, and central District administrators, and (3) non-instructional staff, such as classified positions and paraprofessionals. The establishment of core technology proficiencies for all audiences is required to ensure that continuous growth and the attainment of District goals is realized. The use of technological tools in the recruitment, selection, and retention of staff is also described.

4.1 Current Status

As a component of updating the LAUSD 2006-2009 Education Technology Plan, CELT assisted LAUSD with a comprehensive needs analysis in the fall of 2005. The complete results of this needs analysis comprises the Key Findings and Recommendations Report (January 2006) that is located on the LAUSD Website. The information included in this current status is a summary of the findings that resulted from key stakeholder interviews, focus groups, and critical LAUSD document review.

4.1.1 Teacher Technology Skills

As one might presume in a district of 37,026 regular teachers (including K-12, adult and early education teachers) and 5,234 other certificated support personnel, the level of technology expertise among teachers varies from novice to advanced levels. There are currently no required technology competencies or skills identified for certification, recertification, or newly hired teachers (though two Commission on Teacher Credentialing standards (9 and 16) must be met for the issuance of new teaching credentials. Some schools have developed technology plans that include technology competency goals for staff, but many schools provide no significant incentives for teachers to become technology literate. Teachers use ½ of their local professional development days for meeting District goals and half for addressing the school's goals. Although not always required, some schools devote these days to technology training.

LAUSD teachers take the EdTech Profile technology self-assessment survey, which is based on ISTE's National Education Technology Standards for Teachers (NETS*T), to determine their level of technology proficiency. (EdTech Profile was formerly known as the CTAP^2). Approximately every 18 months, 90% of teachers complete the EdTech Profile to assess their proficiency level.

Currently, approximately 30% of the teachers are at the proficient level. LAUSD has set a target of 70% of teachers achieving the proficient level as their current goal. The goals of this technology plan advance this target annually.

Data in the following table are extracted from the most recent EdTech Profile report for LAUSD in Standard 9 (Using Technology in the Classroom) and Standard 16 (Using Technology to Support Student Learning). Summarily, this data demonstrates that less than one fifth of LAUSD teachers have a working knowledge of technology-related research and best practices, how to select technology resources and lessons to align with the curriculum, or use technology to communicate with other professionals.

	Number of Responses			
	None	**Low**	**Medium**	**High**
Communication with other professionals	4296	4118	1066	471
Knowledge of research and best practices in technology in education	2735	3937	236	1012
Evaluation and selection of Technological Resources	3830	3467	2251	468
Alignment of technology-enhanced lessons with curriculum	1919	5514	1999	503
Creation of technology-enhanced learning opportunities	211	4868	1533	673

In addition, 40% of those surveyed indicated an interest in technology skills training and 70% indicated an interest in integrating technology into the curriculum. Of these, approximately 35% are interested on online professional development.

Teachers within the District have a variety of options to increase their curriculum and technology integration skills as well as their technical skills. UPDATE (Uniting Professional Development and Technology for Education) provides face-to-face and online training for LAUSD teachers in basic technology skills and curriculum integration.

In addition to *personal technology literacy skills*, teachers require expertise in the *pedagogy of integration*. Training includes strategies for integrating technology into the curriculum and the District will focus on expanding this approach. Many new teacher graduates come to LAUSD without this pedagogy, although most are technology fluent. The BTSA program for new beginning teachers is helping to provide this pedagogy.

At the District level, teachers share best practices for technology integration at InfoTech, an annual technology conference for LAUSD teachers, administrators, staff, students, and parents. At the Los Angeles regional level, teachers, administrators, and staff participate in the annual Computer Using Educators, Los Angeles conference (CUELA), a local, one-day mini-conference. Some schools hold technology nights to showcase student technology projects and

activities with other teachers, parents, and community members, but a pattern of these events is not seen in schools District-wide.

LAUSD continues to increase its technology use to deliver professional development opportunities in multiple formats and timeframes. To this end, LAUSD uses the Learning Zone, an online registration program, to enable teachers to identify and register for professional development offered by LAUSD. Though user-friendly and growing in popularity, the program is not being used to full capacity. At this time, the Learning Zone accounts for about 10% of professional development registrations.

4.1.2 Administrative Technology Skills

There are 2,825 certificated administrators in LAUSD with technology expertise levels from novice to advanced status. It is estimated that most superintendents and directors have at least basic technology skills as they are required to communicate via email with central office staff. Many administrators, although not advanced users of technology themselves, see the need, the power, and the potential of these resources in the hands of our student population of "digital natives." Some administrators have yet to embrace this notion. When this occurs at the principal level, LAUSD schools lack the vision, leadership, and resources to advance the goals of this technology plan. According to the evaluation report from the MSTP grant available on the Program Evaluation and Research section of LAUSD.net:

"We compared the schools in terms of five elements considered to reflect positive school cultures: shared and supportive leadership; shared visions and values; collective learning and application of that learning; shared personal practice; and supportive conditions. While we did not find all of the elements present at the schools in which we found more evidence of program implementation or higher quality instruction, we did find strong evidence that these schools were in the process of developing into learning communities."

The systemic implementation of current initiatives such as ISIS and Business Tools for Schools (BTS) requires that both teachers and administrators develop intermediate levels of technology proficiency. Not all school and regional administrators are prepared for these new requirements. Some administrators will require basic computer instruction before they can advance to more sophisticated topics involved with ISIS and BTS. It is estimated that approximately 30% of the teachers are at the proficient level.

District leadership is emphasizing the need to create a paradigm shift from traditional, teacher-directed teaching toward a 21st century, and student-centered model. This shift can be more easily realized through the integration of technology tools, digital resources, and instructional management systems in support of this change. There is a strong link between the philosophies of school-based leaders (principals) and the degree and speed to which this shift and these programs that are adopted and encouraged in the classroom. Technology savvy administrators are a critical factor in achieving this paradigm shift. According to the evaluation report from the MSTP grant available on the Program Evaluation and Research section of LAUSD.net:

"Teachers' use of the technology was impacted by a variety of factors beyond the presence of the technology or coaches in the classrooms. In many cases… administrative support impacted the way in which the coaches were able to effectively permeate the already existing "culture" at the school site… At the schools in which we found conditions more characteristic of a learning community, we found more teachers using the technology, and we found more evidence of higher quality instruction."

4.1.3 Classified Staff and Paraprofessionals

LAUSD employees fall into two categories: certificated and classified. Certificated employees are credentialed by the California Commission on Teacher Credentialing (CCTC) for the position they hold. Classified employees have the training or experience for their position, but do not usually hold a teaching credential. District employees are supported by dual personnel systems: certificated employees are managed under the Certificated Human Resources system and classified employees are managed by the Personnel Commission (civil service). The current status of certificated employees has been addressed in the previous two sections. The current status regarding technology skills of classified employees (including paraprofessionals) varies as widely for classified as it does for certificated employees. There are individuals with beginning, intermediate, and to a lesser degree proficient technology competency. There is currently no formal assessment of the technology skill level of classified staff within LAUSD, hence limited quantifiable data is available for this population.

To support this workforce, the District offers training programs for classified employees and paraprofessionals to enable them to advance to professional status. This enables teaching aides and other school employees who have been successful in their positions to develop new skills and advance within the District. Technology training is included in these offerings for paraprofessionals and classified employees.

As ISIS, CLAS, BTS, DSS, and Welligent are implemented, the District is assessing the changing role of classified staff, as many old tasks are being automated by these enterprise systems. The District seeks to find the best and most productive role for classified staff as these implementations roll out District-wide.

A Microcomputer Support Assistant (MCSA) is a classified position that provides technology support and is hired at the discretion of the local superintendent or school principal. Depending on the emphasis a local superintendent places on technology, this position may or may not be staffed at the local district level. This classified position, if staffed at each school with skilled individuals, holds huge potential to advance the goals of this technology plan. In addition, this structure will benefit from the addition of a "technology custodian" position to handle some of the basic maintenance, initial troubleshooting, and call tracking that is needed in each school.

4.2 Professional Development Goals and Benchmarks

The following **professional development** goals result from the comprehensive needs analysis conducted during preliminary stages in the development of this Education Technology Plan. The goals from the *LAUSD Superintendent's Strategic Plan are listed in parentheses after each of the technology-related professional development goals.*

4.2.1 Goal PD-1: Technology Competencies

LAUSD will define and support the attainment of differentiated technology competencies for all audiences within the LAUSD community to facilitate the integration of technology into the curriculum (Supports Superintendent's Strategic Plan Goals 1, 3, 6, 14, and 16.)

Benchmark	Indicator of Success	Evaluation Schedule
• Technology competencies will be defined for all appropriate audiences within LAUSD by June 2007.	Technology Competencies are endorsed by the School Board and the process to advance at the school level is defined.	ITD presents to Board for approval/endorsement. ITD updates Technology Competencies annually.
• 80% of teachers, administrators, paraprofessionals, and support staff will demonstrate mastery at the intermediate level of technology competencies by June 2009.	EdTech Profile and/or equivalent assessments will indicate achievement by June, 2009.	EdTech Profile and/or equivalent assessments will be conducted annually (currently every eighteen months).
• 60% of teachers will demonstrate integration of technology into the curriculum by June 2009.		

4.2.2 Goal PD-2: Professional and Staff Development Opportunities

LAUSD will continue to define, develop, deliver, and effectively manage a diverse array of professional and staff development opportunities for all District audiences (including, but not limited to, central-, local district-, and school-level administrators, teachers, paraprofessionals, and support staff) such that all will attain required technology competencies (Supports Superintendent's Strategic Plan Goals 3, 4, 8, 9, 10, 13, 15, and 16.)

Benchmark	Indicator of Success	Evaluation Schedule
• Professional/staff development opportunities (including content and delivery strategies) will be defined for all appropriate audiences within LAUSD by June 2007.	A calendar of Professional/staff development opportunities offered in 2007 is available. Attendance sheets are maintained. In June 2007, the content, the schedule, and the process for the Professional/staff development for 2008 and 2009 have been determined.	Content, schedule, and process for Professional/staff development is reviewed every six months and updated as needed.
• Differentiated professional/staff development opportunities in support of ISIS, CLAS, BTS, DSS, and Welligent will be offered for 100% of LAUSD staff by June 2009.	Workshop attendance at PD sessions in support of ISIS, CLAS, BTS, DSS, and Welligent will meet target percentages.	Attendance records are kept and tabulated throughout the year.
• Differentiated professional/staff development opportunities in support of curriculum and technology integration will be offered for 100% of LAUSD educators by June 2009.	Workshop attendance at PD sessions in support of technology integration will meet target percentages.	Attendance records are kept and tabulated throughout the year.

4.2.3 Goal PD-3: Highly Qualified Teachers

LAUSD will support the developmental processes (recruitment, selection, induction, and retention) that will attract and produce a cadre of highly qualified teachers working in schools. LAUSD will support the use of online training as well as access to electronic resources that support the further development and retention of highly qualified teachers. (Supports Superintendent's Strategic Plan Goals 1, 2, 3, 7, 8, and 9.)

Benchmark	Indicator of Success	Evaluation Schedule
• An aggressive process for recruiting, selecting, and retaining highly qualified teachers within LAUSD will be developed and endorsed by June 2007.	The Recruitment, Selection, and Retention process is endorsed by the School Board and the process to advance at the school level is defined.	The appropriate division presents to Board for approval/endorsement. The Recruitment, Selection, and Retention process is reviewed annually and updated as needed.
• An aggressive program of providing new teachers and teachers in training to meet HQT criteria with access to laptops and online professional development and electronic resources will be in place by June 2009.	A program for distributing laptops and training teachers is instituted.	The program for providing teachers with laptops and training is reviewed annually and updated as needed.
• 75% of teachers new to the District or having completed retraining to meet HQT criteria will demonstrate intermediate proficiency in the integration of instructional technology, as measured by the EdTech Profile, by June 2008.	EdTech Profile indicates that target percents of teachers are demonstrating intermediate proficiency.	EdTech Profile is conducted annually and results analyzed.
• 85% of teachers new to the District or having completed retraining to meet HQT criteria have demonstrate intermediate proficiency in the integration of instructional technology, as measured by the EdTech Profile, by June 2009.		

4.3 Implementation Plans in Support of Goal PD-1: Technology Competencies

These implementation plans and their respective recommendations, implementation steps, timeline, and monitoring and evaluation activities support the following goal:

Professional Development Goal:	**PD-1**	**Technology Competencies** *LAUSD will define and support the attainment of differentiated technology competencies for all audiences within the LAUSD community including to facilitate the integration of technology into the curriculum.*
Recommendations addressed by this Implementation Plan:	**PD-1.1**	Ensure that all LAUSD teachers, administrators, and paraprofessionals have the basic technology skills to integrate technology into the curriculum. This is related to PD-3.3 (KFR 3.1.1) (GR-5)
Recommendation Benchmarks:		1. Technology competencies will be defined for all appropriate audiences within LAUSD by June 2007. 2. 80% of teachers, administrators, paraprofessionals and support staff will demonstrate mastery at the intermediate level of technology competencies by June 2009.
Leadership Responsibility:	**Information Technology Division** Schools	
Potential Funding Sources:	Federal/State Grants Federal Entitlements Private Grants General Fund Bond Initiatives	

Implementation Steps/Activities: **Timeline Code:** P **for** P**repare/**P**ilot** I **for Implementation Roll-out** C **for C**o**nclude/**C**ontinue**	**Timeline:** **(* Projections only beyond Year 3)**					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
1. Continue to structure UPDATE and Technology Professional Development around the EdTech Profile proficiencies.	P	I	C	C	C	Existing technology training programs have been modified to ensure that all training address these proficiencies where appropriate.
2. Send an email announcement describing the requirement to teachers and explaining the process and instructions for accessing the site.	I					All teachers are informed of technology competency requirements and process and are provided with instructions to access the PD system.
3. Create a baseline by having all teachers, administrators, and paraprofessionals take the EdTech Profile competencies assessment.	I					The database includes a tracking tool that monitors the number of teachers and administrators who have taken the assessment.
4. Analyze the initial test to identify typical gaps in skills for teachers and administrators.	P	I				A gap analysis using PB TPD system database is conducted to identify individual gaps and make recommendations for PD options.
5. Create a follow-up notice to direct people to specific professional development modules to address their areas of weakness.	P	I				Teachers and administrators are sent a copy of their individual gap analysis that includes recommendations for specific professional development modules to address areas in need of growth.

Professional Development Goal:	**PD-1**	**Technology Competencies** *LAUSD will define and support the attainment of differentiated technology competencies for all audiences within the LAUSD community including to facilitate the integration of technology into the curriculum.*					
Implementation Steps/Activities: **Timeline Code:** P **for** P**repare/**P**ilot** I **for Implementation Roll-out** C **for C**o**nclude/**C**ontinue**			**Timeline:** **(* Projections only beyond Year 3)**				**Monitoring & Evaluation Activities:**
			Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
6.	Provide training for professional growth advisors in technology competency and technology integration so that they may advise teachers who are in the process of renewing their certification every five years.		P	I	C	C	C	Professional growth advisors receive required preparation and training to enable them to advise teachers who are in the process of renewing their certification about technology competency and technology integration requirements.

Professional Development Goal:	**PD-1**	**Technology Competencies** *LAUSD will define and support the attainment of differentiated technology competencies for all audiences within the LAUSD community including to facilitate the integration of technology into the curriculum.*
Recommendations addressed by this Implementation Plan:	**PD-1.2**	Develop an implement a series of "in context" strategies for training teachers to integrate technology into the curriculum. This is related to PD-3.3 (KFR 3.1.1) (GR-5)
Recommendation Benchmarks:		1. Technology integration goals will be defined in all curriculum areas by June 2007. 2. 60% of teachers will demonstrate integration of technology into the curriculum by June 2009.
Leadership Responsibility:	**Information Technology Division** Schools	
Potential Funding Sources:		Federal/State Grants Federal Entitlements Private Grants General Fund Bond Initiatives

Implementation Steps/Activities: **Timeline Code:** P **for Prepare/Pilot** I **for Implementation Roll-out** C **for Conclude/Continue**	**Timeline:** (* Projections only beyond Year 3)					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
1. Develop a set of technology integration goals for all levels and in all curriculum areas.	P	I	C	C	C	A set of recommended technology integration activities is developed for teachers of all content areas at all levels and made available to teachers throughout the District.
2. Develop a set of Best Practices for technology integration activities to be posted on Inside LAUSD and accessible to all.	I					A Best Practices Website has been developed on the District's intranet, InsideLAUSD.
3. Develop a process for teachers to share technology-rich lesson plans and add to the Best Practices Website.						A process and posting form has been created so that teachers can submit their lesson plans for inclusion on the Best Practices Website.
4. Train content coaches in technology integration so that this approach will be modeled throughout the District's professional development programs.	I					A series of technology integration workshops has been offered to content coaches.
5. Plan a series of CUE-type sharing activities in the Local Districts for teachers to demonstrate and share Best Practices and emerging technologies.	P	I				Activities are planned, scheduled, announced, and posted to the District's calendars and Website.
6. Adopt or develop a workshop for principals about how to observe/evaluate teachers' technology integration activities.	P	I	I			A workshop for administrators have been developed, scheduled, and is available through UPDATE.

Professional Development Goal:	**PD-1**	**Technology Competencies** *LAUSD will define and support the attainment of differentiated technology competencies for all audiences within the LAUSD community including to facilitate the integration of technology into the curriculum.*
Recommendations addressed by this Implementation Plan:	**PD-1.3**	Develop guidelines and, where appropriate, modify job descriptions for existing school staff that include responsibilities and required competencies and experience for a "technology custodian" who provides first-line-of-defense technology support to school-based staff. This individual serves as a site-based person at each school who is responsible for all tasks necessary to maintain the infrastructure 1) reporting problems, 2) managing problems, 3) managing data, and 4) entry level maintenance and technical support. (KFR 3.4.3)
Recommendation Benchmarks:		1. Technology competencies will be defined for the role of "technology custodian" by June 2007. 2. Technology custodian role will be established in 75% of schools by June 2008. 3. Technology custodian role will be established in 95% of schools by June 2010.
Leadership Responsibility:		**Information Technology Division** Human Resources Division Classified Personnel Classified Employees Union
Potential Funding Sources:		Federal/State Grants Private Grants General Fund

Implementation Steps/Activities: **Timeline Code:** P for Prepare/Pilot, I for Implementation Roll-out, C for Conclude/Continue	**Timeline:** (* Projections only beyond Year 3) Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	**Monitoring & Evaluation Activities:**
1. Compile the set of technology-related job descriptions for support positions in all schools.	P					Job descriptions are completed for all technology-related support staff at the school level and are submitted to HR and the Classified and Certificated Personnel offices for approval.
2. Interview school-based end-users to determine basic technology support needs. Create a list of basic tasks assigned to the "technology custodian role." Define the qualifications and experience needed to perform these basic technology support tasks.	P					Based upon end-user feedback and recommendations, a specific list of roles and responsibilities for the technology custodian is defined. The competencies to fulfill this role are also identified.

Professional Development Goal:	**PD-1**	**Technology Competencies** *LAUSD will define and support the attainment of differentiated technology competencies for all audiences within the LAUSD community including to facilitate the integration of technology into the curriculum.*					
Implementation Steps/Activities: **Timeline Code:** P **for** P**repare/**P**ilot** I **for Implementation Roll-out** C **for C**o**nclude/**C**ontinue**		**Timeline:** **(* Projections only beyond Year 3)**					**Monitoring & Evaluation Activities:**
		Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
3.	Develop a "procedures" manual defining basic maintenance activities, preliminary troubleshooting procedures and checklist, a process for submitting and tracking technical help requests, and the forms and process for following up with users to confirm and close issues.	P	I				Procedures manual is developed and disseminated to all school principals that defines the following: - basic maintenance activities - preliminary troubleshooting procedures and checklist - process for submitting and tracking technical help requests - forms and process for follow-up with users to confirm and close issues.
4.	Coordinate with the Classified Personnel office to create a test or checklist to assign staff to these positions.	P	I	I	C	C	Test/checklist used to assign staff to the "technology custodian role" is developed with the assistance of the Classified Personnel office.

4.4 Implementation Plans in Support of Goal PD-2: Professional and Staff Development

These implementation plans and their respective recommendations, implementation steps, timeline, and monitoring and evaluation activities support the following goal:

Professional Development Goal:	**PD-2**	**Professional and Staff Development Opportunities** *LAUSD will continue to define, develop, deliver, and effectively manage a diverse array of professional and staff development opportunities for all District audiences (including, but not limited to, central-, local district-, and school-level administrators, teachers, paraprofessionals, and support staff) such that all may attain required technology competencies.*
Recommendations addressed by this Implementation Plan:	**PD-2.1**	Continue to create End-user Support teams to provide support and training for school and District administrators and teachers in the new data management systems (ISIS, CLAS, DSS, BTS, and Welligent). (KFR 3.1.2)
Recommendation Benchmarks:	1.	Differentiated professional/staff development opportunities in support of ISIS, CLAS, BTS, DSS, and Welligent according to the following targets: - 60% of LAUSD staff by June 2008 - 80% of LAUSD staff by June 2009 - 100% of LAUSD staff by June 2010.
Leadership Responsibility:	**Information Technology Division** Division of Instruction (Elementary and Secondary)	
Potential Funding Sources:	Bond Initiatives General Fund	

Implementation Steps/Activities: **Timeline Code:** P **for Prepare/Pilot**, I **for Implementation Roll-out**, C **for Conclude/Continue**	**Timeline:** (* Projections only beyond Year 3) Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	**Monitoring & Evaluation Activities:**
1. Confirm that all administrators and teachers have access to acquiring the basic technology skills to use these systems as a result of the proficiency based professional development.		P	I			A schedule and calendar that describes proficiency-based professional development for administrators' and teachers' basic technology skills is available via the District Website and updated monthly.
2. Develop and deliver end-user training on the skills needed to use these data management systems. Conduct follow-up activities to identify additional user needs or issues.		P	I	C	C	End-user training on the data management systems is developed and delivered to appropriate audiences. Follow-activities are offered as needs are identified.
3. Provide training on how to use these data systems to perform data-driven decision making to improve teaching and learning and narrow the achievement gap.		P	I	C	C	End-user training on data-driven decision making to improve teaching and learning and narrow the achievement gap is developed and delivered to appropriate audiences. Follow-activities are offered as needs are identified.
4. Explore further opportunities for using decision-support systems in LAUSD.			P	I	C	Potential opportunities for using decision-support systems in LAUSD are explored and documented as user skills become more sophisticated.

Professional Development Goal:	**PD-2**	**Professional and Staff Development Opportunities** *LAUSD will continue to define, develop, deliver, and effectively manage a diverse array of professional and staff development opportunities for all District audiences (including, but not limited to, central-, local district-, and school-level administrators, teachers, paraprofessionals, and support staff) such that all may attain required technology competencies.*

Recommendations addressed by this Implementation Plan:	**PD-2.2**	Define roles, responsibilities, and expectations for a dedicated manager of a District online registration system (currently Learning Zone) for professional/staff development. Include support and maintenance of the Website and development of **one** online registration system as the District standard, eliminating other forms of registration such as OTIS, phone, fax, and interoffice submissions. (KFR 3.2.1)	**Recommendation Benchmarks:** 1. One system-wide online registration system for announcing and registering for all professional/staff development is endorsed by June 2007. 2. 75% of all LAUSD offered PD uses the system-wide online registration system for announcing and registering professional/staff development opportunities by June 2008. 3. 95% of all LAUSD offered PD uses the system-wide online registration system for announcing and registering professional/staff development opportunities by June 2009.
Leadership Responsibility:	**Information Technology Division** Instructional Technology Applications Facilitators		**Potential Funding Sources:** Federal/State Grants Federal Entitlements Private Grants General Fund Bond Initiatives

Implementation Steps/Activities: **Timeline Code:** P for Prepare/Pilot; I for Implementation Roll-out; C for Conclude/Continue	**Timeline:** (* Projections only beyond Year 3) Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	**Monitoring & Evaluation Activities:**
1. Define the roles, responsibilities, and expectations for a dedicated manager of a District online registration system. These include support and maintenance of the Website and management of the Web portal.	P					A job description for the manager of the registration system has been created and an individual identified to fill this role.
2. Create a Web-portal or identify an existing portal to serve as the online registration system for all professional/staff development in LAUSD.	P	I				A Web portal has been created so that all staff development programs can be registered online.
3. Develop and disseminate guidelines for all professional development sources within the District for announcing, and posting professional development activities and registration information.	P	I	C			A public relations and procedures manual has been created instructing all personnel how to select and register for staff development.

Professional Development Goal:	**PD-2**	**Professional and Staff Development Opportunities** *LAUSD will continue to define, develop, deliver, and effectively manage a diverse array of professional and staff development opportunities for all District audiences (including, but not limited to, central-, local district-, and school-level administrators, teachers, paraprofessionals, and support staff) such that all may attain required technology competencies.*

Implementation Steps/Activities: **Timeline Code:** P **for** P**repare/**P**ilot** I **for Implementation Roll-out** C **for C**o**nclude/**C**ontinue**	**Timeline:** **(* Projections only beyond Year 3)**					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
4. Distribute an announcement to all LAUSD personnel describing this procedure and how individual teachers, administrators, and staff will use it.		I				Public relations and procedural materials have been disseminated to all LAUSD personnel.
5. Conduct follow-up interview or survey with professional development providers to obtain feedback about the registration process and identify areas for improvement.		O	I	C	C	A follow-up survey has been conducted to assess the registration process.

Professional Development Goal:	**PD-2**	**Professional and Staff Development Opportunities** *LAUSD will continue to define, develop, deliver, and effectively manage a diverse array of professional and staff development opportunities for all District audiences (including, but not limited to, central-, local district-, and school-level administrators, teachers, paraprofessionals, and support staff) such that all may attain required technology competencies.*

Recommendations addressed by this Implementation Plan:	**PD-2.3**	Develop a comprehensive online staff development delivery vehicle (currently UPDATE) that is used throughout the District for training in competencies, curriculum, and other purposes as needs arise. (KFR 3.2.2)	**Recommendation Benchmarks:** 1. One system-wide online staff-development delivery vehicle for all professional/staff development is endorsed by June 2007. 2. 50% of all LAUSD online professional/staff development opportunities are offered using system-wide online staff-development delivery vehicle by June 2008. 3. 75% of all LAUSD online professional/staff development opportunities are offered using system-wide online staff-development delivery vehicle by June 2009.
Leadership Responsibility:	**Information Technology Division** Instructional Technology Applications Facilitators		**Potential Funding Sources:** Federal/State Grants Federal Entitlements Private Grants General Fund

Implementation Steps/Activities: **Timeline Code:** P **for** P**repare/**P**ilot** I **for Implementation Roll-out** C **for C**o**nclude/C**o**ntinue**	**Timeline:** (* Projections only beyond Year 3) Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	**Monitoring & Evaluation Activities:**
1. Research the professional development needs of the District and the programs that are currently in place for addressing these needs. These include technology competencies, curriculum standards, assessment strategies, business tools, new software, etc.	P					The current professional development needs of the District and the programs that are currently in place for addressing these needs are documented. A gap analysis highlights highest priorities.
2. Analyze the strengths and weaknesses of the UPDATE to determine how the project can be perfected.	P					Analysis report of the existing UPDATE system makes recommendations for enhancements and expansion of this system.
3. Identify and integrate additional training needs for mission critical applications throughout the District, including ISIS, CLAS, DSS, BTS, and Welligent.	P	I	C	C	C	Training needs to move forward with implementation of the five mission critical applications (ISIS, CLAS, DSS, BTS, and Welligent) are identified and offered across the District through a variety of training vehicles.
4. Continue to structure UPDATE and Technology Professional Development around the EdTech Profile proficiencies.	P	I	C	C	C	Existing technology training programs have been modified to ensure that all training addresses these proficiencies where appropriate.

Professional Development Goal:	**PD-2**	**Professional and Staff Development Opportunities** *LAUSD will continue to define, develop, deliver, and effectively manage a diverse array of professional and staff development opportunities for all District audiences (including, but not limited to, central-, local district-, and school-level administrators, teachers, paraprofessionals, and support staff) such that all may attain required technology competencies.*

Implementation Steps/Activities: **Timeline Code:** P **for** P**repare/**P**ilot** I **for Implementation Roll-out** C **for C**o**nclude/**C**ontinue**	**Timeline:** **(* Projections only beyond Year 3)**					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
5. Continue to offer training for classified personnel and paraprofessionals so that they can become highly qualified for their positions and best serve the needs of the District.	P	I	C	C	C	Training for classified personnel and paraprofessionals is offered to continue to their growth toward becoming highly qualified for their position.
6. Expand professional development opportunities by increasing online offerings of UPDATE.		P	I	C	C	25% of UPDATE offerings will be available online.
7. Develop a process for outside agencies to access federally funded professional development through UPDATE or the Learning Zone. This helps to ensure that greater community access and benefit from federally funded programs.	P	I	C	C	C	A process for outside agencies to access federally funded professional development through system-wide online staff-development is determined and implemented.
8. Continue to designate and expand the UPDATE program as a budget-funded District initiative so that it can continue to provide much-need technology training to teachers, administrators, and paraprofessionals.			P	I	C	The UPDATE program (or its future equivalent) is expanded and budget-funded so it may continue to serve as a technology training vehicle for teachers, administrators, and paraprofessionals.

Professional Development Goal:	**PD-2**	**Professional and Staff Development Opportunities** *LAUSD will continue to define, develop, deliver, and effectively manage a diverse array of professional and staff development opportunities for all District audiences (including, but not limited to, central-, local district-, and school-level administrators, teachers, paraprofessionals, and support staff) such that all may attain required technology competencies.*

Recommendations addressed by this Implementation Plan:	**PD-2.4** Train the subject-area coaches in integrating technology into the curriculum. Teachers participate in training in their content area as part of "meeting District goals." This could be a powerful bridge between instructional technology and instruction. By focusing on training the trainers, teachers will learn technology integration skills in the context of teaching, which is the ideal method of presenting this technique. (KFR 3.2.3)	**Recommendation Benchmarks:**	1. Professional/staff development opportunities (including content and delivery strategies) will be defined for all appropriate audiences within LAUSD by June 2007. 2. Differentiated professional/staff development opportunities in support of curriculum and technology integration will be offered for 100% of LAUSD educators by June 2009.
Leadership Responsibility:	**Information Technology Division** Instructional Technology Applications Facilitators Chief Instructional Officer, Elementary and Secondary	**Potential Funding Sources:**	Federal/State Grants Federal Entitlements Private Grants General Fund Bond Initiatives

Implementation Steps/Activities: **Timeline Code:** P **for** P**repare/**P**ilot** I **for Implementation Roll-out** C **for C**o**nclude/**C**ontinue**	**Timeline:** (* Projections only beyond Year 3)					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
1. Develop a series of workshops about technology integration for content coaches.	P	I	C	C	C	A series of technology professional development activities targeting content coaches has been developed and scheduled.
2. Compile a set of technology-based lesson plans to support core curriculum that is being addressed by content coaches. Create an area on inside LAUSD where these lesson plans can be posted.	P/I					A set of technology-based lesson plans has been created including a minimum of five plans for each core curriculum area for each grade level. These are posted on Inside LAUSD.
3. Research best practices in technology integration and post on the Inside LAUSD Website.	P	I	C			An annotated list of articles about best practices has been compiled in for each curriculum area and all grade levels and posted on Inside LAUSD.
4. Identify content area software which might enhance subject area teaching.	P					A list of available software by content area by grade level has been created.
5. Designate/hire an ITAF to support the content coaches in technology integration, as in the Integrating Mathematics and Science through Technology (IMaST) grant and the Middle School Technology Project (MSTP) models.	P	I				A position as been defined and assigned to assume responsibility for overseeing the technology integration training of content coaches.

4.5 Implementation Plans in Support of Goal PD-3: Highly Qualified Teachers

These implementation plans and their respective recommendations, implementation steps, time line, and monitoring and evaluation activities support the following goal:

Professional Development Goal:	**PD-3**	**Highly Qualified Teachers** *LAUSD will support the developmental processes (recruitment, selection, induction, and retention) that will attract and produce a cadre of highly qualified teachers working in schools. LAUSD will support the use of online training as well as access to electronic resources that support the further development and retention of highly qualified teachers.*
Recommendations addressed by this Implementation Plan:	**PD-3.1**	Continue to implement Business Tools for Schools (BTS), a Web-based human resource management system that addresses the needs of all aspects of human resource management: recruitment, hiring, payroll, advancement, tracking. (KFR 3.3.1)
Recommendation Benchmarks:	1.	An aggressive process for recruiting, selecting, and retaining highly qualified teachers within LAUSD will be developed and endorsed by June 2007.
Leadership Responsibility:		**Information Technology Division** Instructional Technology Applications Facilitators Chief Financial Officer Human Resources Chief Information Officer
Potential Funding Sources:		General Fund Bond initiatives

Implementation Steps/Activities: **Timeline Code:** P **for** P**repare/**P**ilot** I **for Implementation Roll-out** C **for C**o**nclude/**C**ontinue**	**Timeline:** **(* Projections only beyond Year 3)**					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
1. Identify the organizational needs of all divisions across the District, eliminate duplication, and manage the process of organizational change.	P					A user survey of the "business tools" needs for each division and regional district has been conducted.
2. Identify the various business systems that are related to the management of human resources, including applicant tracking, transcript analysis, payroll and benefits administration, security checking, certification, etc.	P					A comprehensive list of business tools and their capabilities has been assembled.
3. Identify the interdependencies of these business systems.	P					A crosscheck has been performed to identify those business tools that are currently available to meet the needs identified in the first step.

Professional Development Goal:	**PD-3**	**Highly Qualified Teachers** *LAUSD will support the developmental processes (recruitment, selection, induction, and retention) that will attract and produce a cadre of highly qualified teachers working in schools. LAUSD will support the use of online training as well as access to electronic resources that support the further development and retention of highly qualified teachers.*

Implementation Steps/Activities: **Timeline Code:** P **for** P**repare/**P**ilot** I **for Implementation Roll-out** C **for C**o**nclude/**C**ontinue**	**Timeline:** **(* Projections only beyond Year 3)**					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
4. As a component of the new BTS system, implement a comprehensive Web-based, candidate management system for the recruitment, selection, and retention of highly qualified staff. Implementation is anticipated in January 2007.	P	I	C	C	C	A Web-based portal has been created for posting positions, accepting applications, and expediting the hiring process, which links to the human resources and payroll system.
5. Analyze additional ways that this integrated solution can assist the District in making informed decisions about human resources, professional development, and finance.		P	I	C	C	A follow-up survey has been conducted to provide feedback about user satisfaction and define potential additions or improvements.

Professional Development Goal:	**PD-3**	**Highly Qualified Teachers** *LAUSD will support the developmental processes (recruitment, selection, induction, and retention) that will attract and produce a cadre of highly qualified teachers working in schools. LAUSD will support the use of online training as well as access to electronic resources that support the further development and retention of highly qualified teachers.*
Recommendations addressed by this Implementation Plan:	**PD-3.2**	Adopt a centralized system for tracking professional development plans, workshop credit, etc. that integrates with the BTS system. (KFR 3.3.2 and 3.5.4)
Recommendation Benchmarks:		1. An aggressive process for recruiting, selecting, and retaining highly qualified teachers within LAUSD will be developed and endorsed by June 2007. 2. 85% of teachers new to the District or having completed retraining to meet HQT criteria will have demonstrate an intermediate proficiency in the integration of instructional technology, as measured by the EdTech Profile, by June 2008. 3. 95% of teachers new to the District or having completed retraining to meet HQT criteria will have demonstrate an intermediate proficiency in the integration of instructional technology, as measured by the EdTech Profile, by June 2009.
Leadership Responsibility:		**Information Technology Division** Instructional Technology Applications Facilitators Human Resources Chief Information Officer
Potential Funding Sources:		Federal/State Grants Federal Entitlements Private Grants General Fund Bond Initiatives

Implementation Steps/Activities: **Timeline Code:** P for Prepare/Pilot; I for Implementation Roll-out; C for Conclude/Continue	**Timeline:** (* Projections only beyond Year 3) Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	**Monitoring & Evaluation Activities:**
1. Create a District-wide format for teachers, administrators, and staff professional development plans.		P				A standard staff development template has been adopted and made available to teachers, administrators, and staff.
2. Define a process for updating professional development plans with completion information from professional development registration system and linking to personnel records and payroll.		P	I			A process has been defined by which payroll and personnel are notified of updates in professional development credits.
3. Develop or adopt a Web-based portal for teachers to create their professional development plans and for their school administrators to access and comment.		P	I	C	C	A Web portal has been created so that teachers can access their professional development plans.
4. Perfect and refine the process of using online teacher evaluation forms (currently the Stull form) so that evaluations can easily be completed and uploaded to a teacher's human resources file.			P	I	C	An editable STULL evaluation form has been created and posted on Inside LAUSD.

Professional Development Goal:	**PD-3**	**Highly Qualified Teachers** *LAUSD will support the developmental processes (recruitment, selection, induction, and retention) that will attract and produce a cadre of highly qualified teachers working in schools. LAUSD will support the use of online training as well as access to electronic resources that support the further development and retention of highly qualified teachers.*

Recommendations addressed by this Implementation Plan:	**PD-3.3**	Develop and adopt a proficiency-based technology professional development system using the EdTech Profile as a basis for initial evaluation. (Global Rec. 5).	**Recommendation Benchmarks:** 1. 85% of teachers new to the District or having completed retraining to meet HQT criteria will have demonstrate an intermediate proficiency in the integration of instructional technology, as measured by the EdTech Profile, by June 2008. 2. 95% of teachers new to the District or having completed retraining to meet HQT criteria will have demonstrate an intermediate proficiency in the integration of instructional technology, as measured by the EdTech Profile, by June 2009.
Leadership Responsibility:	**Information Technology Division** Instructional Technology Applications Facilitators Chief Information Officer Human Resources		**Potential Funding Sources:** Federal/State Grants Federal Entitlements Private Grants General Fund Bond Initiatives

Implementation Steps/Activities: **Timeline Code:** P for Prepare/Pilot; I for Implementation Roll-out; C for Conclude/Continue	**Timeline:** (* Projections only beyond Year 3) Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	**Monitoring & Evaluation Activities:**
1. Adopt a set of technology standards (such as NETS) for all staff. (This has been done for teachers, but not for administrators, classified personnel, or paraprofessionals.)	P					A set of technology standards (such as NETS) has been adopted for all–administrators, teachers, and staff.
2. Create a database for disaggregating the EdTech Profile data to produce data identifying the strengths and weaknesses of individual teachers and administrators.	P	I	C	C	C	A database for individual EdTech Profile results has been created.
3. Create a Web-based portal for all staff to access assessment tool and follow-up activities.	P	I				A Web portal to staff assessment tool has been created for staff.
4. Develop or adopt a set of targeted professional development activities to provide training on specific technology competencies at each level. For example, basic spreadsheet skills, Internet search skills, etc. These could be delivered in a variety of formats, including print-based, CD-ROM, Web-based, and video.	P	I				A list of professional development activities has been compiled.

Professional Development Goal:	**PD-3**	**Highly Qualified Teachers** *LAUSD will support the developmental processes (recruitment, selection, induction, and retention) that will attract and produce a cadre of highly qualified teachers working in schools. LAUSD will support the use of online training as well as access to electronic resources that support the further development and retention of highly qualified teachers.*

Implementation Steps/Activities: **Timeline Code:** P **for** P**repare/**P**ilot** I **for Implementation Roll-out** C **for C**o**nclude/**C**ontinue**	**Timeline:** **(* Projections only beyond Year 3)**					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
5. Assign professional development modules to competencies that they address.	P	I	I	C	C	A matrix has been created identifying which professional development activities address which modules.

4.6 Benchmarks and Timeline

Benchmarks and timelines for implementing planned strategies and activities are included in the implementation plans in support of their respective goal statement. The benchmarks and timelines for the three Professional Development goals are found on pages 58-76.

4.7 Process Monitoring

As LAUSD moves forward with the District-wide implementation of an professional development system that addresses the needs of all staff in order to effectively integrate technology into the curriculum, an expanded, diversified professional development delivery system, and an aggressive model for recruiting and retaining highly qualified staff, district leadership has recognized both the value and challenges associated with process monitoring in a district of this size. They are constantly developing new and refining existing process monitoring strategies to ensure that implementations are tracked in a manner that is efficient, productive, and as seamless as possible, without adding to the burden of staff with significant workloads. The Process Monitoring Methods and Activities listed in the following matrix are proposed to track the progress of the Professional Development and Organizational Staffing Implementation Plans to achieve the targeted benchmarks. These methods will be refined and improved throughout specific implementations as additional communication channels and monitoring processes become available.

Professional Development Goal PD-1: Technology Competencies

LAUSD will define and support the attainment of differentiated technology competencies for all audiences within the LAUSD community to facilitate the integration of technology into the curriculum. (Supports Superintendent's Strategic Plan Goals 1, 3, 6, 14, and 16.)

IP #	Benchmarks	Process Monitoring Methods/Activities
PD-1.1	1. Technology competencies will be defined for all appropriate audiences within LAUSD by June 2007. 2. 80% of teachers, administrators, paraprofessionals and support staff will demonstrate mastery at the intermediate level of technology competencies by June 2009.	1. A representative team consisting of administrators, K-12 teachers will define technology competencies. Educational Technology and Instructional Division personnel will provide oversight and review on a quarterly basis. 2. Teachers, paraprofessionals, and support staff will be tested on mastery of competencies semi-annually beginning six months after publication of the competencies .
PD-1.2	1. Technology integration goals will be defined in all curriculum areas by June 2007. 2. 60% of teachers will demonstrate integration of technology into the curriculum by June 2009.	1. A representative team consisting of administrators, K-12 teachers representing all curriculum areas will define technology integration goals. Educational Technology and Instructional Division personnel will provide oversight and review on a quarterly basis. 2. A workshop focused on observing and evaluating teachers' technology integration will be conducted for principals.
PD-1.3	1. Technology competencies will be defined for the role of "technology custodian" by June 2007. 2. Technology custodian role will be established in 75% of schools by June 2008. 3. Technology custodian role will be established in 95% of schools by June 2010.	1. A project team consisting of current school technology support staff, administrators, and K-12 teachers will define competencies for the role of "technology custodian." Educational Technology, ITD, and Instructional Division personnel will provide oversight and review on a quarterly basis 2. District administration will collect and track data on schools that are being served by a technology custodian.

Professional Development Goal PD-2: Professional and Staff Development Opportunities

LAUSD will continue to define, develop, deliver, and effectively manage a diverse array of professional and staff development opportunities for all District audiences (including, but not limited to, central-, local district-, and school-level administrators, teachers, paraprofessionals, and support staff) such that all may attain required technology competencies. (Supports Superintendent's Strategic Plan Goals 3, 4, 8, 9, 10, 13, 15, and 16.)

IP #	Benchmarks	Process Monitoring Methods/Activities
PD-2.1	1. Differentiated professional/staff development opportunities in support of ISIS, CLAS, BTS, DSS, and Welligent according to the following targets: - 60% of LAUSD staff by June 2007 - 80% of LAUSD staff by June 2008 - 100% of LAUSD staff by June 2009.	1. These system-wide critical applications will be supported with a wide array of professional development defined and monitored by ITD, Professional Development, and ITAF staff. 2. District administration will collect and track data on staff participation in training on these applications.
PD-2.2	1. One system-wide online registration system for announcing and registering for all professional/staff development is endorsed by June 2007. 2. 75% of all LAUSD offered PD uses the system-wide online registration system for announcing and registering for professional/staff development opportunities by June 2008. 3. 95% of all LAUSD offered PD uses the system-wide online registration system for announcing and registering professional/staff development opportunities by June 2009.	1. ITD and Professional Development staff will design the online registration system with an executive sponsor providing quarterly review and assisting in the formal system-wide endorsement process. 2. The online registration system, itself, can be used to track rates of participation and other indices of usage.
PD-2.3	1. One system-wide online staff-development delivery vehicle for all professional/staff development is endorsed by June 2007. 2. 50% of all LAUSD online professional/staff development opportunities are offered using system-wide online staff-development delivery vehicle by June 2008. 3. 75% of all LAUSD online professional/staff development opportunities are offered using system-wide online staff-development delivery vehicle by June 2009.	1. ITD and Professional Development staff will design the online staff-development delivery vehicle system with an executive sponsor providing quarterly review and assisting in the formal system-wide endorsement process. 2. The Professional Development Division will track the number of courses completed online. 3. Those participating in online courses will be required to evaluate the course to enable continuous improvement
PD-2.4	1. Professional/staff development opportunities (including content and delivery strategies) will be defined for all appropriate audiences within LAUSD by June 2007. 2. Differentiated professional/staff development opportunities in support of curriculum and technology integration will be offered for 100% of LAUSD educators by June 2009.	1. A multi-discipline group including PD Division staff, administrators, K-12 teachers, and curriculum content specialists will define the initial set of new online courses. The group will seek consultation from experiencedonline course developers. 2. The Professional Development Division will track the level of participation in online courses.

Professional Development Goal PD-3: Highly Qualified Teachers

LAUSD will support the developmental processes (recruitment, selection, induction, and retention) that will attract and produce a cadre of highly qualified teachers working in schools. LAUSD will support the use of online training as well as access to electronic resources that support the further development and retention of highly qualified teachers. (Supports Superintendent's Strategic Plan Goals 1, 2, 3, 7, 8, and 9.)

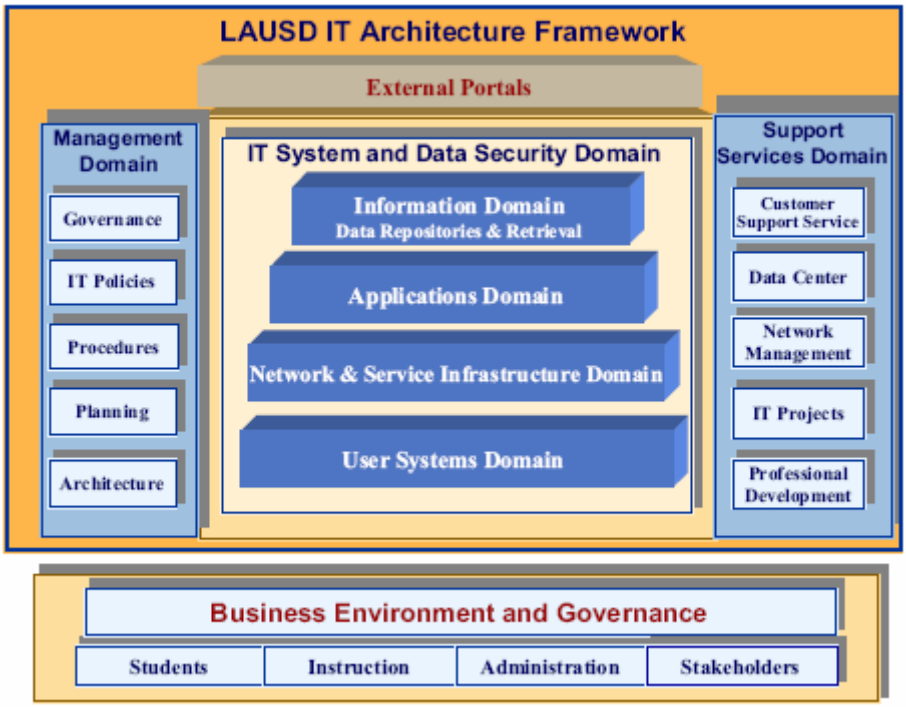
IP #	Benchmarks	Process Monitoring Methods/Activities
PD-3.1	1. An aggressive process for recruiting, selecting, and retaining highly qualified teachers within LAUSD will be developed and endorsed by June 2007.	1. A project team with broad representation from the central office and District administrators will plan multiple strategies for recruiting, selecting, and retaining highly qualified teachers. Monitoring by an executive sponsor who will also provide assistance in seeking official endorsement for the recruitment plan.
PD-3.2	1. 85% of teachers new to the District or having completed retraining to meet HQT criteria will have demonstrate an intermediate proficiency in the integration of instructional technology, as measured by the EdTech Profile, by June 2008. 2. 95% of teachers new to the District or having completed retraining to meet HQT criteria will have demonstrate an intermediate proficiency in the integration of instructional technology, as measured by the EdTech Profile, by June 2009.	1. The HR Division will track the performance of newly hired teachers and maintain records of attainment of HQT criteria as per the EdTech Profile. 2. Progress will be monitored on a semi-annual basis.
PD-3.3	1. 85% of teachers new to the District or having completed retraining to meet HQT criteria will have demonstrate an intermediate proficiency in the integration of instructional technology, as measured by the EdTech Profile, by June 2008. 2. 95% of teachers new to the District or having completed retraining to meet HQT criteria will have demonstrate an intermediate proficiency in the integration of instructional technology, as measured by the EdTech Profile, by June 2009.	1. The HR Division will track the performance of newly hired teachers and maintain records of attainment of HQT criteria as per the EdTech Profile. 2. Progress will be monitored on a semi-annual basis.

5.0 Infrastructure, Hardware, Technical Support, and Software

> *"Give me six hours to chop down a tree and I will spend the first four sharpening the axe."*
>
> —Abraham Lincoln

The purpose of the **Infrastructure, Hardware, Technical Support, and Software** section is to develop ways to enhance and expand advanced infrastructure systems for communication, computing, and networking throughout the District. Infrastructure systems provide fundamental technology services to all constituents within the District. By shifting delivery and implementation focus to service delivery models and total cost of ownership, the District will be able to increase systems capabilities, user satisfaction, and efficiency of expenditure simultaneously.

This plan takes into account the *LAUSD Superintendent's Strategic Plan*, the *LAUSD IT Strategic Plan and Architecture* and the board-approved IT Infrastructure Strategic Execution Plan (SEP) developed around bond initiatives. These documents provide for infrastructure design, development, and support to realize the goals set forth in this technology plan. A graphic of LAUSD's IT Architecture Framework is shown below.



Technology plans are often developed to meet a mandate by federal or local agencies and when completed are nothing other than grand lists of equipment purchases with no alignment to improving teaching and/or learning. These plans are abandoned and relegated to bookshelves in various offices reminding staff and administrators that although the mandate

has been met - nothing has or will be implemented. It has been said that *form follows function*, and so too, does Section 5.0 of this plan. The *Infrastructure, Hardware, Technical Support, and Software* section may be a grand list of equipment but has been developed to ensure that the goals and objectives of both the *Curriculum* and *Professional Development* sections of the technology plan can and will be met.

5.1 Resources to Achieve Curriculum and Professional Development Components

There is a phenomenon, due to the technology imperative, which compels people and organizations to continually replace, upgrade and purchase information systems in order to satisfy concerns that if they don't, they will fall behind. The business world has slowly recognized that technology alone does little to improve the organization or the work that is accomplished. The LAUSD recognizes this and as such has spent considerable time defining the goals and objectives of curriculum and professional development as drivers for the technology resources needed to achieve positive change.

To achieve the five goals in support of curriculum and the three goals defined in the area of professional development a robust technological foundation must be built and maintained over time. Many components of this technological foundation exist today in LAUSD and this technology plans outlines the requirements to complete this foundation. The resources required achieving the curriculum and professional development goals fall into six major categories and are described in detail in the sections that follow:

- Technology Hardware
- Electronic Learning Resources
- Networking and Telecommunications Infrastructure
- Physical Plant Modifications
- Technical Support
- Policy, Procedures, and Planning

5.1.1 Technology Hardware

Technology hardware is defined in this plan as all of the end user equipment necessary to meet the goals of both curriculum integration and professional development. This end user equipment includes computers, printers, video conferencing units, projectors, PDA's, and other peripheral devices essential for effective teaching and learning.

Workstations

A majority of the goals identified in Section 3.0 and Section 4.0 depend upon having sufficient access to computer workstations for both students and teachers. There are a number of factors that need to be evaluated to determine the number of computers needed in order to meet District goals. Some of these factors include 1) analyzing which teachers are scheduled for training (or have already been trained) on each of the Enterprise Wide Systems

(Student Information System, Centralized Library Automation System, Business Tools for Schools, Decision Support System, and Health Services System), 2) identifying teachers who have developed lesson plans and have had appropriate training for curriculum integration, and 3) targeting schools that need to accommodate digital divide inequities for various student populations. The District will redefine the computer distribution ratio as a factor of total teacher and student population per school building and develop a technology update cycle plan to refresh the investment in workstations to ensure replacement every five years. This new algorithm will support flexibility and provide greater on-demand and/or one-to-one access. With a K-12 student population hovering near 727,000 and a staff population of about 75,000 it is estimated that the District will require a minimum of 200,000 workstations (1 workstation per 6 students plus 1 workstation per staff member) over five years with continued replacement of 40,000 workstations per year after full deployment.

Peripherals

The District has recently completed a pilot of interactive whiteboards, probes, and science and math resources in selected grade 7 and 8 math and science classes. An evaluation was conducted between the pilot schools and the non-pilot schools and LAUSD was pleased to see a significant increase in Grade 8 Math scores. Although there are many variables that need to be further evaluated with respect to contributing to the success of the pilot, LAUSD is confident that a significant factor was the use of certain peripheral devices. Therefore the District will develop minimum configuration specifications for instructional learning tools and peripherals, continue with pilot programs to assess the impact of such devices on student achievement, and develop procurement plans for peripheral devices that align with staff development and workstation deployment.

5.1.2 Electronic Learning Resources

Electronic Learning Resources (ELRs) are defined in this plan as all of the software components necessary to meet the goals of both Curriculum Integration and Professional Development sections. There are two distinct categories of ELRs - the first is referred to as Learning Applications, which is the software used by students and teachers such as Math Online and Vantage Writing and operate as a complement to curriculum. The second is referred to as Administrative Applications. Administrators and teachers use these software applications (such as student information systems, decision support systems, and financial systems) to support effective planning and operations of the school environment. The California Learning Resources Network (CLRN) is a California Department of Education (CDE) tool that teachers and administrators have available to select electronic learning resources meeting State standards.

Learning Applications

The main purpose of this technology plan is to have a measurable, positive impact on student achievement. There are countless resources available to enhance teaching and learning that go beyond merely accessing the Internet or having an office suite available for word processing, spreadsheet development,

or presentation. These applications include - FastForWord, Math Online, Vantage Writing, Read 180, and Compass Learning**.** In addition to traditional software applications, the District continues to investigate and pilot emerging technologies such as, multiple-user, editable Websites (wikis), blogging, and skyping for instructional purposes. As more and more applications become available via the Web, LAUSD will be required to establish instructional network accounts for both teachers and students. The District needs to 1) expand and formalize a program for piloting various applications, assessing both qualitatively, and quantitatively the impact of the pilot, 2) develop plans for acquisition and training in the event that pilots are successful, and 3) implement software acquisition and training plans to ensure equitable access to successful programs throughout the District.

Administrative Applications

There are five major systems that fall under the category of Administrative Applications. These systems include ISIS (Student Information System), CLAS (Centralized Library Automation System), BTS (Business Tools for Schools), DSS (Decision Support System) and Welligent (Health Services System.) The No Child Left Behind Act and other federal, state, and local requirements mandate that certain data be collected and reported throughout the year. Upgrades to these systems have and will assist the District in more efficiently collecting and reporting this data to local, state, and federal agencies. LAUSD believes, however, that the upgrade and improved interoperability of these systems goes far beyond improved efficiency by enabling the District to assess and forecast student performance and modify curricula to maximize teaching and learning. Therefore, the District will work to ensure that all administrative applications are designed and implemented to transparently interoperate.

5.1.3 Networking and Telecommunications Infrastructure

Networking and Telecommunications Infrastructure is defined in this plan as those components of infrastructure that are transparent to end users but necessary for the effective and efficient use of both 5.1.1 Technology Hardware and 5.1.2 Electronic Learning Resources. Components include the Wide Area Network, Local Area Networks, Internet Access, Telecommunications Services, and Communications Servers.

Wide Area Network (WAN)

The WAN is that network that connects all schools within the LAUSD to each other via a combination of frame relay circuits, Metro-Ethernet, wireless, and fiber. The bandwidth demands of the WAN are increasing exponentially with the implementation of both the Integrated Student Information System (ISIS) and the Business Tools for Schools (BTS) application. Combining this usage with increased integration of Application Service Providers (ASP's) and the desire to expand video conferencing for student AP courses and teacher professional development, it becomes evident that a scalable and reliable WAN is essential to the success of the overall technology plan. Therefore, the District will evaluate future bandwidth requirements to sufficiently meet the various traffic demands of applications and users in order to determine if the current WAN should be modified, upgraded, and/or redesigned. Once the evaluation is

complete the LAUSD will issue a Request for Proposal (RFP) and develop a deployment plan that will prioritize locations based on anticipated instructional and administrative use for each school.

Local Area Network (LAN)

The LAN is comprised of all of the components within a school or District facility that interconnect workstations and peripherals within that same school or facility in order to share District/school resources, such as file servers or Internet access. Various applications including ISIS, CLAS, BTS, DSS and Welligent, as well as increased usage of Internet and the desire to expand services such as video conferencing, have and will continue to require that all LAUSD LANs are reliable and robust enough to handle the increasing traffic demands. Therefore, the District will develop specifications and standards for procurement, installation and maintenance of all District LANs to ensure that interconnectivity between devices within each school or District facility is efficient and reliable to meet all LAUSD technology goals.

Internet Access

Internet access is simply the connectivity for school and District facilities to the World Wide Web. Success of Section 3.0 Curriculum and Section 4.0 Professional Development of this Technology Plan depend upon reliable and high-speed access to the Internet. As such, the District will continue to provide adequate Internet access for each LAUSD facility.

Telecommunications Services

All communications systems other than WAN are classified in this plan as telecommunications services. These services include access to the Public Switched Telephone Network (PSTN) for dial tone, cellular service, long distance access, pagers, etc. The evolution of new technologies such as Voice over IP (VoIP) combined with the affordability of higher speed WAN connectivity have recently demonstrated that considerable cost savings can be realized when large scale institutions converge their voice and data networks. Open communication between teachers, staff, and parents is essential to the success of any school district. The LAUSD believes that a considerable cost savings can be realized if LAUSD were to migrate to technologies such as VoIP. Although, this migration would not directly address the goals of Curriculum and/or Professional Development sections, it would be a catalyst for the success of this technology plan by reducing operating costs within the telecommunications budget and making that savings available for other operating costs such as a WAN Upgrade or technical support. Therefore, the District will assess current access to voicemail and dial-tone and develop a comprehensive plan to fully migrate to newer telecommunications technologies to reduce annual operating expenses.

Communications Servers

Communications servers are those combinations of hardware and software that are either distributed at schools and District facilities and/or are centrally located. These servers are utilized for file storage, user access, print services,

email, WEB, DHCP, and various applications that are shared over the network verses installed on a computer workstation. There are multiple considerations that need to be reviewed when determining if servers should be distributed or centrally located – each choice having an impact on budget (Section 6.0), technical support (Section 5.1.5) and security and business continuity (Section 5.1.6). Due to this, LAUSD will investigate the benefits and disadvantages of a distributed server solution or a consolidated, centrally located server solution and determine which solution best meets District goals.

5.1.4 Physical Plant Modifications

Physical Plant Modifications are defined in this plan as those enhancements to facility infrastructures such as data cabling or electrical distribution necessary to ensure that both 5.1.1 Technology Hardware and 5.1.3 Networking and Telecommunications Infrastructure can operate efficiently. Typical enhancements in this category of the plan have a useful life of a minimum of 10 years. To ensure that Renovations and New Construction Strategic Execution Plans (SEPs) have adequate electrical power and data cabling to accommodate the technologies defined within this plan, the IT department will work with facilities to modify and amend all specifications pertinent to technology, specifically those within Division 26 and/or Division 27 of the Construction Specification Institute (CSI).

5.1.5 Technical Support

Technical Support is defined in this plan as all of the resources necessary to guarantee efficient operations of 5.1.1 Technology Hardware, 5.1.2 Electronic Learning Resources and 5.1.3 Network and Telecommunications Infrastructure. Components under this category of the plan include but are not limited to operational staff, help desk tools, and personnel and maintenance contracts, all of which are dedicated to maintaining and enhancing instructional and administrative technology hardware and software. There are three categories of support that are essential to the success of this plan:

End-User Support

The keystone for success of the Technology Plan is the regular use and integration of technology by LAUSD teachers and staff. Merely acquiring technology and training staff on effective and appropriate uses does little to ensure that the technology is used effectively. The District has to augment training by providing continual resources to assist teachers, staff, and students with the myriad of issues that arise such as "I forgot my password!" to "Is there an existing query of student test results for my school juxtaposed with free and reduced lunch participation?" With this in mind, the LAUSD needs to develop a comprehensive plan for end-user support that may include expanding the role of the Help Desk, deploying site-based personnel for first line support, adapting and adopting the "Coaching Model", and bundling support service with the various District software providers.

Hardware Support

The useful life of most technology components is somewhere between three to five years. A refresh cycle of five years is planned for the Technology Hardware reviewed in Section 5.1.1 and a longer refresh cycle will be defined for the Telecommunications and Network Infrastructure equipment reviewed in Section 5.1.3. The goals in this plan depend upon the reliable operation of the technology deployed. To guarantee that all systems meet an adequate standard of reliability, LAUSD needs to continue to 1) extend warranties at purchase time of technology hardware, 2) develop Service Level Agreements (SLAs) with equipment providers and 3) develop a process for tracking warranty issues and expiration dates of those warranties.

Technical Support

The final category of service is the need for technical support. This level of support is for the handling of issues transparent to the end-users but necessary to ensure reliable and resilient operations of the WAN, LAN, servers, phone systems, and telecommunications services. An organizational plan needs to be developed that defines roles and responsibilities for existing Microsoft Support Assistants (MSAs), Instructional Technology Application Facilitators (ITAFs), current network and operational staff, and various District support partners such as those provided through contracts with SAIC.

5.1.6 Policy, Procedures, and Planning

In addition to the technology resources of hardware, software, infrastructure, and support, the Information Technology Division believes that this Technology Plan can only be successful if attention is given to critical methodologies of policies, procedures, and planning. One of the most critical areas of concern for the District is Application Security. As the largest employer in the City of Los Angeles, it is critical to protect the confidential records of both the 75,000 District employees and nearly 727,000 K-12 students. A substantial part of this need is to prevent identity theft and an equal need to meet governmental regulations for protection of information and students. A second policy area that could confer great benefit to LAUSD is implementation of District-wide high volume purchasing agreements and the attendant means for materials management. A third policy area is implementation of a team to review the technology elements within grant applications and proposals to assure alignment with District technology mission and objectives.

Policies and procedures need to be reviewed to ascertain the most efficient and effective means for salvaging and disposing of aged or replaced equipment. Many alternatives are available to the District such as trade-in, resale, or disbursement which can and does reduce the overall cost for implementation of new solutions and increase the accessibility of technology to the community.

5.1.7 Summary

Listed below is a summary of the requirements identified in this chapter to support the activities in the Curriculum and Professional Development components of this plan.

Technology Hardware		
TH-1	Redefine the computer distribution ratio as a factor of total teacher and student population per school building.	Annual refresh for student and staff workstations
TH-2	Determine minimum configurations for instructional learning tools and peripherals beyond computers at each instructional level.	Phase in of additional peripherals for teaching and learning
Electronic Learning Resources		
ELR-1	Continue to identify best practice, research-based instructional applications for systematic integration across LAUSD.	Formal pilot and purchase of resources
ELR-2	Ensure the interoperability of the five major District-wide system implementations (ISIS, CLAS, BTS, DSS, Welligent) by designing the data warehouse architecture to encompass all of these systems transparently without redundancy of information and process.	Personnel and technical design
Networking and Telecommunications Infrastructure		
NTI-1	Increase bandwidth to meet instructional needs and improve access to the Internet. LAUSD will explore and utilize all viable solutions to apply the most appropriate technological solution based on the type of need at the school site.	WAN upgrades and improvements
NTI-2	Perform a comprehensive LAN analysis at school sites to determine greatest needs, number of ports, identify the need for traffic management and develop budgets.	LAN Analysis and Upgrades
NTI-3	Maintain and expand communications services to school sites to keep pace with increased needs for communication between teachers, students, parents and others for instructional purposes. Continue to maintain, expand, and converge telephony infrastructure.	Communication services convergence
NTI-4	Explore the possibility of centralizing some or all school level site-based servers.	Develop strategies for current site-based servers

Physical Plan Modifications		
PPM-1	Develop review cycles for the New Construction and Existing Facilities Strategic Execution Plans (SEPs). Amend SEPs as new standards and educational technology requirements are developed. Security of buildings and instructional computing resources should be centralized and ubiquitous.	Security review and building-level security systems
Technical Support		
TS-1	Develop a technology support structure to complement the Help Desk that meets the needs of the end-users at the central office, local district, and school levels.	Central level support staffing
TS-2	Explore options to standardize local technical support and coordinate with central support.	Site-based support staffing, "Technology Custodians"
TS-3	Explore options for supporting ISIS. This support is for the transparent components of the tech plan such as WAN, LAN and infrastructure.	Central level support staffing

5.2 Current Status

Prior to determining how LAUSD is going to obtain the resources discussed in section 5.1, it is prudent to review the current status within the District currently in the areas of Technology Hardware Resources, Networking and Telecommunications Resources, Electronic Learning Resources, and Technical Support Resources.

As a component of updating the *LAUSD 2006-2009 Education Technology Plan,* CELT Corporation assisted LAUSD with a comprehensive needs analysis in the fall of 2005. The complete results of this needs analysis comprises the Key Findings and Recommendations Report (January 2006) that is located on the LAUSD Website. The information included in sections *5.1 Resources to Achieve Curriculum and Professional Development Components* and *5.2 Current Status* is a summary of the recommendations and findings that resulted from key stakeholder interviews, focus groups, and critical LAUSD document review.

LAUSD's Information Technology Division is organized as follows:

The head of the Information Technology Division is the Chief Information Officer (CIO) who manages the following departments:

- IT Support Services provides and manages ITD's financial reporting and accounting functions.
- IT Security develops and oversees security strategies for the District's use of information technology, and establishes systems and procedures that prevent unauthorized access to or use of District technology resources.

- The IT Executive Administrator manages implementation of the new Enterprise Resource Planning (ERP), which includes the replacement of Financial, Payroll, and Human Resource systems.
- IT Educational Technology Group coordinates instructional technology in support of the Superintendent's curricular goals to provide students and teachers with access to quality resources and programs. IT Educational Technology Group also manages the IT Help Desk and on-site technician dispatch which provide primary technical support services to schools and offices.
- IT Training manages training and ongoing support services to all District staff in the use of core administrative and business applications.
- Information Systems develops and supports student and information management systems and the tools to manage business, human resources, payroll, school, and student level data.
- IT Infrastructure Group develops and designs the District's overall information technology infrastructure. Establishes and maintains technology related standards and specifications, and architecture design. Manages programs related to IT infrastructure installations.

The IT Infrastructure Strategic Execution Plan (SEP) continues the implementation of the infrastructure-related initiatives outlined and described in the *2003 District IT Strategic Plan and Architecture* and the former *Instructional Technology Plan*. The current SEP includes major infrastructure projects addressing LAN modernization and upgrade, WAN expansion and modernization, telecommunications emergency assistance, school site telephone wiring and telephone line consolidation in support of the goals of this plan. Brief descriptions of current state and/or existing District initiatives are listed on the following pages.

5.2.1 Technology Hardware

Technology hardware is defined in this plan as all of the end user equipment necessary to meet the goals of curriculum integration and professional. The District has made considerable technology hardware investments to support curriculum and professional development over the past five years. The following is a summary of the status of technology hardware that includes a review of workstations and peripherals.

Workstations

During the last five years (statistics began in 2000), there has been a dramatic increase in the number of computers within LAUSD. Currently there are about 185,000 workstations deployed District-wide. Unfortunately, most of the instructional computers are outdated with many having less than 128 Mb of memory. The District has chosen to support both Windows and Macintosh platforms, with minimum configurations set for the purchase of new systems. The District has formalized agreements with Apple, Gateway, and IBM for hardware. All new equipment is purchased through one of these vendors and includes a 3-5 year service contract.

As noted in a May 2005 memo to the LAUSD Board of Education from the District CIO, "There is no single source for obtaining an absolute figure for the number of computers in the District …." It was suggested in this memo that "The ultimate goal for the District would be to have a central funding line to replace old computers as well as increase the number of computers at schools, and to develop a database to track computer purchases District-wide as a recent Office of the Inspector General (OIG) Report recommended."

Peripherals

Schools are requesting more projection devices, probes, handheld computers, digital microscopes, interactive digital white boards, printers, multi-function devices, and digital cameras. The ability to project to large groups using interactive white board technologies, projection devices, visualizers, and data projectors is not universally available throughout the District. Title I schools generally have more funds to spend on technology than non-Title 1 schools, and as such have made considerable investments in peripherals creating an inequity with regards to accessing these technologies. Currently there are no centralized purchase agreements for these peripherals and no formalized process of binding requests to programs.

5.2.2 Networking and Telecommunications

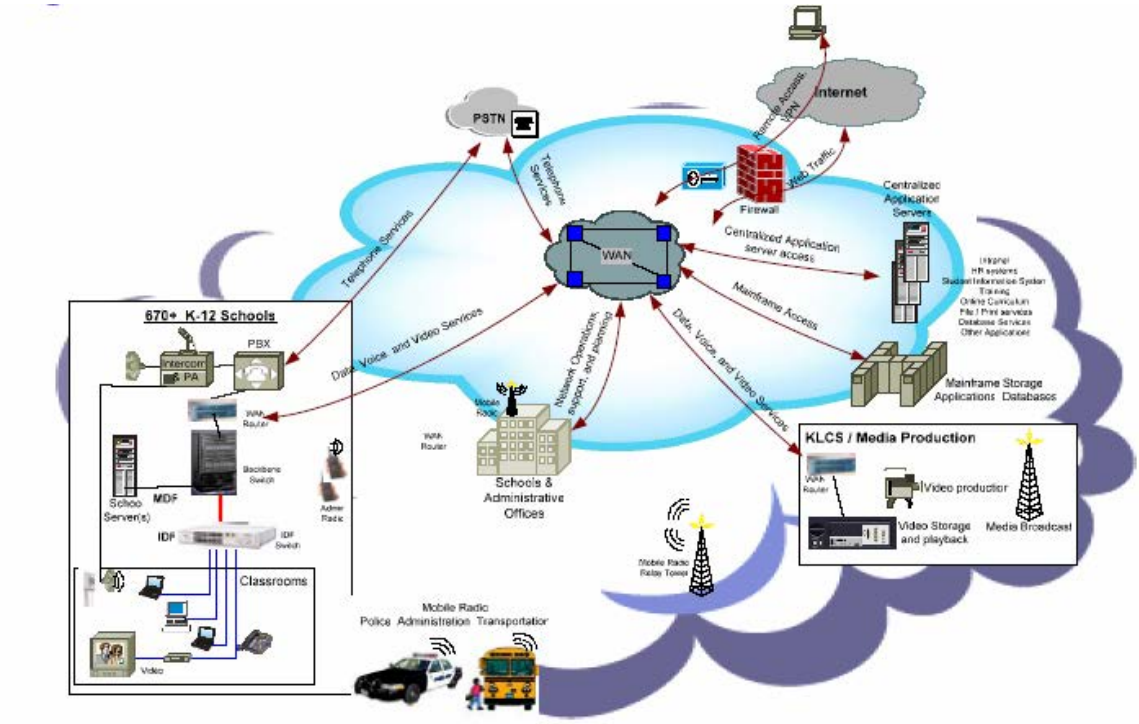
Every K-12 school is connected to the Internet via a minimum of a T-1 connection from the school to the Internet Service Provider (ISP). Between 2000 and 2005 the number of schools connected to the Internet increased from only 31 to 765. Although all of the schools currently have access to the Internet, the quality of this connection at the classroom level is not adequate for daily instructional use in some locations. The cause of the latency could be a result of older LAN infrastructure in need of equipment refresh or LAN to WAN connectivity in need of more bandwidth. In all cases this latency is related to infrastructures that have exceeded their functional capacity or site based situations causing erroneous traffic on the network. Every K-12 school is connected to the Internet by a minimum T-1 connection from the school to the District's WAN. The District's WAN has multiple connections to Internet service providers and the California Research and Education Network (CalREN). CalREN is the State's Internet II backbone and the District's direct link to resources on the K-12 High Speed Network (K12 HSN).

Wide Area Network (WAN)

The current District WAN is comprised of T-1's from a majority of schools connected back to the central office via DS-3's. In addition, there are about 3 schools that are connected back to the District office via point-to-point fiber connections with data transmission speeds of between 100 Mbps to 1000 Mbps. The majority of Early Education Centers (EECs) are connected to the District's WAN via DSL for data and voice services. The current WAN is not sufficient for convergence of voice and video traffic or access to consolidated servers hosting various applications and data.

The following high-level diagram illustrates the District's information technology infrastructure systems supporting critical information delivery and security services, including:

- The Wide Area Network (WAN) that includes data and voice equipment and circuits which connects all District offices, schools, and other locations to District and Internet resources, school, and office site Local Area Networks (LANs) that provide data and, in some cases, voice communications
- Telephones, voice circuits, Private Branch Exchange (PBX), or basic telephone equipment. Public address and intercommunication systems to connect classrooms to offices for voice communication
- Cellular and radio services for on-campus safety and for transportation and school police communication
- Intrusion alarms



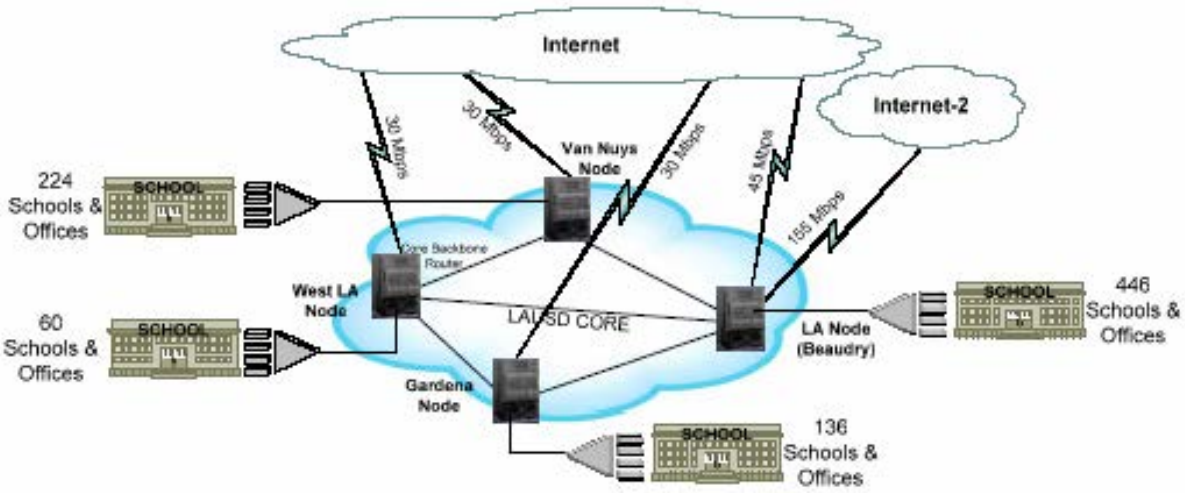
LAUSD's *Infrastructure Strategic Execution Plan (SEP)* identified the need for all 1,200 District schools and offices to connect to one of four nodes (333 South Beaudry Ave., Van Nuys, Gardena, and West Los Angeles) that make up the District's Wide Area Network (WAN). Each node site has equipment necessary to access District central instructional and business resources and the Internet. A large amount of the current WAN equipment has expiring leases and is approaching "end of life." Other networking equipment is over ten years old and needs to be replaced to address the following needs:

- Increased bandwidth
- Increased services

- Security requirements protecting staff and student privacy and reducing the impact of computer viruses and other malicious computer activities
- Maintain and ensure network reliability and access to District online instructional and business systems, and the Internet
- Reduce ongoing maintenance support and network management costs
- Additional equipment needed to connect all new schools

To meet the above needs, the WAN project includes the following:

- Replace end-of-life leased equipment at the Van Nuys node
- Install equipment and circuits to accommodate new schools
- Consolidate circuits on the new equipment
- Redesign the network to reduce equipment and circuit needs at the Gardena and WLA nodes
- Balance data traffic to improve efficiency

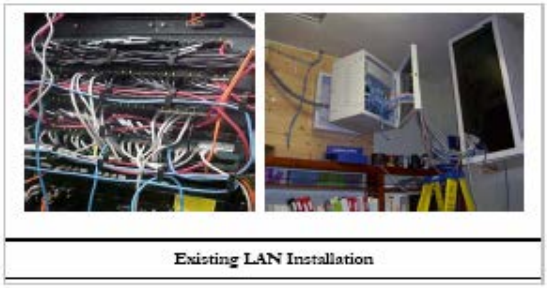


Local Area Network (LAN)

The District has accomplished a phenomenal achievement over the past five years in building and maintaining District LANs. Classrooms with Internet connectivity has increased from 1,200 in 2000 to 30,766 today. This represents nearly 90% of all classrooms within LAUSD. However, due to both the increase in traffic on school LANs combined with the advancements in Layer 3 Technologies, the District needs to upgrade and enhance the LANs in nearly every school.

Included in the *IT Infrastructure Strategic Execution Plan (SEP)* is a plan to modernize or upgrade LANs at potentially up to 450 schools. The LAN upgrade projects replace outdated electronics, install new cabling and replace deteriorated cabling as needed, and/or install wireless to reduce cabling requirements. The scope provides for a single integrated network that will provide an acceptable performance level and accommodates increased

bandwidth and security requirements. Installations that support instructional and business needs while reducing ongoing maintenance and support costs are uniform, use industry best practices, and are standards-based.



Existing LAN Installation

New LAN Installation

Internet Access

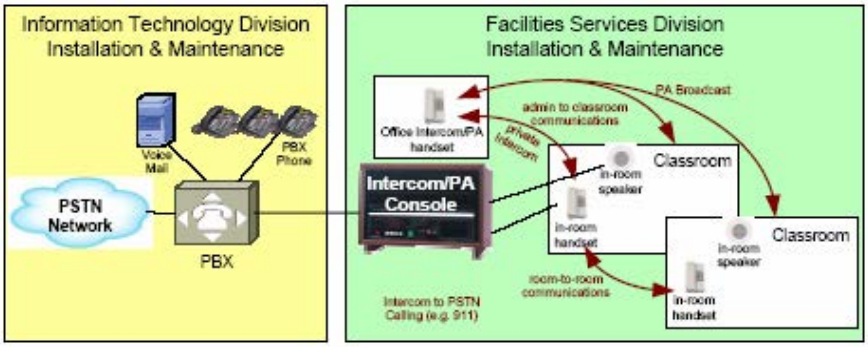
Every school is connected to the Internet via a minimum of a T-1 connection from the school to the Internet Service Provider (ISP). Between 2000 and 2005 the number of schools connected to the Internet increased from only 31 to 765. Although all of the schools currently have access to the Internet, the quality of this connection at the classroom level is not adequate for daily instructional use because of inadequate bandwidth from schools to the District's WAN.

Telecommunications

LAUSD has identified three major telecommunication project areas that work to achieve greater access and cost efficiencies:

- Emergency assistance (911) access from all classrooms
- School site telephone wiring replacement
- Telephone line consolidation

The Emergency Assistance (911) project will address the need for teachers, staff, and students to be able to access 911 emergency services from all classrooms. The establishment of the 911 emergency services access will be coordinated across the District's Facilities Services Division and ITD. Through ongoing Safety and Technology projects, the Facilities Services Division is installing the Intercom/PA console, cabling to the classroom, classroom phones, and connecting the completed Intercom/PA system into the PBX to achieve 911 access from classrooms (see diagram below.)



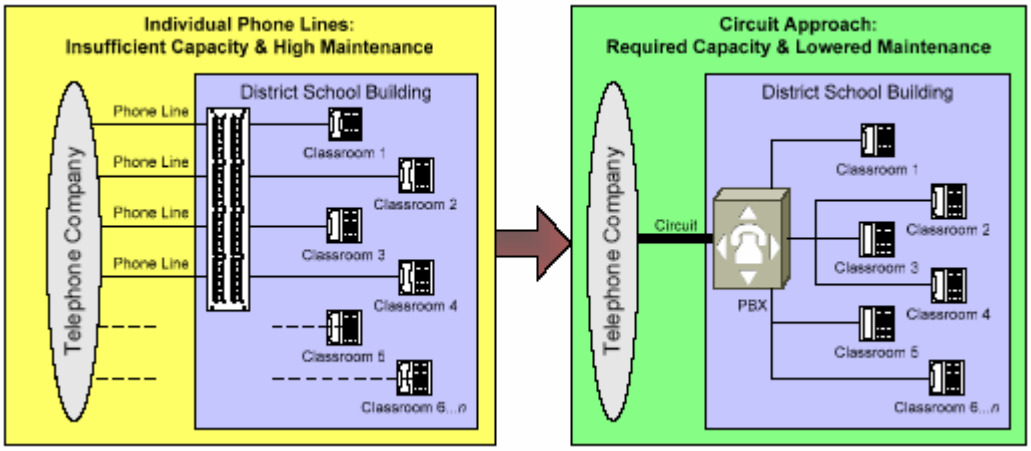
The Information Technology Division's scope is to replace or upgrade the older key system or PBX equipment making it possible to achieve 911 access from classrooms as the Safety and Technology projects are completed. The scope includes:

- Replacing obsolete telephone equipment at 76 school sites
- Upgrading software and equipment components for the existing telephone equipment at 593 school sites

Old Key System Technology | New PBX Technology

The School Site Telephone Wiring project addresses the needs of eleven schools that are experiencing problems with phone communications. These sites have deteriorating and failing telephone wiring that is over 40 to 50 years old. The project scope is to replace the deteriorating wiring at the eleven schools to provide reliable service and reduce maintenance costs.

As classrooms are connected to the school's main telephone switch, the demand for more telephone lines increases. The Telephone Line Consolidation project will address this need by consolidating telephone lines and circuits and consolidating multiple telephone systems into one system at 130 schools where limited cables are available.



5.2.3 Electronic Learning Resources

Electronic Learning Resources (ELRs) are defined in this plan as both Learning Applications and Administrative Applications.

Learning Application

Application software purchasing is done primarily at the school level. Due to this, there is some concern that software products are being purchased by schools with little or no research as to their effectiveness. Some school leaders would like the District to narrow the options and make recommendations for specific applications to meet the needs of particular audiences with specific needs to achieve AYP. Currently the only District-wide software licenses purchased and installed on all LAUSD computers are 1) Norton anti-virus, 2) Microsoft Office productivity suite, and 3) GIS (Geographic Information Systems).

Administrative Applications

The District has spent more than $100 million developing the BTS. There is currently no formal monitoring or evaluation protocol to demonstrate that it is being used effectively. There is concern that the scope of projects and the interdependencies were not defined clearly at the onset. There is considerable frustration because initiatives are in place, but many do not integrate with or adapt to the needs of LAUSD. The District, however, is doing a good job of moving from decentralized systems to centralized systems. Investments in ISIS, CLAS, DSS, and Welligent complement the investments made in the BTS application suite. During the course of the implementation of the administrative applications, between 3,000 and 4,000 administrators have been trained.

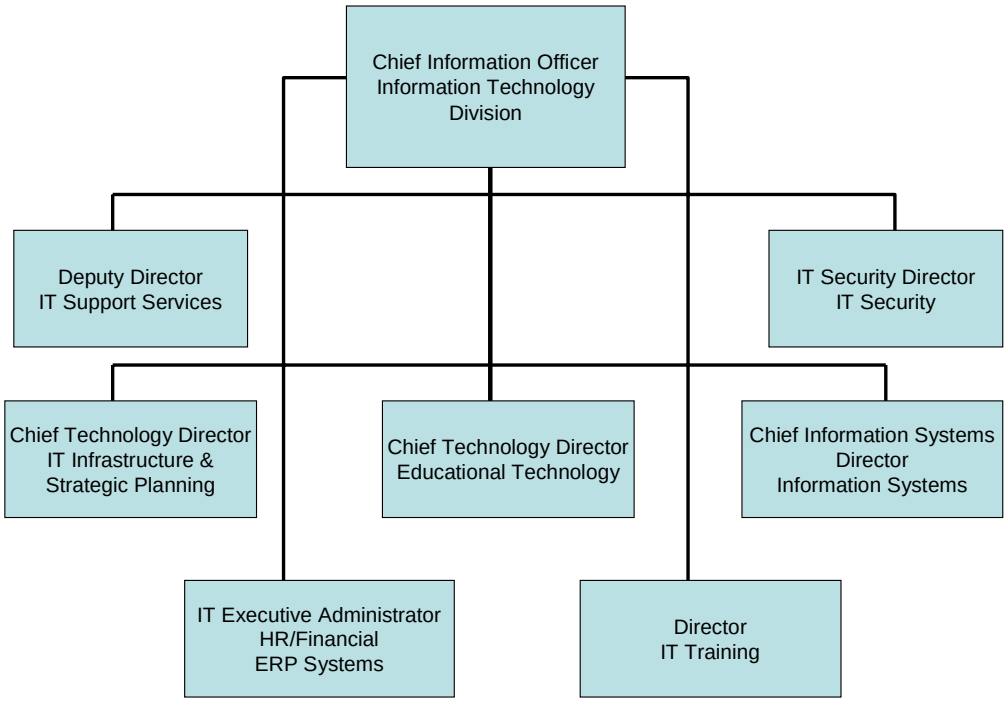
5.2.4 Technical Support

Technical Support is one of the most critical factors for success of this or any technology plan. Currently, the District has 20 Instructional Technology Applications Facilitators (ITAFs) who are responsible for the coordination of professional development, curriculum integration, and other issues related to technology support at both the school and District levels. There are not enough ITAFs to provide the ongoing, day-to-day integration and support for users in the schools and administrative offices.

The increase in technology use for teaching and learning has had the added effect of generating greater demand for school-based microcomputer support assistants. Some schools have implemented student technology teams to provide technical support for teachers. In addition, the Information Technology Division has established an IT Help Desk that provides one central location for users to receive help on computer, network, or software issues. This Help Desk has been successful to date, however the demand is increasingly exceeding capacity.

LAUSD's Information Technology Division is responsible for all technology support for the District. ITD is divided into multiple, inter-working branches to supply central support and is organized as follows:

INFORMATION TECHNOLOGY DIVISION



The LAUSD IT Customer Support Services Branch provides the following central support services:

- Supports the IT infrastructure; networks, public address systems, intercoms, intrusion alarms, radio systems
- Facilitates the repair of out-of-warranty end-user devices
- Troubleshoots Windows and Macintosh operating systems on District-owned computers
- Services computer peripheral and electronic equipment (if staff have the technical skills to support) Not all miscellaneous equipment, printers or PDAs are supported
- Maintains Student Records

The IT Customer Services Branch has consolidated all IT support. An IT Help Desk has been created and staffed. Help desk calls are tracked through an "Implemented Enterprise Service Management System." Customer support service representatives have been hired to maintain ownership of reported problems and ensure the problem is resolved. Additional supplemental support services have been contracted to work in conjunction with Help Desk personnel.

To help support technology integration, the Instructional Technology Branch has established central Instructional Technology Application Facilitator (ITAF) positions. The ITAFs are responsible for:

- Support of innovative uses of technology in the classroom
- Promotion of the integration of technology into the curriculum
- Providing professional development to District employees
- Serving as a resource for teachers and administrators at school sites
- Implementing educational technology grants

5.2.5 Policies

LAUSD's Acceptable Use Policy (AUP) for District Computer Systems, Policy Bulletin No. BUL-999, is available on the District's Website. The current policy is a revision of an earlier bulletin and was established on January 8, 2002. All users of the Los Angeles Unified School District computer systems by either students or employees are subject to the LAUSD's Acceptable Use Policy. Site administrators must distribute, collect, and keep on file completed forms from students and employees prior to authorizing access to the Internet or the District's network. The forms include:

- Attachment A: AUP Information and sign-off form for Parents and Students
- Attachment B: AUP Information and sign-off for Employees

LAUSD uses technology protection measures to block or filter, to the extent practical, access of visual depictions that are deemed obscene, pornographic, and harmful to minors over the network. Other unacceptable uses include selling or purchasing illegal items or substances, spamming or spreading viruses, using profane or abusive language, or using any District computer to pursue "hacking" internal or external to the District. Schools must verify each year that students using the computer network and Internet access have a signed page acknowledging this policy.

The Acceptable Use Policy and attachments are included in Appendix A of this plan.

5.3 Implementation Plans in support of Technology Hardware

These implementation plans and their respective recommendations, implementation steps, timeline, and monitoring and evaluation activities support the Technology Hardware needs described in section 5.1.1.

Resource Area:	**Technology Hardware**		
Recommendations addressed by this Implementation Plan:	**TH-1** Redefine the computer distribution ratio as a factor of total teacher and student population per school building. (KFR 4.3.3)	**Recommendation Benchmarks:**	1. The inventory of workstations will be completed and verified by Dec 2006. 2. Budget and funding will be secured by Jun 2007. 3. Rollout of initial purchase between Jul and Sep 2007
Leadership Responsibility:	**Information Technology Division** Instructional Technology Applications Facilitators	**Potential Funding Sources:**	Federal/State Grants Federal Entitlements Private Grants Bond Initiatives

Implementation Steps/Activities: **Timeline Code:** P **for** P**repare/**P**ilot** I **for Implementation Roll-out** C **for Conclude/Continue**	**Timeline:** **(* Projections only beyond Year 3)**					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
1. Inventory of all workstations – The District needs to review the current inventory to identify the year purchased and hardware components as well as verify accuracy of the data already gathered.	C					Inventory of workstations is aligned with asset records and inventory categories are established.
2. Determine number of computers required each year for each school based on the scheduled deployment of Administrative Applications and aligned with professional development initiatives.	P	P	P			Workstation needs are evaluated and aligned with inventory to determine gap to be purchased. Workstation needs are projected into the future for long-range budget development.
3. Develop budgets and assess funding resources to determine how many workstations can be procured in each year.	C					Budgets are developed based on gap to purchase. Budgets are aligned with funding available and shortfalls assessed for impact to users.
4. Negotiate with vendor partners for fulfillment.		C				Requests for quotes are developed to meet the need.
5. Develop project plan with timeline and responsibilities		C				Project plans are developed to define implementation schedules and cash flow requirements.

Resource Area:	**Technology Hardware**		
Recommendations addressed by this Implementation Plan:	**TH-2 Determine minimum configurations** for instructional learning tools and peripherals beyond computers at each instructional level. (KFR 4.3.4)	**Recommendation Benchmarks:**	1. Assess past pilot programs by Dec 2006. 2. Survey teacher desires for peripherals. 3. Rollout of the initial purchase will take place between Jul and Sep 2007
Leadership Responsibility:	**Information Technology Division** Instructional Technology Applications Facilitators	**Potential Funding Sources:**	Federal/State Grants Federal Entitlements Private Grants Bond initiatives

Implementation Steps/Activities: **Timeline Code:** P **for Prepare/Pilot**, I **for Implementation Roll-out**, C **for Conclude/Continue**	**Timeline:** (* Projections only beyond Year 3) Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	**Monitoring & Evaluation Activities:**
1. Inventory and assess success of pilot programs that utilized various peripherals.	C					Report on the alignment of peripheral deployment with educational successes.
2. Gather information related to other peripheral devices that teachers have used or desire to use through the use of a survey.	P	P	P			Report on survey to establish the universe of peripherals in use, their intended impact and their actual success.
3. Develop budgets and assess funding resources to determine quantity of devices that can and will be procured in each year.	C					Successful use is aligned with District potential applications and budgets are developed to establish a course of action.
4. Negotiate with vendor partners for fulfillment.		C				Requests for quotes are developed to determine actual costs for potential deployments.
5. Develop project plan with timeline and responsibilities		C				Priorities are established and a project plan is developed to define rollout schedule and cash flow requirements.

5.4 Implementation Plans in support of Electronic Learning Resources

These implementation plans and their respective recommendations, implementation steps, timeline, and monitoring and evaluation activities support the Electronic Learning Resources needs described in section 5.1.2.

Resource Area:	**Electronic Learning Resources**		
Recommendations addressed by this Implementation Plan:	**ELR-1** Continue to Identify best practice, research-based instructional applications for systematic integration across LAUSD. (KFR 4.4.6)	**Recommendation Benchmarks:**	1. Formalize a new Pilot Program Process by Dec 2007. 2. Initiate various pilots by Dec 2008. 3. Complete Assessment of Pilot Program Success by Jun 2009.
Leadership Responsibility:	**Information Technology Division** Instructional Technology Applications Facilitators	**Potential Funding Sources:**	Federal/State Grants Federal Entitlements Private Grants Bond Initiatives

Implementation Steps/Activities: **Timeline Code:** P **for** P**repare/**P**ilot** I **for Implementation Roll-out** C **for Conclude/Continue**	**Timeline:** **(* Projections only beyond Year 3)**					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
1. Develop and formalize a pilot program that assesses the impact of various software applications		P				Pilot program plans establish areas of need and define potential benefits to learning. Program develops objectives and metrics for assessment.
2. Initiate various pilot programs.			I			Pilot program plans establish environments for evaluation.
3. Perform qualitative and quantitative analysis on success of pilot programs.			C			Analysis (prior and post) establishes ease of use and levels of benefit and is used to develop a recommendation for implementation.
4. Assess hardware and network requirements for systematic rollout.			C			Recommendation for implementation is used to define system and facility requirements.
5. Develop project plan with budgets				P		Project plans establish priorities, implementation schedule and cash flow requirements.
6. Re-evaluate impact of software acquisition on student achievement.					C	Program objectives and metrics are used to establish ongoing success and to make recommendations for change to program implementation.

Resource Area:	**Electronic Learning Resources**		
Recommendations addressed by this Implementation Plan:	**ELR-2** Ensure the interoperability of the five major District-wide system implementations (ISIS, CLAS, BTS, DSS, Welligent) by designing the data warehouse architecture to encompass all of these systems transparently without redundancy of information and process. (KFR 4.1.1)	**Recommendation Benchmarks:**	1. A Collaborative Administrative Application Team will be established by Dec 2006. 2. The inventory all data fields and application responsibilities will be completed by June 2007. 3. The project team will begin work with application vendors to modify data structure by Dec 2007.
Leadership Responsibility:	**Information Technology Division** Instructional Technology Applications Facilitators	**Potential Funding Sources:**	Federal/State Grants Federal Entitlements Private Grants Bond Initiatives

Implementation Steps/Activities: **Timeline Code:** P **for** P**repare/**P**ilot** I **for Implementation Roll-out** C **for C**o**nclude/**C**ontinue**	**Timeline:** (* Projections only beyond Year 3)					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
1. Set up collaborative team to assist Project Champions for each of the application initiatives in order to enhance interdepartmental communication.	P					Teams are developed around requirements for facilitation and communication according to a communication plan.
2. Inventory data fields for each application determining which data elements are needed to be pushed and pulled from each application.	P					Analytic teams are developed to define and align application data resources. A coherent data model is developed to map the universe of data in the District.
3. Work with each vendor to ensure interoperability of necessary data fields and records.		I				Focus teams are established to address each vendor's specific needs for alignment of their applications.
4. Develop a quality assurance program to verify the accuracy of data transfer.		P				Transition data stores and the quality assurance program are used to verify alignment of data sets with the data model.
5. Modify push/pull retrieval of data within the Data Warehouse.		C	C			Use the data model and transition store to develop and modify warehouse transaction protocols.
6. Re-verify data quality		C	C			A cycle is developed to improve data model and transaction validity.

5.5 Implementation Plans in support of Networking & Telecommunications Infrastructure

These implementation plans and their respective recommendations, implementation steps, timeline, and monitoring and evaluation activities support the following Electronic Learning Resources needs described in section 5.1.3.

Resource Area:	**Networking and Telecommunications Infrastructure**		
Recommendations addressed by this Implementation Plan:	**NTI-1** Increase bandwidth to meet instructional needs and improve access to the Internet. LAUSD will explore and utilize all viable solutions to apply the most appropriate technological solution based on the type of need at the school site. (KFR 4.1.2)	**Recommendation Benchmarks:**	1. WAN assessment needs to be completed by Dec 2006. 2. Forecast of additional bandwidth requirements need to be completed by April 2007. 3. Design and RFP release for WAN upgrade needs to be completed by September 2007.
Leadership Responsibility:	**Information Technology Division** Instructional Technology Applications Facilitators	**Potential Funding Sources:**	Federal/State Grants Federal Entitlements Private Grants Bond Initiatives E-rate Discounts

Implementation Steps/Activities: **Timeline Code:** P **for** P**repare/**P**ilot** I **for Implementation Roll-out** C **for C**o**nclude/**C**ontinue**	**Timeline:** **(* Projections only beyond Year 3)**					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
1. Conduct WAN assessment to determine current bandwidth demands from each of the District facilities.	P					Assessment report is delivered to and reviewed by Information Technology Division.
2. Forecast additional bandwidth demands based upon deployment of additional services such as video conferencing, VoIP, ASPs and Administrative Applications.	P					A model for future use is developed and the report is augmented with projects of future needs.
3. Design solution which will meet the needs, issue a Request for Proposal, evaluate respondents, and negotiate contract.		I				Solutions are evaluated for capabilities and selected to meet both current and future needs.
4. Develop implementation plan and prioritization of District facilities based on need.			I			Detailed plans are developed to define the implementation schedule and cash flow requirements
5. Implement new WAN.			C	C	C	Effective project management methodologies are developed and used to expedite and track implementation.

Resource Area:	**Networking and Telecommunications Infrastructure**		
Recommendations addressed by this Implementation Plan:	**NTI-2** Perform a comprehensive LAN Analysis at school sites to determine greatest needs, number of ports, identify the need for traffic management and develop budgets. (KFR 4.1.3)	**Recommendation Benchmarks:**	1. LAN Assessment needs to be completed by July 2006. 2. A Three Year Procurement Plan and Technical Requirements needs to be completed by September 2006 3. Request for Proposal subsequent contract needs to be completed by Jan 2007.
Leadership Responsibility:	**Information Technology Division** Instructional Technology Applications Facilitators	**Potential Funding Sources:**	Federal/State Grants Federal Entitlements Private Grants Bond Initiatives E-rate Discounts

Implementation Steps/Activities: **Timeline Code:** P **for Prepare/Pilot** I **for Implementation Roll-out** C **for Conclude/Continue**	**Timeline:** (* Projections only beyond Year 3)					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
1. Assess current LANs at each District facility including comprehensive inventory with make, model, IOS and configuration and performance metrics of each switch, wireless access point, and router. Network connections will be evaluated annually, coordinated by Technical Support.	P	P	P	P	P	Assessment report is delivered to and reviewed by Information Technology Division. Findings are aligned with network reports, asset management and the workstation deployment program.
2. Develop three-year procurement plan that aligns with the workstation and peripheral deployment plan ensuring sufficient ports for LAN connectivity.	P					LAN needs are defined with a schedule of anticipated need.
3. Define technical requirements for LAN equipment and develop standard specifications.	P					Standards are used to assure interoperability and maximize useful life.
4. Issue Request for Proposals (RFP) to solicit vendors to provision equipment and hardware support for a term of up to five years.	I					Proposals are evaluated for alignment with technical standards and District needs.
5. Develop procurement budgets and project plans.		C				Detailed plans are developed to define the implementation schedule and cash flow requirements.

Resource Area:	**Networking and Telecommunications Infrastructure**		
Recommendations addressed by this Implementation Plan:	**NTI-3** Maintain and expand communications services to school sites to keep pace with increased needs for communication between teachers, students, parents and others for instructional purposes. Continue to maintain, expand and converge telephony infrastructure. (KFR 4.1.2)	**Recommendation Benchmarks:**	1. An anticipated expenditure plan with potential cost savings will be completed by Dec 2006. 2. Design and RFP will be completed by Aug 2007. 3. Evaluation of top three proposals will be completed by Jan 2008.
Leadership Responsibility:	**Information Technology Division** Instructional Technology Applications Facilitators	**Potential Funding Sources:**	Federal/State Grants Federal Entitlements Private Grants Bond Initiatives E-rate Discounts

Implementation Steps/Activities: **Timeline Code:** P **for Prepare/Pilot** I **for Implementation Roll-out** C **for Conclude/Continue**	**Timeline:** (* Projections only beyond Year 3)					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
1. Quantify annual expenditures on telecommunications services including access to dial tone via the PSTN, maintenance on PBX's, cellular phone use and long distance.	P					Report is reviewed for accuracy with budget and payables departments.
2. Conduct feasibility study by identifying which services can be converged on the data network and issue Request for Information from various providers to develop budget.	P					Studies are used to define requirements for convergence and collateral effects on facilities and funding.
3. Design optimum solution for convergence and issue Request for Proposals (RFP).		P				Solution is evaluated by technical committees and used to establish a plan for action. RFPs are developed to actualize the plan.
4. Pilot top three solutions as part of the evaluation criteria of the RFP.		P				Pilots are evaluated for ease of use, levels of benefit and reduction in cost.
5. Award contract, develop deployment plan and secure funding.			I			Master plan is established to define program schedule and cash flow requirements.

Resource Area:	**Networking and Telecommunications Infrastructure**		
Recommendations addressed by this Implementation Plan:	**NTI-4** Explore the possibility of centralizing some or all school level site-based servers. (KFR 4.5.4)	**Recommendation Benchmarks:**	1. Application owners and servers will be identified by Mar 2008. 2. District-wide server strategy will be completed by Mar 2009.
Leadership Responsibility:	**Information Technology Division** Instructional Technology Applications Facilitators	**Potential Funding Sources:**	Federal/State Grants Federal Entitlements Private Grants Bond Initiatives) E-rate Discounts

Implementation Steps/Activities: **Timeline Code:** P **for** P**repare/**P**ilot** I **for Implementation Roll-out** C **for C**o**nclude/**C**ontinue**	**Timeline:** **(* Projections only beyond Year 3)**					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
1. Identify all application servers and application server owners to gather information on the scope of distributed applications.		P				Inventory of information systems is aligned with asset records and inventory categories are established.
2. Determine issues related to distributed servers such as impact on security, support, business continuity, and cost.			P			Report is reviewed by technical committees and impact on central network, wide area network, and local area networks is established.
3. Determine issues related to centralized servers such as impact on WAN, support, and cost.			P			Identify requirements and analytic measures for impact on central network, wide area network, local area networks and support infrastructure.
4. Develop District wide server strategy which optimizes the benefits of both the distributed option and centrally located option while minimizing costs.			P			Server strategy defines master plan of action for implementation and prioritized needs to upgrade or modify collateral systems.
5. Implement District-wide server strategy.				I		Program management methodologies are used to assure efficient implementation with minimum impact on users and collateral systems.

5.6 Implementation Plans in support of Physical Plant Modifications

These implementation plans and their respective recommendations, implementation steps, timeline, and monitoring and evaluation activities support the following Physical Plant Modifications needs described in section 5.1.4.

Resource Area:	**Physical Plant Modifications**		
Recommendations addressed by this Implementation Plan:	**PPM-1** Develop review cycles for the New Construction and Existing Facilities Strategic Execution Plans (SEPs). Amend SEPs as new standards and educational technology requirements are developed. Security of buildings and instructional computing resources should be centralized and ubiquitous. (KFR 4.2.2 & 4.6.3)	**Recommendation Benchmarks:**	1. Current CSI documents will be reviewed and modified by Mar 2007. 2. The District-wide security plan will be completed by Jun 2008.
Leadership Responsibility:	**Information Technology Division** Instructional Technology Applications Facilitators Facilities Department	**Potential Funding Sources:**	Federal/State Grants Federal Entitlements Bond Initiatives

Implementation Steps/Activities: **Timeline Code:** P **for** P**repare/**P**ilot** I **for** I**mplementation Roll-out** C **for** C**onclude/**C**ontinue**	**Timeline:** (* Projections only beyond Year 3) Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	**Monitoring & Evaluation Activities:**
1. Review current specification sections, particularly those pertinent sections of Division 26 and/or Division 27 of the Construction Specification Institute (CSI) for inclusion in existing information architecture plans, and determine if any modifications are necessary.	P					Catalog of specifications is established as the working context for plan review.
2. Work with facilities department to incorporate current modifications.	I					Revisions and updates are incorporated into plans.
3. Establish team to meet on quarterly basis to review emerging technologies, modify specifications, and assign responsibilities for various building requirements such as video surveillance and security.	I					Teams provide oversight of plan currency and relevance based on emerging needs and changes to technology and industry practices.
4. Assist with the development of a District wide security plan.		P				Security plan establishes the need for secure facilities and systems.
5. Assess impact of Security Initiatives on WAN and LAN.		P				Report is reviewed by technical committees to define gaps that require closure.

5.7 Implementation Plans in support of Technical Support

These implementation plans and their respective recommendations, implementation steps, timeline, and monitoring and evaluation activities support the following Technical Support needs described in section 5.1.5.

Resource Area:	**Technical Support**		
Recommendations addressed by this Implementation Plan:	**TS-1** Develop a technology support structure to complement the Help Desk that meets the needs of the end-users at the central office, local district, and school levels. (KFR 4.5.1)	**Recommendation Benchmarks:**	1. Job Descriptions for technical support will be modified by Sep 2006. 2. A technical personnel budget will be developed by Sep 2006 3. SLAs finalized by Dec 2006.
Leadership Responsibility:	**Information Technology Division** Instructional Technology Applications Facilitators	**Potential Funding Sources:**	Federal/State Grants Federal Entitlements Private Grants Bond Initiatives

Implementation Steps/Activities: **Timeline Code:** P **for** P**repare/**P**ilot** I **for Implementation Roll-out** C **for** C**onclude/**C**ontinue**	**Timeline:** **(* Projections only beyond Year 3)**					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
1. Review and refine job descriptions for the ITAFs. Maintain published job descriptions and reconcile reporting structure to allow for variations within District entities.	I					Catalog of job descriptions and requirements is reviewed by human resources and technical committees for discrepancies before being adopted by the District.
2. Develop budget for expanding organization to include additional personnel for first line support.	I					Staffing needs are used to establish staffing requirements.
3. Develop Service Level Agreements (SLAs) with various software application providers to have bundled support within acquisition agreements.	I					Service level agreements establish protocols for metrics for support and escalation of issues with vendors.
4. Define procedures for tracking and escalation of issues so problems can be categorized as user, hardware, or network infrastructure.	I					Triage methodologies define internal protocols for support.
5. Identify support applications to be utilized for inventory control, software updating and monitoring to aid in trouble shooting and configuration.	I					Software selected, implemented and utilized.

Resource Area:	**Technical Support**		
Recommendations addressed by this Implementation Plan:	**TS-2** Explore options to standardize local technical support and coordinate with central support. (KFR 4.5.2)	**Recommendation Benchmarks:**	1. Working groups will be established by Jul 2006. 2. Assessment of warranties will be completed by Sep 2006. 3. List of potential solutions will be completed by Dec 2006.
Leadership Responsibility:	**Information Technology Division** Instructional Technology Applications Facilitators	**Potential Funding Sources:**	Federal/State Grants Federal Entitlements Private Grants Bond Initiatives E-rate Discounts

Implementation Steps/Activities: **Timeline Code:** P **for** P**repare/**P**ilot** I **for Implementation Roll-out** C **for C**o**nclude/**C**ontinue**	**Timeline:** **(* Projections only beyond Year 3)**					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
1. Establish working group to look at current support needs and resources allocated for schools.	P					Working group mission statement establishes scope of survey and outcomes.
2. Assess current warranties on all equipment including hosts and network devices.	I					Report is reviewed by technical committees and used to establish issues for resolution.
3. Assess current application and processes in use for inventory of workstations, software, and books and develop process to improve controls at school levels.	P					Procedural document developed and delivered to schools for integration in overall processes.
4. Develop comprehensive list of potential solutions including but not limited to the use of students for break fix and school sharing of technicians.		P				Strategies are developed to outline plans for action to meet support needs.
5. Develop and finalize budget and strategic plan including tools necessary for efficient operations of tracking hardware issues and warranty data.		P				Plans for action are used to develop the master plan for implementation.
6. Implement Strategic Plan			I			Implementation depends on solutions adopted for implementation.

Resource Area:	**Technical Support**		
Recommendations addressed by this Implementation Plan:	**TS-3** Explore options for supporting ISIS. This support is for the transparent components of the tech plan such as WAN, LAN and infrastructure. (KFR 4.5.3)	**Recommendation Benchmarks:**	1. An organizational plan will be developed by Jun 2007. 2. SLAs and budgets will be completed by Dec 2007. 3. RFP's will be issued by January 2008.
Leadership Responsibility:	**Information Technology Division** Instructional Technology Applications Facilitators	**Potential Funding Sources:**	Federal/State Grants Federal Entitlements Private Grants Bond Initiatives E-rate Discounts

Implementation Steps/Activities: **Timeline Code:** P **for Prepare/Pilot** I **for Implementation Roll-out** C **for Conclude/Continue**	**Timeline:** (* Projections only beyond Year 3)					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
1. Define overall organizational plan and roles defining responsibilities for existing staff, MSAs and outsourced partners.	P					Report is used to establish requirements for support.
2. Draft Service Level Agreements (SLAs) that the Information Technology Division will adhere to for ensuring appropriate levels of service for the network.		I				SLAs are used to modify organizational objectives and behavior.
3. Develop budgets in order to meet the SLAs.		P				SLAs establish needs for staff and tools to meet service delivery requirements.
4. Draft RFPs for those resources that need to be outsourced.		I				Outsourcing strategies are used to augment division capabilities.
5. Identify and purchase tools necessary for tracking and monitoring WAN, LAN and Infrastructure.		I				Functional requirements establish needs for tools.

5.8 Implementation Plans in support of Policies, Procedures, and Planning

These implementation plans and their respective recommendations, implementation steps, time line, and monitoring and evaluation activities support the following Policies, Procedures, and Planning needs described in section 5.1.6.

Resource Area:	**Policies, Procedures and Planning**		
Recommendations addressed by this Implementation Plan:	**PPP-1** Develop strategies for implementation of application security controls. (KFR 4.7.1)	**Recommendation Benchmarks:**	1. Application security assessment will be developed by Jun 2007. 2. Application security controls will be defined by December 2007 3 Control implementation will start December 2007.
Leadership Responsibility:	**Information Technology Division** Instructional Technology Applications Facilitators.	**Potential Funding Sources:**	Federal/State Grants Private Grants Bond Initiatives E-rate Discounts

Implementation Steps/Activities: **Timeline Code:** P **for** P**repare/**P**ilot** I **for Implementation Roll-out** C **for Conclude/Continue**	**Timeline:** **(* Projections only beyond Year 3)**					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
1. Assess application security vulnerabilities and requirements.	P					Assessment report is used to drive requirements for security and integration of application security into District culture.
2. Define requirements for security and assess existing security throughout the District.	P	P				Environmental report and catalog of requirements are reviewed by technical committees and affirmed by District executive administration.
3. Develop training and awareness programs to integrate application security into the culture and behavior of systems users.		I				User awareness is fundamental to successful implementation of a security program.
4. Develop application security requirements for each application system and the methodologies for implementation. Complete an inventory of all applications and data assessing the confidentiality, availability, and integrity (CIA) of all student and application data.		I				Security requirements are integrated into the operational environment of each application to remove or abate vulnerabilities. CIA of all data elements for student and employees completed and updated annually.
5. Develop implementation plans and staffing requirements for implementation of application security program and application security.		I	I	I		Implementation success is measured by audits and surveys on an ongoing basis.

Resource Area:	**Policies, Procedures and Planning**		
Recommendations addressed by this Implementation Plan:	**PPP-2** Conduct technology leadership retreat to define mission and prioritize implementation strategies. (GR7)	**Recommendation Benchmarks:**	1. Conduct an annual review retreat.
Leadership Responsibility:	**Information Technology Division** Instructional Technology Applications Facilitators	**Potential Funding Sources:**	Federal Entitlements

Implementation Steps/Activities: **Timeline Code:** P **for Prepare/Pilot** I **for Implementation Roll-out** C **for Conclude/Continue**	**Timeline:** (* Projections only beyond Year 3)					**Monitoring & Evaluation Activities:**
	Year 1 06/07	Year 2 07/08	Year 3 08/09	Year 4* 09/10	Year 5* 10/11	
1. Develop objectives and agenda for retreat.	P					Standing agenda provides the means to focus on annual realignment of purpose and means for the Division.
2. Conduct retreats.	C	C	C	C	C	Use feedback surveys to improve and adapt retreat.
3. Renew standing agenda and develop topics for discussion in next retreat.						Standing agenda integrates retreat into culture of the Division.

5.9 Benchmarks and Timeline

Benchmarks and timelines for implementing planned strategies and activities are included in the implementation plans in support of their respective goal statement. The benchmarks and timelines for the five resource areas are found on pages 99-112.

5.10 Process Monitoring

The Process Monitoring Methods/Activities listed in the following matrix will be employed to track the progress of the six Technology Resource Areas Implementation Plans to achieve the targeted benchmarks.

Resource Area: Technology Hardware

IP #	Benchmarks	Process Monitoring Methods/Activities
TH-1	1. The inventory of workstations will be completed and verified by Dec 2006. 2. Budget and funding will be secured by Jun 2007. 3. Rollout of initial purchase between Jul and Sep 2007	1. ITD in conjunction with BTS project staff will assist schools in aligning an Inventory of workstations with asset records and inventory categories will be established. 2. ITD will assist with budgets that are developed based on gap to purchase. Budgets are aligned with funding available and shortfalls assessed for impact to users. 3. ITD and Purchasing will enable procurement for the project.
TH-2	1. Assess past pilot programs by Dec 2006. 2. Survey teacher desires for peripherals. 3. Rollout of the initial purchase will take place between Jul and Sep 2007	1. ITAFs will review past pilot programs and develop a revised pilot model 2. An electronic survey of teacher needs for additional peripheral devices will be conducted and analyzed by the ITAF project team 3. ITD and Purchasing will enable procurement for the project.

Resource Area: Electronic Learning Resources

IP #	Benchmarks	Process Monitoring Methods/Activities
ELR-1	1. Formalize a new Pilot Program Process by Dec 2007. 2. Initiate various pilots by Dec 2008. 3. Complete assessment of Pilot Program Success by Jun 2009.	1. An ITAF project team will use need as a factor in the initial pilot project design. 2. The project team with the assistance of other ITAFs will conduct multiple pilots and collect process data. 3. An assessment of the degree of success of pilots by the project team
ELR-2	1. A Collaborative Administrative Application Team will be established by Dec 2006. 2. The inventory of all data fields and application responsibilities will be completed by June 2007. 3. The project team will begin work with application vendors to modify data structure by Dec 2007.	1. An ITAF-led project team consisting of both central office staff and end-users will be established to address administrative application planning and implementation. 2. ITD staff and the project team will collect and analyze data with monitoring by an executive sponsor. 3. The project team will provide vendors with additional requirements and a project update plan will be established.

Resource Area: Networking and Telecommunications Infrastructure

IP #	Benchmarks	Process Monitoring Methods/Activities
NTI-1	1. The assessment of the WAN needs to be completed by Dec 2006. 2. Forecast of additional bandwidth requirements need to be completed by April 2007. 3. Design and RFP release for WAN upgrade needs to be completed by September 2007.	1. A team made up primarily of ITD and ITAF staff will design the assessment strategies, conduct the assessment, and identify further WAN requirements including additional bandwidth. 2. Based on the further WAN requirements, the project team will work with Purchasing to issue an RFP for WAN upgrade needs.
NTI-2	1. LAN Assessment needs to be completed by July 2006. 2. A Three Year Procurement Plan and Technical Requirements needs to be completed by September 2006 3. Request for Proposal subsequent contract needs to be completed by Jan 2007.	1. A team made up primarily of ITAF staff and end-users will design the assessment strategies, conduct the assessment, and identify further LAN requirements. 2. Central office staff will assist the project team in developing Three Year Procurement Plan and Technical Requirements needs 3. The project team will work with Purchasing to issue an RFP for LAN upgrade needs.
NTI-3	1. An anticipated expenditure plan with potential cost savings will be completed by Dec 2006. 2. Design and RFP needs to be completed by Aug 2007. 3. Evaluation of top three proposals needs to be completed by Jan 2008.	1. ITD will investigate methods of achieving cost savings (e.g., volume purchase agreements) 2. The ITD staff and purchasing will design and issue an RFP for communications convergence.
NTI-4	1. Application owners and servers need to be identified by Mar 2008. 2. District-wide server strategy will be completed by Mar 2009.	1. ITD and ITAF staff will communicate to develop server strategy.

Resource Area: Physical Plan Modifications

IP #	Benchmarks	Process Monitoring Methods/Activities
PPM-1	1. Current CSI documents will be reviewed and modified by Mar 2007. 2. The District-wide Security Plan will be completed by Jun 2008.	1. A project team within ITD will be established to identify needs for physical plant modifications 2. ITD and ITAF staff will gather needs information at the central office, districts, and schools to determine security needs and develop a District-wide Security Plan.

Resource Area: Technical Support

IP #	Benchmarks	Process Monitoring Methods/Activities
TS-1	1. Job descriptions for technical support will be modified by Sep 2006. 2. A technical personnel budget will be developed by Sep 2006 3. SLAs finalized by Dec 2006.	1. ITD and ITAF staff will form a project team to identify additional technical support needs of the schools 2. The project team will estimate the costs of priority technical support to be outsourced and prepare a budget 3. SLAs will be negotiated with vendors so that appropriate support will be available to support project implementation.
TS-2	1. Working groups need to be established by Jul 2006. 2. Assessment of warranties needs to be completed by Sep 2006. 3. List of potential solutions needs to be completed by Dec 2006.	1. ITD and ITAF staff will determine what working groups need to be established. 2. ITD and ITAF staff will assess/negotiate equipment and software warranties 3. Estimate number of needed additional support personnel will be established
TS-3	1. An organizational plan needs to be developed by Jun 2007. 2. SLAs and budgets need to be completed by Dec 2007. 3. RFP's will be issued by January 2008.	1. Key central office staff will develop an organizational plan to support technology initiatives 2. ITD and ITAF staff will assess/negotiate equipment and software warranties

Resource Area: Policy, Procedures, and Planning

IP #	Benchmarks	Process Monitoring Methods/Activities
PPP-1	1. Application security assessment needs to be developed by Jun 2007. 2. Application security controls need to be defined by December 2007 3 Control implementation needs to start December 2007.	1. ITD staff will assess application security needs and define security goals
PPP-2	1. Conduct a review retreat annually.	1. Key ITD and ITAF staff will meet off-site to assess progress, problems, and issues for all technology initiatives.

6.0 Funding and Budget

> *"We believe that TCO (and fiscal management) allows for a strong connection between wise investment decisions and instructional choices that lead to higher student achievement."*
>
> — John Bailey, former Director of Technology at the U.S Department of Education

The purpose of **Funding and Budget** is to show how the financial management of all information technology resources can contribute significantly to the overall district goals. This chapter focuses on planning for and funding technology expenditures. The topics presented in this chapter are:

1. Potential Funding Sources and Cost Savings
2. Estimated Implementation Costs
3. Technical Support
4. Replacement Policy

LAUSD is committed to creating and maintaining a high-quality learning environment for all of its approximately 727,000 K-12 students. Since 2002, the District has opened approximately 50 new schools and 15 early education centers, built 39 additions to existing schools, and added 23,423 new classroom seats. The District has, in recent years, been highly successful in competing with other school districts in California for limited state funds, having secured approximately $680 million in 2001-2002 and currently having high-priority applications for over $1 billion in state new-construction bond funds.

Several bond fund measures have been passed to meet new facility needs and existing facility upgrades to ensure these high-quality learning environments. Each of these bond measures includes technology components.

In 2002 Measure K was passed and included $93.5 million for IT programs for the years 2003-2010. $38 million was allocated for school library books, library automation, and technology. Another $66 million was earmarked for safety and technology including Internet connectivity and networking.

Measure R passed in 2004 and authorized funds for information technology projects to address the continuing need for technology upgrades not funded under Measure K. $140 million has been funded from Measure R for safety and technology, electrical upgrades, and for maintenance and upgrades to school networks through 2010.

The latest bond measure, Measure Y, passed in November of 2005. This $3.9 billion bond includes $325 million for technology including replacement of aging District emergency radio communication systems, equipment upgrades for approximately 265 school LANS that were not funded under previous bonds, and connection upgrades between schools and technology centers.

The overall LAUSD ITD budget for 2005-2006 is $286,867,713 as shown below.

Object	General Fund	Title I	Title II-D	Title V	Capital Projects (Bond and COPS)	Adult Ed Fund	Cafeteria Fund	Child Dev Fund	Ed Tech Grant	Health & Welfare Benefits Fund	Workers' Comp Fund
Certified Personnel Salaries (1000-1999)	1,766,782	-	2,608,004	194,680	1,076,870	-	-	-	-	-	-
Classified Personnel Salaries (2000-2999)	26,453,837	304,431	310,473	243,035	9,470,028	211,913	326,082	153,835	-	66,594	290,187
Employee Benefits (3000-3999)	12,539,511	126,542	871,170	194,552	4,114,140	83,190	130,405	49,649	-	30,765	129,339
Book & Supplies (4000-4999)	4,221,392	700,000	4,307,468	-	17,067,892	35,058	39,239	29,375	299,059	-	-
Services & Other Operating Expenditures (5000-5999)	49,563,499	1,863,058	1,696,707	-	29,442,663	310,217	168,824	340,450	49,851	-	-
Indirect Costs	17,923,378	-	5,741,902	-	91,131,232	27,877	44,800		-	-	-
Other (6000-6999)	-	4,563	-	12,189	101,006	-	-	-	-	-	-
Total	112,468,399	2,998,594	15,535,724	644,456	152,403,831	668,255	709,350	573,309	348,910	97,359	419,526

Maintaining technology resources for central administration as well as local school resources in LAUSD is a daunting task. Purchases of these types of resources total approximately $30 million dollars just for the time period between July 1, 2005 and January 20, 2006. An April 22, 2005 report by the Los Angeles City Board of Education, Office of the Inspector General indicated that approximately 74% of LAUSD owned school site computer equipment is less than 5 years old. Of the 26% that was more than 5 years old, the report estimated the replacement cost for these 47,000 computers at approximately $62 million. In addition, LAUSD is anticipating opening an additional 94 new schools from 2006-2011. Estimated technology contracts for these new schools are projected as follows:

Year	# of Schools	Admin. Costs	Inst. Costs	Total
2006	13	$3,050,000	$5,328,000	$8,378,000
2007	8	$2,214,450	$3,203,550	$5,418,000
2008	11	$2,796,280	$4,178,520	$6,974,800
2009	29	$5,491,240	$9,918,900	$15,410,140
2010	15	$4,041,360	$7,056,720	$11,098,080
2011	18	$5,659,280	$9,662,850	$15,322,132
Total:	**94**	**$39,348,540**	**$23,252,610**	**$62,601,150**

LAUSD's Instructional Technology Budget for 2005-2006 includes approximately $12 million in various grant funds as depicted below:

Description	Salaries & Benefits	Other Expenses	Total
EETT Competitive Grants	$964,160	$5,551,261	$6,515,421
EETT Formula Grants	$1,945,431	$1,864,295	$3,809,726
NCLB – Title V Grants	$460,412	$12,189	$472,601
Misc. Grants/Special Fund	$128,423	$1,253,544	$1,381,967
General Fund	$398,870	$60,000	$458,870
Total:	**$3,897,296**	**$8,741,289**	**$12,638,585**

In 2005, 670 of the District's K-12 schools will receive E-Rate discounted services:

- 435 schools qualify for 90% discount
- 135 schools qualify for 80% discount
- 38 schools qualify for 60% discount
- 35 schools qualify for 50% discount
- 27 schools qualify for 40% discount

The 2005 E-rate Application discounts as of January 2006 totaled approximately $65 million. LAUSD is still waiting on an additional $19 million on other 2005 applications. District-prepared applications for 2006 total over $75 million in requested E-rate discount services. It is

estimated that the District will apply for between $200 million and $250 million in E-Rate discounts over the next four years. The estimated E-Rate budget is dependent on the approval of applications that will be submitted for schools that qualify for 80%-90% E-Rate discounts.

More than 90% of the elementary schools and all but 3 of the secondary schools receive Title I funds for hardware and software. Many programs are supported by Title I funding and depend upon funds from such sources as EETT grants. Other funding sources include Federal Entitlements such as Title III, Special Education, and ESL.

It is estimated that LAUSD will receive $30-$100 million from the Educational Technology K-12 Voucher Program, formerly known as the Microsoft Settlement, although it is unknown when these vouchers will become available. The Educational Technology K-12 Voucher Program will be managed by ITD and will be spent over a six year period by the District. The settlement guidelines define that 50% must be spent on software (software vouchers) while the remaining 50% can be spent on hardware, software, technical support, and professional development (general purpose vouchers). Another component of this settlement is that private individuals and companies with less than 250 employees can donate vouchers to schools for the purchase of hardware and software. The LAUSD Chief Information Officer recommends using a portion of these hardware vouchers for new computers at eligible school offices and setting aside another portion of these vouchers for IT Customer Support Services to replace end-of-life computers.

6.1 Potential Funding Sources and Cost Savings

A District with the size and diversity of LAUSD is eligible for a wide range of state and federal funds to support teaching, learning, and management of LAUSD educational environments and administration. In addition, District leadership should always be monitoring other potential funding sources to support the implementation of the LAUSD Education Technology Plan. Identification of revenue streams is one way of securing funds for future initiatives; another includes stretching existing funds to go further, thus enabling dollars saved to be redirected. The following sections outline both present and future funding sources that can be tapped to advance the initiatives outlined in the Implementation Plans included in this technology plan.

6.1.1 Present

LAUSD has identified the following established funding sources to support the implementation of the technology plan as discussed above:

- Technology components of District Bond Monies, Measures K, R and Y
- NCLB – Title IID - Enhancing Education Through Technology (EETT) Competitive Grants
- NCLB – Title IID - Enhancing Education Through Technology (EETT) Formula Grants
- E-Rate Discounts
- NCLB – Title V Grants
- Other miscellaneous grants and special funds
- District General Fund

LAUSD will continue the judicious management of general funds, K, R, and Y bond funds for procuring technology. These funds are, and should continue to be used as District "match" for E-Rate discounts where applicable.

6.1.2 Future

LAUSD has identified the following potential funding sources to support the implementation of the technology plan:

- Title IID - EETT (next rounds)
- Educational Technology K-12 Voucher Program
- Other state and federal grants
- E-Rate Discounts
- School-site funding

The local district ITAFs and central ITAFs of the Instructional Technology Branch are instrumental in seeking and securing funding for technology integration in the District. In addition, ITD staff continues to investigate the latest policies and rules for applying and securing E-Rate discounts to ensure a high-quality learning environment. The District E-Rate office files between 15 and 30 applications a year with a value of between $50 and $100 million.

The District is also taking steps to create a dissemination vehicle to provide community members with information regarding the Educational Technology K-12 Voucher Program. Explanations of the voucher program, requirements, application forms, and rules for donating vouchers to schools along with dissemination of the project Website are all included in this initiative.

LAUSD has also identified the following cost savings possibilities in support of the Superintendent's Strategic Goal 6:

- **Volume discounts**

  Because of the enormous size of the District, LAUSD can look to expand upon current and seek new high-volume discounts through centralized purchasing and tracking. The BTS system, currently in early implementation, promises to help with this process and business flow.

- **Possible fund investments**

  LAUSD will investigate possibilities of investing current monies to create a long-term, sustaining source of funding for the technology refresh cycle.

6.2 Estimated Implementation Costs

The budget presented in this section is an attempt to project three-year cost estimates for execution of the implementation plans identified in Sections 3, 4, and 5 of this *2006 Education Technology Plan*. These estimates are useful for planning but should not be considered specific enough for critical decision-making purposes with respect to purchasing. No attempt has been made in this budget to align funding sources with specific line items of the budget.

The three-year cost estimates included in this section of the technology plan are based upon the following budget assumptions. These assumptions may be adjusted as needed to further refine this projected budget in the future.

Demographics

- The District serves approximately 750,000 students
- There are approximately 35,000 teachers
- Budget reflects a 6:1 ratio of student to computers

Staffing

- District Technology Integration and Support positions are budgeted at $100,000/yr including benefits
- Site-based Technology Integration stipends are budgeted at $80,000/yr including benefits
- Technology Custodian positions are budgeted at $45,000/yr/FTE including benefits and phased in over 5 years

Instructional Software

- $250/student workstation allocated yearly for replacement computers

Hardware

- $1,500 /workstation including 5 yr maintenance agreement and volume discounts on required software
- Peripheral replacement is budgeted for 4 classrooms/school/year at $4,000

Network Infrastructure

- Costs are estimated only for new initiatives listed in plan
- $1200/month rate for gigabit Ethernet
- Additional LAN equipment at $40,000/school over 3 years
- $45M over three years for Voice over Internet Protocol (VoIP) solution starting in Year Two
- $10,000 for security cameras and central distribution equipment over 3 years
- Security software at $350,000

6.2.1 Estimated Budget Requirements

Curriculum					
Goal 1: Improving Teaching and Learning					
Recommendation	**Budget Items**	**Class Code**	**2006-2007**	**2007-2008**	**2008-2009**
C-1.1 Develop guidelines and modify job descriptions (where appropriate) for existing school staff that include responsibilities and required competencies and experience to support school-based curriculum and technology integration in elementary, middle, high, and special schools.	One half-time Technology Integration Support position for every 50 teachers phased in over 3 years	Technology Integration Staffing (1000-3999)	$9,333,333	$9,333,333	$9,333,333
	Two half-time coordinators the first year	Other Staffing (1000-3999)	$100,000		
C-1.2 Develop and implement curriculum and technology integration strategies for each instructional level (primary, elementary, middle, and high school) that maximizes existing resources, builds upon current best practice, and meets or exceeds all local, state, and federal requirements.	Four half-time positions to organize and disseminate research-based technology integration strategies		$200,000	$200,000	$200,000
	PD activities at $200 per school and $50 per staff member. Phased in at 20%, 30%, 50%	Professional Development (5000-5999)	$382,000	$573,000	$955,000
C-1.3 Modify or align the DSS to include curriculum standards, assessment items, lesson and unit plans, and teaching resources. Investigate the availability of curriculum development and management modules to incorporate into a decision support system (DSS).	One half-time position in years two and three to coordinate	Other Staffing (1000-3999)		$50,000	$50,000
C-1.4 Envision and adopt a process within the district to align the processes of updating the current curriculum documents with the integration of technology across the curriculum and the attainment of NETS•S and ICT standards using one central curriculum development and management tool/process.	One half-time position in year two and one full –time position in year three			$50.000	$100.000
C-1.5 Integrate, document, and implement a comprehensive Career Awareness program that begins in the elementary grades and continues through high school. Integrate and expand existing strategies to orient people regarding the technology competencies involved in most career choices.	One full-time position in year three				$100,000

Curriculum

Goal 2: Technology and Information Literacy Skills

Recommendation	Budget Items	Class Code	2006-2007	2007-2008	2008-2009
C-2.1 Align the plan/process to integrate technology skills into the curriculum with the need for attainment of the NETS•S and ICT competency by all students.	Four half-time positions to support this project.	Other Staffing (1000-3999)	$200,000	$200,000	$200,000
	PD for each staff member over 3 years. Building PD days in years two and three.	Professional Development (5000-5999)	$52,500	$132,500	$132,500
C-2.2 Continue to investigate alternate and complementary products and strategies to develop students with 21st century skills.	One full-time position to support this initiative	Other Staffing (1000-3999)	$100,000	$100,000	$100,000
	PD for 15% of staff in each of year two and year three	Professional Development (5000-5999)		$262,500	$262,500
	Software for grades 6-8 in year three	Software (4000-4999)			$1,875,000
C-2.3 Formally define the role of library/media center staff at each type of school facility (elementary, middle, high, and special schools) with respect to assisting students attain ICT standards.	One quarter-time position in year two and one half-time position in year three	Other Staffing (1000-3999)		$25,000	$50,000
	PD for 40% of teachers in each of year two and three	Professional Development (5000-5999)		$700,000	$700,000

Goal 3: Technology Access

Recommendation	Budget Items	Class Code	2006-2007	2007-2008	2008-2009
C-3.1 Develop guidelines for school leadership teams to analyze and assess the best technology configurations to meet their individual needs that present, compare, and contrast the benefits, issues, and challenges of various options.	Four half-time positions	Other Staffing (1000-3999)	$200,000	$200,000	$200,000
	PD for ½ of the schools in year one, ¼ of the schools in year two, and 15% of the schools in year three	Professional Development (5000-5999)	$80,000	$40,000	$24,000

Curriculum

Goal 4: Record-Keeping and Assessment

Recommendation	Budget Items	Class Code	2006-2007	2007-2008	2008-2009
C-4.1 Provide local district and school administrators and teachers with a single "assessment portal" for accessing, analyzing, and interpreting the significant amount of assessment data resulting from standardized testing.	Two full-time positions in year one and two half-time positions in year two and three	Other Staffing (1000-3999)	$200,000	$100,000	$100,000
	PD for 1/3 of schools and 1/3 of staff in year three	Professional Development (5000-5999)			$630,300
C-4.2 Investigate strategies that will enable classroom teachers to conduct all periodic assessments online, thus shortening the time it takes to garner results and inform instructional planning.	Four full-time positions in years one and two and six full-time positions in year three	Other Staffing (1000-3999)	$400,000	$400,000	$600,000
C-4.3 Continue to move forward with ISIS implementation and the various modules that impact assessment and the management of classroom assessment data by the classroom teacher.	Two full-time positions in years one and two and two half-time positions in year three		$200,000	$200,000	$100,000
	PD for staff, 45% in years one and two and 10% year three	Professional Development (5000-5999)	$787,500	$787,500	$175,000

Goal 5: Parent Communication and Outreach

Recommendation	Budget Items	Class Code	2006-2007	2007-2008	2008-2009
C-5.1 Research, analyze, and determine the best strategies for LAUSD to bridge the digital divide that exists in many schools and communicate with a broad audience of LAUSD school community of stakeholders.	PD programs	Professional Development (5000-5999)	$500,000	$500,000	$500,000
C-5.2 Develop a comprehensive adult education/outreach program for community members interested in furthering their education and enhancing their skills.	Four full-time positions	Other Staffing (1000-3999)	$400,000	$400,000	$400,000
	PD programs	Professional Development (5000-5999)	$500,000	$500,000	$500,000
C-5.3 Develop a "public portal" to the district website that ensures parents and community members are readily able to find and access necessary information.	One full-time position for year one and one half-time position in years two and three	Other Staffing (1000-3999)	$100,000	$50,000	$50,000

Professional Development

Goal 1: Technology Competencies

Recommendation	Budget Items	Class Code	2006-2007	2007-2008	2008-2009
PD-1.1 Ensure that all LAUSD teachers, administrators, and paraprofessionals have the basic technology skills to integrate technology into the curriculum. PD- 1.2 Develop an implement a series of "in context" strategies for training teachers to integrate technology into the curriculum.	Four full-time positions for PD year one, two half-time positions in years two and three to provide professional development	Professional Development (5000-5999)	$400,000	$100,000	$100,000
PD- 1.3 Develop guidelines and, where appropriate, modify job descriptions for existing school staff that include responsibilities and required competencies and experience for a "technology custodian" who provides first-line-of-defense technology support to school-based staff.	Four half-time positions year one to provide this step	Other Staffing (1000-3999)	$200,000		

Goal 2: Professional Development Opportunities

Recommendation	Budget Items		2006-2007	2007-2008	2008-2009
PD.2.1 Continue to create End-user Support teams to provide support and training for school and district administrators and teachers in the new data management systems (ISIS, CLAS, DSS, BTS, and Welligent).	Two half-time positions year one, two quarter-time positions year two and three	Professional Development (5000-5999)	$100,000	$50,000	$50,000
PD.2.2 Define roles, responsibilities, and expectations for a dedicated manager of a district online registration system (currently Learning Zone) for professional/staff development.	One full-time support position		$100,000	$100,000	$100,000
PD- 2.3 Develop a comprehensive online staff development delivery vehicle (currently UPDATE) that is used throughout the District for training in competencies, curriculum, and other purposes as needs arise.	Two half-time positions year one and three half-time positions years two and three.		$100,000	$150,000	$150,000
PD.2.4 Train the subject-area coaches in integrating technology into the curriculum. Teachers participate in training in their content area as part of "meeting district goals."	Four full-time positions year one and two half-time positions year two and three		$400,000	$100,000	$100,000

Professional Development

Goal 3: Human Resource and Professional Development Management System

Recommendation	Budget Items	Class Code	2006-2007	2007-2008	2008-2009
PD.3.1 Continue to implement Business Tools for Schools (BTS), a web-based human resource management system that addresses the needs of all aspects of human resource management: recruitment, hiring, payroll, advancement, tracking.	Two full-time positions years one and two and two half-time positions year three	Other Staffing (1000-3999)	$200,000	$200,000	$100,000
PD.3.2 Adopt a centralized system for tracking professional development plans, workshop credit, etc. that integrates with the BTS system.	Two full-time positions year two and two half-time positions year three			$200,000	$100,000
PD.3.3 Develop and adopt a proficiency-based technology professional development system using the Ed Tech Profile as a basis for initial evaluation.	Four full-time positions years two and three			$400,000	$400,000

Infrastructure, Hardware, Technical Support, and Software

Technology Hardware

Recommendation	Budget Items	Class Code	2006-2007	2007-2008	2008-2009
TH-1 Redefine the computer distribution ratio as a factor of total teacher and student population per school building.	Refresh of student and staff computers on a 5-yr cycle	Student Computers (4000-4999)	$37,500,000	$37,500,000	$37,500,000
	Refresh of staff computers on a 5-yr cycle	Teacher/Admin Computers (4000-4999)	$15,000,000	$15,000,000	$15,000,000
TH-2 Determine minimum configurations for instructional learning tools and peripherals beyond computers at each instructional level.	Purchase of peripherals for 4 classrooms per school on a 5-yr cycle	Peripherals (4000-4999)	$2,560,000	$2,560,000	$2,560,000

Electronic Learning Resources

Recommendation	Budget Items	Class Code	2006-2007	2007-2008	2008-2009
ELR-1 Continue to Identify best practice, research-based instructional applications for systematic integration across LAUSD.	Software for refreshed student computers	Software (4000-4999)	$6,250,000	$6,250,000	$6,250,000
ELR-2 Ensure the interoperability of the five major district-wide system implementations (ISIS, CLAS, BTS, DSS, Welligent) by designing the data warehouse architecture to encompass all of these systems transparently without redundancy of information and process.	Interoperability and DW expansion costs		$8,000,000	$8,000,000	$8,000,000

Networking and Telecommunications Infrastructure

Recommendation	Budget Items	Class Code	2006-2007	2007-2008	2008-2009
NTI-1 Increase Bandwidth to meet instructional needs and improve access to the Internet	Gigabyte Ethernet to all schools	Infrastructure (5000-6999)	$11,520,000	$11,520,000	$11,520,000
NTI-2 Perform a comprehensive LAN Analysis at school sites to determine greatest needs, number of ports, identify the need for traffic management and develop budgets.	LAN improvements at all schools over three years		$10,666,667	$10,666,667	$10,666,667
NTI-3 Maintain and expand communications services to school sites to keep pace with increased needs for communication between teachers, students, parents and others for instructional purposes.	Upgrades and enhancements to communication services beginning in year two			$15,000,000	$15,000,000

Infrastructure, Hardware, Technical Support, and Software

Networking and Telecommunications Infrastructure (cont'd)

Recommendation	Budget Items	Class Code	2006-2007	2007-2008	2008-2009
NTI-4 Explore the possibility of centralizing some or all school level site-based servers.	Centralization of site-based servers beginning in year two			$5,000,000	$5,000,000

Physical Plant Modifications

Recommendation	Budget Items	Class Code	2006-2007	2007-2008	2008-2009
PPM-1 Develop review cycles for the New Construction and Existing Facilities Strategic Execution Plans (SEPs).	Costs for continued upgrade of school site technology components over 3 years	Infrastructure (5000-6999)	$2,666,667	$2,666,667	$2,666,667

Technical Support

Recommendation	Budget Items	Class Code	2006-2007	2007-2008	2008-2009
TS-1 Develop a technology support structure to complement the Help Desk that meets the needs of the end-users at the central office, local district, and school levels.	Twenty additional support positions	Technology Integration Staffing (1000-3999)	$2,000,000	$2,000,000	$2,000,000
TS-2 Explore options to standardize local technical support and coordinate with central support.	Begin establishment of "technology custodian" in year two (based on a 5-year phase-in)	Technology Custodian Staffing (1000-3999)		$7,200,000	$7,200,000
TS-3 Explore options for supporting ISIS. This support is for the transparent components of the tech plan such as WAN, LAN and infrastructure.	Additional administrative application support personnel beginning in year two			$900,000	$900,000

Policies, Procedures and Planning

Recommendation	Budget Items	Class Code	2006-2007	2007-2008	2008-2009
PPP-1 Develop strategies for implementation of application security controls.	Estimate for security improvements	Other Staffing (1000-3999)	$375,000	$1,000,000	$1,000,000
PPP-2 Conduct technology leadership retreat to define mission and prioritize implementation strategies.	Conduct district-wide workshop	Professional Development (5000-5999)	$25,000	$25,000	$25,000

6.3 Technical Support

Thousands of end-users within LAUSD require unique technical support services to maximize technology tools and the digital resources currently available to them and those outlined in this technology plan. Central and local district staffs share many common end-user technical support needs. Principals, teachers, students, and other school-based staff have similar and increased technical support needs due to the sheer numbers of end-users in each school facility. This section of the plan references the District's technical support structure and estimates the additional technical support resources needed to support the goals of this plan.

6.3.1 Central Office

LAUSD's Information Technology Division is responsible for all technology support for the District. An organizational chart and detailed description of ITD support services is listed in Section 5.2.4 of this plan. As noted, the IT Customer Support Services Branch has consolidated all IT support and created a centralized help desk system. The need for additional personnel should be monitored as calls are tracked through the "Enterprise Services Management System" to ensure calls are resolved in a reasonable timeframe and within the published Service Level Agreements (SLAs). The Education Technology Plan budget provided suggests the need for approximately 20 additional full-time central staff as the District's five current enterprise-wide systems reach full implementation.

6.3.2 Regional/Local District

In addition to Central support, Local District ITAFs have been assigned to each of the 8 local districts to work in conjunction with central ITAFs in supporting technology in their district. The local district ITAFs serve the same function as central ITAFs. The District may choose to increase the number of local district ITAF support from within the 20 FTE suggested for central support in the preceding section.

6.3.3 School Level

School-based technology support remains an ongoing critical need. A number of schools have a person who serves as a technology coordinator or liaison but the functions and responsibilities are not typically defined and vary greatly. At the elementary school site level, there is typically one person, often part-time, who assists with technology. This may be a Title I staff member, a paid aide, a parent volunteer or teacher. At the high school level, nearly all sites have a technology coordinator, often a teacher.

Two major areas have been identified in this Technology Plan and are consistent with LAUSD's vision for on-site support:

- The need for additional curriculum and technology integration support
- The need for additional technology maintenance support

Curriculum and Technology Integration Support

Goal C-1, Improving Teaching and Learning, states "LAUSD will align and deploy the resources needed for the integration of technology tools, including digital resources, to support attainment of state content standards for all student populations."

While integrating technology into the curriculum has been done in some areas and disciplines, such as the Middle School Technology Project (MSTP), and the Integrating Mathematics and Science through Technology (IMaST) grant programs, it is not embedded in all curricular areas. Recommendation C-1.1 of this plan, and its associated implementation steps, outline the process to review existing school staff responsibilities to support school-based curriculum and technology integration at all levels. Estimated funding for these steps is included in the Education Technology Plan budget for additional curriculum integration staffing at one-half of an FTE per 50 teachers over a three-year period.

Recommendation C-1.2 suggests additional support by developing and identifying curriculum and technology integration strategies for each instructional level. The plan budget includes estimated costs for additional staffing at 4 one-half time people to coordinate this effort and to provide the necessary professional development to teachers over three years; 20% in school year 2006-2007, 30% in school year 2007-2008, and 50% in school year 2008-2009.

Technology Maintenance Support

For curriculum and technology integration to become a reality in LAUSD, it is important that the integration support personnel discussed above are not consumed by daily maintenance tasks such as fixing printers, resetting passwords or other routine technical issues. The needed competencies for technology maintenance rarely require a certified position.

In addressing professional development goal PD-1, Technology Competencies, Recommendation PD-1.2 suggests developing guidelines and, where appropriate, modifying job descriptions for existing school-based staff in order to provide a "technology custodian" at each site. This person would assume the responsibilities for all tasks necessary to maintain the school's infrastructure including reporting problems, managing problems, managing data, and entry-level maintenance and technical support. Coordination for implementation steps for this recommendation is budgeted at 4 one-half time people for the school year 2006-2007.

Additionally, in Section 5 of this plan, Recommendation TS-2 suggests that LAUSD "Explore options to standardize local technical support and coordinate with central support." Included in the implementation steps for this plan is to look at the current support needs and existing resources allocated for schools. While a list of potential solutions is recommended, budgeting for the "technology custodian" position is estimated at one FTE per 5 schools beginning in the 2007-2008 school year.

6.4 Replacement Policy

As indicated above, a sustainable refresh cycle for instructional technology resources to support teaching and learning remains a major goal of this plan. Although much of the initial funding for school computers has come from grant programs for classrooms and libraries, there exists the need to plan for replacement as the systems age.

All systems purchased under the master contract in the last three years are tracked in the Master Asset Management system, which can provide information regarding the age and warranty status of each machine. As new equipment is purchased, eventually the age of all school-based as well as central office resources will be in this inventory.

Existing methods for obtaining new equipment, such as grant funding, new facilities, upgrade projects, or other District initiatives will continue. This potentially could be augmented in the near future through Educational Technology K-12 Vouchers. Since these are one-time dollars, the District plans to take steps toward a more sustainable refresh cycle set of funds. Implementation plans and benchmarks to achieve this sustainability are outlined in section 5 of this plan.

6.5 Progress Monitoring/Feedback Loop

There are several funding sources to support different aspects of the *Education Technology Plan*. These include, but are not limited to:

- E-Rate discounts
- EETT
- Local bond initiatives
- Educational Technology K-12 Voucher Program
- Foundations
- Individual school budgets
- Special grants

Due to accountability requirements, budget allocations and expenditures from each funding source must be carefully tracked using appropriate software and tied to steps in the implementation of each separate technology initiative. LAUSD personnel will be monitoring closely the state budget education distribution to LAUSD schools. Continued implementation of the BTS system, which is one of the major initiatives currently underway in LAUSD, will allow better tracking and analysis of funds and expenditures. The reporting capacity of the BTS system ensures that decision-makers at all levels (District, local district, and school) are provided with timely and accurate information required to monitor expenses versus available funds for each initiative.

Educational Technology and IT project management teams will compare projections with actual expenditures on a monthly basis. It is very possible that delays in implementation may require additional fiscal resources and/or a remedial plan for accomplishing particular initiative objectives within budget. It is also likely that budget discrepancies may require modifications to the Education Technology Plan. All such changes in budget allocation and the implementation plans for initiative will be communicated monthly to all staff involved in that particular initiative.

7.0 Monitoring and Evaluation

> *"Two forces are bringing these worlds together: The accountability world is moving from monitoring processes to monitoring results. The evaluation world is being demystified, its techniques becoming more collaborative, its applicability broadened, and its data no longer closely held as if by a hostile, foreign power."*
>
> —Lisabeth Schorr,
>
> *Common Purpose: Strengthening Families and Neighborhoods to Rebuild America*

Monitoring and Evaluation of the *Education Technology Plan* focuses on the processes, structures, and tools for monitoring the implementation of the plan and evaluating its impact in terms of quality and effectiveness. If planning is a catalyst for learning, then the District's *Education Technology Plan* must incorporate processes, structures, and tools to achieve their vision, mission, and goals. Simultaneously, plan monitoring and evaluation must support the District in thinking and behaving strategically and systemically in support of the District's goals and objectives

The monitoring and evaluation system envisioned is designed to:

- provide timely and relevant information to decision makers about progress and performance
- align with the District's program evaluation function
- ensure that program managers are committed and competent in using a wide variety of performance information to guide their decisions about improvement and redesign
- enable mid-course corrections as needed due to either changes in implementation schedules or unexpected outcomes

7.1 Plan Impact

While technology projects are being implemented, impact data is quite limited. Furthermore, there is no common matrix or rubric for evaluating the effectiveness of one initiative versus another. Currently, there is limited evaluation data regarding technology enhancements to traditional teaching. Those staff with oversight of particular technology initiatives will take responsibility for monitoring the implementation progress. LAUSD will continue to use the Project Management Organization (PMO) strategy to track the progress of major projects during and beyond the scope of the implementation.

- Extend the process for monitoring the implementation of the major projects (ISIS, CLAS, etc.) to extend into the 2006-2007 school year.
- Continue to create "executive sponsors" teams who work with PMO teams to monitor project implementation status and track issues. The PMO includes technology project manager, content project manager, and vendor project manager. Some activities are outsourced, some relate to content, some relate to technology. These three people are the PMO team and each has teams under them. The PMO team works with the sponsor group for reporting status,

discussing issues, etc. Sponsor groups include executive representatives at the Director or Chief level who meet with these PMO teams.

- Use the benchmarks provided in several sections of the Education Technology Plan as guidelines for monitoring initiatives.
- Use the "executive sponsor" teams to identify strategies for impact measures.

7.1.1 Student Learning

The research shows that increased access to technologies for learning will have considerable impact on student learning outcomes. Technology can also be used to assess student progress. Tests and periodic assessments will continue to be offered online. Strategies will be investigated that will enable classroom teachers to conduct all periodic assessments online, thus shortening the time it takes to garner results and inform instructional planning. Additional issues also arise from the use of a wide variety of assessments:

- Merge data from all assessments into a single portal for administrator, Director, principal, teacher, student, and parent access.
- Customize systems to align with LAUSD student goals and instructional standards as needed.
- Analyze the diverse collection of periodic assessment currently used throughout the District and select the "best of breed" for systemic integration at primary, elementary, middle, and high school levels.
- The student information system is used to track individual students and identify those who have not mastered particular competencies. SOARS, the online report card, is also employed systematically to track student learning outcomes and progress.

7.1.2 Attainment of District Curricular Goals

To support the District in reaching its strategic goals that all students achieve grade-level performance in literacy and mathematics, effective integration of the technology initiatives recommended in this Education Technology Plan take place throughout the District. The recommendations included in this technology plan provide increased access to technology resources for students, teachers, and decision-makers, as well as professional/staff development opportunities for all audiences, with the ultimate goal of narrowing the achievement gap between diverse groups of students.

A variety of periodic assessments assist the District with tracking the progress of particular groups of students such as minorities, low socio-economic, etc. NCLB requires that all state assessment results be analyzed by disaggregate populations (for example, gender, race, Free and Reduced Lunch status). The state assessment analysis will be used to monitor the closing of the achievement gap in LAUSD. Other factors, such as drop out/graduation rates, attendance statistics, number of students taking and passing AP exams, number of students achieving honor roll status, number of students going on for advanced studies post-high school are all indicators that the District will use to assess the attainment of the District strategic goals.

7.1.3 Classroom Management

Technology tools have many applications for classroom management. The District requires that middle and high school teachers report attendance online by class period using the Integrated Student Information System (ISIS). Once ISIS is implemented District-wide, the reporting of attendance and grades for all schools will be done in this manner. Currently, elementary schools use the Student Online Assessment and Reporting System (SOARS) to help track student progress. The student information software can provide periodic reports about each class. Forms used frequently by teachers can be automated.

7.1.4 School Management

Technology provides many advantages in communications with District offices, managing budget information and online purchasing for administrators, teachers, and other staff.

7.2 Schedule for Evaluating Outcome Data

Individual technology initiatives will have benchmarks and indicators such as those proposed in Sections 3-5 of the *Education Technology Plan.* Associated with the benchmarks are timelines. Periodic monitoring of these initiatives will be collaboratively planned by "executive sponsor" teams, scheduled, and adhered to by those responsible.

Goal C-1: Improving Teaching and Learning

LAUSD will align and deploy the resources needed for the integration of technology tools, including digital resources, to support attainment of state content standards for all student populations. (Supports Superintendent's Strategic Plan Goals 1, 2, 5, 7, 8, 9, 10, 11, 15, and 16).

Benchmarks	Indicators of Success	Evaluation Schedules
• A Scope and Sequence document defining strategies that teachers will use to integrate technology tools and digital resources to support content standards is defined for grades K-12 within LAUSD by December 2006.	The Scope and Sequence is endorsed by the School Board and the process to advance at the school level is defined.	ITD presents to Board for approval/endorsement. ITD updates Scope and Sequence annually.
• 50% of LAUSD teachers in elementary, middle, high, and special school/ programs will integrate technology tools into the curriculum on a monthly basis by June 2007. • 75% of LAUSD teachers in elementary, middle, high, and special school/ programs will integrate technology tools into the curriculum on a monthly basis by June 2008.	Classroom observations of teachers by teacher cohort groups and principals will indicate effective integration skills according to the target percentages outlined for each year. EdTech Profile results will demonstrate competency at the proficient level.	Principals evaluate teachers' technology integration skills according to existing Stull evaluation form on current evaluation cycle. EdTech Profile is currently administered every eighteen months. The recommendation is to shorten that period to every twelve months.
• 95% of LAUSD teachers in elementary, middle, high, and special school/programs will integrate technology tools into the curriculum on a monthly basis by June 2009.	Refer to Indicators of Success above.	Refer to Evaluation Schedules above.

Goal C-2: Technology and Information Literacy Skills

By the end of grade 8, LAUSD students will attain critical technology and information literacy skills that allow them to further their education and become independent learners. (Supports Superintendent's Strategic Plan Goals 1, 2, 7, 8, and 9.)

Benchmarks	Indicators of Success	Evaluation Schedules
• A multifaceted strategy (incorporating content area teachers, library media staff, specialists, and commercially available products) to support the attainment of Information and Communication Technology (ICT) literacy skills is introduced in grades 4-8 by December 2006.	ITC literacy skills are endorsed by the School Board and the process to advance at the school level is defined.	ITD presents to Board for approval/endorsement. ITD reviews Scope and Sequence annually and updates as needed.
• 35% of all grade 8 students promote with core technology and information literacy skills by June 2007.	Teacher observations by teacher cohort groups and principals indicate effective application of technology skills in daily practice. Selected ITC assessment strategy (online assessment, portfolio, EdTech Profile) demonstrates growth at the targeted percents.	Teachers observe students throughout the school year. Formal assessment of 8th grade students is conducted annually.
• 65% of all grade 8 students promote with core technology and information literacy skills by June 2008.		
• 95% of all grade 8 students promote with core technology and information literacy skills by June 2009.		

Goal C-3: Technology Access

LAUSD will provide equitable access to technology tools and digital resources by LAUSD students in all schools across the District by adopting, aligning to content standards, and deploying minimum technology configurations with the intent to enable each student to reach their full potential and demonstrate academic achievement. (Supports Superintendent's Strategic Plan Goals 5, 7, 8, 9, 10, 11, 12, 14, 15, and 16.)

Benchmarks	Indicators of Success	Evaluation Schedule
• Minimum configurations for learning resources by school population are defined for all instructional levels and audiences within LAUSD by December 2006.	Minimum technology standards are defined and endorsed. Baseline data is determined by current inventories conducted annually at the school level.	Minimum standards are reviewed annually and updated as needed. Inventories are updated annually.
• 40% of all schools have technology resources inventories that meet or exceed the minimum technology configurations providing equitable access to these resources by all students for learning on a daily basis by June 2007.	Inventory of technology resources show growth towards providing equitable access is reaching target percents.	Conduct inventories annually.
• 60% of all schools have technology resources inventories that meet or exceed the minimum technology configurations providing equitable access to these resources by all students for learning on a daily basis by June 2008.		
• 90% of all schools have technology resources inventories that meet or exceed the minimum technology configurations providing equitable access to these resources by all students for learning on a daily basis by June 2009.		

Goal C-4: Record-Keeping and Assessment

LAUSD will deploy centralized systems and processes to support instructional planning, grades and classroom management, and assessment strategies to enable teachers to use existing information and data to inform instruction. (Supports Superintendent's Strategic Plan Goals 6, 8, and 13.)

Benchmark	Indicator of Success	Evaluation Schedule
• Pilot implementations of ISIS concludes and systemic implementation of school-based record keeping and assessment modules of ISIS are scheduled and in process prior to June 2007.	Number of teachers using ISIS from the classroom increases according to target percents.	Attendance module usage will be monitored electronically to determine usage on a quarterly cycle.
• 20% of school-based ISIS implementations is complete by June 2007.		
• 100% of school-based ISIS implementations is complete by June 2008.		

Goal C-5: Parent Communication and Outreach

LAUSD will increase and enhance current communication and outreach strategies to provide more members of the greater LAUSD community with timely and simple access to information and resources they need to participate in their child's education and their own continued learning. (Supports Superintendent's Strategic Plan Goals 12 and 13.)

Benchmark	Indicator of Success	Evaluation Schedule
• The District communications plan, currently in the revision stages, is completed (incorporating the recommendations included in this technology plan) and endorsed by June 2006.	The District communication plan is endorsed by the School Board. District communication solution(s) is identified, secured, and implemented at all school sites.	The communications plan is reviewed annually and updated as needed.
• The LAUSDnet Website is restructured to include "portals" custom-designed to service the needs of multiple LAUSD community members (students, parents, staff, community members) by June 2007.	A frequency counter of Website usage indicates increased usage.	A frequency counter is tracked and a quarterly report compiled.

Goal PD-1: Technology Competencies

LAUSD will define and support the attainment of differentiated technology competencies for all audiences within the LAUSD community to facilitate the integration of technology into the curriculum. (Supports Superintendent's Strategic Plan Goals 1, 3, 6, 14, and 16.)

Benchmark	Indicator of Success	Evaluation Schedule
• Technology competencies will be defined for all appropriate audiences within LAUSD by June 2007.	Technology Competencies are endorsed by the School Board and the process to advance at the school level is defined.	ITD presents to Board for approval/endorsement. ITD updates Technology Competencies annually.
• 80% of teachers, administrators, paraprofessionals, and support staff will demonstrate mastery at the intermediate level of technology competencies by June 2009.	EdTech Profile and/or equivalent assessments will indicate achievement by June, 2009.	EdTech Profile and/or equivalent assessments will be conducted annually (currently every eighteen months).
• 60% of teachers will demonstrate integration of technology into the curriculum by June 2009.		

Goal PD-2: Professional and Staff Development Opportunities

LAUSD will continue to define, develop, deliver, and effectively manage a diverse array of professional and staff development opportunities for all district audiences (including, but not limited to, central-, local district-, and school-level administrators, teachers, paraprofessionals, and support staff) such that all will attain required technology competencies. (Supports Superintendent's Strategic Plan Goals 3, 4, 8, 9, 10, 13, 15, and 16.)

Benchmark	Indicator of Success	Evaluation Schedule
• Professional/staff development opportunities (including content and delivery strategies) will be defined for all appropriate audiences within LAUSD by June 2007.	A calendar of Professional/staff development opportunities offered in 2007 is available. Attendance sheets are maintained. In June 2007, the content, the schedule, and the process for the Professional/staff development for 2008 and 2009 have been determined.	Content, schedule, and process for Professional/staff development is reviewed every six months and updated as needed.
• Differentiated professional/staff development opportunities in support of ISIS, CLAS, BTS, DSS, and Welligent will be offered for 100% of LAUSD staff by June 2009.	Workshop attendance at PD sessions in support of ISIS, CLAS, BTS, DSS, and Welligent will meet target percentages.	Attendance records are kept and tabulated throughout the year.
• Differentiated professional/staff development opportunities in support of curriculum and technology integration will be offered for 100% of LAUSD educators by June 2009.	Workshop attendance at PD sessions in support of technology integration will meet target percentages.	Attendance records are kept and tabulated throughout the year.

Goal PD-3: Highly Qualified Teachers

LAUSD will support the developmental processes (recruitment, selection, induction, and retention) that will attract and produce a cadre of highly qualified teachers working in schools. LAUSD will support the use of online training as well as access to electronic resources that support the further development and retention of highly qualified teachers. (Supports Superintendent's Strategic Plan Goals 1, 2, 3, 7, 8, and 9.)

Benchmark	Indicator of Success	Evaluation Schedule
• An aggressive process for recruiting, selecting, and retaining highly qualified teachers within LAUSD will be developed and endorsed by June 2007.	The Recruitment, Selection, and Retention process is endorsed by the School Board and the process to advance at the school level is defined.	The appropriate division presents to Board for approval/endorsement. The Recruitment, Selection, and Retention process is reviewed annually and updated as needed.
• An aggressive program of providing new teachers and teachers in training to meet HQT criteria with access to laptops and online professional development and electronic resources will be in place by June 2009.	A program for distributing laptops and training teachers is instituted.	The program for providing teachers with laptops and training is reviewed annually and updated as needed.
• 75% of teachers new to the District or having completed retraining to meet HQT criteria will demonstrate intermediate proficiency in the integration of instructional technology, as measured by the EdTech Profile, by June 2008.	EdTech Profile indicates that target percentages of teachers are demonstrating intermediate proficiency.	EdTech Profile is conducted annually and results analyzed.
• 85% of teachers new to the District or having completed retraining to meet HQT criteria have demonstrate intermediate proficiency in the integration of instructional technology, as measured by the EdTech Profile, by June 2009.		

7.3 Plan Modification Strategy

Plan monitoring strategies are a formative evaluation that typically reviews process rather than outcomes. Monitoring strategies address questions such as:

- Were tasks completed as designed? Were implementation timelines met? If not, why?
- What barriers were encountered during implementation? How were they addressed?
- What baseline data is needed for future summative evaluations?
- What changes were implemented? Why? To what effect?
- What are the implications of any mid-course corrections for redesign?

In designing plan monitoring strategies, LAUSD will determine which planning goals are to be monitored using which metric/strategy. Goals can be one of two general types. There are "intermediate" goals, or initiatives, which are the means and processes to achieve outcomes. There are also "outcome" goals, which reflect some desired result or final product. Clearly, the attainment of intermediate goals often affects the achievement of outcome goals.

For each goal type, the District will need to identify indicators. Indicators are statements that orient the District to a measure of performance and that can be used to gauge progress. Each indicator typically focuses on only one aspect of a goal.

7.3.1 Plan Monitoring Process

Outcome goals are typically associated with summative evaluation. The greatest challenge to the District, once benchmarks and measures have been determined, is to collect and analyze the information that will enable LAUSD to draw reasonable conclusions. To successfully monitor progress and keep stakeholders informed, evaluation activities will be carried out at all levels of the District. Also, all those involved in technology initiatives will be a part of the evaluation process by taking responsibility for supervision of key activities, regular project participation, providing feedback in real time, responding to online surveys, self-assessments, and recommending ways to address issues that may be impeding progress.

The feedback loop will be enabled considerably by technology (e.g., e-mail, discussion groups, posting on LAUSDnet, video conferencing, etc.) and will be bi-directional from the classroom to the central office. The following table displays stakeholder groups and provides examples of ways each group can contribute to monitoring and evaluation.

LAUSD Roles	Responsibilities and Participation
Students	• Increase technology competencies • Use instructional technology resources • Take online assessments/diagnostics
Teachers	• Make individual technology professional development plan • Participate in professional development activities • Complete surveys and self-assessments • Assess student technology competencies • Enter progress data into ISIS and SOAR • Mentor teachers
ITAFs and School Technology Custodians	• Document issues/problems • Monitor teacher technology competencies • Monitor teacher technology professional development plans • Mentor teachers
Principals	• Participate in professional development activities • Periodic monitoring of student progress • Mentor teachers
Technology Coordinators	• Aggregate and analyze school-level data • Mentor teachers
Project Management Organizations (PMOs)	• Monitor project plans and timelines • Document issues/problems
Executive Sponsors	• Monitor implementation status • Track issue resolution progress
Educational Technology Group	• Review aggregated progress and impact data • Recommend strategies for solving issues • Review the *Education Technology Plan* annually • Recommend additions/modifications to the *Education Technology Plan*

LAUSD will maintain all monitoring and evaluative information. Strategies for collecting information include periodic progress reviews, surveys (online, phone, hardcopy), interviews, focus groups, observation/demonstration, and examination of student records. Data will be compiled by the Education Technology Group and archived once the evaluation process is complete.

7.3.2 Evaluation Results Analysis

The Educational Technology Group will track the progress of this plan. LAUSD will continue to employ the strategy of "executive sponsor" teams to monitor specific projects implementation status and track issues.

7.3.3 Plan Modifications Process

The Educational Technology Group will regularly share and discuss results of monitoring and evaluation efforts and report progress or any modifications to the LAUSD Board and Executive Management. Based upon this input and any new requirements of the California Department of Education, the Educational Technology Group will modify, as appropriate, this plan.

The plan will be established and maintained as a Web-based resource available for review on the District-wide Web site at any time by all stakeholders.

7.3.4 Dissemination to Stakeholders

LAUSD will use a variety of means to disseminate evaluation results to all stakeholder groups including schools, parent groups, community organizations, etc. Demonstrated progress and results will likely encourage voters to continue to support education technology. A public relations plan will be developed and integrated into the LAUSD Communications Plan, now under development, to reach a maximum number of stakeholders. A variety of methods can be employed including:

- Press releases
- District's TV station (KLCS)
- Posting on the District and school Websites and District e-mail
- Newsletters
- Electronic Town Hall meetings

8.0 Adult Literacy

> *"Some 40 million American adults read at or below 5th-grade level, making it difficult to perform such everyday tasks as reading a newspaper, writing, and addressing a letter, completing a job application, or calculating simple mathematical totals. Low literacy skills significantly impact adults' ability to be productive as citizens, parents or workers."*
>
> —The Wallace Foundation

LAUSD understands that adult literacy is a key component to improving the educational potential of its students. The 2000 US Census data reveals the following information about the residents of the City of Los Angeles and Los Angeles County.

City of Los Angeles Total Population:	**3,694,820**
Social characteristics:	
Population 25 years or older	2,308,887
High school graduate or higher	66.6%
Bachelor's degree of higher	25.5%
Speak language other than English at home (5 years or older)	57.8%
Economic characteristics:	
In labor force (16 years or older)	60%
Families below poverty level	18.3%
Individuals below poverty level	22.1%
County of Los Angeles Total Population	**9,519,338**
Social characteristics:	
Population 25 years old or more	5,882,948
High school or higher degree	69.9%
Bachelor's degree or higher	24.9%
Speak language other than English (5 years or older)	54.1%
Economic characteristics:	
In labor force (16 years or older)	63.9%
Families below poverty level	14.4%
Individuals below poverty level	17.9%
Ethnicity/Race:	
White	48.7%
Black or African American	9.8%
American Indian and Alaska Native	0.8%

Asian	11.9%
Native Hawaiian/Other Pacific Islander	0.3%
Some other race	23.5%
Hispanic or Latino (of any race)	44.6%

A District this large with such a broad economically and socially diverse population faces enormous challenges to improving the literacy of its adult population. How the District looks to service providers outside the District and with whom they collaborate is described in the following sections on Providers (8.1) and Collaboration Strategy (8.2).

8.1 Providers

The LAUSD administers to almost 727,000 K-12 students who come from a broad range of racial/ethnic social backgrounds in a geographic area encompassing almost 710 square miles. To prepare its students to function in an English-speaking environment, the District addresses the needs of its almost 315,500 English learners (EL) separately from the English-speaking students. The parents of these EL students speak Spanish, Armenian, Cantonese, Korean, Farsi, Filipino, Russian, Vietnamese and more than 70 other languages. The literacy of these non-English speaking community members is important to the District in that their literacy helps foster the literacy of their children.

Presently, LAUSD has 28 Community Adult Education Centers. These Centers, spread throughout the District, help address the community's literacy and learning needs and serve almost 138,000 adults. Other providers of educational services to Los Angeles residents include institutions of higher education, city departments, public libraries, and private educational service organizations.

Many parents and community members do not have access to technology resources at home, so they need to have local community access to technology equipment along with computer classes and access to college and instructional materials. These resources allow them to advance and provide their children with better opportunities. Currently, community centers, the public library system, and some colleges and universities in the County provide the majority of these educational technology services.

8.2 Collaboration Strategy

A strategy of collaboration with parents and community stakeholders is proposed in the 2006 Key Findings and Recommendations Report associated with the 2006 Education Technology Plan. Residents with Internet access can explore a broad range of educational services via links from the City of Los Angeles Website (http://www.lacity.org/lacity4.htm), including resources related to education, health, and Safety for students, teachers, and parents such as:

- LA's BEST Online for after school education, recreation and enrichment programs
- LA Department of Water and Power (LADWP) educational services including the formation of educational partnerships with the schools
- LA Department of Recreation and Parks Kids Zone and Classparks

- LA Police Department (LAPD) Youth Program
- LA Public Library Kid's Path
- Links to colleges and universities in the County, including USC, UCLA and UC Northridge, LA City College, Coast Community College, Loyola Marymount University, for information about adult education and higher education programs

It is recommended that LAUSD maintain and further develop a comprehensive adult education/outreach program for community members interested in furthering their education and enhancing their skills. This program should include continuing to develop successful after school, extended day, and beyond the school walls strategies/programs that make technology resources available to parents and students in environments that are both safe and secure. In addition, workshops and courses on technology tools (computers, digital cameras, scanners) and applications for interested community members are recommended. Beyond workshops and courses, information should be publicized about online learning opportunities for all learners that are available through District licenses beyond the school day.

LAUSD seeks to educate parents and students on the value of integrating technology tools and resources into school and home learning environments. This shift in thinking requires a variety of public information and community awareness activities to paint the vision of 21st Century learning, such as the annual InfoTech conference for showcasing classroom use of technology. Town Hall Meetings, in-person and via videoconference, would allow many parents and community members to learn about and discuss school issues. Additionally the District can maximize the potential of the LAUSDnet Website and individual school Websites for communicating with parents by making them more user-friendly, robust, informative, and up-to-date.

9.0 Research-based Methods, Strategies, and Criteria

LAUSD presents the following research-based models, strategies, and criteria in support of the recommendations, implementation plans, and benchmarks articulated in this Education Technology Plan.

9.1 Education Technology Strategies and Proven Methods

When the use of technology in K-12 classrooms started over twenty years ago, researchers began to study its impact on student learning and school management. Since then many studies have demonstrated the effectiveness of using technology in teaching and learning. The following sections describe some of the educational technology strategies and proven methods for improving student learning, teaching, and technology management that are based on relevant national research and effective practices. As outlined in the plan criteria, education technology strategies and proven methods are included for the following topics:

- Student Learning
- Teaching
- Technology Management

A body of early research that became an early cornerstone of many district technology plans including LAUSD's, guiding both their technology mission and vision, is the work of the CEO Forum (http://www.ceoforum.org). The CEO Forum on Education and Technology was founded to help ensure that every child in the United States is equipped with the essential technological, critical thinking, and communications skills necessary to compete in the 21st century. The Forum pursued this objective through an annual education and technology assessment aimed at measuring the nation's progress through our public schools. The annual assessment was based on the School Technology and Readiness methodology that was developed by the CEO Forum. At its foundation is the integration of four issues that have been identified as critical to the process of teaching and learning: hardware, content, connectivity, and professional development. By regularly highlighting the importance of education technology and monitoring its deployment in the schools, the CEOs accelerated the country's progress in preparing our children for the 21st century. The Forum, a five-year project, ended in December 2001.

Summary

The CEO Forum Report from June 2001 identifies four building blocks for using educational technology to invigorate schools and increase student achievement. The building blocks are alignment, assessment, accountability, and access. In addition, the report makes key recommendations, which include a focus on educational technology objectives, ensuring access for all students, support of 21st century literacy skills, and continually improving strategies to measure progress.

Analysis of how the research will be applied in LAUSD

Throughout the life of the LAUSD Education Technology Plan, lessons that are created and taught will be carefully aligned with California state content standards, and national technology standards as applicable. As the plan is implemented, monitoring and evaluation will occur, using technology when appropriate, while the District continues to measure progress and make adjustments as needed. In addition, the District is committed to providing equitable access to technology for all students while in school as well as outside the school campuses.

Citation

The CEO Forum School Technology and Readiness Report: Key Building Blocks For Student Achievement in the 21st Century. June 2001. Retrieved January 14, 2006, from http://www.ceoforum.org/downloads/report4.pdf)

9.1.1 Student Learning

Technology has become a powerful catalyst in promoting learning, communications, and life skills for economic survival in today's world. To live, learn, and work successfully in an increasingly complex and information-rich society, students must be able to use technology effectively. Educators have developed standards for using technology by students, teachers, administrators, and technology support providers. All the standards recognize that successful learning activities depend on more than just the technology. Certain conditions are necessary for schools to effectively use technology for learning, teaching, and educational management. Physical, human, financial, and policy dimensions greatly affect the success of technology use in schools.

Summary

Through its National Educational Technology Standards (NETS) Project begun in 1997, the International Society for Technology in Education (ISTE) worked with educational technology leaders to develop standards to guide educational leaders in recognizing and addressing the essential conditions for effective use of technology to support pre K-12 education. Technology standards for students, teachers, support staff, and administrators have been developed through the NETS Project over the past several years.

The National Educational Technology Standards for Students (NETS•S) is designed to provide teachers, technology planners, teacher preparation institutions, and educational decision-makers with frameworks and standards to guide them in establishing enriched learning environments supported by technology.

In 1994, the International Technology Education Association (ITEA) launched the Technology For All Americans Project (TFAAP) to advance student attainment of technological literacy (the ability to use, manage, assess, and understand technology). TFAAP is based upon the premise that technological literacy is far more than the ability to use technological tools. Technologically-literate citizens employ systems-oriented thinking as they interact with the technological world fully aware of the impact such interaction has on

individuals, our society, and the environment. In 2000, ITEA published their twenty Standards for Technological Literacy (STL) grouped into five categories: The Nature of Technology, Technology and Society, Design, Abilities for the Technological World, and the Designed World.

Analysis of how the research will be applied in LAUSD

LAUSD has embraced the NETS•S but has been unable to realize sufficient technology resources District-wide to systemically integrate these standards into the curriculum K-12. There was a plan to align the NETS•S standards to the California standards, but this has not been realized to date. The Information and Communications Technology (ICT) standards articulated in NCLB align with the NETS•S standards. It is recommended that continued efforts be made to align NETS•S and ICT while proceeding to develop curriculum and technology integration strategies for each instructional level.

Citation

- NETS Project (http://cnets.iste.org/sitemap.html)
- International Technology Education Association (ITEA) Technology for All Americans Project (TFAAP) (http://www.iteaconnect.org/)

Summary

The emphasis of 21st Century Schools is to inform educators and have them develop a curriculum and school environment to prepare students in this century. A curriculum, which acknowledges the social responsibilities of education, must present situations where problems are relevant to the problems of living together, and where observation and information are calculated to develop social insight and interest. Twenty-first century curriculum has certain critical attributes. It is interdisciplinary, project-based, and research-driven. It is connected to the community – local, state, national, and global. Sometimes students are collaborating with people around the world in various projects. The curriculum incorporates higher order thinking skills, multiple intelligences, technology and multimedia, the multiple literacies of the 21st century, and authentic assessments. Service learning is an important component. Teachers are prepared through professional development activities to teach a 21st century curriculum.

Analysis of how the research will be applied in LAUSD

LAUSD, during the implementation of its Education Technology Plan, may develop and disseminate, through a variety of media, a collection of "best practice integration examples and strategies" for each grade and discipline. This includes embedding these strategies into existing LAUSD instructional guides and may include components of the 21st Century School. During the life of the plan, efforts will be made to educate/inform school leadership teams as needed with appropriate staff development to understand the impact of the

technology scope and sequence on human resources, expenditures, physical space, and learning. In addition, professional development for all staff in areas where technology skills are embedded into content area instruction must be provided.

Citation:

21st Century Schools (http://www.21stcenturyschools.com)

9.1.2 Teaching

"A combination of essential conditions is required for teachers to create learning environments conducive to powerful uses of technology. The most effective learning environments meld traditional approaches and new approaches to facilitate learning of relevant content while addressing individual needs." (NETS•T Essential Conditions)

Summary

Building on the NETS for Students, the ISTE NETS for Teachers (NETS•T), focus on pre-service teacher education; define the fundamental concepts, knowledge, skills, and attitudes for applying technology in educational settings. All candidates seeking certification or endorsements in teacher preparation should meet these educational technology standards. It is the responsibility of faculty across the university and at cooperating schools to provide opportunities for teacher candidates to meet these standards. In addition, induction strategies for newly hired teachers are included to guide private and public school leadership.

Analysis of how the research will be applied in LAUSD

These standards for teachers can be applied by LAUSD when interviewing prospective teachers and examining professional development programs offered to teachers in the District. One of the key recommendations for the LAUSD Education Technology Plan is for the District to develop and adopt a proficiency-based technology professional development system using EdTech Profile as a basis for teachers to evaluate their proficiencies. This will raise the "baseline" for professional development classes by ensuring that participants have certain basic skills and will prepare all staff to integrate technology into the curriculum.

Citation

Educational Technology Standards and Performance Indicators for All Teachers: NETS•T (http://cnets.iste.org/teachers/index.shtml) and California Assistance Project: EdTech Profiles (http://www.edtechprovile.org)

Summary

The effectiveness of a professional development program can be evaluated by measuring improvement of technological skills of the participants and the implementation of activities in the classroom. However, the success of the program was also dependent upon other factors: the climate of the school (if collegial sharing is encouraged or not), administrative support, and types of professional development (skills-based vs. integration training).

Analysis of how the research will be applied in LAUSD

This article outlines the types of professional development that LAUSD will find useful: sustained, site-based workshops with the support of staff and administrators. Using these suggestions and building upon current collegial relationships between staff members, LAUSD will be able to support teachers as they learn and implement new skills. UPDATE (Uniting Professional Development and Technology for Education) provides face-to-face and online training for LAUSD teachers in basic technology skills and curriculum integration. It is recommended that LAUSD develop UPDATE as the comprehensive staff-development vehicle that is used throughout the District so it can provide sustainability for District initiatives.

LAUSD has identified the need to support teachers on integrating technology into the curriculum. Various options have been suggested; they include educational technology coaches (similar to the coaches for content areas such as math, science, and literacy) and school-based instructional technology specialists. These positions are currently funded at the school or local district level and dependent upon the individual school or local district goals. At one school, a group of 6 teachers serves as a technology team to provide formal and informal professional development for technology infusion in addition to technical support on hardware and software issues. This support model is a good one for LAUSD to adopt for supporting teachers who integrate technology into their teaching and classroom management.

Citation

Mouza, Chrystally. (2002). "Learning to Teach with New Technology: Implications for Professional Development." *Journal of Research in Technology in Education*, 35, 272 – 289.

9.1.3 Technology Management

In today's heightened accountability environment, educators need access to accurate and timely information about their students in order to take proactive measures to improve achievement. A curriculum development and instructional/learning management system that is the cornerstone of an "ERP for Learning" provides educators with 21st century teaching, learning, and management tools to access just-in-time information. An instructional/ learning management system assists educators in managing the teaching and learning process by linking curriculum/instruction, assessment strategies,

instructional resources, student data, and staff resources. A key recommendation associated with the 2006 Education Technology Plan is for LAUSD to continue to move forward with the Integrated Student Information System (ISIS) implementation and the various modules that impact assessment and the management of classroom assessment data by the classroom teacher.

Summary

Consortium for School Networking (CoSN) launched its "Taking TCO to the Classroom" project to provide school leaders with tools to help them estimate the Total Cost of Ownership (TCO) involved when they build a network of computers and wire their classrooms to the Internet. Since it was founded in 1992, CoSN has served as the national organization for K-12 technology leaders who use technology strategically to improve learning. The project is made possible through the financial support of the corporate sponsors who provide input and feedback, but the ultimate responsibility for project materials remains with CoSN.

TCO is a total view of costs across all the involved organizations and, as such, provides a complete view of a project or an asset's costs. It includes all of the costs associated with using and maintaining networked computers, no matter whether a school district owns or leases them. TCO traditionally also includes calculations of costs that may not turn up in a budget, but that can still have an impact on school district operations--for example, when teachers must take time out of their day to address their own tech support problems. It comprises a set of tools and methodologies to measure and manage the costs.

CoSN/Gartner Group has benchmark data on eight U. S. school districts that have used TCO. The results show that the total cost of ownership data painted a picture that was entirely different from the traditional justification of individual projects. Many districts found in their original implementation of TCO that some cost data was difficult to obtain because of the inadequacies of the financial system. The case studies show how TCO led the schools to target specific areas that were candidates for cost reduction.

Best practices in developing a cost model for K-12 schools that assesses costs over a 3-5 year period include:

- **design:** engineering, piloting, testing, evaluation
- **acquisition:** procurement, direct costs of purchased and leased hardware, software and services, receiving/inventorying, installation, facilities, startup, configuration
- **operation:** administration, scheduling, monitoring, tuning, back-up, maintenance, repair, change management
- **support:** technical, functional, training, troubleshooting
- **usability:** efficiency of access, simplicity of use, increased capabilities
- **productivity:** lost availability, information recovery
- **hidden:** off-purpose use, co-worker support, unaccounted facility expenses

The CoSN/Gartner Group study found that the use of TCO helped the Districts:

- Manage and assess technology investments in the context of organizational goals
- Measure the impact of technology
- Develop and document budgetary guidelines
- Understand the actual costs for new initiatives
- Identify and document ongoing direct costs and indirect labor costs for technology services.

Analysis of how the research will be applied in LAUSD

As LAUSD proceeds to implement the initiatives outlined in the 2006 Education Technology Plan, it will face costs for refreshing existing technology devices and upgrading others. The key recommendations where applying TCO principles would be beneficial are:

- Develop a sustainable refresh cycle for instructional technology resources to support teaching and learning in grades K-12.
- Increase bandwidth to meet instructional needs and improve access to the Internet by exploring and utilizing all viable solutions (i.e. broadband, fiber, WLAN, etc.) to apply the most appropriate technological solution based on the type of need at the school site.
- Include an evaluation of the delivery methods and identify interdependencies among resources.
- Develop and sustain a technology infrastructure refresh cycle for school site resources which supports the use of new technologies such as video teleconferencing, media streaming, and increased access to Internet and Intranet resources.
- Keep pace with District new construction, additions, and renovations by augmenting the technology infrastructure.
- Continue to maintain, expand, and converge telephony infrastructure such as basic telephone service, cellular service, and long distance service reducing the total cost of ownership and providing intercommunication with teachers, students, parents, administrators, and others for instructional purposes.

Citation

Taking TCO to the Classroom (http://www.classroomtco.org/)

9.2 Education Technology Models and Strategies

Although many exciting and diverse educational technology models and strategies are being explored and investigated at any one time in a district the size of LAUSD, this plan has chosen to focus on four high priority areas:

- Online Learning Communities
- Ubiquitous Access to Teaching and Learning Resources

- Small Learning Communities
- Highly Qualified Teachers

District leadership has identified these four models/strategies as ones that hold the greatest potential to make a significant impact on improved teaching and learning and increased student achievement.

9.2.1 Online Learning Opportunities

Use of online learning opportunities to offer AP and credit recovery courses is increasing in popularity within LAUSD. District leadership seeks to outfit high schools and middle schools and eventually all elementary schools, with the technology resources necessary to provide students and teachers with access to online courses and learning opportunities via distance learning. As the cost and complexity of online and distance learning technology continues to decrease, this capacity will become more widely embraced throughout the District.

Summary

Resulting from a partnership between five organizations in 2005—Clark County School District (Nevada), Florida Virtual School, Illinois Virtual High School, Learning Point Associates, and Virtual High School—this study advances the efforts of a 2004 study entitled *Keeping Pace With K–12 Online Learning: A Snapshot of State-Level Policy and Practice*. The original study included an analysis of only 11 states. The 2005 extension identifies the growth of online education programs and discusses how online education practices are being developed in the absence of clear state-level guidance in all 50 states. This report explores policies and practices governing online education with a particular focus on policies aiming to provide students with high-quality online learning experiences.

Analysis of how the research will be applied in LAUSD

District leadership would like to see significant growth in the area of distance learning, online course work, and virtual programming. While few schools have made noteworthy progress in this emerging learning strategy, the Los Angeles Virtual Academy (LAVA) has been well received and there are proposals for expanding it to include both science and math courses. Many students are taking online AP courses and online courses for credit recovery. Distance education would support more independent learning, greater diversity of course offerings, and the ability to more effectively individualize learning for all students. There have been some virtual meetings using Elluminate, a Web-based collaboration tool that offers the opportunity for real-time presentations, chats, and document sharing in a virtual classroom environment.

Citation

Watson, J.F. (2004) *Keeping Pace with K–12 Online Learning: A Review of State-Level Policy and Practice.* Evergreen Consulting Group. Retrieved January 25, 2006, from http://www.ncrel.org/tech/pace2/

9.2.2 Ubiquitous Access to Teaching and Learning Resources

Districts across the nation are exploring implementation approaches that allow students ubiquitous access to computing resources for teaching and learning. These approaches have been evolving under a number of different names such as Anywhere, Anytime Learning; One-to-One Computing; Laptop Learning; and 24/7 Access. Inasmuch as the names differ, so do the approaches to achieving ubiquitous computing, ranging from specific-task learning devices (for example the LeapPad by LeapFrog) for the early learner to portable word processors (for example the Neo or Dana by AlphaSmart) for the upper elementary student to hand held and fully functioning laptop computers for middle and high school students. The purchasing, funding, dissemination strategies differ as do the computing devices, software alternatives, and network access.

Summary

This study supports the strategy of the District providing one portable word processor or laptop computer to every student when resources are available.

A summary of the major implications for educators/decision makers from this study confirm that when a 1:1 ratio of computers to students is present these resources can be leveraged by teachers to:

- More easily manage classrooms and technical issues that arise with technology use.
- Increase focused student use of desktops such as purposeful research.
- Provide more individualized attention to students.
- Reduce the amount of time devoted to whole class instruction and increase the amount of time to individual students.
- Facilitate more dynamic and flexible learning environments.
- Enable students to develop more comfort and expertise with technology.
- Enable students to work creatively with one another.

Analysis of how the research is exemplified in LAUSD

LAUSD is investigating and piloting a variety of strategies to bring ubiquitous access to technology learning tools and digital content to students within the District. Some projects provide a computer or computing device (handheld computer, laptop) for students to use throughout the school day, but they remain at school during the evenings. Other pilots assign a computing device to each student for the school year, allowing it to go home with the students as desired. Other models deploy a significant number of mobile, wireless laptop computers through out the school facility providing on-demand access for learning, without assigning specific devices to individual students. In the area of access to digital content, LAUSD seeks to negotiate with publishing companies a blend of digital and print versions of their textbooks at various grade levels.

Citation

Russell, M., Bebell, D., Cowan, J., & Corbelli, M. (2002). *An AlphaSmart for each student: Does teaching and learning change with full access to word processors?* Technology and Study Collaborative, Boston College. Retrieved January 25, 2006, from http://www.bc.edu/research/intasc/studies/AlphaSmartEachStudent/description.shtml.

9.2.3 Small Learning Communities

To create learning environments when students feel respected, needed, and a part of the learning community, schools across the nation are breaking large bodies of students into smaller learning communities inside a single facility. These smaller groups of students are sometimes called "academies," "houses," or "teams." The primary goal behind these smaller groupings is to enable teachers, students, and parents to get to know each other, respect each other, and engage in the learning process together as a team.

Summary

This article highlights the compelling body of research showing that, on a wide range of measures, when students are part of smaller, more intimate learning communities, they are more successful. Examples of the latest research are presented demonstrating that small schools have a measurably positive impact upon inner-city kids, especially African-American and Latino students and youngsters from low-income families. These positive impacts include:

- Small schools encourage teachers to innovate and "take ownership" of the curriculum.
- Small school size improves students' outcomes on grades and test scores.
- Small school size greatly improves attendance rates and lowers drop-out rates.
- Female and non-white students, in particular, do better in smaller schools.
- Smaller school units better serve students with special needs, including so-called "at-risk, exceptional, disadvantaged, and "gifted" students.
- In the small-school environment, security improves and violence decreases, as do student alcohol and drug abuse.

Analysis of how the research will be applied in LAUSD

LAUSD is actively exploring strategies and has begun to define smaller learning communities within some of their large facilities. Technology-enriched learning environments are planned to support and enhance many of the observed benefits of smaller learning communities.

A few examples follow:

- Communication and cooperation between teachers and administrators, teachers and teachers, teachers and students, and teachers and parents that permeate the school culture of smaller learning communities are enabled by email, Websites, video conferencing, and electronic reporting systems.
- Digital content, Internet access, online learning, and video conferencing support personalized forms of instruction found more often in smaller learning communities. These forms of instruction include self-pacing, project learning, coaching and mentoring, advisement, experiential learning, and community-based learning.
- Course management systems such as Blackboard/WebCT and centralized student information systems that allow students/parents access to grades, assignments, and time lines encourage students to take greater responsibility for their learning and understand their role as a member of a learning community.

Citation

Klonsky, M. *Small Schools: The Numbers Tell a Story.* Small Schools Workshop. Retrieved January 25, 2006, from http://www.smallschoolsworkshop.org/klonsky.html

9.2.4 Highly Qualified Teachers

It is generally recognized that the synergy of staff knowledge, skills, attitudes, and aptitudes (competencies) is an organization's primary asset, and that this synergy is key to ongoing success and future viability. However, in the educational model, the focus has been more on improving educational tools (curriculum changes, infusion of instructional technology, new program designs) than on aligning and improving staff competencies to enhance student achievement.

Summary

The types of activities in which teaching candidates engage during their pre-service experiences are the focus of this research article. The authors seek to identify the technology skills that prospective teachers should develop prior to student teaching. In addition, the manner in which these technology skills are deliberately scaffolded into hands-on and project-based pre-service activities that require the integration of technology tools and digital resources are presented. The article supports the model of embedding technology skills attainment within the context of their content and teaching methodology courses, not in isolation.

Analysis of how the research will be applied in LAUSD

LAUSD seeks to develop a teaching force of highly qualified teachers that meet and exceed this target as defined by NCLB legislation. In addition to appropriate credentials in their respective areas of teaching, LAUSD aspires to

cultivate a cadre of pre-K-12 educators who are effective and efficient users of technology tools and digital information to teach, learn, and manage their professional responsibilities. The EdTech Profile will be used as a metric to assess the technology skills of LAUSD educators. District leadership, responsible for developing and providing professional development opportunities for LAUSD teachers to hone curriculum and technology integration skills, look to the lessons learned at the pre-service level, as many veteran teachers remain novice technology users.

Currently, LAUSD is employing the strategy of training their content coaches on integration strategies rather than developing training specifically about technology skills and finds it to be most effective. This model has been used with both EETT grants. In addition, the primary role of the ITAFs (Instructional Technology Applications Facilitators) is to focus on integrating technology tools, digital resources, and technology skills into teaching and learning activities designed to achieve the existing California content standards.

Citation

Collier, S., Rivera, M., & Weinburgh, M.H. (2004). *Infusing technology skills into teacher education program: Change in students' knowledge about and use of technology.* Journal of Technology and Teacher Education (2004) 12(3), 447-468.

9.3 Innovative Strategies in Support of Rigorous Academic Support and Curriculum

LAUSD offers a diverse and rigorous curriculum to all of its students. This represents an arduous task in a district with a total enrollment of more than 740,000 K-12 students, 45% of whom are English learners. The senior high schools provide a variety of instructional programs that prepare students to enter the work force. In addition, they offer a rigorous curriculum and college preparatory courses (A-G requirements) that prepare students to enter college and the work force at a high level (Accountability Report Card - ARC). Among those programs are:

- Advanced Placement (AP) classes
- Online college courses
- International Baccalaureate (IB) schools
- Credit recovery
- Gifted And Talented Education (GATE)

9.3.1 Rigorous Academic Programs and Curriculum in LAUSD

Technology-enhanced strategies have provided districts across the nation with the ability to provide greater diversity in support of high levels of learning for small subsets of students. In the past these subsets of students had a more limited selection of learning opportunities due to staffing, time, and resources limitations. The advent of the Internet, high speed network connections, desktop video conferencing capacity, virtual schools, email, Web-based data

collection projects, Web-based video streaming, and sophisticated simulation and modeling programs have added a huge collection of learning activities to face-to-face learning environments. LAUSD presents the following offerings in support of rigorous programs and curriculum.

Advanced Placement (AP) Classes

The Advanced Placement (AP) program is a nation-wide program sponsored by the College Board that offers high school juniors and seniors the opportunity to take introductory college level courses in preparation for college study. The College Board currently offers 34 courses and exams in 20 subject areas. By taking these courses, students develop the skills and study habits that they will need to succeed in college and work towards earned credit or advanced standing at most colleges and universities. Students scoring a minimum of three points out of five on the AP exam are often eligible to have these courses waived at the college level and proceed with more advanced coursework. By supplementing their face-to-face AP courses with online programs, 14 unique AP courses are available to students across the entire District addressing both access and equity in the availability of AP courses.

Online College Courses

A number of LAUSD high school students seeking specialized or accelerated coursework attend one or more classes at local colleges. In some cases, these courses are not available within the local high schools or to extend their existing coursework. These courses are available online, and students have the opportunity to "attend" either during the school day or at home. These students quickly learn how to register for courses on line, check assignments via faculty Websites, and collaborate with their peers using email and other electronic communication tools.

International Baccalaureate (IB) Schools

The International Baccalaureate (IB) program is a nation-wide program that offers students the opportunity to achieve an internationally recognized diploma. The IB program is available for elementary, middle, and high school students. At this time, LAUSD offers the two-year high school program, which is based on the student's extended (4,000-word) essay, interdisciplinary research, and a component combining creativity and community service. IB standards require programs of study that are engaging, student-focused, outcomes-based, and rigorous. The integration of project-based learning supported by technology tools and digital resources helps the LAUSD IB schools to reach high levels of academic achievement.

Credit Recovery

Credit recovery is a program designed to meet the needs of students who are struggling to pass the Algebra requirement and pass the California High School Exit Exam (CAHSEE). Credit recovery offers additional instruction and reinforcement in this course, either inside or outside of the school day, so that students can pass this class without having to stay back and repeat the year.

The Credit Recovery program is an important step in achieving the District's goal of narrowing the achievement gap and lowering the dropout rate. In addition to Advance Placement, LAVA (Los Angeles Virtual Academy) targets the District's population of students in need of credit recovery. An analysis of students in need of credit recovery revealed that Algebra is the most needed course. Algebra courses offered through LAVA currently service approximately 320 students each semester.

Gifted and Talented Education (GATE)

The LAUSD Gifted and Talented program has been in place since 1951, offering students "high end learning opportunities which allow students to flourish in stimulating academic and social environments" (GATE Website: http://www.lausd.k12.ca.us/lausd/offices/GATE/intro.html). The program offers accelerated learning opportunities and differentiated instruction through honors and advanced placement classes in traditional schools as well as schools for advanced studies and special magnet schools for gifted and highly gifted students. To qualify for this program, schools and clusters must meet stringent requirements. More than 30,000 students participate in the Gifted and Talented Education programs offered in LAUSD.

9.3.2 Strategies in Support of Rigorous Academic Programs in LAUSD

The District has several strategies in place to support these rigorous academic programs. In addition to traditional face-to-face instruction, they are developing, implementing, and expanding distance learning opportunities, learning management tools, and the use of digital content.

Distance Learning Opportunities

LAUSD's Virtual Academy (LAVA) provides coursework in Advanced Placement and credit recovery courses for high school students in the District. LAVA uses a blended model of online and face-to-face sessions in order to maintain the sense of community that they deem to be an important aspect of the high school experience. The more advanced the course, the more independently the students are allowed to work. This year, 412 students enrolled in online courses through LAVA. The current plan is to increase these opportunities to offer additional courses to a larger audience

In addition to online resources, the District has also been exploring video-conferencing solutions, by positioning video-conferencing sites and equipment in each of the eight local districts. The Digital Town Hall, held in September of 2005 to gather information for this Education Technology Plan, was a shining example of the District's ability to collaborate and coordinate an interactive initiative. As LAUSD continues to master the many uses of video-conferencing technology, there are a wide variety of opportunities for global discovery available to the LAUSD community.

Learning Management Tools

Computer-based learning management tools are used at all levels to promote academic achievement. At the elementary level, Waterford is used to support

reading instruction, in addition to the Open Court program. At the middle and high schools, Carnegie Math and Compass Learning are being used online, in addition to the Vantage writing program for intervention in mathematics and language arts. Teachers use these modules for reinforcement to supplement the core curriculum. Most of these applications generate reports on individual achievement for the students in their classrooms or programs.

Digital Content

In two of the District's small learning communities, students and teachers are piloting a one-to-one laptop initiative using digital content. Textbooks are available electronically or with a supplementary course cartridge which can either be installed on a server or accessed over the Internet.

The District is moving in the direction of a model where all textbooks come with supplementary electronic resources, online assessment, and reinforcement activities. In addition to supporting anytime, anywhere learning, this will result in significant savings on print learning resources.

Appendix A:
Acceptable Use Policy (AUP) For District Computer Systems

LOS ANGELES UNIFIED SCHOOL DISTRICT
Policy Bulletin

TITLE: Acceptable Use Policy (AUP) For District Computer Systems

NUMBER: BUL-999

ISSUER: Megan Klee
Chief Information Officer

DATE: July 16, 2004

ROUTING
Loc Dist Supt
Loc Dist School
Support Directors
Administrators
Tech Coordinators
ITAFs

POLICY: On January 8, 2002, the LAUSD Board of Education established Board Rule 1254 as the Acceptable Use Policy as required by the Children's Internet Protection Act. All users of the Los Angeles Unified School District (LAUSD) computer systems by either students or employees are subject to the LAUSD's Acceptable Use Policy (AUP). This bulletin will undergo periodic review to ensure it reflects current laws and regulations.

Teachers, administrators, and other school personnel should ensure District data systems are used in a responsible, efficient, ethical, and legal manner, and such use must be in support of the District's business and education objectives.

MAJOR CHANGES: This revision replaces Bulletin K-19 dated March 15, 2002. The attachments have been revised (or eliminated) to make the policy easier for distribution and enforcement.

PROCEDURES: Users of District computers systems, networks, or the Internet must adhere to the Acceptable Use Policy. Site administrators must distribute, collect, and keep on file the completed attached forms from students and employees prior to authorizing access to the Internet or the District's network:

ATTACHMENT A: AUP information and sign-off form for Students and Parents

ATTACHMENT B: AUP information and sign-off for Employees.

ASSISTANCE: For further information, please call the ITD Customer Support Services Center (Helpdesk) at (323) 224-2277.

Acceptable Use Policy (AUP) For District Computer Systems
Attachment A: Information for Parents and Students

This Acceptable Use Policy was adopted by the Board on July 13, 2004

The District's Acceptable Use Policy ("AUP") is to prevent unauthorized access and other unlawful activities by users online, prevent unauthorized disclosure of or access to sensitive information, and to comply with the Children's Internet Protection Act ("CIPA"). As used in this policy, "user" includes anyone using the computers, Internet, email, chat rooms and other forms of direct electronic communications or equipment provided by the District (the "network."). **Only current students or employees are authorized to use the network.**

The District will use technology protection measures to block or filter, to the extent practicable, access of visual depictions that are *obscene, pornographic, and harmful to minors* over the network. The District reserves the right to monitor users' online activities and to access, review, copy, and store or delete any electronic communication or files and disclose them to others as it deems necessary. Users should have no expectation of privacy regarding their use of District property, network and/or Internet access or files, including email.

Acceptable Uses of the LAUSD Computer Network or the Internet

Schools must verify each year students using the computer network and Internet access for that school year have a signed page acknowledging this policy. Students who are under 18 must have their parents or guardians sign this page and schools must keep it on file. Once signed that permission/acknowledgement page remains in effect until revoked by the parent, or the student loses the privilege of using the District's network due to violation of this policy or is no longer an LAUSD student. Employees and other users are required to follow this policy. Even without signature, all users must follow this policy and report any misuse of the network or Internet to a teacher, supervisor or other appropriate District personnel. Access is provided primarily for education and District business. Staff may use the Internet, for incidental personal use during duty-free time**. By using the network, users have agreed to this policy.** If a user is uncertain about whether a particular use is acceptable or appropriate, he or she should consult a teacher, supervisor or other appropriate District personnel

Unacceptable Uses of the Computer Network or Internet

- Violating any state or federal law or municipal ordinance, such as: Accessing or transmitting pornography of any kind, obscene depictions, harmful materials, materials that encourage others to violate the law, confidential information or copyrighted materials;
- Selling or purchasing illegal items or substances;
- Obtaining and/or using anonymous email sites; spamming; spreading viruses;
- Causing harm to others or damage to their property, such as:

    1. Using profane, abusive, or impolite language; threatening, harassing, or making damaging or false statements about others or accessing, transmitting, or downloading offensive, harassing, or disparaging materials;
    2. Deleting, copying, modifying, or forging other users' names, emails, files, or data; disguising one's identity, impersonating other users, or sending anonymous email;
    3. Damaging computer equipment, files, data or the network in any way, including intentionally accessing, transmitting or downloading computer viruses or other harmful files or programs, or disrupting any computer system performance;
    4. Using any District computer to pursue "hacking," internal or external to the District, or attempting to access information protected by privacy laws; or
    5. Accessing, transmitting, or downloading large files, including "chain letters" or any type of "pyramid schemes".

- **Engaging in uses that jeopardize access or lead to unauthorized access into others' accounts or other computer networks, such as:**
    1. Using another's account password(s) or identifier(s);
    2. Interfering with other users' ability to access their account(s); or
    3. Disclosing anyone's password to others or allowing them to use another's account(s).
- **Using the network or Internet for Commercial purposes:**
    1. Using the Internet for personal financial gain;
    2. Using the Internet for personal advertising, promotion, or financial gain; or
    3. Conducting for-profit business activities and/or engaging in non-government related fundraising or public relations activities such as solicitation for religious purposes, lobbying for personal political purposes.

Student Internet Safety

1. Students under the age of eighteen should only access LAUSDnet accounts outside of school if a parent or legal guardian supervises their usage at all times. The student's parent or guardian is responsible for monitoring the minor's use;
2. Students shall not reveal on the Internet personal information about themselves or other persons. For example, students should not reveal their name, home address, telephone number, or display photographs of themselves or others;
3. Students shall not meet in person anyone they have met only on the Internet; and
4. Students must abide by all laws, this Acceptable Use Policy and all District security policies.

Penalties for Improper Use

The use of a District account is a privilege, not a right, and misuse will result in the restriction or cancellation of the account. Misuse may also lead to disciplinary and/or legal action for both students and employees, including suspension, expulsion, dismissal from District employment, or criminal prosecution by government authorities. The District will attempt to tailor any disciplinary action to meet the specific concerns related to each violation.

Disclaimer

The District makes no guarantees about the quality of the services provided and is not responsible for any claims, losses, damages, costs, or other obligations arising from use of the network or accounts. Any additional charges a user accrues due to the use of the District's network are to be borne by the user. The District also denies any responsibility for the accuracy or quality of the information obtained through user access. Any statement, accessible on the computer network or the Internet, is understood to be the author's individual point of view and not that of the District, its affiliates, or employees.

I have read, understand, and agree to abide by the provisions of the Acceptable Use Policy of the Los Angeles Unified School District.

Date: _____ School: _____
Student Name: _____ Student Signature: _____
Parent/Legal uardian Name: _____ Parent/Legal Guardian Signature: _____

Please return this form to the school where it will be kept on file. It is required for all students that will be using a computer network and/or Internet access.

Acceptable Use Policy (AUP) For District Computer Systems
Attachment B: Information for Employees

This Acceptable Use Policy was adopted by the Board on July 13, 2004

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- Obtaining and/or using anonymous email sites; spamming; spreading viruses;
- Causing harm to others or damage to their property, such as:
    1. Using profane, abusive, or impolite language; threatening, harassing, or making damaging or false statements about others or accessing, transmitting, or downloading offensive, harassing, or disparaging materials;
    2. Deleting, copying, modifying, or forging other users' names, emails, files, or data; disguising one's identity, impersonating other users, or sending anonymous email;
    3. Damaging computer equipment, files, data or the network in any way, including intentionally accessing, transmitting or downloading computer viruses or other harmful files or programs, or disrupting any computer system performance;
    4. Using any District computer to pursue "hacking," internal or external to the District, or attempting to access information protected by privacy laws; or
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Date: _____ Location: _____
Employee Name: _____ Employee Signature: _____

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