

UniNews

UniForum. The International Association of Open Systems Professionals

August 21, 1996
The Newsletter For UniForum Members Volume X, Number 10

Changes at The Open Group Research Institute

Paul Dale to head the institute; Ira Goldstein returns to industry

The Open Group, the Cambridge, MA-based consortium for the advancement of open systems, has promoted Paul Dale to the position of vice president of The Open Group Research Institute (RI), with responsibility for all activities of the institute. The Open Group also announced that Ira Goldstein, previously head of the Research Institute, is leaving in mid-August to return to Hewlett-Packard.

The Open Group's Research Institute is an international research organization focused on investigating the fundamental software technology needed to improve the scalability, portability, usability and interoperability of computer systems. Funded by government and industry, the Research Institute works collaboratively with academia and industry to develop prototypes from which others can extract ideas and algorithms, validate performance or build products.

Dale formerly was on the staff of the Open Software Foundation (OSF)—now part of The Open Group—and had most recently served as vice president and director of the Research Institute, responsible for managing many of

the day-to-day operations of the RI's Cambridge location. With the expansion of his role, Dale assumes complete responsibility for all facets of the Institute's mission and programs, for both the Cambridge and Grenoble, France, laboratories, reporting directly to Jim Bell, CEO of The Open Group.

"Paul has achieved a distinguished track record of leadership at The Open Group, building on the skills developed early in his career as a founder and vice president of development at Applix," says Bell. "I'm pleased to welcome Paul as an integral member of the senior management team, and I look forward to working more closely with him as the Research Institute moves into the future."

"As one of the founders of the Research Institute back in 1988, Ira has been instrumental in leading numerous efforts," says Bell. "His accomplishments are directly tied to several highly successful RI programs in areas such as the integration of enterprise computing with the Web, development of secure operating systems that achieve a B3 level of security and the design of distributed realtime facilities that support advanced Defense

Department and other mission-critical applications. The quality of these RI programs has been reflected in their broad level of support from government and industry around the world. We look forward to continuing our close relationship with Ira in his new role."

After heading the Research Institute for eight years, Ira Goldstein will join HP as chief technology officer of its Computer Systems Organization, reporting to Dick Watts, vice president and general manager of the organization; and as Internet technology officer for HP's Computer Organization, reporting to Richard C. Beluzzo, executive vice president and general manager of that group. As CTO of the Computer Systems Organization, Goldstein will be in charge of formulating its technology architecture. According to Beluzzo, in his role as chief Internet technology officer, Goldstein "will drive the company's Internet technology strategy for business and consumer applications." Goldstein will be based in Chelmsford, MA, and will continue to work closely with The Open Group and the Research Institute. ♦

UniNews Online Debuts with Next Issue

UniNews turns to the Web at <http://www.uniforum.org>. Just click on UniNews in the Publications screen.

UniNews, which has evolved from a four-page, black-and-white association newsletter to an eight-page, two-color industry and association publication, continues its evolution. Beginning with the first of its two September issues, UniNews will go completely online, with a newly designed Web edition and an ASCII edition available via e-mail. The print version of UniNews, with a distribution that has declined to fewer than 2,500 copies since it began going to its main subscriber base by e-mail a year ago, will be discontinued.

UniNews has had a presence on UniForum's Web site for about a year; in fact, many back issues of UniNews are available now on our Web site. However, the version found there is not Web-designed, although it does allow for the use of Adobe Acrobat for viewing.

UniForum's design staff, made up of Deborah Martell, art and production manager and Leslie Zimmerman, production assistant, has been working to create a simple but pleasing new Web design just for UniNews. The goal of the UniNews team, which includes managing editor, Cedric Braun, is to present issues that are easy to read from a layout perspective, with a table of contents that puts individual articles just a click away. The publications team is supported by UniForum's IS department, including Ronald Wong, IS manager, and Ann Comey, database manager.

UniNews Online is a work-in-progress. We want to keep it fresh so you'll come back again and again to read every issue. To that

(continued on page 2)

- | | | |
|--|-----------------------------------|--------------------------|
| 1 ■ New Leader for Open Group Research Institute | 2 ■ Special UniForum '97 Packages | 6 ■ Web Server Benchmark |
| ■ UniNews Comes Online | ■ UniForum Security Sessions | 7 ■ Recruitment |
| | 4 ■ Hawkins Profile | 8 ■ Membership Benefits |

Special UniForum '97 Conference Packages Available to Affiliates

Discounts make the show more affordable than ever

UniForum will work with all of its U.S. and International affiliates to develop inexpensive travel and conference registration packages for UniForum '97. Through the UniForum show manager, Softbank Comdex, Inc. (SCI), any UniForum affiliate or other related user group can put together a package that will include discounts off conference registration fees and (depending on group size) affordable travel and room accommodation costs when they attend UniForum '97. The conference discounts, taken together with SCI's buying power with airlines and hotels, means that many more people can afford to come to the annual conference and trade show, set for Mar. 10-14, 1997, in San Francisco.

One UniForum affiliate—UniForum Hungary—is already putting its package together with SCI, and we hope to welcome as many as 100 registrants from that country. "It is our goal to put the annual conference at UniForum within reach of as many people as we can," says Barbara Myers, UniForum's membership/sponsorship manager, who works closely with all UniForum affiliates. "This program of affordable air and room accommodations, along with discounts on the cost of conference registration, is a great way for many UniForum members and friends to attend this important event," she adds.

For more information on how to make group arrangements, officials from all UniForum affiliates and industry user groups, both U.S.-based and overseas, are urged to contact Ted Prindle, UniForum '97 show director, Softbank Comdex, Inc.; phone (617) 433-1804 or fax (617) 444-7722. ♦

UniNews Online Debuts with Next Issue

(continued from page 1)

end, we sincerely welcome your opinions and suggestions on how *UniNews* can be made even better. In addition to your design comments, tell us what you'd like to read about in *UniNews*. We strive to present a varied collection of features that highlight key events in the industry, happenings in and around UniForum, and an enlightening interview with an open systems industry leader. Want more of something? Less of something? Let us know via e-mail to dick@uniforum.org. ♦

Usenix Security Symposium Features UniForum Sessions

Sixth annual event sets attendance record

Usenix, the Unix and Advanced Computing Systems Professional and Technical Association, held its sixth annual Security Symposium at the Fairmont Hotel in San Jose, CA, July 22-25. The event was cosponsored by UniForum and with the cooperation of the Computer Emergency Response Team (CERT). Over 700 security experts, systems administrators and analysts, site managers and programmers attended, almost doubling the attendance at the 1995 symposium in Salt Lake City.

A major segment of the symposium was UniForum's four panel sessions on electronic security: Security and Privacy Issues; Electronic Commerce; Cryptography and the Law; and Cryptographic Infrastructure. More than 200 attendees signed up for the panels, also significantly surpassing the attendance at last year's event.

Something for Everyone

The first UniForum panel session was Security and Privacy Issues, chaired by Peter Neumann of SRI International. The panelists were Mary Connors of Computer Professionals for Social Responsibility; Jose Martinez of Sausalito Associates International; and Gio Wederhold of Stanford University. They concentrated on outlining and defining what the essential privacy questions are and how they can be addressed and solved. Among these issues were access to information contained in government systems—such as those of systems of the Internal Revenue Service, the Social Security Administration and state departments of motor vehicles; private companies' practices involving the use of lists of names; and the troublesome fact that if you are networked in any way, you can never be sure that *anything* is completely secure.

Gio Wederhold focused his presentation on the issue of the secu-

urity of medical records, which is an area of growing concern. The major insurance companies have virtually total access to medical records, while the subjects of those records—patients and other medical consumers—have limited control of their own information, and that includes the results of medical research. From this scenario, Wederhold transitioned to the concept of the "virtual company" and how its development is being seriously hindered by the fact that current practices make it difficult for people to trust each other.

Mary Connors rounded out the session with a history of the development of major privacy legislation in both the federal government and the California state government, citing the Freedom of Information Act, the Privacy Act and the California constitution, with its right-to-privacy provision.

At the panel on electronic commerce, session chair Rik Farrow started with a question: "How many of you are currently doing some kind of e-commerce?" About half of the people in the room raised their hands, showing the pervasiveness of this activity. Farrow pointed out that even now many companies want to get into electronic commerce but confess to fears about how to do it securely. He went on to say that e-commerce has taken business to a level of abstraction never before seen. The object of the transaction is not directly experienced by the buyer before sale; the Web site being used may or may not belong to the entity the buyer thinks he or she is dealing with; and to top it off, the funds used to pay for the transaction are electronic.

The panelists—Fred Avolio of Trusted Information Systems (TIS), Daniel Geer of Open Market and Bruce Schneier of Counterpane

(continued on page 6)

THE UNIFORM PROFESSIONAL TRAINING SERIES

PRESENTS...

SUSTAINABLE WEB PUBLISHING USING SGML TO ACHIEVE COST-EFFECTIVE INTERNET AND INTRANET PUBLISHING

TWO-DAY LECTURE / HANDS-ON SEMINAR

...IN COOPERATION WITH PASSAGE SYSTEMS, INC.

DATE:	September 18-19, 1996
TIME:	9:00 AM - 5:00 PM each day
LOCATION:	Passage Systems, Inc. 1596 Tantau Avenue Cupertino (Bay Area), CA
TUITION:	Special Early Bird Rate: \$895.00 (until September 10, 1996) Regular Rate \$975.00 (after September 10, 1996)

General Members may receive a \$75.00 discount or a 1-year extension on membership.

Tuition includes comprehensive course handouts, breaks and lunches, Certificate of Advanced Achievement, CEU credits (if attendee chooses) and a one-year General Membership in UniForum.

SPACE IS LIMITED: COURSE IS LIMITED TO 18 STUDENTS

COURSE INTRODUCTION AND OVERVIEW:

Many Web publishing initiatives produce Web pages using ad hoc tools and methods without standardization or automation. It is possible to create professional looking Web pages with low up-front costs and immediate results, but this strategy runs into problems when Web publishers want to reuse, revise or retarget their material. This is where the strategy of *sustainable* Web publishing comes in, based on a powerful enabling technology such as Standard Generalized Markup Language (SGML) to support authoring, assembly and delivery of complex technical information in a repeatable, automated way.

This intensive course provides attendees with an understanding of SGML and the developmental processes that support multiple delivery formats for the same information, significant information reuse, and robust Web site strategies. This course is aimed at technical implementors and covers both concepts and technical details. Strategies and tactics are explored through hands-on exercises and experimentation with a variety of tools and document types.

WHO SHOULD ATTEND:

This course is designed for all computer professionals involved with the World Wide Web and the Internet including: webmasters, web developers and planners, on-line publishing editors, intranet project managers, programmers who have to make the Intranet work, internet strategizers, information developers, client-server developers, applications programmers, network and system administrators and managers, and those individuals who are thinking of building a Web server.

COURSE LEVEL:

This course is technical with a management orientation, aimed at SGML novices. Some programming experience helpful.

FOR THE COMPLETE COURSE OUTLINE AND REGISTRATION, PLEASE LOOK AT OUR WEB SITE

<http://www.uniform.org> (under "Conference and Seminar Training")

OR contact Karen at 800/255-5620; email: karen@uniform.org

Ron Hawkins: Scoring Points in IS Management

Director at Millipore balances technology and business

by Richard Cole

Ron Hawkins has an excellent background for a career in IS management: His father was in the watch repair and jewelry business, and his uncle was a professional hockey player. From his father, Ron inherited an ability to focus on details and work carefully until the job was done and done right. That talent for concentration has served him well in his rise from programmer to consultant to top-level executive.

At the same time, Ron admits that his uncle, Art Wessier, exerted an even stronger influence. A large, physically powerful man, Wessier was a defenseman for the Montreal Canadiens in the 1930s. From his uncle, Ron says, he gained an understanding about common sense, patience and the intelligent use of power. Even now in business, Ron finds himself asking how "Uncle Art would have handled this." He adds, "My uncle's lessons have really stayed with me. In a crisis, I seem to have this clarity of thought. It might seem confused around me, but I know what to do."

Half a Credit

Despite his background, Ron confesses, "I had no idea I would ever be in this business." In fact, he began studying information technology in 1970 only because he needed to complete half a credit in high school. One option was to sign up for a new course on something called "electronic data processing." It involved working with key punches, collators, sorters and IBM 402 accounting machines. "Programming" essentially consisted of physically wiring boards in the accounting machines. He remembers saying to himself, "Hey, I can do this. This is easy." At Rhode Island College, he continued his studies, working with an IBM 360 and learning the Cobol, Fortran, RPG and Assembler languages. He got a B.S. in computer science in 1974. The remainder of his technical education has been gained on the job.

His first position was as a programmer at Leesona, Inc., a textile mill that also makes looms for winding yarn. He worked at Leesona for three years, fine-tuning financial and manufacturing applications. "That's when I gravitated from programming to the technical support side," he says. Ron eventually worked as a member of a technical support group that maintained an in-house teleprocessing monitor that controlled ter-

minals and scheduling programs, something like what IBM's CICS transaction monitor does today.

"I go where the challenge is. That keeps me motivated." – Ron Hawkins

Following the Challenge

The next years were busy as Ron worked at a number of positions in different companies. "I'm not the kind of guy you want to put in charge of the day-to-day maintenance of a facility," he says. "I don't like custodial jobs. I like a project, something with a light at the end of the tunnel."

In 1977, Ron left Leesona to work for Harris Corp. out of Melbourne, FL. He provided database administration tech support for one of Harris' manufacturing systems. He also helped implement the system at Westerly, RI, moving back to Rhode Island and continuing to work for Harris for two years.

His next move was prompted by the departure of a business manager at Harris who went to work for Sperry Univac. The manager was hired to support a Sperry Univac manufacturing system called Unis, and he started a team for pre- and post-sales support. Ron joined his team, helping customers during implementation. The job entailed a good deal of travel, with 80 percent of his time spent on the road. After two years of being a road warrior, Ron relocated to a Sperry Univac branch at Wellesley, MA, then moved again to Waters Chromatography at Milford, MA, a high-performance liquid chromatography and chemical separations business. Waters was in the process of moving to an

(DBMS) from Cullinet (later absorbed by Computer Associates). Ron helped with the move and continued to expand and refine its DBMS.

Starting at Millipore

The move to Waters turned out to be significant, because the company was bought by Millipore in 1980. Millipore develops, manufactures and markets filtration and purification products for microelectronics, biopharmaceutical and analytical laboratory markets. Ron became the new manager of the Waters data center, but he was soon asked to help reorganize Millipore's IT infrastructure.

At the time, Millipore's IS department was facing a major transition. In the early 1980s, the corporation had decided to adopt a centralized strategy using the proprietary HP 3000. It was using the HP 3000 worldwide and was trying to expand the HP 3000 environment in the United States. However, the HP 3000 program in North America had failed to meet expectations, and a new vice president of IS was called in to take a fresh look at the situation, especially since new upgrades were imminent.

A team was appointed to determine IS strategies for Millipore throughout the 1990s. The team came back with four principles that it felt were critical:

1) Millipore needed common systems, and this commonality had to be maintained worldwide. The company has subsidiaries in 26 countries, and 66 percent of sales come from overseas. Obviously, worldwide integration would be both a challenge and a necessity.

2) An open systems approach was required. Ron says that open systems seemed to be the right choice. "We felt that processing power would become more commoditized, delivering better price/performance. We've seen that happen." For example, every Sequent server that Millipore has bought over the years has delivered significant improvements in price/performance. Ron also mentions that Millipore wanted to break its reliance on a single vendor.

3) The database program should be based on relational technology.

4) All technology choices should be backed by strategic, long-term relationships with vendors.

Millipore chose Oracle as its relational DBMS and applications vendor, and Sequent as its open systems platform. In late 1989 Oracle did not have many applications available, but Millipore felt that Oracle's architecture was sound and liked the idea of being able to buy applications from its database vendor.

OLAP and ROLAP

"Just to get the ball rolling," Ron became manager of database services. The job entailed building the database and application services group from the ground up to support the move to open systems. He worked at this position until 1994 when his boss left and he was asked to assume his duties. "It was a challenge," admits Ron. "I'd never had much experience in networking, for example. I also wasn't too comfortable interacting with senior management. But that was two years ago and everything has worked out well."

One of Ron's biggest tasks these days is moving Millipore into the world of data warehousing and expanded decision support. Ron points out that Millipore's personnel are highly educated, demanding users of information. Any decision support system will have to be equally sophisticated.

Currently, Millipore's corporate information system is divided into transaction processing and decision support platforms. Some data warehouse applications have been written in-house, but the company still requires major development efforts to reach its goals. At this point, it has completed building the infrastructure for data warehousing, running Oracle applications in all its subsidiaries. Millipore has been collecting data in the Oracle databases for several years, and now it is ready to start delivering this data to two primary audiences in the corporation.

One audience is senior management. Ron says that these executives will need an interface, what he calls a "dashboard," to help

them navigate through the database. They will need to "drill down" to extract increasing amounts of data for questions about sales, growth, revenues and expenses. They will also need to be able to "spin the cube": to look at an issue from different perspectives until the relevant answers emerge. The other main audience consists of a team of financial analysts working in the office of the CIO. These analysts are fairly high-level PowerPC users who use modeling in Excel. They want a multidimensional application to do true financial analysis from warehoused data.

At this point, Ron and his department are facing the classic issues of setting up a data warehouse. First of all, do they go with relational or multidimensional architectures? Ron admits that multidimensional online analytical processing (OLAP) has a reputation for speed, but he also knows that relational OLAP (or ROLAP) vendors say speed is not an issue when the database is tuned

ABOUT RON HAWKINS

Current Position: Director of North American IS Operations, Millipore Corp., Bedford, MA

Born: Warwick, RI

Age: 41

Years in the Industry: 22

Car He Drives: 1994 Mercury Marquis

Latest Book Read: *The People's Choice* by Jeff Greenfield

Children: One daughter

Last Vacation: Disney World

Favorite Nonwork Activity: Golf. "A constant challenge."

Career Advice: "Number one, don't subvert your creativity. The creative people are the ones who are going to excel. Number two, don't force yourself into one path. Always be flexible."

Open Systems Pet Peeve: "The Unix community needs more of a commercial systems mentality. In the last year or so, it's changed a bit, but the situation still needs improvement. For example, I'm still searching for a backup product for Unix. In the past, the only backup I had was standard Unix utilities. I come from the mainframe world, and over there [informal utilities as backup] would never cut it. In fact, the whole issue of systems management utilities in the open systems arena is an area that I'm a little disappointed with."

properly. Ron is also wrestling with problems about metadata—the "map" that shows where and in what form data resides in a database. Finally, he has to develop interfaces that can handle ad hoc queries in an easy-to-understand fashion. None of these issues has simple answers, but Ron feels that "1996 is going to be the year of the data warehouse for Millipore."

Two Cultures

Despite the challenges, Ron enjoys his position "straddling the fence" between the two cultures of business and technology at Millipore. "You can't be effective on one side without the other side," he says. "At least for me, I need the technology. I can't survive just being pure business."

Ron feels that more managers these days are trying harder to balance the two sides of technology and business. Even a few years ago, technology solutions were based on relatively mature technology, such as mainframes, and were more shrink-wrapped. "You had a fixed set of tools, and you could apply them to pretty much the same set of problems." Managers therefore concentrated more on the business case: how a particular purchase could reduce expenses, increase revenues or otherwise justify its investment and overhead costs. Today, with

client/server and open system environments, plus groupware, collaborative computing and desktop systems, the technical issues are more complex, so buying decisions have to address a wider range of technical questions. Ron also notes that the general pace of implementation has increased. "I need to provide a flexible delivery cycle, because the delivery has to be done in a matter of months now."

Despite the complexities, Ron describes his job in the most general terms. "You have to put a computing infrastructure in place that's a utility. Not necessarily a Web site or accounts receivable or order entry. Rather, a basic utility of servers, databases and networks." Changing his metaphor a bit, Ron adds, "I'm like a grocer; I provide shelf space. I don't care what's on them, but I have to provide enough shelves and make sure people can get to them." This down-to-earth explanation sounds like one his uncle would appreciate. ♦

Web Server Benchmark Announced

Is the Web coming of age?

The Standard Performance Evaluation Corp. (SPEC) of Manassas, VA, has announced the first standardized benchmark for measuring the performance of World Wide Web servers. Called SPECweb96, it was developed by the company's Open Systems Group (OSG), together with vendors and research organizations, including CommerceNet, DEC, HP, IBM, Intel, Netscape Communications, and Sun Microsystems. According to SPEC, SPECweb96 is designed for system and software vendors and customers seeking performance data to help them in making informed Web server purchases. SPEC is a nonprofit corporation established to set up, maintain and endorse a standardized set of relevant benchmarks applicable to high-performance computer systems.

The initial release focuses on server performance for static Web pages, measuring the ability to service HTTP requests. SPECweb96 uses one or more clients to send the HTTP requests to the server, and the software then measures the response time for each

request. At the end of a run, it calculates a metric based on overall throughput measured as maximum benchmark operations per second. Initial SPECweb96 results are currently available on SPEC's Web site (www.specbench.org/osg/web96/), and the software will have its public release by the end of August.

According to a company spokesperson, the SPECweb96 workload simulates the accesses to a Web service provider where the server supports the home pages of several different organizations. The workload is based on analyses of server logs from a variety of popular Internet servers, as well as some smaller sites. To further validate the workload, data from the analyses was compared to logs from Netscape and CommerceNet.

Perhaps the most interesting aspect of this development is the fact of its having happened at all, which indicates that the Internet and Web-related technologies and products are reaching new levels of maturity that require this kind of benchmarking. We will continue to watch for further developments in the field. ♦

Usenix Security Symposium Features UniForum Sessions

(continued from page 2)

Systems—discussed a variety of topics within electronic commerce, including concerns about authorization, accountability, integrity and confidentiality; and what the world might look like when electronic commerce is the norm rather than the exception, including a prediction of "disintermediation," the declining role of intermediaries in commerce.

Lively Discussion

The third session, Cryptography and the Law, was by far the liveliest and most contentious of the panels. Session chair Dan Appleman of law firm Heller, Ehrman, White & McAuliffe, assembled a panel consisting of John Gilmore of the Electronic Frontier Foundation and—through a teleconference with the office of U.S. Senator Conrad Burns—three members of the senator's staff and Scott Charney, chairman of the computer crime unit of the Justice Department.

Sides were taken immediately, with only Charney defending the use of key escrow policies and limitations on encryption technology. His point of view (which he defended valiantly in the face of strong opposition from the others) was that "robust" encryption

can and should be available, but that legitimate national security and public safety concerns warrant restrictions on encryption. Those on the panel in favor of unrestricted cryptography pointed out that, because of the truly international nature of the Internet, laws passed by any given country limiting electronic security technology are largely "irrelevant" and cited the lack of effect that France's key-escrow policy (the only one in the industrialized world) has had beyond its own borders.

The final panel session, Cryptographic Infrastructure, was chaired by Fred Avolio of TIS. The panelists were Peter Dinsmore, also of TIS; Carl Ellison of Cybercash; Constantin Tanno of Morgan Stanley & Co.; and Walter Tuvel of the Open Software Foundation. This session covered such topics as architectures for public-key infrastructures; key recovery and backup; and public-key identification, authentication and authorization.

Usenix will be hosting a variety of conferences across the U.S. over the next several months, including LISA '96 in Chicago in late September and a workshop on electronic commerce in Oakland, CA, in November. For more information on Usenix events and activities, visit their Web page at <http://www.usenix.org>. ♦

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