



# Software Valley Update™

*education - small business - industry - health care - government*

*The mission of Software Valley is to facilitate the understanding, application, and development of software and related technology business and the enabling infrastructure centered in West Virginia.*

July/August 1995

## Proposed CLIN Sites in West Virginia

On August 23, 1995, representatives from nine West Virginia communities met at the Days Inn in Flatwoods, West Virginia, to present concepts for establishing local Community Learning and Information Network (CLIN) centers. The meeting, hosted by Software Valley, supported the development of community shared-use plans for Army National Guard Distance Learning Network (DLN) sites soon to be located in West Virginia.

The DLN program is one of the approaches being employed by the United States armed forces to meet our national defense needs in the post-cold war world. The Army National Guard and Reserve, facing declining federal budgets, is turning to technology and the new tools that it offers. Using interactive two-way video and computer-based training courses, the Army National Guard seeks not only to maintain, but also to increase the readiness level of its citizen soldiers through the DLN.

Some of the objectives Congress has for this national effort are to stimulate technological innovation, generate jobs through enterprise and wealth creation, provide better services to citizens, and

empower local communities to be globally competitive.

The catalyst for this national initiative is CLIN, Inc., a not-for-profit corporation headquartered in Washington, DC, in existence since April 1992. Software Valley Corporation is the West Virginia CLIN affiliate. Software Valley has been tasked to help develop the community shared-use requirements for CLIN/DLN sites in West Virginia.

Software Valley assumed responsibility for leading the CLIN planning process in West Virginia in February of 1994. Some communities began their planning efforts at this time. Other communities were responding to the U.S. Department of Agriculture's Empowerment Zone and Economic Community competition and were encouraged to include CLIN sites as a technology innovation in their proposals.

In July of 1995, with the imminent release of planning funds by the Department of Defense, CLIN state-wide planning was launched. To date, groups from the following communities and organizations have participated in shared-usage planning sessions: Community Initiatives

for Technology Information and Learning (CITIL) Buckhannon and CITIL Fairmont; Nicholas County; the cities of Charleston, Parkersburg, Huntington, Wheeling and Weirton; and Concord College.

In the north central region, CITIL, an organization comprised of educational, commercial, and civic groups, began planning in May of 1994. CITIL has proposed two hub sites, one located in Fairmont and one in Buckhannon. From these two hub sites, they would reach out to the surrounding area. The Buckhannon CITIL site would serve Upshur, Gilmer, Lewis, Tucker, Barbour, and Randolph counties; and the CITIL Fairmont site would serve Marion, Monongalia, Harrison, Preston, Taylor, and Doddridge counties. Each of the two CITIL sites would be similar in composition. Plans include a hub site with a video conferencing facility and a 24-station teaching classroom. From the hub, they would reach out to five remote nodes in their area. CITIL aims to utilize the growing high technology base and industrial development of the region; in order to maximize resource utilization, the planned CITIL sites are co-located facilities based in existing computer or educational facilities. The Fairmont site would support the region's entrepreneurial activity associated with high technology, the Buckhannon site would support the growth of the processed hardwood industry.

Metropolitan Charleston has as its vision of shared-usage the provision of

connectivity. It looks to connect the many existing resources with each other and the rest of the world. As the state capital, Charleston's goal is to be the hub for many of the networks in the state. Charleston is looking to develop its commercial aspects quickly, providing impetus for networking throughout the rest of the state.

The Nicholas County CLIN site organization has developed its own view of shared-use. In addition to supporting the training mission of the Army National Guard, the goal of the Central Appalachia CLIN is to create high-technology jobs in the area. The center would work to produce trained computer professionals prepared for employment on various information technology projects for software engineering firms located in the region. The center would also provide computer services and training on commercial software for area business personnel. A business bulletin board service would provide access to a common electronic meeting facility for residents of the service area, as well as commercial and educational information, advertising and other services.

The Tri-State Community Learning and Information Network proposes to serve Huntington, WV, Ashland, KY, Ironton, OH, and surrounding areas. This CLIN site hopes to reach out to help the area's social and economic community, even though this community stretches across state lines. The CLIN will serve as an interagency network, allowing social agencies to share information with clients and

*Con't on Page 5*

## Statewide Teletechnology Forum Scheduled

Make plans now to attend the statewide teletechnology forum scheduled to be held at many public schools around the state on October 16, 1995, from 6:00 to 9:00PM. The objectives of the Rural Development Council-inspired forum are:

1. To create a dialogue with people throughout West Virginia's rural communities about: what information technology is currently available in their community; the future trends of telematics (telecommunications and computers), and; what their community sees as specific technology needs.

2. To generate input from rural communities on issues of information access and availability, resource coordination and equity of access.

3. To serve as a process for gathering information for use in the development of a statewide telecommunications strategy.

4. To provide information to rural communities on availability of technical assistance and other resources to support teletechnology.

Governor Caperton and members of our congressional delegation will introduce the forum. They will be followed by a number of individual presentations on teletechnology applications in education, health care, service areas, business, and to individuals.

Software Valley highly recommends and is actively supporting this forum which complements the statewide Community Learning and Information Network (CLIN) program aimed at bringing information technology access to all West Virginians. For further information on the forum and your local teletechnology contacts, contact your local public school or Software Valley by E-mail to dick.dowell@svis.org.

## Software Valley Initiative Salutes Senator Byrd

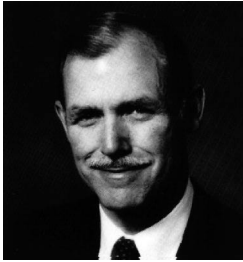
To celebrate our first decade and to show our true appreciation to the man most responsible for initiating this renaissance in West Virginia, we invite each and every member of Software Valley, and anyone else who has seen and appreciated the changes it has helped to bring, to write a letter to Senator Byrd.

The letter could describe your experience with Software Valley, how the Software Valley Initiative may have helped or inspired you over the past ten years, how it may have directly or indirectly helped you and/or your community, and could convey your personal regards to a man who has meant much to this organization and to his country.

Software Valley will compile these letters into a bound scrapbook as a gift for the Senator to commemorate his leadership in this new age.

Send your letter to: Senator Robert C. Byrd, c/o Software Valley, P.O. Box 658, Morgantown, WV 26507-0658.

# CEO'S MESSAGE



**Richard P. Dowell**  
**CEO**

A year ago in this space I recounted my response to a survey aimed at determining the desirability of West Virginia as a place to do business. An early question was: What types of enterprise should the state try to promote? My answer then, as it remains today, was technology-based business. Why? Because technology is the wave of the future, and it produces high value jobs. Even with reported strong gains in jobs and higher real incomes for the state's residents, our priority economic development agenda must be to create jobs in the expanding sectors of the national economy. Work in many traditional West Virginia industries will continue to decline. For example, according to the members of our congressional delegation the impending changes in our national medical care system will severely erode the number of jobs in the state's health care industry.

What are the barriers to expanding technology jobs in West Virginia? The results of that survey, reported in January 1995, should have sounded a warning to business and other leaders around the state. "Mountain State's image equally poor among business leaders, outsiders," was *The State Journal's* summary. Some of the reported major shortcomings in the state were very low ratings in the availability of skilled workers and the quality of our education system—both of which would cast severe doubts about whether West Virginia could support significant increases in technology jobs.

In addressing these potential roadblocks to the growth of technology business, I reviewed two Software Valley programs: the National Guard Distance Learning Network (bringing shared use information technology centers to our communities), and the federal Advanced Research Projects Agency megaprogramming education initiative (one of its goals being promoting the growth of technology businesses through better ways of teaching computer science in our secondary schools, and colleges and universities). Both of these programs are now underway and have been reported elsewhere. They will complement the positive results in West Virginia's economy recently reported by Governor Caperton.

How can we better foster the growth of technology jobs in the state? A continuing theme of the Software Valley initiative

has been the need for collaborative efforts among the education, small business, industry, health care and government communities to achieve significant progress in economic development progress statewide. One consequence of the coming technology economy is the demise of what has been a past way of life for many—working separately. West Virginians must learn to work together if they wish to reap the promised rewards of the technology revolution.

The very good news is that this is happening. I am most pleased to report that I see some very strong indicators that many across our state have adopted a collaborative approach to developing plans to use technology to benefit our citizens. As the article on page one presents, extensive community efforts to incorporate technology into local economic development plans already are underway. One such effort was reported in the September 1, 1995 lead story of the *Huntington Herald-Dispatch*. It covered the Community Learning and Information Network planning efforts in the Huntington tri-state region. The story likened what was happening in Huntington to the type of collaborative partnership which developed in Blacksburg, Virginia through its Electronic Village linking citizens, via computer, to each other and the worldwide Internet.

To continue and build upon the momentum created by these community plan-

ning efforts aimed at bringing West Virginia to the forefront of the emerging 21st Century technology-based economy, we need to expand the number of stake holders who share the vision of promoting the growth of technology jobs as a vital element in our approach to economic development. What can you do to contribute? A major theme of my September 12, 1995 presentation to the annual meeting of the West Virginia Economic Development Council was that the primary mission of the state's Software Valley initiative has always been to promote economic development. For the past ten years Software Valley Chapter members have been sharing with others in their communities a technology perspective to economic development opportunities. Many of our current technology programs have emerged from such exchanges. Our challenge today—and this is how you can contribute—is to coordinate these efforts through collaboration. Each time you encounter a technology initiative in your community you should ask what others in the state are doing and how what is being proposed might be integrated to benefit all our citizens. A good forum for doing this would be through the activities of your local Software Valley Chapter (see the last page of this Update for the points of contact in your area).

Let me close with an example of how coordination through collaboration works. Recently our Governor committed \$200,000 in state funds to support the creation of a West Virginia Software Institute. The idea behind this technology initiative was to create within our state a center of software research excellence concentrating on United States industry needs. Sound good? Well, one of the planners of the Institute used coordination through collaboration to improve the original concept. He sponsored a workshop of interested parties across the state, including Software Valley, and issued an open request for suggestions on the mission and scope of the proposed Institute. By so doing he increased the chances that the investment of scarce state funds would benefit both the immediate and long term needs of our citizens and the state. Software Valley's input to his request was: "Let's make the Institute a magnet for creating in West Virginia a center of excellence in computer programming technologies with the goal of developing national leadership in graduating top notch computer programming professions. Many of these graduates would work for the software companies relocating their operations to West Virginia to take advantage of the best technology labor force of the 21st Century."

## UPDATE ON PEOPLE



**Lydotta Taylor** of Morgantown, WV, has been hired to direct the educational programs with the WV High Technology Consortium

Foundation located in Fairmont, WV. Prior to joining the foundation, Taylor was a math and computer science teacher and computer coordinator for Morgantown High School and chaired the school's Computer Technology Committee. Ms. Taylor will continue to hold a position with Monongalia County Schools as computer coordinator for the county.

In her position with the foundation Ms. Taylor will: coordinate educational activities for the organization; seek, develop and monitor educational grants and awards; and implement technology programs in Monongalia, Marion and Barbour counties in West Virginia. She will also develop after-school and

community service programs and conduct research on technology in the classroom.

**Jim Woolen**, formerly Director of Academic Computing at West Virginia University and former President of the Northern Gateway chapter of Software Valley, accepted a new job on July 1, 1995, as Associate Vice President for Information Resources at East Tennessee State University. According to Mr. Woolen, the decision to leave WVU was very difficult because he loved his job and the beautiful state of West Virginia. However a deciding factor was the need to be closer to his elderly parents who live in Tennessee.

**Thomas C. Burns**, former president and chief executive officer of C&P Telephone Company of West Virginia, has been named the new executive director of the West Virginia Development Office.

Burns was selected by the West Virginia Council for Community and Economic Development from dozens of candidates following a national search. He

returns to West Virginia from his most recent positions as chairman and managing director of Ameritech & Bell Atlantic New Zealand Ltd. and deputy chairman of Telecom New Zealand.

Burns will be responsible for recruiting new industry to West Virginia, developing programs to encourage existing business expansions, and supporting entrepreneurship.

**James C. Hunt**, Chairman of the Region Six Planning and Development Council, was recently elected president of the West Virginia Association of Regional Planning and Development Councils. The association, comprised of eleven regional planning and development councils in West Virginia, has had a mission since the mid-1970s to convert community and economic development needs into proactive strategies and plans. These strategies and plans are then developed into realistic opportunities and, finally, actual projects or programs. Since their inception, the councils have facilitated local economic development projects valued in excess of \$1 billion.

## WV Capital Corp. Makes First Loan

West Virginia Capital Corp., a corporation formed to provide a new type of financing for state business, agreed recently to make its first loan.

The corporation, along with Bank One of Charleston, will award the first loan to McCabe-Henley Companies, Inc., a state real estate development and consulting firm. McCabe-Henley will utilize the funds to help expand the services it pro-

vides to include tenant representation, leasing services and a more focused effort on development and general brokerage.

Fifty-four West Virginia banks are shareholders and members of the West Virginia Capital Corporation. They have created a \$7 million pool of risk capital for state businesses. WVCC will make loans to firms for expansion, equipment, inventory or new product development.

## Main Street Morgantown Wins Honors

Main Street Morgantown has been recognized nationally as one of 30 communities noted for its work at developing its downtown area. The organization was one of 25 towns that received an honorable mention at the Great American Street Awards meeting in Little Rock,

Arkansas, recently. Five towns received special honors. The awards are presented by Edward D. Jones & Company and the National Trust for Historic Preservation. This is the first national award for MSM, but it had received three state honors earlier in the year.

## Barbour County Site of New Furniture Factory

Global Traders has begun building a new furniture plant in the Belington Industrial Park off Route 250 which will be completed in two phases. Upon completion, the plant is expected to have approximately 50 employees in two buildings totaling 32,000 square feet.

## Weyerhaeuser Builds in Braxton County

Weyerhaeuser Corporation, an international company, is building a 400,000 square foot engineered wood products plant in Heaters, a rural Braxton County community. Construction on the facility this fall could employ up to 400 workers. Ultimately, the facility will employ about 180 people. When completed, this will be the largest plant of its type in the United States, according to a company spokesman.

## New FBI Center Opens For Business

Approximately 450 FBI employees have moved into the new \$200 million state-of-the-art Criminal Justice Information Services complex near Clarksburg, WV. By the end of 1995, more than 1,500 people will work at the complex. The FBI Center will receive electronic fingerprint images submitted by law enforcement agencies, process them and provide an identification, or a list of suspects, within two hours. Employment at the center will eventually reach 2,600 people.

## Wampler-Longacre Expands in Moorefield

Wampler-Longacre, Inc. is expanding its Moorefield, WV, processing center. The \$2.2 million expansion will add 15,000 square feet to the present facility, increasing the processing capability of the company and creating 100 new jobs. The company currently employs 2,000 people in this location.

## Premier Computer Services Debuts in Morgantown

Premier Computer Services, a division of Software Systems Inc., recently opened for business in Morgantown, WV. The company offers both sales and service for a wide variety of lines of computer

hardware and software including IBM, Hewlett-Packard, Compaq, Okidata, Leading Edge, Lexmark, Novell, and products from the new Government Micro Resources computer factory in Mannington.

## Small Business INQUERY

A new information service called the U.S. Business Advisor was announced by President Clinton at the recent White House Conference on Small Business. The advanced information retrieval technology allows any citizen or business to easily access federal laws or regulations, executive orders, and related government databases.

U.S. Business Advisor features powerful information searching software called INQUERY, developed in the University

of Massachusetts Computer Science Department. "This software is a big hit in Washington because it's so powerful and easy to use," says Paul McOwen, administrative director of the Center for Intelligent Information Retrieval at UMass.

So far, UMass has licensed INQUERY to more than 20 organizations, including the Library of Congress, the Department of Defense, the West Publishing Company and Lexis/Nexis Information Service.

## Georgia-Pacific Opens New Sawmill

Georgia-Pacific Corporation held a groundbreaking for its new Appalachian hardwood sawmill in Green Valley, WV. The sawmill will have an annual production capacity of 18 million board feet and create 51 jobs

in the Bluefield/Princeton communities. It will utilize cherry, red oak, white oak and poplar to produce hardwood lumber for manufacturers in the furniture and cabinetry industries.

## SOFTWARE VALLEY UPDATE

### Advertising Rates

1/2 Page - \$720

1/4 Page - \$360

1/8 Page - \$180

The *Software Valley Update* is a bi-monthly publication of the Software Valley Corporation. The newsletter is distributed to over 3,000 Software Valley sponsors, member organizations, and individual associates in 33 states and the District of Columbia by direct mail.

In addition, it is distributed electronically by satellite to 7,000 bulletin boards with a potential readership of over 1.4 million users of those sites.

All rates are net to Software Valley with no agency or cash discounts. Software Valley reserves the right to decline any advertising believed to be not in the organization's best interest.

### Mechanical Specifications:

Publication page size is 11 x 13. Ads for the hard copy of the newsletter can be printed in two colors, black and blue (teal). Full color ads can be reproduced in the electronic version.

Please submit ads on a computer disk as they will reproduce for the elec-

tronic version of the newsletter at a much higher quality. Ads can be accepted in the following electronic forms:

EPS - with text converted to paths  
EPS - plus the associated font files  
Freehand - with text converted to paths  
Freehand - plus the associated font files  
Adobe Illustrator - with text converted to paths  
Adobe Illustrator - plus the associated font files  
Quark - plus the associated font files  
Pagemaker - plus associated font files

There will be an additional production charge for any ads submitted as camera-ready art or as negatives ready for offset publication as these must be converted to electronic form.

Also, any corrections, type additions, enlargements, reductions, or any other mechanical changes will be billed to the advertiser in addition to the basic ad rates.



## Northern Gateway Chapter Elects New Officers

The Northern Gateway Chapter of Software Valley met in July and elected the following new officers:

**President - Jerry Ragen**, Presort Plus, Inc., Fairmont

**Vice President - Scott Trefz**, ComputerTech, Fairmont

**Secretary - Ms. Darby Shafer**, Preston Educational Center, Kingwood

**Treasurer - John C. Krouse**, Pace Tec, Inc., Star City

**Board members elected were: Sue Moore**,

Management Systems & Consultants, Shinnston, WV; **Chris Lambert**, Galaxy Global Corp., Fairmont; **R. Michael Digman**, MountainNet, Morgantown; **Bill Strickler**, Preston County Chamber of Commerce, Kingwood.

The new Software Valley board member from the Northern Gateway Chapter will be **Doug Moore**, Management Systems & Consultants, Shinnston.

The Northern Gateway Chapter has more than 700 members. It encompasses Monongalia, Doddridge, Preston, Marion, Harrison and Taylor counties in West Virginia, plus two counties in southwest Pennsylvania and one county in western Maryland.

## Mid-Ohio Valley Chapter Elects New Board Members

The Mid-Ohio Valley Chapter of Software Valley recently elected the following new board members: **Brian Honey**, **Ken Wright**, **Steve Cox** and **Dave Schuchts**.

**Brian Honey** was named the chapter's new President. He will appoint a nominating committee and a by-laws committee.

## Author Praises Byrd Institute

In his new book, *Reinvesting in America* (Addison-Wesley, June 15, 1995), Pulitzer Prize-winning journalist Robe Garr lists the Robert C. Byrd Institute in Huntington, WV, as one of the programs he researched that addresses the issue of work force development in an innovative and creative manner.

Garr spent four years visiting more than 500 organizations that address the issues of feeding the hungry, housing the homeless and putting Americans back to work.

In the book, Garr reports on more than 100 programs, and draws from them the guiding principles that make them work. While the book's main focus is on programs that help eliminate poverty, Garr recognizes the importance of education and training to the health of the nation.

He describes the Institute as a teaching factory "where small and medium-size businesses can come to try out high-tech, computerized manufacturing equipment and have their employees trained to use it." Garr explains, "This is critical for smaller companies, as most West Virginia firms are, because there is a direct link between a firm's ability to upgrade tech-

nology and its efficiency and productivity."

From his close examination of programs that are making a difference, Garr established a set of guiding principles. He shows how programs that work are guided by clear objectives; foster self-reliance rather than dependency by building on people's strengths; take a comprehensive approach to the complex array of problems and use a variety of tools; deal with people one-on-one as distinctly important individuals; focus on prevention; and demonstrate strong leadership.

Garr contends the challenge is to connect programs built on these principles to government resources, writing, "We must take full advantage of every opportunity to build partnerships between government and the non-profit groups that have demonstrated creativity, competence and skill at what they do."

His research and book are sponsored by World Hunger Year, the New York-based non-profit advocacy group founded by singer Harry Chapin.

**(Reprinted with permission from the Manufacturing Focus newsletter, Robert C. Byrd Institute.)**

## SOFTWARE VALLEY NOW HAS A WORLD WIDE WEB HOME PAGE

Visit Our New WWW Home Page at

<http://svis.org>

### NOW YOU AND YOUR COMPANY CAN JOIN THE WORLD WIDE WEB

*Advertise your company or individual skills as part of the all new Software Valley Home Page.*

This is an outstanding opportunity to let the world know about your company, or you as an individual, and the talent and products you can provide.

According to statistics, the number of users on the Internet is 30,000,000 (that's thirty million!) and growing at a very rapid rate. What an audience. And you'll be in great company, too. Software Valley and all its great member companies will be drawing interest to this home page in the future.

If you already have your home page developed, then Software Valley will store and link your home page to the Software Valley Home Page for a low, member's only rate per year:

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Each Additional Page with Graphics  
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If you do not presently have a home page and would like to discuss having an original home page designed for you, please contact Software Valley for a quote. For further information, telephone Doug Moore at (304)592-3955.

## CLIN Sites

*Con't from Page 1*

other agencies. Business applications are being developed to help existing local companies, attract outside business, and promote tourism. The CLIN site group plans to provide adult and advanced education for the region's existing workers, as well as broad-based computer training for all segments of the population.

The proposed Concord College site would serve a virtual community that reaches far beyond its immediate local region. In addition to providing regional support and services with the CLIN site, Concord College proposes to provide Geographic Information Systems (GIS) services and training to local governments and businesses throughout the state via the statewide CLIN network.

The Parkersburg area group has just begun the planning process. They are currently canvassing local government and community leaders for input.

Wheeling's proposed CLIN site would be based at the National Technology Transfer Center. The National Technology Transfer Center (NTTC), NASA's Classroom of the Future (COTF), and Wheeling College are located adjacent to each other and have co-operative working

agreements. This site would have access to the resources of the college's video production and editing facilities, support staff trained in instructional design and delivery, as well as the talents and facilities available at the COTF and the NTTC. The COTF produces and evaluates educational technology products and programs for distance education. The NTTC provides access to the federal government's research database.

The Weirton group's proposal is another example where geo-political borders seem to fade away. The CLIN site would serve the economic community surrounding Weirton, which is comprised of portions of Ohio, Pennsylvania and West Virginia. An objective of the Weirton CLIN site is to enhance the interaction of the various levels of governments, improving the way they function and deliver their services, specifically across state borders.

Each of the communities has begun development of its shared-usage concept. Using the same basic plan to include an interactive, two-way video conference center and a computer training lab, they have taken this and created an entity that supports and serves their particular community. No one of these proposals is a

*Con't on Page 5*

# TECHNOLOGY

## Advanced Computer Technologies Brings State-of-the-art to North Central West Virginia

One of the first things you notice when you enter Advanced Computer Technologies' (ACT) new offices on Route 119 in rural Monongalia County, WV, is the really big screen and the most amazing sound system in three states (especially during demonstrations of said sound system).

Then you begin to notice the walls and tables full of some of the most advanced equipment known to technology today.

And, finally, you begin to realize that ACT's owners really mean business when they say they have brought the very cutting edge of technology to one of the most rural areas in one of the most rural states in America.

Ed Peirce recently worked with Marty Schatz, a teacher of gifted students in the Preston County schools and now on staff with ACT, to produce and instruct at a summer computer camp for two dozen K-

8 students at the local high school's library. Students not only accessed information on the Internet, they spoke to and received live images from people all over the world on equipment provided to the camp by Peirce and his company. And it wasn't all work. The students played games on a giant monitor using a Virtual Reality helmet and power glove provided by ACT. According to Peirce, the closest similar equipment was at Carnegie-Mellon University in Pittsburgh. Speaking of the camp, Schatz said, "You know it's good when you can't get them to leave."

ACT offers complete sales and service of state-of-the-art computer technology, as well as training on hardware and software, teleconferencing capabilities, and other related services in computer and communications technology to a large area of north central West Virginia.

## BOONE'S BITS & BYTES

By Dan Boone

*Director of WV Operations for MICA Systems, Inc., Summersville, an information engineering contractor to federal, state, and commercial organizations*

## Local Area Networks

Office networks are becoming more popular and widely used. There are still businesses that often have questions about networks. Common questions are: Can you give me some idea what a local area network is? What are some advantages and disadvantages for using a network in our office?

Without giving a specific office description, I will give you some general information about local area networks (LAN). A local area network is a group of computers connected so they can share programs and data. Local means they are located close to each other, normally in the same building. It is also possible to have the individual computers spread over some larger area. Normally this is called a wide area network (WAN). For this discussion I will refer to the LAN since most of the concepts and operation of the LAN and WAN are the same.

The primary advantage of a LAN is sharing of information in an electronic form. In many offices, files are moved from one computer to another by making floppy disks copies and then carrying the disk to another computer. (This is often referred to as a "sneaker net" because the carrier of the disks often seems to be running.) With a network, files can be shared electronically without a physical transfer (like the disk). Very often networks reduce the amount of hardware, software and information a business may need.

Frequently in a LAN there is one computer dedicated to storing all of the programs and data for the office. This computer, called a server, acts as the storage and control device for all programs and data access. Each computer on the network, called a work-

station or client, then loads programs from the server into its memory and calls data from the server. The LAN has special network software that controls who can get to the various data. This precludes two people on the network from making conflicting or overriding changes to any data.

The cost of installing one very powerful computer with a large hard disk storage capacity as a server can be offset by using less expensive computers with smaller hard disk drives (or perhaps without hard disk drives) for the workstations. There is frequently a savings in software by buying only one copy of a particular program specifically designed to operate in the network. This may be less expensive than buying copies for each individual computer in the office. With the network there is less concern about copyright infringement by using unlicensed copies in stand-alone computers.

There is no minimum number of computers required to make a network — two computers can be configured to share information. Networks can start small and grow as the business needs grow. A well-planned and installed LAN will require only minor changes when adding more workstations or additional software.

Just as when selecting a stand-alone computer, selecting the best network option requires thought, analysis and study. If you are considering installing a network, you should carefully research the marketplace for the best hardware and software to meet your needs. Unlike buying a single computer, you will need the advice of computer professionals to help you. Normally, installation of a LAN should also be completed by professionals.

## CLIN Sites

*Con't from Page 4*

duplicate of another, as well they should not be. The communities themselves show a movement away from strict geophysical or political borders, and toward communities based upon common interests and

interaction. With a communications technology such as the CLIN Network, the people that West Virginians work with in the near future can be across the street, across the state, or around the world.



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# EDUCATION

## Kids on the Net:

**Kids Web**-<http://www.primenet.com/~sburr/comped.html>

**Volcano World** -<http://volcano.und.nodak.edu>

**Star Trek** -<http://www-iwi.unis.ch/~sambucci/scifi/startrek/st-www.html#Paramount>

**Endless Star Trek Episode**-<http://trek.resultsdirect.com/trekhtml>

**Uncle Bob's Kids Page**-<http://gagme.wva.com/~boba/kids.html>

**National Schoolnet Atlas**<http://www-nais.ccm.emr.ca/schoolnet>

**Info zone** -<http://www.mbnet.mb.ca/~mstimson>

**Parents'/Teachers' Resources**-<http://www.mbnet.mb.ca/~mstimson/text/rightrack>

**Home Education Resource Center**-<http://www.cts.com/~netsales/herc/>

**Kids' Sites** -<http://www.sju.edu/~milliken/demos/hot-educ.html>

**Kids' Home Page**-<http://bingen.cs.csbsju.edu/~nichol/forkids2.html>

**Tenet** - Texas Education -<http://www.tenet.edu>

**AskEric Gopher**-Gopher: //ericr.syr.edu - Kids and the Internet

**Hangman (game) Page**-<http://www.crc.ricoh.com/people/steve/kids.html>

**Internet Public Library** -<http://ipl.sils.umich.edu>

**ESPNET SportZone** -<http://espnetsportzone.com>

**Virtual Exhibits** -<http://sln.fi.edu/tfi/jump/html>

**MacGyver Home Page**-[http://falcon.cc.ukans.edu/~mlkel/macgyver/macfaq\\_intro.html](http://falcon.cc.ukans.edu/~mlkel/macgyver/macfaq_intro.html)

**AIMS Education Foundation**-According to a message from the AIMS Education Foundation, the fascinating world of hands-on science investigations for K-9 students awaits them at the AIMS Education Foundation. They claim that students quickly become immersed in AIMS activities because they integrate the study of mathematics and science in a meaningful manner. They quickly realize the value of mathematics and learn to "work like scientists." To find out about the curricular materials, staff development, and AIMS Magazine visit <http://204.161.33.221/AIMS.html>

**CyberKids Magazine** - a free on-line magazine for kids that contains stories, artwork, puzzles and more, created mostly by other kids. <http://www.mtlake.com/cyberkids/>

**The Homework Page**- a collection of pointers to information likely to be of value in researching a school project. It organizes pointers by category and primarily uses the services of Galaxy, Yahoo and the WWW Virtual Library. <http://www.tpoint.net/~jewels/homework.html>

**Discovery Channel On-Line** - one of the first major media companies committed to commissioning original programming for the World Wide Web, according to a recent press release from Discovery Communications, Inc., a diversified media company anchored by the Discovery Channel and the Learning Channel. This new programming launched in July, and is called Discovery Channel Online. Users will have access to original non-fiction stories, produced exclusively for the Internet. Each day of the week will focus on a different theme. Stories will be elaborated with daily updates, including digital photographs, personal letters from the field, etc. <http://www.discovery.com>

**Electronic College Applications**- some colleges and universities allow would-be students to complete their applications through their home PCs, and often, once those students reach campus, many of them will register for classes, financial aid, and campus housing through on-campus computers. Check with your college(s) of choice and see if they offer this service. One good example you might like to check is Georgia Tech in Atlanta. This school has allowed prospective students to apply through their computers for 10 years.

Other options include *Preparing Your Child for College*, written by the Office of the Under Secretary, US Department of Education. The full text is available at: <http://www.ed.gov/pubs/Prepare/Gopher.ed.gov> — U.S. Dept. of Education/OERI Publications — ED/OERI Publication - Full Text — *Preparing Your Child for College* / <ftp://ftp.ed.gov/www/ZipDocs/Prepare.zip>

**Information on Education Grants**- U.S. Department of Education recent publication, "What Should I Know About ED Grants?" <http://www.ed.gov/pubs/KnowAbtGrants/Gopher.ed.gov> — U.S. Dept. of Education Programs — General Information Grant-Related Information — Publications and Notices - What Should I Know Via BBS "Ed Barodi" - 202/260-9950

**GTE California's Education Initiative** of education grants and services, directory of K-12 useful sites. [http://www.realm.net/~gte/ei\\_gte.html](http://www.realm.net/~gte/ei_gte.html)

**X Marks The Net**-Generation X's been-there/jumped-off-that school of thought has been concentrated into a Web page. The site, X Avenue, does not simply offer new and interesting means of becoming street pizza, but also supplies comprehensive links to the activities and interests of today's Gen X crowd. There's an emphasis on the recreational activities one tends to see in beverage commercials (skydiving, inline skating, rock climbing, etc.), but the site also devotes considerable space to safer entertainment, including some engaging trivia games, making it a worthwhile browse for all. <http://www.nicoh.com/the/x.html>

**The Children's Writing Resource Center** - Presented by Children's Book Insider, the newsletter for children's writers, CWRC offers news, tips, information, files, surveys and much more for children's book writers of every level. <http://www.mindspring.com/~cbi> For more info, e-mail Jon Bard [cbi@mindspring.com](mailto:cbi@mindspring.com)

**Kids Safe Surfing for Children from 6-11**-(according to Liz Tompkins of MA Multi-Faceted Net Extraordinaire!!!)

<http://ppc.westview.NYBE.North-York.ON.CA/WWW/wcss.html>

<http://mack.rt66.com/kidslub/home.htm> <http://www.cnet.com/pegpoker/>

<http://www.klsc.com/children/> <http://rdz.stjohns.edu/kidopedia/>

<http://www.freenet.ufl.edu/~afn15301/d>



## Marshall University School of Medicine Launches "The Interactive Patient"

Marshall University School of Medicine has announced the launch of "The Interactive Patient" program at <http://musom.marshall.edu/> on the World Wide Web.

"The Interactive Patient" is a truly unique teaching program that allows physicians, residents and medical students to simulate an actual patient encounter over the World Wide Web.

The user is presented with a chief complaint and is then encouraged to interact with the patient by asking history questions, performing a physical exam, ordering laboratory tests and x-ray exams.

Finally, the user submits a diagnosis and a treatment plan which will be evaluated and detailed feedback will be provided. Continuous Medical Education

Credit accreditation has been applied for.

Marshall University School of Medicine offers what is to their knowledge the first truly interactive medical education tool that allows medical personnel to sharpen their clinical skills via the Internet. Multiple layers of the physical exam as well as a large database of questions that are supported for the patient history (more than 1500 currently and growing) as well as the multimedia aspect (graphic, text and sounds are supported) make "The Interactive Patient" an interesting learning tool.

The design team at Marshall University School of Medicine can be reached by email at [medicus@musom02.mu.wvnet.edu](mailto:medicus@musom02.mu.wvnet.edu).

## Alderson-Broaddus College on the Web

Alderson-Broaddus College in Philippi, WV, now has its own WWW server up and running. The server includes information about the new president of the college, Dr. Stephen E. Markwood, and the college catalog. Color

photos of the the campus, the town of Philippi, and Dr. Markwood also are included. The server remains under construction. Comments are welcome. To access the server: <http://www.mountain.net/ab>.

# A Legal View from Steptoe and Johnson

## GOVERNMENT CONTRACT PROCUREMENT REFORM CONTINUES

In October of 1994, Congress enacted the Federal Acquisition Streamlining Act of 1994 (FASA) in an effort to improve the efficiency and cost-effectiveness of the federal procurement process. The ink is barely dry on FASA, yet there are two new bills pending before Congress which, if enacted, will continue the streamlining philosophy of FASA. This article relates to one aspect of these bills - proposed revisions of the bid protest and contract dispute process.

The first bill, the Federal Acquisition Improvement Act of 1995 (FAIA) (H.R. 1388 (S. 669)), is the Clinton Administration's response to the recommendation of the National Performance Review that there be only one forum for judicial review of agency procurement action and a uniform standard of review. If enacted, FAIA would limit the Comptroller General's review of an agency bid protest decision to a review of the agency record, rather than a fresh consideration of the allegations; and the agency's decision may be overturned only if (i) the decision was made in violation of established procedures or it was arbitrary or capricious, and (ii) the protesting bidder was substantially prejudiced. This same approach to the scope and standard of review of agency decisions would apply to the General Ser-

vices Board of Contract Appeals, which handles bid protests and contract disputes relating to information technology matters.

FAIA further attempts to implement the National Performance Review recommendation by eliminating federal district court jurisdiction of bid protest appeals and contract disputes covered by the Contract Disputes Act of 1978. All such judicial jurisdiction would be consolidated in the Court of Federal Claims. Also, FAIA would shorten the limitations period for a contractor's appeal of a contracting officer's final decision from 12 months to 90 days.

The second bill before Congress is the Federal Acquisition Reform Act of 1995 (FARA) (H.R. 1670), sponsored by Representative Clinger of Pennsylvania's 5th District and several other members of the House. FARA takes a different approach to achieving the goals of the National Performance Review. The most significant difference between FAIA and FARA is that FARA's focus is on the consolidation of administrative jurisdiction, rather than judicial jurisdiction.

Under FARA, a single agency (the United States Board of Contract Appeals) would be established as an independent review agency with jurisdiction over all

bid protests and contract disputes. All prior agency boards of contract appeals would be eliminated, and the authority of the General Accounting Office and the General Services Board of Contract Appeals over bid protest functions also would be eliminated. Although FARA does not specifically deal with the standard or scope of review for contract dispute matters, it does provide that agency decisions on bid protests shall be entitled to a "presumption of correctness" which may be overcome, however, by a "preponderance of the evidence" that the agency's decision violated statute or regulation.

Both pieces of pending reform legislation call for consolidation of protest and dispute jurisdiction. The Administration's approach with FAIA is to consolidate judicial jurisdiction in one forum, the Court of Federal Claims. The approach of FARA is to consolidate administrative jurisdiction in one agency, the Board of Contract Appeals. Both bills attempt to fashion standards of review applicable to bid protest decisions. However, the proposed standards are somewhat different, with the FAIA standard appearing to be more difficult for a protesting bidder to satisfy.

It is unclear exactly how Congress may respond to these additional attempts to streamline the federal procurement pro-

cess. Perhaps aspects of both bills will become law.

*This article has been written for and contributed to the Software Valley Update by Steptoe & Johnson, Attorneys-at-Law. For more information, contact James A. Russell at 304/598-8000.*

*(This article by itself should not be construed as legal advice and should not be used as a substitute for independent legal analysis on a particular issue.)*

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### Membership Application

#### Benefits of Membership:

- Access to Electronic Information Resources
- Newsletter and Calendar of Events
- INTERNET Access
- Listing in Software Valley Annual Directory
- Dissemination of Corporate Capabilities
- Free Workshops
- Advice on Health Care, Insurance and other Benefit Programs

- Discounts of Software Valley Conference/Symposium Fees

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- ☐ Computers for Children Program \$ \_\_\_\_\_  
Free computer access for all children throughout SWV area.
- ☐ Software Valley Foundation \$ \_\_\_\_\_  
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- ☐ New Software Valley Projects \$ \_\_\_\_\_  
Software Valley Corporation, a tax-exempt organization under Section 501 (C)(6), is chartered to support start-up projects in the eight Software Valley chapters.
- ☐ Other (Please specify) \$ \_\_\_\_\_

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500+	\$ 2,500
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(Includes universities, colleges, technical schools, research institutions, economic development and entrepreneurial assistance groups.)	

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There is a \$35 fee per year for Associate status. Software Valley encourages associates to contribute in-kind services and participate in Software Valley activities. To foster recognition of individual contributions, associate fees, in-kind services, and other Software Valley activities can be credited toward organization dues.

Please complete and return this form to:

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## Up-Coming Events

### 10/4-6 Internet '95

Norfolk, VA

*Future Technology, Business and the Web*

Co-sponsor, Internet Presence & Publishing, <http://www.ip.net/home.html>  
<http://www.ip.net/i95>

### 10/20-11/2 FALL INTERNET WORLD '95

Exposition and conferences on the Internet and World Wide Web.

Mecklermedia: [iwconf@mecklermedia.com](mailto:iwconf@mecklermedia.com)  
<http://www.mecklerweb.com>  
 (800) 632-5537,  
 (203) 226-6967.

### 11/13-17 COMDEX/FALL

Las Vegas, Nevada

(617) 449-6600

<http://www.comdex.com:8000>

### 12/4-8 Supercomputing '95

Sponsored by the Assoc. for Comp. Machinery's SIGARCH and the IEEE Computer Society

San Diego, CA

Email: [sc95@sdsc.edu](mailto:sc95@sdsc.edu)

FTP: [sc95.sdsc.edu](ftp://sc95.sdsc.edu)

<http://sc95.sdsc.edu/SC95/>

### 2/14-15 COL'96

Symposium on Computers & the Quality of Life

Sponsored by ACM

Marriot Hotel Convention Center, Philadelphia, PA

Program Co-Chair: Blaise Liffick (Papers) [liffick@cs.millersv.edu](mailto:liffick@cs.millersv.edu)

### 3/26-29 GLOBE 96

Trade Fair and Conference on Business and the Environment  
 Vancouver, Canada

<http://www.apfnet.org/apfweb/globe/globeinfo.html>

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Conference 416 on SVIS



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<http://svis.org>

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Conference 409 on SVIS

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[mov@mgmtsys.com](mailto:mov@mgmtsys.com)

Conference 415 on SVIS

### SVIS:

1-800-SOFT-VAL or

1-800-SVIS-WVA (instate)

Conference 201 - presents member organization corporate capabilities

Conference 210 - supports private business communications

Conference 402 - tracks status of Software Valley projects

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