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EDUCATIONAL
DATA
PROCESSING
ASSOCIATION**

**THE
DATABUS**

“Serving California’s Public Education Technologists”

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NetDay96—Promise or Peril?

Technology: Ambitious project aims to connect all classrooms to the Internet.

Warren Williams, Grossmont Union High School District

To a Technology Director, and a Maintenance and Operations Director, their worst nightmare—scores of community volunteers climbing in and out of classrooms, drilling through walls and attempting to install Category Five cable, fully terminated and tested. To students and teachers, a dream come true—scores of community volunteers connecting them to the information superhighway at no cost. To superintendents, trying to balance the need for community participation with union and other legal requirements—a need for Solomon-like wisdom. The rumors of NetDay96 are true. NetDay96 has arrived! Will NetDay96 be an opportunity to test the resolve of the schools in California to find new and creative ways to help educate students? Or will technology and organizations frustrate the idea? Different scenarios will be the outcome depending upon how individuals, districts, companies and the State of California react to the challenge.

The challenge was the creation of two California businessmen who mulled over the possibility of creating a statewide voluntary effort to wire some of California’s classrooms for connection to the Internet. The rationale for such connection was already well established by the educational and industrial leaders in the state. What was needed was some vehicle to bring the effort to closure, hence the creation of NetDay96. Hastily detailed on a sheet of paper were the musings of John Gage of Sun Microsystems and Michael Kaufman from KQED in San Francisco. In a perfunctory description for the possibility for massive volunteerism, Gage and Kaufman drew the

attention of Whitehouse and Congressional leaders. So impressed was President Clinton that a national counterpart to NetDay96 has been initiated called Tech Corp - but that’s another article. In a short period of time that even stunned technologists accustomed to rapid change, NetDay96 moved from the pale of possibility into the realm of actuality. Both men were elated yet daunted by the enterprise of focusing the vitality, bureaucracy and energy of California’s populace and institutions to wire its schools on a single day that was less than one year away.

For the reader of this article, who may be asked to help implement NetDay96, you have less than ninety days until March 9, 1996 - NetDay96. On November 21, the statewide taskforce met to forge plans that would assist schools in getting the information necessary to make

(See “NetDay96” on Page 9)

In This Issue:

Looking for a Way to Bring Telecommunications to the Classroom?.....	4
San Jose Conference a Huge Success.....	5
CSU/SprintLink on Campus.....	7
Internet Access Control Using Proxy Servers.....	13
1996 CEDPA Board of Directors Announced.....	14

CEDPA Information

CEDPA is an association of Educational Data Processing Professionals (technologists) within the State of California. Founded in 1960, the major emphasis of the association's activities are directed towards improving Administrative Information Processing in public education within the State of California and to prepare its membership to better meet and support the technological needs of the Instructional Program.

CEDPA is a California non-profit corporation, as recognized by the Internal Revenue Service.

As cited in CEDPA's bylaws, the purpose of this organization shall be:

(a) To provide information to the California public educational community concerning educational data processing via dissemination at an annual conference and through periodicals and special interest seminars.

(b) To foster the exchange of knowledge of educational data processing concepts, systems and experiences between educational data processing installations and other associations both at the state and national level.

(c) To inform the association membership of important information concerning educational data processing.

(d) To provide recommendations to the State Department of Education, State Legislature, school districts, County Offices of Education and other public educational organizations concerning educational data processing.

(e) To develop professional standards for the Educational Information Systems Community within the State of California.

Yearly membership in CEDPA is granted to attendees of the Association's annual conference. Individuals interested in the Association's mailings may request to be added to CEDPA's mailing list by writing to the address below.

The DataBus is published bimonthly by the California Educational Data Processing Association and is distributed without charge to all members of the association and to other selected individuals within the State of California who are interested in information systems processing and technology in education. Correspondence and address changes should be sent to:

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President's Corner

Commitment: Expanded services to be offered to CEDPA's members.

Ken Jones, Lodi Unified School District

When I joined the CEDPA Board six years ago, I had no idea how important the organization would become to getting my job done. The ability to network with peers from around the State and have a voice in some of the workings at CDE has been invaluable. My current position with Lodi Unified School District has been that of starting a new information systems department and bringing in all new administrative technology. CEDPA has been a wonderful way to figure out all my options and get real world opinion from people who have already been through what was happening in Lodi. Looking back at the accomplishments of my first year and a half at Lodi, I have not done one thing that was original thought. That may sound a little boring, but I prefer to give my employer the best solution rather than the most clever, leading edge solution. Call me strange, but I like my job!

What I discovered in my adventure at Lodi was that there is not a comprehensive list of software or hardware solutions available from any source that I could find. For example, when asked what student information systems we should be looking at, I could name a few but I knew that I was leaving some potentially wonderful choices out. Where was there a list of all the vendors? Who do you contact as you start down this road? The bottom line is that CEDPA was really my one and only choice.

CEDPA will be expanding the services it provides its membership during the next year. We believe that sharing information amongst our members is one of the most effective ways of keeping our members abreast of legislative issues and technology enhancements and we will be doing several things to enhance that communication.

First, all 1995 conference attendees have been provided a complete list of conference attendees. We know that a lot of networking takes place during the conference and we also know that sometimes that "connection" is broken after the conference concludes because you don't know how to get a hold of those people you had that important discussion with.

Second, we will be looking at hiring the services of someone who will help us analyze and provide information to our membership about the massive number of bills and other activities at the state and national levels that affect technology in education. This will be reported back

to the membership as a regular column in *The DataBus*.

Third, CEDPA will increase the number and frequency of regional meetings it sponsors throughout the year. At present there are three "Special Interest Group" meetings that are conducted during the year. One meeting each is held in the Northern and Southern sections of the state, and the third meeting is conducted during the annual conference. It was the consensus of the members who attended the SIG meetings during the October conference that CEDPA should change the focus of these meetings from a structured meeting that supports special interests (such as SISNET and the MIS Managers) to one of a more general "networking" nature. These "networking" sessions would be made available to the general membership and might cover a wider range of discussion topics. CEDPA will attempt to schedule these meetings every other month in both the Northern and Southern sections of the state, making a total of six luncheon meetings available to CEDPA's membership throughout the year.

Fourth, CEDPA will expand its presence on the Internet. We believe the Internet is rapidly becoming the universal vehicle for communication and sharing information. In addition to publishing an electronic version of *The DataBus* and providing other information about the organization, we plan to expand our services by implementing a bid clearinghouse web page that will contain information about recently-concluded bids that include "Piggy Back" clauses. How do we propose to collect this information? By using the Internet, of course! We plan to implement a series of online forms designed to collect information ranging from bid information to equipment and software surveys and will be depending on you to give that information to us via the Internet. All collected information will be publicized on the World Wide Web and also in *The DataBus*.

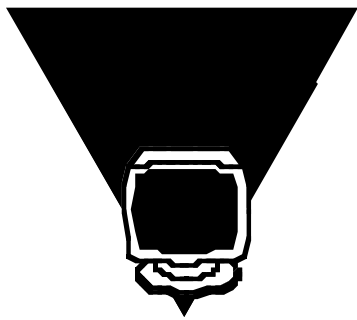
What is in the future for CEDPA? CEDPA is your organization and will be whatever you want it to be. The Board's view is that we will continue to spend time in several important areas. They include, but are not limited to, influencing legislation at the state and national levels, sharing information about how people like you are handling the upcoming 2000 date problem, what to do about

(See "President" on Page 5)

Looking for a Way to Bring Telecommunications to the Classroom?

Connectivity: County Offices of Education can provide access to Cyberspace.

Russ Brawn, Far West Laboratory



Look to the County Offices of Education

California lags behind other states in providing access to technology for schools. The Home of Silicon Valley ranks 48th in the number of computers available for student use. And while other states have implemented statewide networks for integrating telecommunications into the school environment, California has yet to produce a plan for achieving equitable access to on-line resources for all students and schools.

Part of the reason for the slow progress is that, until now, all the right players have not been at the table. Pacific Bell, GTE, CISCO, 3COM, the California Department of Education, the Education Council for Technology in Learning, the Industry Council for Technology in Learning, the PUC, and many individuals have contributed their time and resources to helping schools become connected. But what is needed is a sustainable governance and management structure, as well as resources, to institutionalize access and use of on-line resources in the classroom. One of the best ways to do this is to use the existing service delivery infrastructure of the county offices of education.

Representing the new players at the table is the California County Superintendents Educational Services Association (CCSESA). Organized regionally, county offices have gained increased recognition as the best way to deliver and support statewide services, such as professional development.

County superintendents oversee approximately \$1.5 billion in state and federal funding statewide. They are

responsible for monitoring the fiscal health of school districts, providing direct service for special education and alternative education programs, and for providing a variety of support services to districts.

The county superintendents committed themselves to collaborating on building a state-wide education network last year as the usefulness of such a resource became apparent. Facing the hard, cold facts of education finance, however, these superintendents knew they couldn't rely on new state funding, nor could they wait for it. Their local communities and schools were pressuring them to provide a solution. They knew they had to act.

CCSESA established a Telecommunications Technology Task Force in 1994, under the leadership of Dr. Kelly F. Blanton of Kern County, with the charge to "recommend the leadership role that county offices of education should play" in bringing telecommunications to the classroom.

To that end, the Task Force contracted with Far West Laboratory in the Spring of 1995 to conduct a survey of telecommunications capacity at county offices. This information is now being used to determine what steps must be taken to implement a cohesive network that will provide equitable access.

County offices of education have built and managed telecommunications networks for years that serve the school business functions of the county. Many counties also provide instructional television and other media services. With interest in bringing technologies, such as the Internet, to the classroom, county offices have had to upgrade their network operations. Many counties see the emerging use of telecommunications as a new line of services that can be offered to school districts, libraries, and possibly other governmental and community organizations. There is little question that county offices see telecommunications as their main channel for delivering services—such as staff development, video clearinghouses, curriculum resources, and technical assistance—in the future.

Survey results indicate that more than half of all county offices of education have established their presence on the Internet. These counties represent 87 percent

(See "CCSESA" on Page 14)

San Jose Conference a Huge Success

Analysis: Positive indications point to a conference enjoyed by all attending.

Ken Jones, Lodi Unified School District

For those of us who have been attending and/or managing the CEDPA conference for many years, there are a few strong indicators of success. All those indicators were present by the time we finished the conference on Friday afternoon. We may have been tired, but we were very happy to have put on such a successful event.

First and foremost, we asked ourselves if the content of the conference met the attendees' needs. The indicator we use to gauge this is the participation in the breakout sessions and the vendor exhibit show.

Almost all of the breakout sessions were well attended, with standing room only being the common theme. The vendor show which sometimes experiences a dropoff in attendance late in the afternoon was still hopping when we shut it down. Many of the vendors that I spoke with had not stopped talking to attendees for the entire six hours. They all indicated that this was one of the best conferences for making contacts that they had participated in and expressed an interest in coming back to CEDPA next year.

Another indicator is the number of attendees who are interested in the Friday morning portion of the conference. In the past, Friday's participation was less than on other days. This year only a few people were missing on the last day, and we even had enough interest that an ad-hoc roundtable was created at the last minute. (The roundtable was about Windows NT networking-*ed.*) The Special Interest Group (SIG) meetings which are usually minimally attended (I personally believe people use this time to rest up for the hospitality suites) were well attended and we spent several hours on issues that are affecting us all.

The final indicators regarding the quality of the conference site are the comments on the food. I think that the last job that I would want is that of food services. It's a tough job feeding all those people in such a short period of time while trying to make everyone happy. We received only one negative comment on the food at the Fairmont, but we heard lots of positive comments. The facility was really terrific overall, but the food!!!

The Board has started the planning for the 1996 conference. This coming year we will be visiting a Palm

Springs location for the very first time. After several visits to this resort in the desert, we became convinced that we should give it a try. The Marquis is another great hotel right in the middle of downtown Palm Springs so there should be plenty to keep us busy both during and after the conference. They tell us that October is about the best month for that location.

As stated in another part of this publication, we have become a virtual Board in many ways. As you may or may not know, board members serve on a voluntary basis and sometimes are not able to attend monthly board meetings. However, the Board spends considerable time discussing what the attendees would like to hear and see at the conference., and much of that discussion takes place in cyberspace. You, too, can participate in this process. Please feel free to send us e-mail at the addresses listed on page 2. We welcome your suggestions for conference speakers, vendors you do business with who might like to attend or exhibit, ideas on future conference locations, ideas for our web site, or any other feedback that you would like to give. Your voice will be heard and responded to.

Thanks again to the 1995 conference planning committee. It is a big but very rewarding job. "Welcome" to the new members of the Board and welcome to those attendees who came to their first conference and will now be receiving this fine publication. Have a good year!

President

(Continued from Page 3)

upgrading your legacy systems to modern technology on a shoestring, how to build *that* network the instructional folks are screaming for (and how to support it after you build it!), and war stories about things that worked and, more importantly, things that didn't work.

Stay tuned—and we sincerely thank you for supporting CEDPA. You don't get to be 35 years old without doing something right.

Call for Speakers for the 1996 CEDPA Conference in Palm Springs

Judy Acosta
Ventura County Superintendent of Schools

The 1995 Conference, which was held at the Fairmont Hotel in San Jose, was a huge success. The breakout sessions were well attended, and the topics covered were timely and relevant to what's happening in our "world" today. My definition of our "world" is the technological side of education. In today's economy with downsizing running rampant through our districts and county offices, we are asked to do more and more with less and less. But, being the outstanding technologists that we are, we are keeping our heads above water, and doing a great job of meeting the demands placed upon our departments.

The CEDPA board has begun planning the breakout session presentations for the 1996 CEDPA conference in Palm Springs. We need presentations that will be timely and appropriate to our areas of responsibility.

Wouldn't you like to share your success (or un-success) with us? Tell us how you managed to survive all the budget cuts, yet still managed to get your district/school/county networked. How are you dealing with the "cross-platform" environment? Share your experiences and nightmares with the new student system software you installed. There are many, many of us who have not managed to conquer all that you have. Be nice, tell us about those pitfalls before we encounter them.

Let's make the 1996 Palm Springs CEDPA Conference one of the best ever. If you need a vendor to help you make your presentation, please feel free to bring one. We always try and keep breakout sessions "generic", but we also realize that vendors help us to achieve our successes.

In this issue you will find a "Call for Speaker" page. Please fill out and return to me at your earliest convenience. I would like to have breakout sessions firmly in place by the middle of 1996 in order to be able to include the program in the Conference Announcement. If you have any suggestions for topics or speakers, please feel free to call me at 805-383-1954 or e-mail me at acosta@vcss.k12.ca.us.

Windows 95 Easter Egg Exposed

Software: Discover the hidden message buried deep within the program!

Addison Ching

An "Easter Egg" in computer parlance is a hidden message or animated display buried deep within a Microsoft program and accessible only through a special set of codes. The egg usually contains credits or other information about the product's development team of programmers and support staff. Some of these eggs are complex works of art, and some "hackers" spend hours on end discovering these hidden treasures.

Windows 95 is another Microsoft product that contains an easter egg. The following steps will allow you to "discover" this display buried deep within Windows 95.

Select any open area on the Windows 95 desktop and click on it using your RIGHT mouse button. Select NEW then FOLDER. In the folder's name field, type the following folder name exactly as shown:

```
and now, the moment you've all  
been waiting for
```

Press ENTER. Using your RIGHT mouse button again, click on the folder and select RENAME. Type the following folder name exactly as shown:

```
we proudly present for your  
viewing pleasure
```

Press ENTER again. With your RIGHT mouse button, again click on the folder and select RENAME. Type in the following folder name exactly as shown:

```
The Microsoft Windows 95  
Product Team!
```

Press ENTER again. Double-click on the folder to open it, sit back, and watch the show. Make sure your speakers are turned on for the full effect. The presentation is self-repeating so you'll have to close the folder to stop the presentation.

If you double-clicked on the folder and nothing happened, you missed a step somewhere. Go back and try again!

CSU/SprintLink on Campus

Network: New program to replace existing CSU dialup system.

Sue Mangiapane, the GINA™ Project

The CSU/SprintLink on Campus Program is off to a great start with all of our scheduled implementation dates on target. The CSU/SprintLink on Campus Program will completely replace all existing CSU dial-up capability state-wide by the end of first quarter 1996. All existing capabilities will remain fully operational until a smooth transition has been achieved. Scheduled turn-down of the current "free" system is technically scheduled for June 96.

CSU/SprintLink on Campus, offering dial-up at \$12.50 per month, includes

- 75 hours **unrestricted** dial-up time;
- Plus 90 hours (12am-6am);
- Additional hours 50¢ per hour;
- 28.8 modems;
- Guaranteed connection 95 times out of every 100 tries;
- Local authentication which offers validation of **all** users through every number available state-wide;
- Email featuring the choice of GINA with Netscape, or a Sprint Freeware Stack (email will be available for a nominal additional monthly fee);
- 24 hour, 7 day per week Help Desk; and
- Individualized billing with credit card, purchase order, check.

CSU additionally will continue to offer GINA/Coreplus accounts at \$50 each per year for schools with a wide area connection, who may not be ready to implement an Internet Server at this time. GINA/Coreplus accounts are ideal considering the following example. A school connected to the District or County via 56K line, with 30 machines on their LAN, may purchase 30 accounts to be used from school all day over the wide area network connection. Then a few dial-up accounts may be purchased for teachers who occasionally want to use their accounts remotely, dialing in from home. Teachers who use their accounts from home all the time may want to purchase their own dial-in account. In these situation, we also offer space on the Coreplus server for a school newsgroup and a web page for the site.

Expansion of the Network Plans are still in progress. We have heard from many counties interested in using the CSU/SprintLink on Campus capabilities to serve remote calling areas outside the CSU Campus calling circle. CSU and Sprint will **fully support** that expansion, all we need are the details regarding your specific remote calling needs. Final CSU/SprintLink on Campus Contracts will be available December 1, 1995. Until that time, there is a draft version available to review the contract terms and conditions. Commitment on the part of the K-12 or Community College site is minimal:

- Support CSU/SprintLink for one year;
- Host a kiosk, or use data entry software for entering orders; and
- Make every effort to ensure those requesting services are members of your educational community.

We do the rest! Participation can be supplemental to your existing modem banks. We are not suggesting replacement of what may already work very well for you. We are extending a very strong partnership to K-12 and Community Colleges and would like to explore how we best fit into your existing Internet environment

Current scheduled CSU/SprintLink on Campus implementation is as follows:

January	San Bernardino San Diego Long Beach San Francisco - including Hayward Chico Humboldt Sonoma - including Maritime Academy Stanislaus Los Angeles Northridge - including Ventura
February	Bakersfield San Marcos Pomona Sacramento Dominguez Hills Fullerton - including Mission Viejo

(See "Network" on Page 15)

Call For Speakers

California Educational Data Processing Association

36th Annual Conference

October 16-18, 1996

Marquis Hotel, Palm Springs, California

Would you be interested in presenting at the 1996 CEDPA Conference? Breakout sessions are being developed and many opportunities to speak are available. If you have a unique application, experience in implementing new technologies, budget saving ideas, or an information management or technology story to share, please consider presenting a breakout session.

Some sample topics are:

- **COMPUTING IN THE CLASSROOM** - Collaboration between MIS and Educational Technology
- **SUPPORT ISSUES** - Help Desks, Training
- **NETWORKS** - LAN/WAN connectivity involving the Internet, Novell, AppleTalk, UNIX, Windows NT
- **SECURITY ISSUES** - Use policies, firewall construction, proxy servers

If you are interested in being a presenter, your participation could help make the 1996 CEDPA conference a real success. Suggestions for additional topics or items within topic areas are welcome. Please contact Judy Acosta, speaker chairperson, at (805) 383-1954, by FAX at (805) 383-1997, or by Internet e-mail at acosta@vcss.k12.ca.us.

TOPIC: _____

Topic Description: _____

Overhead Projector? YES NO Other A/V Aids? YES NO

Explain: _____

Presenter's Name: _____

Title: _____

Organization: _____

Address: _____

City/State/ZIP: _____

Phone No.: _____ FAX: _____

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5189 VERDUGO WAY, CAMARILLO, CA 93012
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NetDay96

(Continued from Page 1)

NetDay96 realize its promise. To cite a letter from Delaine Eastin, State Superintendent of Public Instruction, "A broad consortium of public and private technology and utility firms, unions, and utility companies, together with the California Department of Education (CDE), are planning NetDay96 for Saturday, March 9, 1996. The goal is to enlist volunteers to assist with the wiring of every public and private school in California." The original concept for wiring all classrooms has been pared to a manageable five classrooms and the library for all schools. Eastin continues, "The sponsoring companies will contribute their equipment, their testers, and their skilled installers to survey the schools and design the installation, in cooperation with local school organizers. Local school organizers, together with sponsors, will raise the funds for the wire."

For Information Systems managers and network designers, the list of questions raised—about how community volunteers with little or no training are going to install sophisticated wiring schemes in classrooms—becomes almost too long to consider. Who will design the network? Who will install the wiring? Whose tools will be used? Whose standards will apply? Who will terminate the wire and test it? What kind of wire, punch-down blocks, patch panels, conduit and inserts? The answer to all of the above is the hope that the people, parts and procedures that normally make a network functional will work with volunteers on one Saturday in March to connect five classrooms and a library or a computer laboratory in as many schools in California as possible. For schools and districts without networks, it is the hope that experts from around the state will work with local volunteers to assist them in their initial foray into networking and Internetworking. No one working on organizing NetDay96 is lost in a sanguine vision of mass cooperation. Rather they ask the question, in the absence of "NetDay 96," what better way is there to reach so many classrooms?

Much of the groundwork has already been done through the efforts of Gage and Kaufman. A NetDay96 homepage has been established which allows anyone to register and assist a local school. The URL is <http://www.w3.com/netday96>. Another goal of NetDay96 is to keep as much of the whole process as possible on the World Wide Web. Says Kaufman, the Web facilitates the process with everyone involved being able to virtually join and organize NetDay96. Because NetDay96 focuses

on the school not district or county offices it is imperative that the venture be focused on providing a vehicle for voluntarism that allocates individuals and resources to school sites. The Web pages are organized in such a fashion that sponsors can volunteer for six levels of participation.

- Design and Testing;
- Communication materials and equipment for NetDay including Cat 5 Wire, information ports and connection blocks for the central closet;
- Construction tools and expertise;
- Training;
- Informational materials for everyone involved in NetDay; and
- Underwriter for a sponsor who purchases any of the above or NetDay96 kits.

For individuals, there are also a variety of choices, ranging from "provider of doughnuts" to organizer to "champion" (someone with evangelical zeal who will make the enterprise a success) to "installer of wire." Volunteers can indicate their level of expertise and provide contact information.

Every public and private school in California is listed and a short visit to the home page for the school will provide most of the information necessary to expedite NetDay96 activities. Schools are individually identified and will be rated on a map as to the current level of network infrastructure. At a glance, anyone accessing the Web pages for a school will see who has volunteered, what companies are providing services or equipment and who is donating money for the project. While names are displayed, only the site organizer, who is appointed by the principal, will have access to census information like address and phone number. In addition to the Web page there is a help line for Fax-on-demand NetDay96 information at 1-800-556-3896 (55NET96).

For district administrators, NetDay96 may be a daunting challenge but there is an aura of "Web energy and enthusiasm" that permeates the entire enterprise and the closer one examines the potential the closer that person will come to accepting the challenge. No one in the educational infrastructure from schools to the Department of Education is blind to the myriad of obstacles and concerns, but consider this. For the first time, the California School Employees Association has blessed such an

(See "NetDay96" on Page 10)

NetDay96

(Continued from Page 8)

SCHOOL CHECKLIST	DISTRICT CHECKLIST	COUNTY CHECKLIST
<ol style="list-style-type: none"> 1. Principal identifies NetDay School Organizer. 2. Check with District and County. 3. Site plans: blue prints, wire plans, fire plans. 4. Find a design person. 5. Identify a Point of Entry/Central Closet. 6. Determine how to get to Point of Entry. 7. Identify locations within school that will get information ports and exactly where they will be located within the classroom/library/laboratory. 8. Involve people responsible for facility, CSEA persons and other unions. 9. Identify district, county, community and other resources. 10. Check existing technology plans. 11. Check existing facility issues: asbestos, impenetrable walls, etc. 12. Guideline on what to do next. 	<ol style="list-style-type: none"> 1. Liability: insurance, Risk Management. 2. District Coordinating Group. 3. Equity. 4. Assist school sites in defining outcomes 5. Coordinate and train vendors. 6. Recruit volunteers for needy sites 7. Identify Point of Contact. 8. Get resolution from School Board in support. 9. Set WAN/LAN standards. 10. Provide liaison with city government. 11. Budget. 12. Get waivers for collective bargaining units. 13. Identify a press contact 14. Develop a PR plan. 15. Present a workshop for schools. 16. Do a connectability & facility assessment. 17. Provide a point of contact to the phone company. 18. Coordinate with industry. 19. Training. 20. Share with other districts. 21. Develop a NetDay team that includes: public relations, budget, M&O. 	<ol style="list-style-type: none"> 1. District Champion on County Team. 2. CTPA coordination. 3. Technical assistance. 4. Training to Districts. 5. Sharing among counties.

enterprise. It is recommending to local affiliates that employees be allowed to volunteer for NetDay96 activities. CSEA is even helping to plan for the statewide event. This unprecedented action alone will eliminate much of the concern from union officials and administrators. If unions can put aside their parochial interests to assist with the endeavor then perhaps all organizations and departments can likewise find a way to assist.

In January, each school, district and county office will receive NetDay96 packages. Each package will address many of the issues and offer helpful suggestions to assist schools in their planning for "NetDay 96." There will also be six regional meetings to assist schools and districts with any additional concerns or ideas. The six regional meetings will be at the County offices in San Diego, Los Angeles, Sacramento, Santa Clara, Kern and Shasta with exact times and dates to be announced soon. Helpful planning tips and strategies will also be posted on the NetDay96 home page. The NetDay96 packages will focus on three levels: school, district and county. Listed above are just some of the planning activities that these agencies will need to address.

The CDE Publications office produces the *K-12 Net-*

work Technology Planning Guide which can also be of assistance to schools and district offices for planning network and Internet access. Contact the CDE Publications Office at (800)995-4099 or download the information from the CDE Goldmine server at <http://goldmine.cde.gov/WWW/NTPG/NTPG.html>. CDE offers some coordinating and technical assistance. Call either Carole Teach, Manager of the K-12 Network Planning Unit at cteach@goldmine.cde.ca.gov or Ann Evans, Director of the School Facilities Planning Division at aevans@cde.ca.gov.

In the next few weeks, you will be barraged with NetDay96 information and initiatives. The issues below will be addressed so that you can assist in the voluntary effort to provide some of the necessary infrastructure to make connections to the Internet a reality for California students.

The information will contain "how-to" advice on:

1. Running workshops.
2. Dealing with administrators' concerns.
3. Correcting preconceptions and clarifying expecta-

(See "NetDay96" on Page 11)

NetDay96

(Continued from Page 9)

- tions.
4. Clarifying the school's needs.
5. Contacting Silicon Valley hi-tech and rural, small employers
6. Provide something tangible to volunteers in recognition of their efforts.
7. Including higher education: colleges, universities, community colleges
8. Handling risk management and job supervision.
9. Getting volunteers for schools.
10. Getting information on the Internet map.
11. Contacting sponsors: commercial, government, public ISP's.
12. Getting the word out.
13. Articulating specific outcomes that are realistic.
14. Contacting construction industry experts and professional organizations.
15. Dealing with the Division of School Architects.
16. Working with local telcos in addition to Pac Bell and GTE.
17. Integrating with existing systems.

Below are excerpts from an enclosure that Delaine Eastin sent to all Superintendents and Principals in the State.

NetDay96 is an industry sponsored volunteer program for California Schools. NetDay96, Saturday, March 9, will be the day when at least five classrooms and a library or a computer lab in thousands of California's K-12 schools are wired to make the connection to the Internet. This will be the result of the volunteer grassroots initiative of parents, students, teachers, administrators, community members, and technicians from California's high-technology companies, other businesses and organizations.

We will use exactly the same technologies for our schools that we use to wire our own companies and institutions. We will use the same installation tools, planning strategies and testing equipment. We will install simple, but advanced technology to solve one third of the challenge of connecting our schools to the Internet: linking classroom, school libraries and labs to a central point. This complements other initiatives to link the central point to the outside world, and to place computer equipment in classrooms.

Prior to NetDay96 volunteers and sponsors will sign up at the NetDay96 World Wide Web site to help schools in their community or in communities that are in need of help. School champions will monitor the NetDay96 Web pages for new volunteers and coordinate their participa-

tion in NetDay96 activities. Volunteer engineers will collaborate with the schools to develop detailed wiring plans. The schools, sponsors and volunteers will procure the materials and equipment specified by this plan.

During NetDay96, community and technical volunteers will follow the plans and wire at least five classrooms and a library or a computer lab in every California K-12 school. Testing teams from the sponsoring organizations will certify each school's successful installation; any flawed installations will be identified for correction.

This initiative is a beginning. By preparing the school infrastructure, we will eliminate the first barrier to school connectivity to the Internet.

NetDay96 is here in California!!! NetDay96 is initially focused on cabling the classrooms, libraries and laboratories in California's K-12 schools, but it is Internet-based and as a result, it will be a worldwide example. NetDay96 coordination "exists" only on the Internet at <http://w3.com/netday96> and soon at <http://netday.net>. There is no office, no address, no telephone number, no fax number, no paid staff, no meetings. It is staffed by a small team of volunteers who work for California high technology organizations throughout the state during the day, and who maintain the NetDay96 Web site when they can. It is a place on the World Wide Web where ten thousand schools, one hundred thousand volunteers and hundreds of sponsors will communicate laterally and directly to realize the goals of NetDay96. NetDay96—enormous in scope, but very manageable school by school.

Individuals will make NetDay96 a success. NetDay96 is a volunteer activity. It's your children. It's your school. It's your community. If you don't volunteer your time or help in the acquisition of materials and equipment then there is no telling when school children will be connected to the opportunities of the Internet.

Volunteers from the school, its community, high-technology companies, other businesses and organizations will plan for the installation, acquire the materials and equipment, and on NetDay96 install and test the new wiring infrastructure.

Sponsoring organizations and individuals will provide one or more of the following:

- Technically skilled staff and other resources to support at least one school's planning efforts prior to NetDay96, followed by testing at the close of NetDay96 to insure that the installation has been successfully completed.
- Enough wiring material and equipment to com-

(See "NetDay96" on Page 12)

NetDay96

(Continued from Page 10)

plete the installation of at least one school.

- Construction tools and equipment necessary to complete the installation of at least one school, and a skilled workperson responsible for delivering the equipment, ensuring its proper use and returning it to the sponsoring provider.
- Training that will prepare at least thirty volunteers to participate in NetDay96.
- Planning tools and information for all NetDay96 participants.

Schools will focus the volunteer energies and sponsor support to insure the most successful installation for their students.

NetDay96 begins today. Its goal is to facilitate the cabling of at least 5 classrooms and a library or a computer lab in every K-12 school in California by the end of Saturday, March 9, 1996. All of these schools are already listed on the NetDay96 Web site. Now is the time for volunteers to develop the plan for wiring your school(s). Now is the time to prepare your community for NetDay96.

NetDay96 will do the following to meet its goals:

1. Keep NetDay96 as simple as possible by focusing on existing technologies, encouraging unadorned installations that maximize every dollar spent, and distributing the responsibility to those closest to the issues.
2. NetDay96 will facilitate collaborations, but local champions will make it happen.
3. Facilitate the development and distribution of information to promote the use of electronic communications in schools and their support communities.
4. Facilitate the identification, development and support of community members who will champion NetDay96 in their local school.
5. Facilitate the training, equipping, and dispatching of volunteer mentors to support these local champions.
6. Facilitate the cooperation of these local champions, their schools and their communities
7. Facilitate collaborations with community-based and other businesses, to provide the necessary expertise and tools on the day when the community gathers together to connect their school to the Internet.
8. Facilitate the development of local, regional, and statewide partnerships.

NetDay96 will cost more than California can afford, unless you, your employer, your school and your community volunteer! It has been estimated that it will cost more than \$1 billion to cable the 360,000 K-12 classrooms in

California. This \$2,800 per classroom cost includes the engineering, materials, equipment, labor and administration of this enormous project. It includes all the cables, distribution racks and panels, wireways and conduits. It takes into consideration the running of cables everywhere, including through all kinds of walls, around asbestos, under ground and in the air. This cost for a traditional, centrally administered project is roughly divided into equal thirds among labor, materials, and engineering/administration. NetDay96 is designed to be simple, minimal, but technologically advanced, using the volunteer talent of California's high technology community applied at a local level. Volunteer your time, and the cost drops. Donate equipment and materials, and the cost drops. Lend your technical expertise, and the cost drops. Donate your time, materials, equipment or even funds to your school's NetDay96 and your children will be connected to the world.

Attendance Awards Presented at Conference

Judy Acosta
Ventura County Superintendent of Schools

Five years—that's quite a number of years to attend a conference without missing a single time. Ten years is an even longer time for perfect attendance. The CEDPA Board of Directors greatly appreciates the support and commitment of members who achieve these milestones.

The 1995 CEDPA Conference held at the San Jose Fairmont gave the CEDPA Board a chance to recognize individuals who have demonstrated their dedication to the organization. Members receiving five year awards in 1995 were: Ruthellen Dickinson, Oswaldo Galarza, Paul Rische, and Scott Sexmith. The ten year awards went to Ed Lopez and Wray Miller. Thanks, lady and gentlemen, we appreciate your support.

In a couple of years—1998—there will be some fifteen year awards if certain members keep attending. We will have to do something really special for those people. Are you one of those? You don't want to miss a year if you are. We would like to keep giving more and more awards. See you in Palm Springs in 1996!!!

Internet Access Control Using Proxy Servers

Resources: Firewall, software work best with a good Acceptable Use Policy.

Addison Ching

Web browsing client programs such as Netscape allow client computers to surf the web unencumbered. Any web page that is requested by the client is automatically accessed and retrieved by the client without regard to content or appropriateness. However, this flexibility also provides a means of accessing web sites and pages that might be considered inappropriate for classroom use. A Proxy Server can be used to limit access to some of these undesirable sites.

A Proxy Server is a World Wide Web server that acts as the sole web server for your entire domain or whatever clients you place behind the firewall, a logical block between your clients and the rest of the Internet. The proxy server usually sits on your firewall and intercepts all web requests coming from clients within the firewall. If the web page request is not on the proxy server's access control list, the request is processed normally and the retrieved web page is sent back to the requesting client. If, however, the requested web page or web site is on the control list, the client instead receives a message indicating that the URL is not accessible or not valid.

Your network must be set up such that clients needing access control must use the proxy server as their Internet gateway. This can be accomplished through proper router setup, placing all clients needing access control "behind" the firewall.

A proxy server can also improve your network's performance by functioning as a caching server. Using its cached web pages, the proxy server will serve already-accessed web pages to requesting clients without requiring outside access to the Internet. Consider the situation where a computer lab of twenty client computers is accessing the web under the direction of the teacher. The teacher instructs all twenty students to type in the address (URL) of the web page to be accessed. At the moment all twenty ENTER keys are pressed, twenty separate requests for that same web page are initiated, and twenty separate copies of that same web page are retrieved and returned to the classroom.

Using a proxy server, the same twenty web requests are handled more efficiently. Only the first request to reach the server actually causes that web page to be retrieved, and only if it is not already stored in the server's

cache. When retrieved, that web page is sent back to the requesting client and is also cached on the proxy server's hard disk. The remaining 19 clients that requested that same web page are served instead from the proxy server's cache, thus avoiding unnecessary duplicated requests and delays from cyberspace.

Setting up a proxy server is relatively simple if your server supports proxy operation. However, maintaining the access control list can be a daunting task. While most proxy web servers can accept domain names, individual page names, or wildcard URL specifications, actual identification of inappropriate web sites and pages is like shooting at a moving target. As old, already-documented sites disappear, new ones appear. There are no public clearinghouses, *per se*, of sites or URLs that contain material that might qualify as "questionable" in the instructional setting. Additionally, the creation of such sites could possibly result in legal challenges. While some vendors market client-based products that will block access to objectionable sites, the updated lists they provide through subscription are designated to work with their product only.

A sampling of web sites that might qualify for access control lists might be obtained from several, public sources. Classified advertising in many popular computer magazines now includes Internet addresses. Internet yellow page listings sometimes contain references to "AO" material. Usenet newsgroups that specialize in adult topics most likely will contain some references. Cybersurfing is another method of collecting URLs for an access control list. YAHOO can also provide some sources.

Proxy servers are not a panacea. It is virtually impossible to document all sites and/or web pages that have material that might be considered inappropriate for the instructional setting. Proxy servers will not prevent "questionable" material from being downloaded as an e-mail message or as an attachment to an e-mail message. They cannot prevent objectionable material from being transmitted and received during a "chat" session. They cannot filter out material that has been placed on a web server behind the firewall and they cannot filter out material based solely on textual content.

(See "Proxy" on Page 15)

CCSESA

(Continued from Page 4)

of students and teachers in the state. Counties that do not have the technical capacity to do it themselves are contracting with other counties to provide services for their constituents. Although only about ten percent of California teachers and students have access to the Internet today, this percentage is expected to grow to 30 to 40 percent or more in the next two years.

County offices of education have invested over \$50 million over the last three fiscal years in telecommunications, and expect to spend \$17 million during the current fiscal year. Clearly, they are not waiting for new resources to get started.

However, funding is by far the biggest barrier to bringing technology to the classroom level. Outmoded school buildings, lack of equipment, the need for teacher training, and lack of technical staff to support school sites are problems that require resources to solve.

The vision these counties hold is one that streamlines and reduces the overall cost of networking by aggregating the points of service in the county, and purchasing telecommunications services from vendors as a group-buy. For example, the typical cost for a site to independently purchase a 56 kbps connection to the Internet is about \$6,800 per year, including equipment lease and support, and an Internet port. Alternatively, Alameda and Sacramento counties, by purchasing a T1 line (24 times as much bandwidth), are offering 56 kbps service and an Internet port for \$2,000 per site per year. This lower annual cost frees up \$4,800 per year that can be used to purchase equipment, staff, and materials.

These county networks are growing rapidly in several parts of the state, due in part to the CalREN grants given by a Pacific Bell foundation, and Education First offerings by Pacific Bell and GTE.

Although county offices of education have made much progress in establishing county networks by partnering with institutions of higher education, other county services, and business, the statewide plan will address the need to coordinate and manage resources across county or regional boundaries. The Far West Laboratory survey report includes recommendations for developing the statewide plan.

The California Department of Education, through the Orange County Office of Education, recently awarded a small grant to CCSESA to establish the Education Communications and Information Services Consortium. CCSESA will form a governance structure that will bring these county networks into a statewide "network of networks" that can share resources, learn from each other, and seek state and federal funding. The Consortium will

also establish an "Internet Technical Academy" to train technical staff to support schools, and will identify and organize on-line resources for the classroom to make them more accessible and useful.

The Education Council for Technology in Learning recently recommended to the State Board of Education that the existing state funding for education technology be distributed through the regional structure of CCSESA. These actions will also support the further development of California's education network.

For more information about the CCSESA Telecommunications Task Force, please contact Dr. Blanton, Kern County Superintendent of Schools, at (805) 636-4621, or through e-mail at keblanton@fc.kern.org.

For more information about the county office of education capacity survey, please contact Kathleen Barfield of Far West Laboratory at (415) 565-3055, or through e-mail at barfield@fwl.org.

1996 CEDPA Board of Directors Announced

At the Fall CEDPA Conference, the following Association officers were elected:

President-Elect: Greg Lindner (Yolo County Office of Education)

Secretary: Jane Kauble (Los Angeles County Office of Education)

Treasurer: Mike Caskey (Stanislaus County Office of Education)

DataBus Editor: Addison Ching

Director (1997): L. Russ Brawn (Far West Laboratory)

Director (1997): Warren Williams (Grossmont Union High School District)

Terrell Tucker (Panama-Buena Vista Union School District) was appointed to fill the remaining term of Director Greg Lindner. That directorship expires in 1996.

The Board approved Eric Boutwell (San Francisco Unified School District) as one of the SIG Chairpersons. The remaining chairperson will be selected at the board's December meeting.

The complete slate of Association officers, along with contact information, always appears as the second page of *The DataBus*.

Network

(Continued from Page 7)

Remaining sites to be scheduled within 30 days. All current CSU dial-up locations will be covered. We expect to achieve full replacement of the CSU dial-up system by March 31, 1996. If you would like to have your county, district, or community college included in our expansion plans please contact Sue Mangiapane as soon as possible so that we can begin to work out details to include your goals in the coverage.

CSU/SprintLink does not involve exclusivity unless hardware is placed on your site. The plan at this point is to house most equipment at CSU locations, however as more users join the system, that model may change slightly, and some sites may be good candidates for mini-modem banks serving smaller remote populations. Other remote locations will be accommodated through FX lines, bringing dial-up traffic into the Internet via the larger CSU modem facilities.

We are very pleased with the work that Sprint, North Communications, and all of the CSU campuses are doing. This is a huge project and one that we are working very

Proxy

(Continued from page 13)

Proxy servers can, however, provide a greater level of access control than that which exists with unrestricted browsing clients. Proxy servers can also make the process of accessing web pages more efficient for your agency. However, proxy servers are best used in conjunction with a strong Acceptable Use Policy that addresses what material is and is not appropriate to access, and what the consequences will be if the terms and conditions of the AUP are violated.

hard to make a great success and a win/win for education in the state of California. As with most large projects, details may change slightly, so your patience is appreciated. If you have any questions or would like to discuss the details of the program and how it may be beneficial to you, please contact me.

Sue Mangiapane is Director of Marketing for the GINA™ Project. She may be reached at 310-985-9100 or by Internet e-mail at smangia@cello.gina.calstate.edu

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