

NetDay96—Another Perspective

Project: Success will be largely determined by how well districts are prepared for it.

Mamie Starr, Coalition for Adequate School Housing

"Be careful what you ask for, you might get it" is a cliche that seems to have increasing applicability in the school facility arena. So, you wonder, what on earth did we ask for that is now a portending problem? Simply, more technology in our schools-most specifically more kids on the Internet.

At this juncture I am sure that at the very least you are quite puzzled about why this should be problematic; and at the very most you are thinking about the implications of little Jimmy Smith in the school computer lab enthusiastically perusing the graphic inventory of a collection of pornographic art works, clearly without parental permission or teacher knowledge.

The issue at hand is somewhere between the two poles, with a fixed position depending entirely upon your perspective. What we are getting is an "opportunity" to have someone install pipes and wire in our schools on Saturday, March 9th. This is NetDay96 (remember, we are communicating on the brink of the 21st Century, words and phrases are written for facilitation on the Internet, not to please the lexicographers-there are no spaces in this name). I emphasize the word "opportunity," for it too has a bipolar context when you are talking about NetDay96.

For those who do not worry about details like an uninsured volunteer cutting through a school's sheer wall

and a ceiling full of asbestos-wrapped pipes with a Sawzall on a Saturday afternoon the vision is clear—we'll deal with Johnny and his interest later—we're getting the Internet in our school. For those who do worry (or at least have some concern) about details, the vision is also clear - lawsuits when the volunteer is knocked off of the ladder by the gusher coming out of the severed water pipe; air-borne friable asbestos everywhere; walls that are no longer DSA conforming, pipe and wire that goes to nothing . .. and the list goes on.

For those of us somewhere in the middle the vision is like that out of my office window right now-foggy. And an old dichotomy rears it's vexing head-how do you mitigate the operational and facility problems without

(See "NetDay96" on Page 14)

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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

Update: NetDay96 plan and news about CEDPA's World Wide Web site revealed.

Ken Jones, Lodi Unified School District

The big news is that the CEDPA web site is now registered with the InterNIC and will be coming on-line very shortly. Addison has published the web site in the past from his Newport Mesa USD shop. Now that Addison is no longer part of that organization, we thought it best to register our own domain name so that wherever the site ended up, you could surf there. The site will be called www.cedpa-k12.org, and will start by containing all the information that you are used to-conference updates, board member contact information, and this publication on-line. In the near future, we will start a database of recent request-for-proposals/quotes and a membership search engine. As you are buying those new computer systems to meet the millennia and networking your schools with the latest in cool hardware, please keep us in mind so we can make your successes with our vendor friends public. Besides transferring the work that Addison has already done for the site (great job by the way), the folks to thank for our web presence are Warren Williams for being the host site and providing the additional programming, and Farley Stewart of Intergate Products Inc. (www.ipinc.com) for strong technical support.

As you have known from the past, CEDPA is right in the middle of the latest breaking issues facing K-12 IS professionals. Unless you have been telecommuting from the moon, you have heard about Netday96. As some of the articles from this publication have indicated in the past, this volunteer effort lies somewhere between a Godsend and the incarnation of our gloomiest nightmares. I have received many calls from districts wondering what we are doing with this event. I believe that we have hit the middle of the road on the issue, and I just wanted to share our decisions in the hope that they will be helpful to those who are as-yet undecided.

In mid-January, we discussed Netday96 with our management staff. Several of the principals expressed some interest and we wanted to give them a path to follow to get ready. We followed the outline that was part of Warren's excellent article in the last issue of this publication. Specifically, we told the principals that they must (1) get a site champion to be the contact person for the entire activity, (2) get a volunteer who will design the network, and (3) contact us to move forward. The network designer needed to have certain qualifications (which we took from

our Network Supervisors head and job description) so that we didn't end up with someone who had put together a three computer Apple lab, or less. We also spent a good deal of time cautioning the management team that this was not what the media and leaders of the movement had previously described it as. This is just a "plumbing" job. We are just pulling and terminating some wire—not putting Internet on that wire (yet). Finally, we didn't want for this to all fall together (or apart) at the last minute, so we told the sites that they had to have the network designer on board and contact us by February 9 (giving us one month to dial everything in).

In order to ensure some success with Netday96, we do have a back up plan. If none of our schools are able to come up with a network designer, the management team will pick two sites which really need the work done and are interested. These sites will get their networks designed by my staff and the work of Netday96 will be lead by my staff. In this way, we will show success even without the volunteer effort that we are looking for.

Please feel free to contact me, or any of the other members of the CEDPA board, by e-mail if you would like to talk more about Netday96. The next time you read this publication, we will give you a post-mortem on the event—let's keep our fingers crossed!

CEDPA Welcomes Darryl La Gace

Ken Jones, Lodi Unified School District

Until our last board meeting, we had a vacancy for one of our two Regional Meeting Chairs. Eric Boutwell of San Francisco USD was previously elected to handle the northern meetings, but we needed someone to run the south. We approached Darryl La Gace of Lemon Grove School District (San Diego area) and he graciously accepted. We feel that Darryl will be a strong asset to CEDPA since he has implemented some leading edge technologies in his district (10 megabit WAN connecting all campuses for starters!) and that he will bring a fresh perspective to CEDPA. Darryl will be leading his first regional meeting in April in the South, so please turn out and welcome him to the board!

WestEd: The Region's Single Best Resource for Education Research and Services

Merger: New agency combines strengths of two organizations.

Russ Brawn, WestEd

Far West Laboratory for Educational Research and Development (FWL) and Southwest Regional Laboratory (SWRL), two nationally recognized education research, development and service organizations, announced in December the creation of WestEd, a new public agency that will enhance their ability to serve students, educators and communities in the four-state region of Arizona, California, Nevada, and Utah.

WestEd was created by the boards of FWL and SWRL following several years of discussions about how to improve the agencies' responsiveness to the region's

needs, while at the same time improving their ability to work cooperatively. FWL, with headquarters in San Francisco, and SWRL,



with principal offices in Los Alamitos, have operated as complementary research and development organizations, with strengths in different arenas, for 30 years.

FWL and SWRL each earned national reputations for the quality of the programs they developed to translate education research into practice in the classroom. FWL is well known for its research and development of programs in child/family studies, math, assessment, science and technology education, among others. SWRL is well known for its work in such areas as language development and school reform policy analysis.

WestEd offers a wide array of services and resources to assist educational agencies as well as state and federal policy makers in the development, implementation and evaluation of educational technology. CEDPA members may be familiar with California Student Information Services (CSIS), a project dedicated to improving student education through the use of technology in school administration. CSIS this month introduced ExPRESS.Cal (Version 2.0), new software based on SPEEDE/ExPRESS data standards, for sending and receiving student records over the Internet. WestEd also conducted the survey of telecommunications capacity at the state's county offices of education to determine what steps must be taken to implement a cohesive, statewide telecommunications network (reported in the December '95/January '96 issue of The DataBus).

"As WestEd, we will be able to provide a more comprehensive set of services than either organization would have been able to independently," said Dean Nafziger, WestEd Chief Executive Officer, and the FWL executive director. "Our vision is to become the single best resource for educators in the region."

Both FWL and SWRL are joint powers agencies, originally created in 1966 in response to federal initiatives organizing regional education laboratories. Each is owned and operated by agencies representing government and education entities in Arizona, California, Nevada and Utah. Their Boards of Directors and the new WestEd Board comprise leaders from public and private education and business communities throughout the region.

FWL and SWRL are funded in part by the U.S. Department of Education's Office of Educational Research and Improvement (OERI), other federal and state contracts, and foundation and other private grants. WestEd headquarters are in San Francisco; satellite offices are operated in Los Alamitos, Los Altos Hills, San Diego, Sausalito and Tucson.

NetDay96 Project Checklists

Carole Teach California Department of Education

Three checklists have been prepared by the California Department of Education for school agencies to use in their NetDay96 project impelementations. These lists were issued as a part of a NetDay96 information packet distributed to all school superintendents.

The lists include a District Checklist, a School Site Checklist, and a Risk Management Checklist. These lists provide a convenient means of identifying tasks that need to be completed and issues that need to be addressed for NetDay96. Superintendent Eastin's letter, along with the checklists appear on the pages following. January 11, 1996

Dear County Superintendents of Schools, District Superintendents of Schools, District Assistant Superintendents of Technology

NETDAY 96

NetDay 96, March 9, is drawing near. I continue to be excited about its possibilities. No doubt your offices are getting calls about what NetDay 96 is, how people can participate, and what preparations need to be made for it.

Enclosed are some materials which may be useful to you in preparing for NetDay 96 and answering questions from various audiences.

Specifically, I am sending you:

- NetDay 96 District Checklist
- NetDay 96 School Site Checklist
- School Site Wiring Diagrams
- Risk Management Checklist
- Support Letter from the California School Employees Association
- Internet Dial-up Services Chart and related free offers
- Executive Summary of "Successes and Barriers to Success for School Networking in California"
- Resource Listing

In addition, you may want to contact local telecommunication providers and other technology businesses and community resources to see if they can assist you.

Also, six county offices of education and NetDay's industry sponsors are hosting NetDay 96 workshops to facilitate this unique school-industry partnership. Those of you who are hosting these workshops deserve a special thank you. The workshops will cover various aspects of NetDay 96 planning, e.g., technical and wiring, public relations and local support, organization of people and materials, and facilities and liability issues.

The intent of the workshops is to convey first-hand information to as many districts as possible; I hope each county will encourage teams of school board members, administrators, technical staff and facility planners to attend the workshops. Districts and counties should contact the county hosting the workshop to register their team. Each workshop will accommodate approximately 200 attendees per workshop. A special thanks to Pacific Bell and Education First for supporting the workshops.

I realize the level of current connectivity varies widely throughout California. I hope, by providing a broad based, open-ended agenda at each location, to respond to these differences.

(Ed. note—The workshop information has been omitted since all workshops have already concluded.)

Michael Kaufman of KQED, who is leading the organizational efforts, has informed me that MCI and Telis (TeleLearning InfoSource) will be mailing software and information about a free dial-up Internet and email account to schools in California. Free accounts and training are also being offered by NetCom. Pacific Bell is continuing to make its Education First offer available to schools through 1996. Please see the enclosed information describing these opportunities which you may want to share with schools in your district or county. For more information, consult the NetDay 96 website at http://netday96.com. John Gage from Sun Microsystems and Michael Kaufman can also be helpful in responding to questions and, for the record, some have called to praise me for NetDay 96 but I do not deserve the credit. While my department staff has provided some support, this effort was the brainchild of John Gage and he deserves the praise. John and Michael can be reached by email at netday@kqed.org. Workshop information and the attached material are available on the Department's website at: http://goldmine.cde.ca.gov/WWW/Technology/NetDay_info.html.

Please feel free to contact Ann Evans at (916) 445-2144, aevans@cde.ca.gov, or Carole Teach at (916) 323-5288, cteach@goldmine.cde.ca.gov with any concerns as you prepare for this historic day. It is one of many steps I hope we will take together to bring the public education system on-line by 2001.

Sincerely,

DELAINE EASTIN State Superintendent of Public Instruction

February-March, 1996

NetDay96 District Checklist

- 1. Form a District Steering Committee, including representatives from business services, information services, educational technology, curriculum, and maintenance and operations, that will assume responsibility for planning and coordination. Identify the primary district contact person for questions from site principals and school champions.
- 2. Develop a NetDay Team to provide broad input in the planning process. Consider including personnel from maintenance and operations, information services, educational technology, curriculum, business, and public relations; school champions; faculty; outside advisors; contractors; and representatives from telcos, industry, city government, and community organizations. In most cases, guidelines and timelines can be developed by the steering committee, and then reviewed and refined by the larger NetDay Team.
- 3. Secure and record School Board and superintendent support, preferably with a resolution.
- 4. Develop guidelines and criteria for selection of schools to participate if there are not enough volunteers or other resources for all interested schools. Selection criteria should promote equitable access to Internet resources for students throughout the district, as well as assess facilities and connectability.
- 5. Develop district Local Area Network (LAN) and Wide Area Network (WAN) standards for wire, cables, connectors, patch panels, network interface cards, hubs, routers, and other equipment that will be used at all school sites and can be used in soliciting site level donations.
- 6. Develop a public relations plan, including a timeline, press releases, and an identified contact person.
- 7. Develop a plan for district level donations. Identify and contact potential donors.
- 8. Develop descriptions of donation options for businesses and sample letters that can be used by school sites to recruit volunteers and solicit donations.
- 9. Review safety issues, liability and insurance policies, and develop waiver forms for volunteers.
- 10. Review CSEA's position in support of NetDay 96 with CSEA representatives, and if necessary, secure waivers.
- 11. Schedule and organize orientation meetings for participating schools to assist schools in defining outcomes and to clarify the guidelines for wiring, equipment, and safety issues.
- 12. Recruit skilled volunteers for needy sites. Organize training courses for site volunteers.
- 13. Develop a storage and distribution plan for NetDay supplies and tools.

Hurry, hurry, hurry. Time is running out. Select your presentation time <u>Now!!!</u> WEDNESDAY BREAKOU'T SESSIONS

Room	A	B	С	D
11:00 A.M.	Filled	Filled	Filled	
1:30 P.M.				
2:45 P.M.				
4:00 P.M.				

THURSDAY BREAKOUT SESSIONS

Room	A	В	С	D
11:00 A.M.				

THURSDAY BREAKOUT SESSIONS

Room	A	В	С	D
11:00 A.M.				

The time slots above are available for you to select. There are only three that are already taken. We would like to include the breakout session schedule in the Conference Announcement which will go to the printer in late June or early July. Please reserve your time early. Put your name, phone number, school/district/company in one of the time slots above, mail or fax it to me, and I will contact you for the details. If you prefer, you can simply fill out a Call for Speakers form contained in this issue of the DataBus.

Some suggested topics for breakout sessions: hardware and network maintenance issues; Internet—access, security, forms capability, etc.; software support issues; help desk—anything you know; student system software successes and/or failures; financial and/or payroll software using client server technology; software training offered by your district/COE; your plan for NetDay96; standardized account code structure; millennium issues; classroom technology. There are many topics common and of interest to us all. Get your reservation in early. Mail or fax or E-mail me at:

Ventura County Supt. Of Schs. Office 5189 Verdugo Way Camarillo, CA 93012 Phone: 805-383-1954 Fax: 805-383-1997 E-mail: acosta@vcss.k12.ca.us

Breakout Sessions - Why YOU Should Make a Presentation

If instant fame and fortune is your desire, you won't get it by making a presentation at the CEDPA Conference. However, if you eliminate the fortune part from "fame and fortune", you will become famous (or infamous) in one brief 45-minute period of time.

Perhaps you could talk to us about your district's approach to NetDay96. By the time of the conference, you will certainly know whether you took the right or wrong approach. If it was a success, let us know your secret; if not, let us know the problems encountered and what you would do to avoid them next time.

How are you handling the approaching millennium change? Is your software all ready for the big day? If you feel secure in your resolution to this potential problem--let us know.

Do all the classrooms/teachers in your school or district have access to the Internet? Let us know how you achieved that success. Perhaps a teacher could make a presentation with you to explain all the advantages the Internet has brought into his/her classroom.

There are many, many subjects on which you could make a presentation. We will all benefit from your experience. If you would like, you may contact me to discuss the topic you are thinking of before you commit yourself to a breakout session. My phone number is 805-383-1954 or you can E-mail me at acosta@vcss.k12.ca.us.

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.

Overhead Projector? YES NO	Other A/V Aids? YES NO
Explain:	
Presenter's Name:	
Title:	
Organization:	
Address:	
City/State/ZIP:	
Phone No.:	FAX:
Phone No.: Mail to Judy Acosta, V 5189 Verd	FAX: VENTURA COUNTY SUPERINTENDENT OF SCHOOLS, UGO WAY, CAMARILLO, CA 93012 DR CALL (805) 383-1954

NetDay96 School Site Checklist

This checklist should assist you with some initial planning issues. It will be important for you to consult a network design specialist to plan the basic layout and equipment requirements. If you do not have staff with this expertise, seek a technical volunteer from your community, or via private industry sponsorship through the NetDay 96 website (http://netday96.com), or contact your district office for support. The attached school site and classroom basic wiring diagram should help you visualize the wiring layout.

1. Identify the Network Champion for your site. Your "Champion" (a teacher, administrator, staff member, parent, community advocate) should be enthused and willing to plan and coordinate activities and personnel for NetDay. The Network Champion should plan to work closely with the school administration, the teachers, and the physical plant manager.

2. The objective for NetDay is to wire six rooms. You may want to concentrate your efforts on key facilities (the library, administration building, computer labs) and then consider what classrooms you can get to.

3. Know the type of computers and network connections you will want at the end of the wires you are installing, and determine the number of outlets (computer/network connections) per room. Make sure each computer can be adapted to a 10baseT ethernet network.

4. Locate the main telecommunications service entry point, usually a phone closet in the administration wing. This is where the external connection to the Internet will appear. Then locate the main hub site for the campus where the conduit topology will allow the shortest run to each building or room to be served. It should be a secure utility space with separate power and adequate ventilation.

5. Locate the hub sites for each building to be wired (again, a secure utility space is ideal which can accommodate a 10baseT hub and wiring termination blocks).

6. Using floor plans, locate each place where a connection might be wanted. For standard wiring (category 5 unshielded twisted pair) the wire length from the hub equipment to the connection jack must not exceed 295 feet.

7. Physically inspect the possible routes for wiring back to the hubs to make sure there are no structural barriers (concrete walls, asbestos, etc.). All wiring should be protected by being inside ceilings or walls. Conduits or raceways can be used where the wiring would otherwise be exposed. Interbuilding runs should be in buried conduit but may be run aerially with proper precautions and strain relief.

8. For labs or the library where a cluster of computers may be located, decide if you want a few outlets and a secondary hub (easier to set up) or individual wires for each connection back to the utility closet (more flexible).

9. Decide if you want fiber optic, coaxial cable ("thin-net") or UTP (category 5 unshielded twisted pair) cable between building hubs and the main campus hub.

UTP cable is similar to but is made differently than the kind used to connect telephones. It is inexpensive, easy to install, and suitable for most networks available today. However it is limited to 295 feet between equipment.

Coaxial (RG-58 or "thin-net") cable is easy to install and runs can be as long as 500 feet between equipment locations. However, it can be used only for ethernet networks and would have to be replaced if the network is ever upgraded later.

Fiber optic cable is more expensive and more difficult to install. However, it offers high noise immunity, resistance to tapping, and can be used over greater distances (up to 1000 meters). If you choose fiber optic cable, plan to install at least 12 strand cable. You might choose to terminate only the 1 or 2 pairs you will need now plus one extra pair.

10. Locate a place for the router (the device that forwards information from the school's network to its destinations) and the main network server, ideally close to each other. The computer lab might make a good location for these since they could be used to demonstrate their functions to advanced students.

NetDay96 Risk Management Checklist

The following items result from interaction with our Risk Management Joint Powers Authority. It is intended to be an initial checklist that should be expanded upon. Certainly districts should be using it in conjunction with information from their specific insurance provider.

NETDAY 96 - SCHOOL SITE INSURANCE CHECKLIST

Insurance and risk management considerations should be coordinated with your district's Central Administrator. If your district is a member of a self-insurance group (e.g., Risk Management JPA), they should be contacted for information and assistance. The following are some general considerations:

A. INSURANCE COVERAGE

- 1. Liability be certain that self-insured retention and/or excess insurance policies provides, either by coverage from or endorsement, for the acts of volunteers.
- 2. Auto Liability avoid allowing volunteers to operate district vehicles, otherwise endorse accordingly through your insurance provider.
- 3. Workers Compensation as per liability, be certain that volunteers are to be considered employees for any industrial (work related) injury/illness.

B. <u>OPERATIONS/PROCEDURES</u>

- 1. Review AHERA plan to determine if provisions apply to activity of volunteers on NeTDay 96, then handle per AHERA & CAL OSHA regulations; seek recommendations from your insurance provider.
- 2. Review any lead exposure and handle according to regulations or seek recommendations from insurance provider.
- 3. Consider acknowledgment form so volunteer understands that workers compensation benefits will be provided. This establishes employment for workers compensation benefits and precludes civil litigation by volunteer.
- 4. Security district should be careful to provide volunteers limited, supervised access to district premises and/or equipment.
- 5. Supervision be sure to provide sufficient supervision to conduct activity in a "reasonable, safe, and prudent" manner and to provide evidence of such if needed.

Recommend maintaining a log and sign-in sheet, including hours volunteer is on site.

Dateline 1999: IS pros retire in droves

Michael Cohn

Alarmed about the year 2000? Worried about the YY date fields showing up as 00? Afraid to ask the chief financial officer for somewhere between \$2 million to fix the two-digit year problem?

We in the IS field know the truth. The danger that date-critical calculations will go haywire is real, it's cataclysmic, and we're toast. Everything from legacy to LAN may be flat on its back. But you can't expect most folks to appreciate the impact of something that is more than four years away. Heck, my dry cleaner has trouble looking beyond next Tuesday.

So don't lose sleep or hair over the 2000 problem; there are a bunch of ways out of this mess. Show no remorse, have no regrets and choose your strategy from the list below.

- 1. Retire. Get out of the business and make it someone else's problem. This may be the most common solution: IS executives will bail out in droves. Come the third quarter of 1999, the world will be devoid of IS managers–and just in time for us to finally get something done.
- 2. Relegate. Another popular option is to assign the problem to someone else. Bury it within the ranks. Suck in some subordinate. Or, better yet, impose it on an innocent contract programmer. "Hey, Stan, want to make \$24 an hour? Our 30 million lines of date-infected code should keep you busy for a while-especially since we can't even find half of it."
- 3. Resign. Face it, when the folks upstairs find out how bad the problem is, you'll get the ax anyway. So have a little pride. Hold your head high, walk up to the CEO and unflinchingly insist you're leaving, even though the date thing is not your fault and you've put in the best 19 years of your life as the director of IS. To which he or she will likely reflect, take a deep breath, look down on you and say, "Tell me...who are you again?"
- **4. Re-engineer.** Get rid of all your old software. Install a bunch of new stuff. How tough could that be, converting about 17,000 assembler programs? Let's see, at three a week, not counting Christmas, you



The solution to the 2000 problem? Retire, relegate, repair, relocate or just relax.

could probably do it in...well...see option 3.

- **5. Repair.** OK, be brave and make the fix. But why stop at YYYY? Go five-digit! That'll hold for another 98,000 years. It may seem extreme, but I'm fairly sure our office furniture has been around that long, not to mention Mrs. McGillicuddy in Accounting.
- 6. Recycle. If we have to do a bunch of date conversions anyway, I say let's start all over. Set the calendar to begin at Bill Gates' date of birth and make that 0 A.G. (After Gates). Of course, that might screw up the name Windows 95...Somebody better call the guy quick before they print up any more boxes.
- 7. **Relocate.** Move that data center to Honolulu. It buys you a couple of extra hours–and I bet you'll need them.
- 8. Relax. I figure we're doomed anyway. I'd guess that at one minute past midnight, New Year's Eve 1999, a bunch of enemy nations will try to bomb the heck out of us. We'll retaliate and hurriedly punch in our launch codes. The world will be watching as the system fires up and says, "Missiles activated, Time to launch: T-minus 100 years and counting."

Michael Cohn works at a large computer company in Atlanta that will either expand its two-digit year fields or contract his five-digit salary.

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High Technology at 32,000 Feet

Gadgetry: Airborne technology center provides conveniences and entertainment.

Addison Ching

Have you flown recently? If you haven't, you're in for a surprise!

As I entered the America West Boeing 737, I noticed something different: the passenger seats were slightly higher than ones I've sat on before. Did complaints about stiff necks prompt Boeing to redesign their seats?

As I sat in my seat, I noticed something new: above the traditional fold-down tray table (stowed for takeoff and landing, of course) was a brilliantly-lit LCD panel advertising the airline's new seat-based information center. As I looked around, I noticed that *each seat* was equipped with these devices.

A new toy! Ok, let's see what it can do! What's this? A tethered keyboard stored in the seat's armrest? How clever! And you wouldn't even know it was there unless you made an effort to actually look for it! I noticed that there is a clever slot designed into one side of the keyboard's edge for swiping a credit card. But let's see if there is anything available that doesn't require a credit card.

The screen displays a variety of information functions that are independently available to each passenger. The tethered keyboard, about the size of a television remote control (about 2" by 8") is dual-sided; one side contains a standard numeric keypad with an added set of keys for navigating the screen's cursor, and the other side of the keyboard is an alphanumeric keyboard, also with a set of directional keys. In the handrest next to where the keyboard is stored (when pushed in all the way it also serves as an on/off switch for the display) is a familiarlooking RJ-11 jack which can be used to connect to your computer for modem and/or FAX transmissions *from your seat!*

There is a **game arcade** of several games probably geared to entertain restless younger travelers. The use of the arcade requires credit card payment.

Next is the section on **travel services**. Apparently you can connect directly through to a travel agency and make reservations for air travel and accommodations. Probably a nice convenience for businesspersons who spend most of their time in the air. Come on, get a life!

Gifts and shopping, interactive style, is a video catalog of what you sometimes find in the seat pocket catalogs. Nice stuff to look at and drool over, but I wonder if anyone ever orders anything from these sources?

Finally, the part we've all been waiting for, the **Information Services**. This is, perhaps, the most entertaining part of the whole setup, and everything that's available here is free. You navigate through submenus to get information about airport layouts (of course, only those served by the airline) and connecting gate information. Of interest to me (and the passenger next to me who became inquisitive after he saw me fooling around with the gadget) was the section on News Services. This section contains up-to-date news articles from newpapers in twenty metropolitan U.S. areas. You could easily forget about that boring jaunt from Sacramento to Orange

(See "Hi-Tech" on Page 14)

COMING EVENTS

• SIG Meeting (North) February 8, 1996 San Jose (CISCO) • SIG Meeting (South) April 18, 1996 Palm Springs (Marquis Hotel) •SIG Meeting (North) May 8/10, 1996 (TBA) San Jose/Monterey (TBA) • SIG Meeting (South) June 5/7, 1996 (TBA) Location TBA • SIG Meeting (North) July 10/12, 1996 Location TBA Annual Conference October 16-18, 1996 Marquis Hotel, Palm Springs

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Important Job Functions:

Design, implement and maintain Local Area Network and Wide-Area Network systems; Assist in evaluating and recommending telecommunications methods, network components, data communications protocol, modern usage and other network application system particulars; Study the integrity and security of data in order to establish system configurations; Assist in designing and implementing back-up, restart and recovery procedures for network applications; May consult with technical and managerial personnel within LACOE's operation, as well as with users to recommend solutions to identified problems affecting the network application system; Assist in formulating and developing system approaches involving methodologies, concepts and techniques; Assist in conducting on-site surveys to analyze and recommend network resources to users; Prepare or assist in the preparation of technical specifications to be used in requests for proposals or quotations; Assist in the development of procedures for user manuals, updating operational procedures and notification and training of users regarding changes to the relevant LAN or WAN; Assist in evaluating new applications to determine their effect on existing application and production; Repair and install equipment and test and evaluate equipment to determine if user needs are met.

Is Knowledgeable of:

Basic concepts and principles or Local Area Network and Wide-Area Networks; Design/operation of telecommunications application systems; Characteristics, capabilities and uses of telecommunications system components including data communications equipment protocols, micro-computer operating systems, input and output devices, gateways, bridges, routers, network related software, multiplexers and modems; Principles and techniques of mainframe computer programs such as COBOL and personal computer programs for spreadsheets and data bases; Techniques used in writing utility and specialized programs for network operations; Data systems, analysis, design techniques; Advanced file organization and access principles, concepts and techniques; Communication interfaces and related control signals; Good telecommunications skills ranging from low speed analog pursuits to T-carriers and fiber optics.

Has the ability to:

Conduct surveys and studies; and analyze, interpret, and report findings; Analyze and evaluate information processing problems, plans/procedures; Apply new developments in the telecommunications field; Develop solutions to complex technical problems in the operation of telecommunications applications systems; Establish and maintain effective working relationships with others; Communicate effectively, orally and in writing.

Minimum qualifications include:

Any combination of experience and education that could likely provide the required knowledge and abilities would be qualifying. A typical way to obtain the knowledge and abilities would be:

Experience:

Three of more years of directly related experience in the design, development and implementation of a network and/ or network application systems that utilize advanced data communications technology with some of the experience to include working with at least 200 nodes.

Education:

Graduation from a recognized four-year college or university with a Bachelor's degree is required with major coursework in computer science, data communications, business administration, electrical engineering/computer sciences or a closely related field from an institution of higher learning accredited by one of the six regional accreditation associations as recognized by the Council on Post-Secondary Accreditation.

Two years of experience as specified above may be substituted for two years of education, in which case the two years of education (60 semester units or equivalent) must be from a college/technical trade school with emphasis in a field or related field specified above.

Deadline for Application:

Applications and supplemental applications will be accepted on a CONTINUOUS BASIS. Obtain application and supplemtal applicationfrom Los Angeles County Office of Education Personnel Commission, 11642 E. Firestone Blvd., Norwalk, CA 90650, (310) 803-8360

NetDay96

(Continued from Page 1)

diminishing (or stopping) the vision which is the essence of progress? We have asked for more technology in our schools and Internet access to enhance our educational programs. Now we have a potentially powerful opportunity to get closer to that goal. But what that will mean in each school depends on how each district approaches the implementation of NetDay96. This brings to mind a timeworn conundrum... "the cup is half full or the cup is half empty."

Mamie Starr is president of C.A.S.H., the Coalition for Affordable School Housing. This article originally appeared in the January, 1996, issue of the C.A.S.H. newsletter (Mamie's CASH Register Dissertation) and is reproduced here by permission.

Hi-Tech

(Continued from Page 12)

County by immersing yourself in this virtual newsstand. Last, but not least, Stock Quotations are available to those that follow that sort of thing. The service requires a credit card, but apparently to track who's using it because there was no charge at the time of the flight.

Is this hi-tech information center-in-the-sky gadgetry worth the expense? At first glance, very few passengers even bothered to give the device a try; most probably thought it was a bothersome advertisement and didn't connect the display with an interactive information system. Like anything hi-tech, it might catch on at a later time when enough publicity has been given to it and more people become accustomed to using it. However, I'm one air traveller who will be looking forward to the next time that I can again experience this airborne information network.

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