*cover story*

# BRINGING GOOD THINGS TO GE WORLDWIDE

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# BRINGING GOOD THINGS TO GE WORLDWIDE

*Many of us take the power of the QUIK-COMM System™ for granted, but to the uninitiated, it can be miraculous. At Medical Systems International Finance, monthly closings included transmission of a report that usually runs 100+ pages from London to Waukesha—by Rapifax! Now, Medical Systems Business is poised to use PC Mailbox for that same transfer, sending information faster, more accurately, and less expensively.*
*--Jeff Hansen, Account Manager*

Within the past year, GE Accounts—which markets GE Information Services Company products worldwide to GE corporate operations and the over 50 GE component businesses—restructured its sales approach to reach out to GE components as never before, introducing them to the many advantages of network-based applications.

From the clients' perspective, GE Accounts has fewer but higher-level sales contacts who understand their businesses and are supported by teams of product experts.

From GE Information Services' perspective, GE Accounts by any measure has been a success story, substantially increasing productivity and polishing its reputation—for example, by closing its first BusinessTalk™ sale and six EDI projects (two in ramp and six in pilot).

In short, GE Accounts is bringing good things to GE the old fashioned way—by earning their business.

## The Client

Bob Simmons (VP & GM, GE Accounts) describes his team's mission as "helping the General Electric Company become more productive and competitive by applying GE Information Services' telecommunication strengths to solving the company's information-intensive communication needs."

GE Information Services' relationship with GE is unique: GE owns GE Information Services and is one of its biggest clients, and GE Information Services is part of the GE family. The "owner" wants profits. The "client" wants the best service available. The "family" insists on the lowest price.

Moreover, although GE can be considered as a single client, it also comprises a remarkably wide variety of diverse and autonomous businesses. With the addition of RCA, GE's gross sales this year will exceed $40 billion.

"I consider GE to be a strategically significant account for GE Information Services for several reasons," explains Simmons. "Revenue from GE is obviously important, but, in addition, success with GE accounts can be a powerful commercial lever."

For example, Simmons notes that a prospective commercial client considering a GE Information Services application is likely to

Bob Simmons and Sarah Hinden at work.
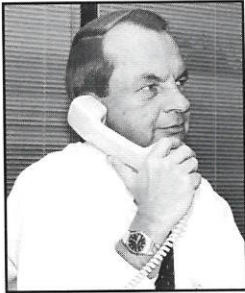
ask, "Does GE buy this application from you?"

For the past 18 months, GE Accounts has been developing a technical sales and support structure that caters to GE Information Services' most important client.

**Sales Approach**

Bob Donnestad

The GE Accounts organization now resembles a matrix-based structure, with five senior account managers working in concert with four specialized technical sales support teams representing key GE Information Services thrusts: VAN and Point-of-Sale Services; business communication services; EDI; and custom applications.

The account managers have the experience to understand their clients' businesses and can match clients' information and communication needs to GE Information Services solutions. Each account manager "owns" specific accounts and focuses on developing strong working relationships with key functional decisionmakers at "his" GE components.

Each technical sales support team provides the technical expertise and management skills necessary to close, implement, and ramp GE sales opportunities. The technical sales support teams cultivate close working relationships with key

decisionmakers and staff in client information systems and telecommunications organizations.

"Technical credibility and mutual trust between our technical sales teams and their peers in the user information systems community is paramount to success in selling to GE," says Simmons.

Walt Lees

The account managers and technical sales support teams rely on a small group of professionals who supply a broad range of support services both to GE Accounts and to its GE clients. "The entire structure works extremely well," observes Simmons. "We're a very tightly knit team, and each member understands his or her responsibilities. Despite the interdependencies among all the team members, everyone takes appropriate ownership and gets the job done.

"With this structure, we've achieved above-average levels of productivity (as measured by our expense-to-revenue and revenue-per-employee ratios). At the same time, we've significantly turned around our image throughout the GE corporate family."

**The Successes**

Over the past year, GE Accounts has logged significant progress in positioning the company as a key GE supplier in each of GE Information Services' targeted service arenas. Among the feathers in the GE Accounts cap are the following accounts.

**CDNS**. GE Accounts uses MARK*NET™ as a basis for CDNS and counts all major components of the GE Company. CDNS constitutes one-half of GE Information Services' total VAN volume, showing a three-fold increase in revenues from 1985 to 1986 and a projected 50 percent increase from 1986 to 1987.

GE Credit Corporation, Consumer Electronics Business, the GE Supply Company (GESCO), and Aircraft Engine Business have issued strong endorsements of CDNS. Moreover, Corporate Information Technology (CIT) is a strong backer of GE Information Services networking products.

GE Accounts hosts CDNS user meetings roughly every quarter to solicit feedback, relay product updates, answer user questions, and cultivate contacts. The components' enthusiasm for CDNS is reflected in the 40 GE data communications managers who attended the most recent users meeting and in the total absence of service- and quality-related issues. A representative comment at that CDNS meeting was, "A GE component would be remiss if they did not

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## WHAT GE CLIENTS ARE SAYING...

If I had it to do all over, I would again choose GE Information Services as my value-added network provider. From the very beginning, I saw a new company. They took my 150-city network requirement and implemented it on time and without the normal start-up problems I expected, allowing our organization to focus on other major activities. I have found the GE Information Services network to be as reliable as our local electric utility—we take it for granted; it's always there.
        --Frank Billone, GE Supply Company

GE Information Services has been with our system from the ground up—from design consultation to implementation assistance and performance tuning. They continue to provide a high level of understanding and responsiveness. The real benefits for GEBIC have arisen from the expertise and efficiency of Client Services, a group of highly responsive, highly trained professional people, ready to help. GEBIC has asked for and gotten quick response on special problems—the kind that keep people up late at night and weekends reacting to changing business needs.
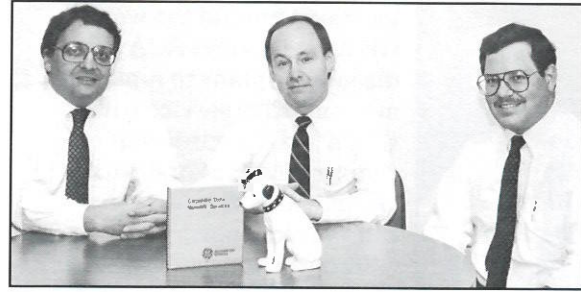        --Bill Hewlett, Business Information Center

Peggy Palmer, who conceived and produced the QUIK*NET Directory



From left to right, Art Hyder, Lin Bower, and Bob Rengers, working on merging RCA's Nippernet into CDNS

consider consulting GE Information Services before implementing a data network solution."

CDNS currently is working intensively with the newly acquired RCA components to integrate them into the GE Information Services data network. Plans are well underway to integrate RCA's X.25 Nippernet (named after the famous RCA logo dog) into the MARK*NET extended offering. This success of this network merger stems from a cooperative effort among Sales, Customer Service, and Telecommunications to ensure that GE takes advantage of the latest and best technology when addressing data communication needs.

**QUIK-COMM.** The Business Communications Services team is making significant progress toward its four key objectives.

First, the GE QUIK*NET™ System is increasingly recognized as **the** system for cross-component and international message transmissions. Since last January, the number of corporate mailboxes has grown from 320 to over 1,100.

Key QUIK*NET users include: Corporate, which sends key organizational announcements, press releases, and other internal announcements via QUIK*NET to Company officers based outside Fairfield and to about 400 GE office and plant

## The Team

This year, GE will spend more than $29 million worldwide for GE Information Services products. Given the team of 33 professionals responsible for that revenue, GE Accounts displays notable if not downright enviable productivity.

Five account managers collectively assume overall account responsibility for most of the GE corporate and business components, broken down as follows:

o **Steve Canale**: Corporate, Aerospace, Semiconductor, GESCO, NBC
o **Dan Lessard**: Plastics, Engineered Materials, Lighting, Nuclear, Calma
o **Kurt Sandell**: Aircraft Engine, Turbine, Power Delivery, Transportation, Factory Automation
o **Jeff Hansen**: GECC, Major Appliance, Medical Systems, Consumer Electronics
o **Barry Clarke**: Until just recently, Clarke had responsibility for international components. His position will be filled shortly; Clarke is moving on to Manager, Business Planning, in Denis Gagnon's organization (Planning and Business Development).

The four technical sales support teams are profiled below.

o **Corporate Data Network Services** (CDNS), headed by Art Hyder (Manager, CDNS) and staffed by senior communication consultants.
Mission: aggressively expand MARK*NET business, becoming the sole supplier of shared data network services throughout GE, offering high-level technical sales and consulting expertise.
Key personnel and component expertise: Dick Berman, Bob Rengers, Martha Mostovych, and Lin Bower.

o **Business Communications Services** (BCS), headed by Bob Donnestad (Manager, BCS).
Mission: promote the QUIK*NET System as the standard for inter-site business communications, broaden QUIK*NET scope to include major GE customers and suppliers, link QUIK*NET with existing local component mail systems, and sell major applications dependent on QUIK-COMM.
Key personnel: Bob DiLeo (Fairfield); Ellie Thatcher (Cleveland); Pamela Wolff (Rockville); and Penny Melrose (support services, based in London).

o **EDI Services**, headed by Guy Fisher (Manager, EDI Services).
Mission: Make GE the largest and most satisfied EDI*EXPRESS user by encouraging components to change the way they do business to take advantage of EDI and offering consultative support and experienced project management.
Key personnel: Lyndon Cornell, George Green, Warren West, and Kathy Cullin.

o **Applied Telecommunications Services** (ATS), headed by Dave Slone (Manager, ATS).
Mission: provide pre- and post-sales consulting, system design, and implementation resources to secure new production applications, assuming primary responsibility for BusinessTalk, POS, and custom solutions to client needs.
Key personnel: Mary Jane Low (Schenectady), Mitch Stein (Bridgeport), and Debbie Cinque (Albany).

Walt Lees' account support team—including Jeff Englander, Peggy Palmer, and Cindy Bleistein—provides general sales support as well as QUIK*NET and other administrative and client support services (operating out of Client Services).
Cathy Michalak (Program Manager, Lighting Business) is dedicated to Lighting Business, providing high-level consulting support to this key account.
Sara Linden and Pam Stern provide secretarial and administrative support.

Dave Slone

locations around the world. GE Accounts and RCA are discussing plans to replace a competitive service with QUIK*NET for internal communications and with QUIK-COMM for external communications.

Second, Components such as Aircraft Engine, Drive Systems, and Customer Service Distribution Operation (CS&DO) are in various stages of adding selected business partners worldwide to the QUIK*NET System to reduce costs and improve communications.

Third, a leased-line connection between the RCA PROFS system in Cherry Hill (New Jersey) and the QUIK*NET System will be implemented this month. In December, GE Accounts plans to test a dial-up connection between one of Aerospace Business' PROFS systems and QUIK*NET—with nine more PROFS systems to follow. The Lighting Business VAX-MAIL system is already connected, and additional links are in the works.

Fourth, anticipated sales of major applications will generate substantial revenue increases as well as better position GE Information Services' product capabilities within GE. Currently, Corporate Finance is nearing a final decision on an application that would add 1,200 new users across GE. The Corporate Customer Service Task Force recommended QUIK*NET as the basis of a quotation-tracking application that virtually all GE sales people and product departments in the industrial and utilities markets would employ. Aircraft Engine is close to a final decision on replacing the in-house Honeywell E-Mail system that now links its worldwide field service organization with QUIK*NET.

**EDI**. Momentum for EDI services is building rapidly at GE, and major wins are on the near horizon. For example, GESCO held its first key vendor conference in October, attracting 29 key suppliers that represent over 80 percent of GESCO's transaction volume. GE Accounts anticipates a rapid ramp.

Aircraft Engine will soon complete its pilot, and the first of many vendor conferences is scheduled for January. The goal of this major program is to link 800 suppliers to EDI*EXPRESS™ by the end of 1988.

Aerospace Business is pilot testing the electronic receipt of invoices and should begin ramping in 1987. Aerospace's target is to electronically handle half of its three-quarter million invoices via EDI*EXPRESS.

Lighting Business is converting its in-house system to EDI*EXPRESS, thus expanding the company's reach within its client base.



Cindy Bleistein, who recently took Katie Shea's place on the Client Services desk

In addition, RCA Purchasing, an early EDI pioneer, shortly will initiate an EDI*EXPRESS pilot.

**Applied Telecommunications**. Retail merchants using GECC's private-label credit cards use GE Information Services as an integral part of the credit authorization process.

GE Accounts' first BusinessTalk win came from Calma, where BusinessTalk, QUIK-COMM, and HP-Mail will be integrated to provide a comprehensive marketing and sales communications system.

## The Future

GE Accounts' future plans include doing more of the same—and with good reason. GE Accounts is successfully enhancing GE's competitiveness and productivity in a variety of businesses and, in the process, gaining a reputation for top-quality services, positioning key network-based services (such as CDNS, QUIK*NET, and EDI*EXPRESS) as corporate utilities, and laying a pipeline for future GE revenues.

GE's key corporate initiatives—including increasing offshore sourcing, improving customer service, further integrating marketing and sales activities at the customer interface, streamlining purchasing activities, and stimulating productivity gains—mesh well with the range of services that GE Accounts can offer. From this perspective, it's clear that GE Information Services can play a vital role in corporate operations. GE Accounts' goal is to continue demonstrating the value of GE Information Services as a worldwide strategic asset to the entire General Electric Company. ▲

*Happy Holidays*
*and*
*Best Wishes*
*for the*
*New Year*

## TEAM EFFORT LAUNCHES D*NET IN JAPAN

Information Services International-Dentsu (ISI-D)—a long-standing joint venture of GE Information Services and Dentsu—recently announced the introduction of D*Net, which supplies Japan with MARK 3000 service, supported by ISI-D's own IBM 3083 computer center in Tokyo.

Thanks to the efforts of a team of ISI-D and GE Information Services personnel, D*Net has an enviable record: since the commercial system was introduced in August—on time and within budget—D*Net has experienced no system outages. Moreover, the system came on line without disrupting existing clients. The successful introduction of D*Net successfully positions GE Information Services to consider both additional projects in Japan and comparable projects in other countries.

The D*Net agreement is unique, marking the first time in GE Information Services' history that a central piece of proporietary processing technology—the MARK 3000 operating system software—has been made available to a company outside the US. Under the D*Net agreement, GE Information Services supports the leased software from the US via high-speed US-Japan links. ISI-D maintains the system hardware on site in Japan. By the end of 1986, D*Net is expected to include host-to-host communications between MARK 3000 and the ISI-D system.

D*Net features include Japanese Kanji character set and word processing in addition to English.

D*Net users will continue to have full access to GE Information Services' US Supercenters for shared application processing and for local MARK 3000 processing, but Japanese clients also will be able to process local data in Japan, speeding up computer terminal access and turnaround times for IBM-based remote processing services.

The GE Information Services D*Net negotiation team included Denis Gagnon (Vice President, Planning & Business Development), Gary Senese (Manager, MARK 3000 Engineering), and many other people throughout the company. "The efforts of a

### DISTRIBUTOR STORY IN JANUARY ISSUE

From left to right, Nobuo Miya, Hiroshi Matsuura, and Minoru Wakita of ISI-D have a burger and fries with Benham Malcolm after a long night shift.

great number of people went into the successful negotiation of the D*Net agreement," says Gagnon. "Among many others, Gary Senese and his organization deserve recognition for supplying input that formed the basis of the negotiations and also responding to the numerous negotiation-generated requests for follow-up data and technical scenarios."

After the contract signing in April, Chris Lippold (Manager, Distributor Support, ASPAC) took an assignment in May as D*Net project manager, coordinating and overseeing the implementation of the D*Net agreement. Based in Australia, Chris invested many hours shuttling to Rockville and Japan, where he spent long weeks with company and ISI-D teams to ensure that all the administrative loose ends had been dispatched, thus clearing the way for the arrival of the technical implementation teams.

### The Technical Implementation

Last summer, four GE Information Services employees—Bob Jessup, Manager, Operations Systems; Wendy Holmes, Senior Systems Analyst; Steve Nelson, MARK 3000 Technical Specialist; and Benham Malcolm, MARK 3000 Programmer/Analyst—joined the ISI-D staff in Tokyo to install D*Net, get client applications up and running, and convert users to the new system.

The team faced and overcame a number of challenges, most notably language barriers and time constraints. "They really wanted that system up fast," explains Jessup. "But they also demanded a



Wendy Holmes and Hiroshi Matsuura work on the ISI-D terminals, which have two Japanese character sets and one English character set.

Bob Jessup and Steve Nelson in their second home last summer, the ISI-D equipment room.

smooth transition. The goal was to convert all users to MARK 3000 with no visible impact. Except for a few minor glitches, we accomplished that goal."

It wasn't easy. For the five weeks they were there, the team worked 16 hours a day seven days a week—and they only took off three days. "We really don't have many exciting stories to tell," reports Holmes. "We just drank coffee all night and worked."

Moreover, the team worked at night, because ISI-D was supporting its clients during the day. "But ISI-D people also had to be there at night to help us and learn about the new system," Jessup says. "At first they were shocked at the hours—ours and theirs—but they adjusted quickly. ISI-D has a very good staff."

Perhaps the biggest surprise to the ISI-D staff was the fact that Wendy Holmes worked the same hours as the rest of the GE Information Services team. "They just passed a liberalization law that allows women to work until midnight," Holmes notes. "Before, women could only work until 8 PM. It was a real cultural shock to them that I worked all night."

The team also had to overcome a substantial language barrier. "Japanese students are all required to take English, and they read it quite well, but they very rarely have the opportunity to speak it," Jessup says. "Although the people were shy at first, everyone tried to speak English, and many of them spoke it quite well. But just to avoid any chance of misunderstanding, all of our meetings were bilingual—everything was said once in English and once in Japanese."

But the minute the team ventured outside their hotel or the ISI-D office, everything was in Kanji. "Even the subway signs are in Japanese," Holmes recalls. "Once we got lost, because we couldn't tell what the station stops were. Luckily, we found a conductor who could help us!"

"It was a hard job—and it was tough to give up our summer—but we really enjoyed it," Jessup reports. "The ISI-D staff was highly professioal, kind, courteous—we all made personal friends there. And I think that we greatly strengthened our relationship with ISI-D. Now we know each other." ▲
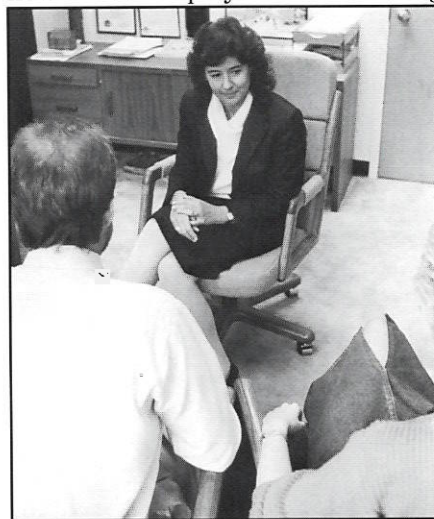
When GE Information Services establishes a full-service Employee Assistance Program (EAP) in the US on December 1, it will join many other US companies that realize such a program is in their and their employees' interests. EAP provides all US employees and their eligible family members with a new resource: a voluntary, confidential, pre-paid counseling service supplied by an independent firm that is designed to help resolve concerns that may affect personal well-being, morale, or professional performance. All US employees will receive an introductory brochure and will be invited to a program orientation in the near future.

Jack Mulford (Vice President, Human Resources and Communications) says, "The EAP is a proven, no-nonsense approach to providing Company pre-paid, easy-to-use, round-the-clock professional counseling services to employees and their immediate families....This program is a clear-cut way of demonstrating our concern for the well-being of those who work at GE Information Services."

## Background

During an extended investigation of the EAP concept, it became clear that **all** human beings at one time or another have personal problems. This always has been true, and it's especially true now—most employees have seen a great deal of



change professionally and in their personal lives.

When facing problems, there may be a need to talk in confidence to someone trustworthy, an objective third party who can help organize an individual's thoughts and decide on an appropriate plan of action.

Dale Caplan, an HAI counselor in Rockville, considers what she just heard.

Consulting a professional counselor is an increasingly common alternative, and many companies (such as IBM and AT&T) have implemented EAP-type programs to help employees and to improve employee morale, attendance, productivity, quality of work, and turnover rates.

GE Information Services was particularly impressed with the feedback from other GE components—Lighting Business and Space Systems and the GE Information Services Brook Park facility (which offers a program that is associated with the Lighting Business program).

Emmanuel Malone, Health Cost Containment Program Manager for Field Electronics Systems (formerly Space Systems) observes, "From the feedback I've received, our employees view [our EAP] as a very valuable resource. It's a tremendous resource for the family and can assist families to deal with problems, whether between husband and wife or children and parents. Work life and home life aren't separate and distinct, and our employees have a level of comfort, knowing that, if they need to, they can go straight to a qualified professional. Moreover, for those employees who need it (especially in an emergency), the program and HAI are invaluable."

## The EAP Program

EAP information, consultation, and counseling is provided by Human Affairs International, Inc. (HAI). Founded in 1973 by the developer of one of the first EAP programs (at Kennecott Copper), HAI is a pioneer in the field with over 13 years of experience and the largest professional counseling network in the world. HAI serves over 350 clients and approximately 3 million people.

The EAP program that will start in the US this month is completely voluntary—only the employee can decide to seek advice from HAI professionals, who all have advanced degrees and are licensed in the states in which they practice. Employees can use the EAP to address concerns arising from, for example, family, marriage, work, legal conflicts, alcohol or drug abuse, emotional stress, physical problems, or finances.

HAI offices are easily accessible to over 70 percent of company employees. HAI affiliates will serve all other US employees. Offices are open from 9 AM to 5 PM daily, and appointments for any time outside those hours can be easily arranged. HAI's 800 number is available 24 hours a day seven days a week. EAP services are pre-paid by the company, so the employee will not incur any cost by using EAP services.

Perhaps most importantly, the EAP is completely confidential. All matters related to EAP participation are held in the strictest confidence, because confidentiality is the first priority, the very
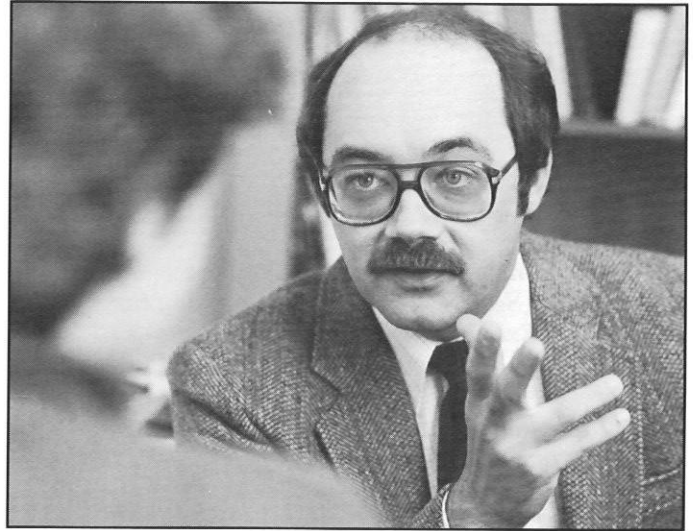


Tom Cooper, an HAI counselor ( Dallas ), makes a point.

foundation of HAI's business. No one at GE Information Services will be told about an employee's use of EAP. In fact, the employee would have to sign a release form if he or she wanted the company to be aware of EAP participation or progress.

To help ensure confidentiality, all meetings are held at an off-worksite location, and appointments are scheduled sufficiently far apart so that there is no danger of running into a fellow employee. HAI will supply GE Information Services with overall program statistics, but there will be no way that individual employees could be identified from such statistics, which will only discuss aggregate numbers of users and categories of problems and treatments.

## EAP Counseling Profile

A typical EAP counseling session with an HAI professional usually lasts one hour, and additional sessions are possible (up to eight). A session revolves around talking about and clarifying the employee's concern(s), identifying and assessing alternatives, and developing a plan of action.

At the end of the process, the employee will have resolved the concern or developed a course of action. The counselor also might refer the employee to another resource outside HAI. In this case, additional costs would be the responsibility of the employee (medical benefits may cover part of the cost).

Roughly two weeks after the employee's last session, the counselor will make a follow-up call to check on the employee's satisfaction with the service. In addition, the employee can fill out a completely anonymous questionnaire that will offer an opportunity for the employee to evaluate EAP service. HAI will use such feedback to maintain EAP program quality.   ▲

*[Tony Craig recently gave his first major speech as GE Information Services President, addressing the 6th WorldCom Executive Conference on International Computers and Communications, 1986-2000. The conference, which GE supported as a Corporate Sponsor, brought together many of the world's leaders in computers and communications.*

*Craig's speech, "Global Competition: Deregulation and Communications Imperatives," was the centerpiece of GE Information Services participation in the conference, which also included: a speech on "International C&C Networks: Successful Strategies and Solutions" by Dave Foster (VP & GM, Focused Business Operation); the co-chairing of a session on "C&C Financing and Development in Industrialized and Developing Countries" by Denis Gagnon (VP, Planning & Business Development); and demonstrations of both TRADE\*EXPRESS™ and BusinessTalk™.]*

Now that the traditional barriers to worldwide business competition have been conquered, the technology to electronically store and transfer critical information should mean that everyone has equal access and equal opportunity to use that information to compete equally. But that isn't true. Although many of us have the technology, few of us can use it freely.

This is very disturbing to those of us who believe that the world's economy depends on how communications technology is used.



From left to right, Joe Squarzini, Ray Marshall, and Tony Craig talk shop with Patricia Murphy, editor of Electronic Funds Transfer Report at the cocktail/press party that GE Information Services hosted before Craig's IC&C speech.

This is very disturbing to those of us who believe that the interdependency between time and money is more critical than ever to effective competition.

This is very disturbing to those of us who believe in fair play....

If we in the communications industry are to actively promote the ideal of global competition, we must work towards a global regulatory and trade environment that permits and supports it.

Access to foreign markets is a worldwide trade issue. The ability to communicate with and within national markets in a competitive economic way is the communications imperative supporting world trade....

What we have seen...time and again is that regulation creates competition. Competition fosters innovation and invites capital. Innovation and capital create new services and products, which in turn facilitate more competition and expanded trade....

It's a simple equation: Communication equals competition. If you can't communicate, you cannot compete....There should be no excuse today for not communicating vital information in a timely fashion. Perhaps the least acceptable excuse for not exploiting today's available communications technology is that of inappropriate or outdated regulation....

Excellence of communications technology is only one component of world-class service—and competition. Other components include product availability and company support services. But these, too, depend on free and equal communications....The world is your home market. And you are engaged in a world competition against world-class competitors, whether you like it or not.

The home market has grown to encompass the world, because the flow of money knows no borders...The velocity of money—that is, the speed of cash to finance global business competition—is becoming the most critical factor in determining winners and losers....

There are a thousand examples of the strategic importance between finance and trade, examples that underscore the imperatives of an unrestricted communications environment for both.... Communications technology can make for a good night's sleep, because individuals can pass knowledge of risk to each other. It also creates a more efficient capability for investment portfolio management....

The competition to provide communications services is intrinsically not fair and unnecessarily restricts the development of international value-added services.

Our opportunities to use available communications technology must be as far-reaching as our networks themselves. We have created the imperative for a worldwide communications infrastructure to support the communications demands of global competition. Such an infrastructure is imperative for three reasons: connectivity, consistency, and competition....

Such an infrastructure does not suggest the imposition of a single standard technical protocol. Rather, it suggests a political and tariff framework that promotes competition through innovation in the application of available technology. We do not enjoy such an infrastructure today.

A worldwide communications infrastructure should be composed of networks, applications, and people....We cannot exploit the new technology in the old environment and expect—or hope—to be truly competitive. We must level the playing field—and that can only be done by changing the existing inconsistent and restrictive regulatory situations....

Like it or not, communications is a global enterprise. We are global cooperators and global competitors. We are already behind—but that does not diminish our need in the least. In fact, it intensifies it.

How can we ensure that the clear imperative of such an infrastructure will be met? In a cooperative worldwide industry and government effort to address this issue, we can analyze and implement the following guidelines proposed by the US Council for International Business...

o        Freedom for users to choose among competitive suppliers, including telecommunications administrations for the supply, installation, and maintenance of their customer-premises equipment.

o        An unrestricted and competitive international market for value-added tele-communications and information services.

o        Maximum user interconnectability between national telecommunications networks and services made possible by reasonable minimum standards, established with users' and suppliers' participation on an international basis.

o        Freedom for users to choose from a variety of available basic transmission services...

o        Price charged for basic regulated telecommunications services should normally be based on the cost of providing the services, including a fair and reasonable rate of return....



From left to right, Marilyn Culican, Colin Bell, and Eileen Hargadine review preparations for product demonstrations at the IC&C conference.

Our challenges as players in the global communications competition are both short term and long term...

In the short term, we share the challenge of applying available technology despite the current inconsistent regulatory barriers.

For the future, communications players, users, and policymakers must work toward realizing a fair and equal playing field for the global competition already underway in communications.

Both challenges are international, intercompany, and interindustry in nature. We must level the competitive playing field if we are to adequately service the growing communications needs of the world in which we live. Minimization of the regulatory, economic, and political barriers to the effective use of communications technology is our challenge—indeed, it is our imperative.   ▲

## DUBLIN OFFICE
## GEARS UP FOR ACTION

Seven professionals from the Dublin, Ireland, Software Development Centre recently spent a busy month at the International Training Center in Rockville, learning about the GE Information Services product lines and marketing strategies and taking courses that covered topics such as project management, MARK 3000 fundamentals, comprehensive data communications, and CASE (software development methodology).

The visiting team from Dublin included: Phil Duggan, Project Manager, and six Associate Programmers, Jacinta McCreanor, Linda Spellman, Ian O'Casey, Declan Jones, Declan Buckley, and Declan Vize.

"We're the first staff brought on board for the Dublin office," explains Duggan, the senior member of the group. "Our training sessions emphasized an understanding of the company and how it works. Now we can apply that information immediately and pass it on to new recruits."

The Dublin team completed its training in Rockville and left to return to Ireland on Halloween. To celebrate the occasion and give them a rousing send-off, a gaggle of goblins arranged a Halloween party, complete with traditional apple-bobbing, tasty treats, and creative costumes (for example, Virginia Downes—the woman with the elephant nose, ears, and tail crafted from aluminum foil—certainly deserves mention).
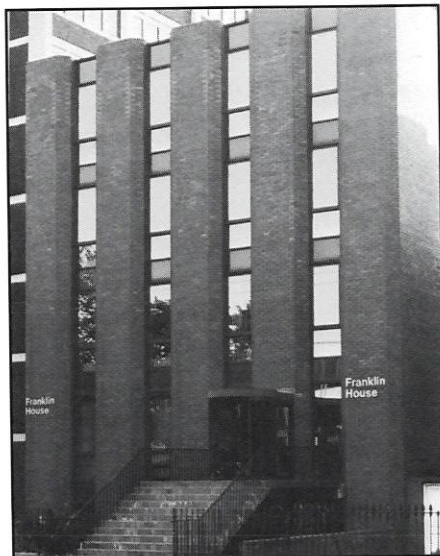


Dublin, Ireland, employees in Rockville for a month of training join a toothy friend under the shadow of the bat at their farewell Halloween parties. From left to right are Buckley, Spellman, Jones, O'Casey, Duggan, McCreanor, and Vize.

### Development Teams

Upon their return to Dublin, the group was immediately assigned to development teams. McCreanor, O'Casey, and Buckley are working with Duggan on international banking applications. Spellman, Jones, and Vize are working with Harald Kreuzer (Senior Project Manager) on an IBM-SNA dedicated project, COMSOFT.

Kreuzer is from SDC-Germany and has implemented applications for BASF, OSRAM, and Daimler-Benz. "COMSOFT is my most attractive child," Kreuzer will say by way of introduction when asked about the project (although some of his German colleagues also lay claim to paternity).

"COMSOFT opens the door for SNA to MARK III service, enabling terminals and all sorts of IBM mainframe programs to talk interactively to MARK III," Kreuzer explains. COMSOFT was developed by SDC-Germany to run on a client's host and should provide an interactive pipe between MARK 3000 and MARK III.

The banking group is working with Jamie Graham (Manager, International Banking and Financial Services Marketing) and his organization on two projects: Global Limits System and FundsNet II. "Global Limits is a dealer support system that enables international banks to control their exposure on money markets throughout the world," Duggan reports. "FundsNet II enables a bank to provide its corporate clients with a timely and comprehensive cash management facility."



The Dublin Software Development Centre

Duggan says that his team's involvement on these two projects is providing vital on-the-job training that will acclimate them quickly in the banking software development environment.

## The Dublin Office

The Dublin office is GE Information Services' first software development center outside the US. It is similar to facilities in Rockville, Nashville, Berkeley, and Oyster Point. The Dublin center will develop software for international banking and will play a key role in the "internationalization" of micro products and capabilities.

GE Information Services decided on the Dublin site following six months of studies and extensive discussions with Ireland's Industrial Development Authority. The new office represents an acknowledgment of the growing worldwide use of application products and a recognition of the importance of the European market.

The Dublin office was officially opened last summer during a ceremony and dinner hosted by GE Information Services representatives—Ray Marshall, Senior Vice President, Technology Operations; Gary Mueller, VP & GM, Applications Engineering; Jim Rossini, Manager, Dublin Software Development Center; Brendan McLoughlin, Ireland Sales Manager; and Eurfyl Ap Gwilym, UK Sales Manager. Irish officials at the ceremonies included John Bruton, the Minister of Finance. The Irish press covered the event in some detail.

The Dublin Software Development Centre is expected to grow to a staff of around two dozen in 1987, largely by recruiting recent graduates who will be brought up to speed by senior staff and by the team that came to Rockville for their training.

The new Dublin office will strengthen General Electric Company's presence in Ireland, which includes over 2,000 employees at ECCO in Dundalk and EI in Shannon; APC in Bray; SMI; and GE Information Services and GE Plastics in Dublin. ▲

## NEW ROCKVILLE PHONE SYSTEM EXPECTED TO SAVE $1.5 MILLION

Last April, Facilities completed the complex installation of an InteCom IBX S/80 Private Branch Exchange telephone system that integrates the two Rockville buildings and communicates with a smaller installed Rolm PBX. The new telephone system should save almost $1.5 million over the next five years. It also affords the flexibility necessary to move, add, and change telephone service quickly.

The initial review of in-house telephone systems for Rockville began in early 1982, and in 1984, management tentatively decided to convert from a Centrex system to a PBX system. Evaluations of PBX systems came next (after a slight delay to allow Rockville office building configurations to stabilize). Pat Cantine (Corporate Telecommunications Operation) worked closely with GE Information Services planners, supplying data on available PBX systems and projecting cost savings.

Based on Cantine's advice and studies of available systems, GE Information Services installed a Rolm PBX in Metro North B as a test-run before evaluating an entire in-house PBX. As a consequence, for the past two years, a special prefix was required to dial Metro North Rolm phones, and calls couldn't be transferred between the Centrex and Rolm systems.

The company's experience with the Rolm system led to a 1985 Request for Quotation for a second in-house system for the Maryland Center and the Twelve Oaks facilities, attracting half a dozen



Photo by Jean Sunderland

Checking out the new telephone system in Rockville are: (left to right in the background) Lang Stallard, Chuck Sarich, Pat Cantine, Gus Dankert, Sam Wenck, John Harp, and Peter Wolfson; and (sitting, foreground) John Plunkett and Mary Riker.

vendors. The company selected the InteCom, Inc., system, which at that time was sold, installed, and serviced by ICSO, which was then part of GE Information Services.

The InteCom system promised substantial cost savings and many useful features, including call holds and transfers, call forwarding, conference calls, callback messages, paging, last-number redial, frequent-number abbreviated dial, and numerous data communications capabilities.

Preparation for cut-over was a complex operation requiring the execution of multiple details in a precise sequence and the cooperation of a team of contractors and employees from Facilities, Engineering, Purchasing, and ICSO.

The in-house team included: Peter Wolfson (ICSO Project Manager), Chuck Sarich (then Manager, Facilities Services), Sam Wenck (Facilities Specialist), John Harp (Installation Supervisor), Lang Stallard (System Design Engineer), Mary Riker (Software Specialist), Tom Hare (PBX Technician), and John Plunkett (PBX Technician). Assistance on data and software tasks came from many employees, including Lee Anderson (Marketing Requirements Manager), Vaughn Rockney (Product Manager, Mass Market Applications), Hal Scheinberg (Project Manager, Vendor System Implementation), and Darryl Kuka (Manager, Materials).

This team's activities included:

o      Working with a contractor for six months to lay necessary cables and fiber optic links to outside lines and to new phone sets, leaving old cable in place until after cut-over (AT&T removed the old cables).

o      Procuring and setting out 800-900 individual Intecom phones and consoles and ensuring their basic functionality by testing for dial tone (with the help of an ICSO subcontractor). This process was more complicated than might be imagined: each Modem and each data line counted as a separate connection, and almost 1,000 employees moved from one building to another or between buildings while the phone system installation was in progress.

o      Designing and installing a PBX switchroom, which was brought on line in July 1985. Trunk line connections and links to new phone sets were tested in October 1985.

o      Developing the software that totally drives the operation of the in-house phone system and the data communication links. Each department designated a coordinator to gather data and design the software's data base underpinnings.

o      Establishing the data communications links, a separate set of digital connections to the GE Information Services network through the Rockville Network Distribution Center. These connections were tested in December, and data terminals were cut-over between January and April.

The two phone systems ran in parallel prior to the final phased-in voice cut-over in April. Client Services, which relies almost exclusively on telephones to operate, was the last group cut-over.

To ease the transition to the new, multifunction telephones, Facilities issued a series of SuperInfos, and one of the contractors conducted employee training classes, running 90-minute sessions for 20 people at a time (roughly 60 percent of Rockville employees attended).

Alan Paul (Manager, Facilities) reports, "The transition went very smoothly. Although we had a few start-up problems, very few were beyond those that we normally would expect for an operation this complex."

Wolfson notes, "This was the most successful cut-over of its size that ICSO has ever had--and it was the most challenging as well, because it combined data and voice cut-overs. We did lose the switch twice (immediately after cut-over) because of software bugs, but that problem has been resolved."

The complex data communication links have presented some ongoing problems. Nashville Engineering, Applications Engineering, and Client Services have rewritten software to support in-house products such as PWS and PC Mailbox.

The Rockville Facilities telephone services are now operational on two in-house PBXs. Plans now include studying—and perhaps then executing—the conversion of the Metro North Rolm CBX-II to the InteCom PBX (which would create one telephone system for Rockville offices).   ▲

## Charles Schwab and Company

Charles Schwab and Company recently signed a long-term agreement with GE Information Services for VAN services to support the new SchwabLine Service, which delivers electronic information services to investors without access to PCs. Using a custom-designed telecommunications device/printer that initiates calls to MARK*NET, the Schwab client is provided various services once connected.

In 1985, Schwab opened competition for VAN services, formerly provided by Tymnet. A strong team effort helped GE Information Services during the shakedown period of the then-new X.25 Host Gateway interface. Schwab then conducted a six-week test, dialing MARK*NET and Tymnet every ten minutes and collecting a variety of statistics.

GE Information Services won that competition and proceeded to debug the specially designed hardware and host software. Subsequently, Schwab signed the long-term agreement with the company. Mike McDowell, Northwest Region Manager, reports, "The bottom line is that Schwab demands quality service, and GE Information Services is delivering!"

Schwab, which pioneered the discount brokerage market, used a direct-mail campaign to introduce SchwabLine Service in August. By October, subscribers were coming on board at a rate of 75 each day (a current total of about 2,200), and Schwab expects more than 10,000 users by the end of 1987.

When a subscriber connects to the host, the user profile is checked, and an individualized package is then transmitted to the subscriber's printer. Schwab-Line offers market updates, the top five Dow Jones news stories, a clipping service on companies or industries that the subscriber selects, current quotations on preselected stocks, and portfolio evaluations on up to ten portfolios. The typical user extracts at least one report daily and also may call for midday and close-of-market reports.

Sid Waxman, VAN Consulting Specialist for the project, says, "Many people throughout the company deserve recognition for their contributions to the project." Special thanks go to, among many others: Jim Kiley; Thareja, Eric Sorenson, Sheila Grant Blanch, and Roger Reider (VAN quality assurance and deployment support); Chris Brook, Kevin Boyne, and Jim Rossini (communications engineering support); Tony Reddish (network techniques); Mark O'Leary (major opportunities sales support); Alan Harper (client services support); Henry Staron (network operations support); and Larry Mauceri (headquarters sales support).

## NEC -America

GE Information Services recently signed a two-year contract for MARK 3000 MVS BPS service with NEC, a major electronics firm headquartered in Tokyo that also acts as a distributor in Japan for GE Information Services' teleprocessing service.

NEC, which supplies software and hardware to major US telephone operating companies, will use MARK 3000 in support of a production project that will supply software for the new 32-bit processors. The software includes over 500 modules and is written in Tokyo. Updates and enhancements are made at the Irving, Texas, software facility, which does not afford the NEC project team mainframe access for US use. Hence, the team is relying on MARK 3000.

The NEC contract appears to be a product of several competitive advantages: flexible pricing and contract arrangements, high-quality service and support, the ability to undertake a fast start-up, and a diligent and talented sales team—comprising Jeanne Huling, Account Manager, Dallas; David Luscombe, Consulting Specialist; Hank Caruso, Technical Director; and Bill Booth, Southwest Region Manager.

## Pandair

GE Information Services (The Netherlands) recently signed a contract with Pandair to provide MARK III services and redesign and redevelop PandaNet. Pandair, Europe's largest international air freight company, has 80 branch offices in 16 countries worldwide and a network of local agents in other countries.

Pandair handles millions of large and small consignments 24 hours a day, seven days a week, 365 days a year. Pandair prides itself on continuously monitoring every piece of cargo—from flowers to high-tech medical equipment and computers—and responding rapidly to any problem.

Typically, the extensive communications required to move goods internationally have been handled by Telex, telephone, or both. Major Opportunities (Netherlands) and SDC-Belgium conducted a feasibility study for Pandair on electronic communications (data collection, consignment tracking).

Pandair accepted the recommendations and conducted a one-year pilot program in 14 countries to test the MARK III-based PandaNet system, international support for the system, and the efficacy of the system for Pandair. PandaNet now is in beta test in 3 countries (more than 20 locations). By the end of 1987, an estimated 150 PCs will use the system, which ultimately will serve all of Pandair.

Pandair elected to contract with GE Information Services for a variety of reasons, primarily:

o     The success of the pilot and the company's ability to design, implement, and support PandaNet.

o     The reliability of MARK III, the consequent avoidance of time-consuming and expensive network installation and support requirements, and MARK III's round-the-clock system availability and support (necessary for Pandair's service quality).

o     The high level of support provided to Pandair's worldwide offices by the geographic breadth of GE Information Services' network and support, available in most countries in which Pandair operates.

o     The probability that an electronic consignment communications and tracking system would give Pandair a strategic market advantage.

o     GE Information Services' solid track record in many international network applications in the shipping and banking industries.

o     Reasonable time and cost schedules.

The new PandaNet system offers great flexibility in consignment tracking by featuring electronic mail capabilities and a tracking system that monitors cargo on the basis of 12 identification items (such as airbill number, origin, destination, account code, significant dates). System advantages include: ease of installation (requiring only a PC and modem in each office); user-friendly input screens and PC interface; and expansion capability (through minicomputers and/or mainframes).

Many people cooperated to conduct the feasibility study, run the pilot, and redesign PandaNet. Although they all can't be mentioned, some key players were: Herman Schreuder (Senior Sales Consultant, Netherlands), who developed the original PandaNet design with Peter Bosma (Technical Consultant), who also designed PandaNet PC front-end software; Jacques DeBrulle (Technical Support Manager, Belgium), who helped develop the new PandaNet and wrote the file dispatch manager software on which PandaNet is based; Paul Van Deursen (Development Group Manager, Dutch SDC), who managed the major PandaNet redesign project; Jan Stelloo (Account Consultant) and Jan Dekker (System Designer), who provided consulting services; Isaac Vuystje (Manager, Dutch SDC), who coordinated overall software development; and Erik Vos (Dutch QA Manager), who provided software quality control.

"The Pandair contract marks a major breakthrough for the company's strategy of broadening business scope, in this case from ocean shipping into other transportation market segments," says Niels Nielsen (Manager, International Transport Marketing). "The forwarding market, and particularly the air freight business, represents an increasing share of the company's current revenue pipeline."  ▲

## INDUSTRY BRIEFS

**BT Dialcom, KDM, and Mitsubishi Electronics Company** announced a new electronic mail network in Japan (the network will license Dialcom E-mail software). The system should include bulletin boards, file transfer utilities, and Telex gateways. KDM, a strictly Japanese company, should target the same multinational businesses that other value-added network providers are targeting in Japan.

The **Swedish PTT** is leading a group—including Ericsson Radio Systems, Saab Space, the PTT's Teleinvest subsidiary, and Tymdbolaget—that plans to launch a series of Mailstar satellites into low polar orbit using Chinese rockets. Once in place, the satellite system will pick up and deliver electronic mail anywhere in the world with a maximum three-hour delay.

**McDonnell Douglas Applied Communications Systems** announced a terminal emulation program update that allows users to transfer files between a host computer and a personal computer using the Tymnet packet switching network. Tym/Comm Version 4.0 has an easy-to-use menu interface; emulates DEC VT100, VT52, and Hewlett-Packard HP 2621 terminals; and supports X.PC and Xmodem error-checking protocols. McDonnell Douglas also introduced File Xchange, a file transfer program for exchanging binary and text file between personal computers across the Tymnet network. File Xchange supports X.PC and features a menu-driven interface.

**Citicorp** will offer Galaxy 2000, a comprehensive data processing product to upgrade and modernize credit union operations. Galaxy 2000 has numerous available features, including: mortgage processing; download capabilities for financial analysis PCs; simplified maintenance of payroll information; detailed historical analysis of general ledger accounts; automatic bill paying; ATMs; CDs; IRA account processing; home banking via a PC; and dial-up account inquiries and funds transfers.

**GM** recently announced plans to pay roughly 400,000 bills each month by using electronic transactions instead of checks. The electronic network includes eight major banks: Chase Manhattan, Chemical Bank, Citibank, Pittsburgh National, Manufacturers, National Bank of Detroit, First National Bank of Chicago, and Bank of America. GM is the first corporation to pay its bills electronically. The company also is automating the exchange of paperwork among its 20,000 suppliers.

VISA announced a new set of authorization prices through their authorization network. Under the new structure, prices are product-sensitive rather than volume-sensitive and are designed to promote the use of VISA cards, because they are the cheapest to use. Flat authorization fees are broken down by three classes of cards: VISA cards, Class A cards (MasterCard and private-label cards), and Class B Cards (AmEx and all others). VISA also announced TMP (Technology Migration Program) which allows for lower interchange rates as an incentive for the bank card industry to implement the next step in credit card technology.

MasterCard has decided to bring its authorization service in-house. MasterCard will begin converting to its own network, Banknet, from the MasterCard Automated Point-of-Sale Program (MAPP), which currently authorizes 26 million transactions each month using the McDonnell Douglas Payment Systems Tymnet-packaged network. MasterCard guarantees that merchants will be able to access Banknet via local calls 98 percent of the time.

Telenet plans to expand access to PC Pursuit to 25 cities (from 14 cities) by the end of the year. PC Pursuit is a data communications service available during non-prime hours.

Knight-Ridder (K-R) will begin offering a syndicated, PC-based computer graphics service (supplied by GE Information Services) to newspapers the first of next year, placing K-R in direct competition with UPI and AP. Using a Macintosh, newspapers will be able to retrieve graphics from a central data base and will be able to contribute graphics to the data base.

On-Line Software International, Inc., agreed to pay $35 million to acquire four computer software systems—Ramis II, UFO, Consensus, and Unison—and associated sales forces from Martin Marietta Corporation's data system unit.   ▲
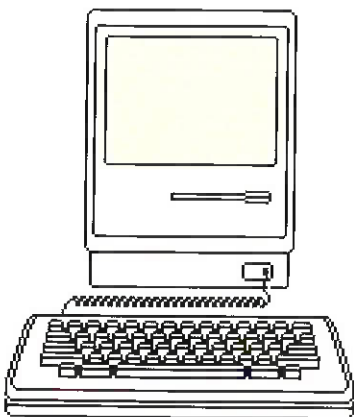
## GENIE CELEBRATES ONE-YEAR ANNIVERSARY

GEnie just celebrated its first anniversary by bringing together GEnie staff, product system operators (the coordinators who oversee the products running on GEnie), and invited guests for a seminar, cocktail party, and dinner. Below, from right to left, Jay Saur, his wife Colleen, and Bonnie Sax mug with Brian Ebarb, the sysop for the #1 Roundtable for Macintosh users.



Computing Across America
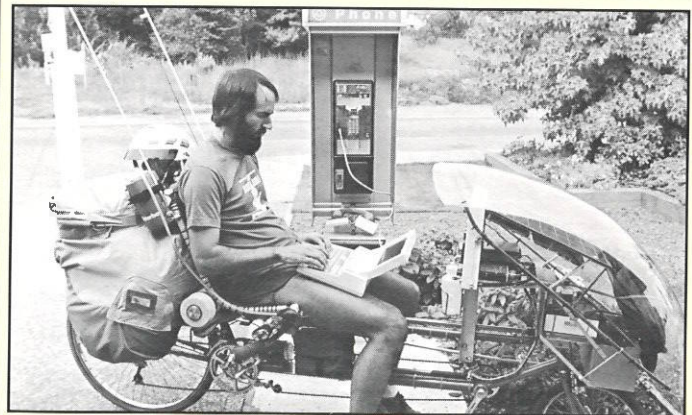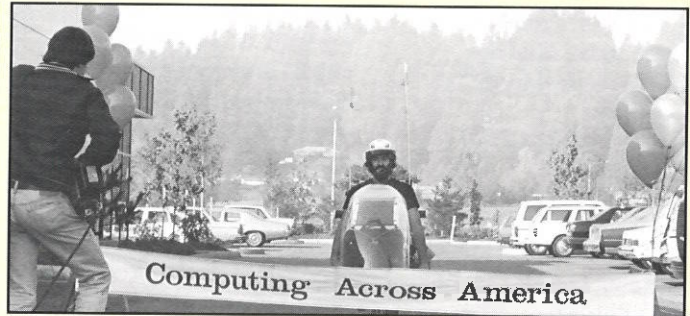


Another GEnie-related celebration took place recently in Bothell, Washington (near Seattle), where Steve Roberts, self-styled high-tech nomad, began his second 10,000-mile, open-ended bicycle odyssey across America. Above, he breaks the starting ribbon and stops on the road to phone in a story. Roberts will file weekly reports on his adventures on GEnie in "Computing Across America." Check it out, GEnie users.   ▲

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## ADMINISTRATION

### 3270s IN CLIENT SERVICES CAN BENEFIT FIELD SALES
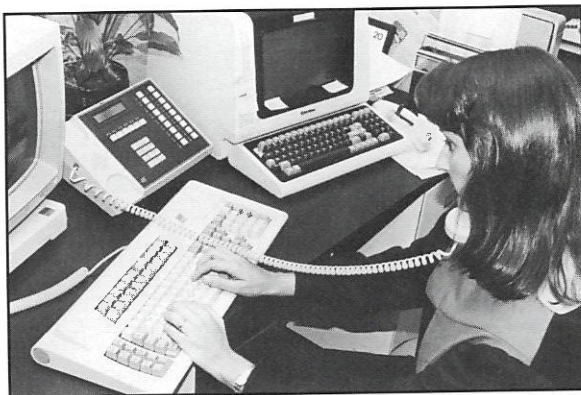
*Why the 3270s in Client Services?*

It's an improved call logging system called CLIENT*TALK that's more convenient for clients calling the 800 number. Instead of a client having to provide all the basic data about himself or herself, company, U#, city, state, and phone number, each will be assigned a client number in our data base, with all the pertinent data. When the client calls, he or she only has to provide that client number, and the screen will provide all the other data.

*3270s will replace what equipment?*

The company is replacing the Televideo 950s that have been working into a MARK III logging system that has been outgrown.

*Is is a library program?*

No, it was written by GE Consulting Services in Albany, New York, using the IDMS data base and the Data Communications (DC) features.

*How can it benefit field sales?*

Sales offices can call the Operations area in Client Services to get historical information about how often and why the client has been calling the 800 number for help. The sales person can be prepared with this information before making the sales call and not have to react to the client's claim of service received. Data available include the name of the client, the individual who called, the product that required attention, the problem encountered, the solution provided, the CSO specialist who solved the problem, and much more.

*Is it working now?*

It is scheduled to be operational in late January of 1987.



Lori Allen (Operations Specialist) tests CLIENT*TALK, the new call logging system at Client Systems that will speed up assistance to clients calling the 800 number.

*How does the field get data about their clients?*

After the program is operational, field people will be able to call Client Services and request a printout of the data for a specific client, specifying either the client name or the catalog of concern. On-line field retrieval will be available in the third quarter of '87.

## DATA BASES

### NEW DATA BASE ADDED

The Canadian Petroleum Association now provides data for the CPASTATS data base for users in catalogs beginning with C, P, Z, G, J, U, and V. CPASTATS is being made available through a joint arrangement between the Canadian Petroleum Association. and the Oil & Gas Journal. OGJDATA already provides information about the oil and gas industry in the US and the rest of the world. Canadian statistics available include drilling, exploring, production, reserves, refining, imports and exports, demand, natural gas, prices, revenues, and expenditures.

Need more information? Send a QK to QMOD, or call Haver Analytics on 8*222-2335.

## DELIVERY SYSTEMS

### NEW FEATURES ENHANCE SECURITY

Client auditors and third-party auditors have suggested enhancements that will provide some extra measures of security for those users who feel they need it. These enhancements should be considered as tools for those who want to use them. Here's a brief summary of these new MARK III System security features.

**Hackers Beware!**

Anyone who tries to enter a user number is logged by the system, recording the U#, PW and PID used, the network address, date/time and type of failure. These data are written to a log file in the Chief Administrator's U#. ADM can set the validation for a user number or a catalog.

**Force Password Changes**

The catalog Administrator can specify the length of time that a password can be valid before it is automatically devalidated. To let a user know when he may be locked out, an F77 routine displays the date the PW was last changed.

**User Number Lockout**

The ADM user can specify two values for a user number: the first is from 1 to 150 (as a count of failed log-on attempts) and a day count (between 1 and 366). This new feature, for example, when set to 15 and 30, allows 15 typographical errors of a password over a 30-day period and then permits no more attempts.

This new feature allows valid users a few typos per month but limits (or cuts off) repetitive attempts to hit upon a valid combination.

### Chief Administrator Audit Log

This option, which must be set by GE Validations following reception of an office's Mailbox request, causes all ADM activity (input and output) to be written to files in the Chief Administrator's U#. It provides an audit trail of all ADM activity that is available for user review.

### Gordian Key Access

The Gordian Key is a domino-sized device, which, when held to a flashing screen prompt, causes a unique 6-character LED readout on the handheld key. Entering these 6 characters lets the user sign on. It requires special software to be present in the



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validation record. This software can also be incorporated in the front end of a sensitive application package. For example, a bank may choose to have funds transfer activities over X$ be accessible through the Gordian Key System. Or a

personnel or payroll manager may want to restrict access to executive level personnel or payroll files.

These new features are documented in the new publication, The ADM System Administrator's Guide (3502-09C), on pages
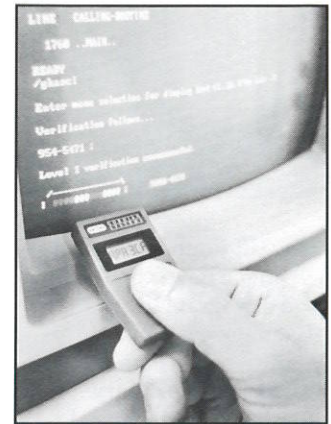


Charlie Dickman (Consulting System Specialist)—visible in this photo only as a hand—applies the Gordian Key to his computer screen.

41-43. The Chief Administrators have these new rights as a matter of default. The only new feature that requires a Mailbox request is the audit log for the Chief Administrator.  ▲

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## AND NOW, A WORD FROM JIM DOYLE...

This issue of Fast Fax is my last. It marks the end of my work in the Fast Fax area and the end of my GE career.

The Fast Fax newsletter first began in April of 1979. It has been a great source of satisfaction to me to be able to write, edit, and produce a monthly publication that met with such acceptance by GE Information Services people worldwide. Fast Fax readers always have been very faithful and

appreciative, and I thank you very much for your support over the 17 years that Fast Fax has been in operation.

Providing service to the field has been more than half of my total 28 years with the company, with the Fast Fax hotline and the newsletter. If I had it to do over, I can't think of anything else I'd rather do. Thank you again for your support over the years.

Jim Doyle, Senior Fast Fax Specialist    ▲



Matt Mulligan (Client Services Manager) congratulates Jim Doyle on the completion of his last Fast Fax column.



Jim Doyle and his wife Barbara in front of their new home in Arizona—you can barely see the beginning of the panoramic open spaces and distant mountains that Jim and Barbara see from their back porch.

## ACE AWARDS FOR VOCATIONAL STUDENTS

The GE Foundation, Inc., will offer a new scholarship award program in 1987 for GE employees' sons and daughters who plan to attend post-secondary vocational and technical schools.

This Award for Career Education (ACE) Program will complement the GE Foundation Student and Teacher Achievement and Recognition (STAR) Program, which now will be targeted solely for GE employees' sons and daughters planning to attend four-year colleges and universities.

### ACE Awards

Students interested in two- or three-year community colleges or vocational schools previously were eligible for awards under the STAR Program. However, the STAR competition has been so intense that only four-year college candidates received scholarships. The new ACE Program will grant up to 100 awards each year (in the United States and Canada), enabling worthy students to obtain support for vocational training.

Because of the lower costs associated with shorter vocational and technical school training, the ACE award will be $500 (compared to the $1000 STAR award). The grant to each winner's high school will be $250 (rather than the $500 granted under the STAR Program). All other program procedures will be the same, and winners in both programs will be selected by the Citizens Scholarship Foundation of America (CSFA).

STAR applicants must be seniors in public, private, or parochial high schools and must be planning to enroll in a full-time undergraduate course of study at an accredited four-year college or university. ACE applicants must be high school seniors (or graduates of less than one year) who plan to enroll in a full-time course of study at a two- or three-year accredited post-secondary community college, junior college, hospital school of nursing, or vocational, trade, or technical school.
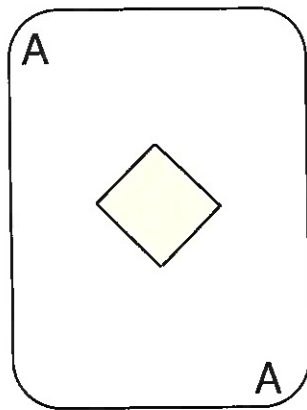


Dependent children of full-time employees—or children of employees who retired directly from GE or its majority-owned domestic affiliates (including the Canadian General Electric Company)—are eligible to compete in either program. Also eligible are dependent children of full-time employees absent with protected service, as well as children of employees who died while in active service with GE or after retiring directly from the company.

### January 15 Deadline

The deadline for submitting applications to CSFA is January 15, 1987.

CSFA will notify all entrants of the results of the competitions on or about April 15. The maximum number of winners in each program will be 100; the actual tally will depend on the number of qualified applicants. Winners in both programs must use their awards toward payment of their educational expenses during the first year of post-secondary training.

ACE brochures that include application forms are on order and can be obtained by contacting the mail room (Rockville) or sending a message via the QUIK-COMM System to SKI. Details on the STAR program can be obtained the same way. ▲

## ADDITIONAL SCHOLARSHIP OPPORTUNITIES

GE employees and their children who are qualified candidates are eligible for the Richard H. Rice Memorial Scholarships at Stevens Institute of Technology and the Steinmetz Memorial Scholarship Awards at Union College. Applications for these awards must be made directly to the respective institutions on their standard application forms.

For further information, contact the Stevens Institute of Technology or Union College. ▲

## PUBLICATIONS SURVEY RESULTS

As reported in the August/September SPECTRUM, some 350 US Network Based Services employees were selected as part of a random sample asked to participate in a survey of reactions to employee publications. Results included helpful comments and criticisms. Survey results indicated that:

o 37 percent of the sample of readers read all articles thoroughly; 56 percent read articles of interest thoroughly and skim the rest.

o 73 percent rate the publications as very or generally valuable.

o 93 percent agree or strongly agree that articles are undertandable, 71 percent that articles are interesting, 86 percent that articles are informative, 68 percent that articles are believable.

o 72 percent believe that article length is about right, but several commented that the cover story should be shorter.

o 71 percent like the publication in magazine style as it currently is.

As a result of the survey and considerations of business needs, the SPECTRUM staff is contemplating changes to the publication, focusing on improving the believability and appeal of articles, compressing more information into shorter articles, and enhancing readability. An effort will be made to balance reader input with business needs to produce a publication that is sensitive to both considerations.

Many thanks to all those who took the time to complete the survey. ▲

## NEW AND REVISED DOCUMENTATION

The following new and revised publications are available from the On Line Ordering System (OLOS), which also will provide price information. Forms and promotional pieces are free; most technical documents do carry prices (some rather high).

**0402.01U (Revised, 8640)**
Publications Price List, September 15, 1986

**700.24 (New, 8641)**
Global Support Services product profile

**1401.01D (Revised, 8638)**
International Access Directory, October-December 1986

**2051.70A (Revised, 8637)**
MARK 3000 Service, SIM/PC V2.0 product profile

**2051.78 (New, 8638)**
MARK 3000 Service, MVS/Bulk Data Transfer product profile

**3107.01 (Revised, 10/86)**
E FORTRAN 77 System Routines Reference Manual

**3410.98C (Revised, 8638)**
QUIK*NET System, QUIK-COMM Address Directory, September 1986

**3410.102-1 (Revised, 8638)**
Personal Computer Mailbox User's Guide, Version 3.0

**3410.102-6 (Revised, 8635)**
Personal Computer Mailbox Quick Reference

**3410.102-7 (New, 8639)**
How to Install PC Mailbox on Your Personal Computer installation guide

**3410.108 (New, 8638)**
Supplement to Global Office Communications U.S. Price Schedule

**3502.09C (Revised, 8640)**
ADM System Administrator's Guide

**3910.01-1E (New, 8643)**
High Speed Service Reference Manual Supplement

**3918.09H (Revised, 8645)**
MARK*NET Access Directory (November-February)

**3918.14B (Revised, 8640)**
MARK*NET International Reference Guide

**3919.00B (Revised, 8638)**
Credit Card Services product profile

**5001.08C (Revised, 8644)**
Product Portfolio (October edition)

**5070.07-8 (New, 8638)**
Retail Industry brochure

**5070.21 (New, 8641)**
EDI Sales Guide

**5070.24A (New, 8634)**
EDI*PC Program License Agreement

**5070.24-1A (New, 8634)**
EDI*PC Program License Agreement Supplement

**5070.38 (New, 8642)**
TRADE*EXPRESS System product profile

**5075.02-5 (New, 8637)**
SureNet Returns Service User's Guide Supplement

**5075.07-1 (New, 8642)**
Bancor Exchange System Administrator's Guide, Version 1.2

**5075.07-2 (New, 8642)**
Bancor Exchange System Operator's Guide, Version 1.2

**5075.08-1 (New, 8642)**
Bancor Exchange System User's Guide, Version 1.2

**5075.09 (New, 10/86)**
The Bancor Exchange System brochure

**5105.10 (New, 9/86)**
Dow Jones User's Guide

**5611.08A (Revised, 9/86)**
MARK IV Answer Systems

**5611.13A (Revised, 9/86)**
MARK IV Answer/To Customers Bulletins

**5611.15A (Revised, 9/86)**
MARK IV Answer/To Reference Manual ▲

## PRODUCT PORTFOLIO CELEBRATES FIRST BIRTHDAY WITH NEW ISSUE

The Product Portfolio, the company Bible on product availability and support, celebrated its one-year anniversary with the recent publication of the October 1986 quarterly edition. The Product Portfolio includes official sales force guidelines on what products are currently in the company's market basket.

Bill Backer (Project Manager) and Harrison John (Technical Writer) produce the publication under the direction of John Dudas, Manager, Commercialization Management.

The Product Portfolio features sections on:

o Product availability worldwide.
o Delivery system capabilities and major features—specifically, what is available in the US and internationally and whether access is via network nodes or PDNs.

o An extensive section of detailed product descriptions, including marketing emphasis, capabilities and features, utility of the product, and usually a schematic diagram of its operation.

o A major section on support aids available— promotional publications, technical documents, and other collateral material.

o A section on sales and technical training courses and class schedules.

Although the Product Portfolio has been widely distributed, extra copies can be ordered from OLOS. Ask for publication 5001.08. ▲
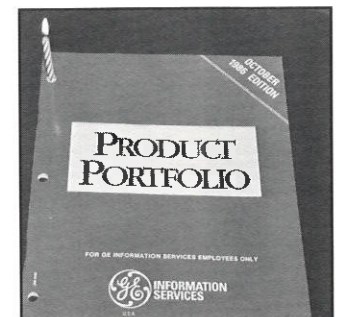
## AMERICA'S CUP UPDATE

### Standings

Standings in the second round of the America's Cup Challenge '87 (listed here). The second round was noted for highly variable winds, a condition that historically would evolve into consistently strong winds for the third and final round.

All the competitors have taken projected wind strength—and possible ranges of wind strength—into account when designing and outfitting the boats. Many observers feel that strong winds in the third round would be to the advantage of **Stars and Stripes**, the boat that GE Information Services is supporting by supplying QUIK-COMM and QUIK-GRAM services.

The third round for challengers and defenders, in which each win is worth 12 points, will begin on December 2. The top four challengers after three rounds will enter the semifinal round.

### America's Cup Second Round Results

**Challengers**

| | W | L | Pt |
|---|---|---|---|
| New Zealand (NZ) | 22 | 1 | 66 |



| America II (US) | | | |
|---|---|---|---|
| | 20 | 3 | 61 |
| Stars & Stripes (US) | | | |
| | 18 | 5 | 46 |
| French Kiss (France) | | | |
| | 13 | 10 | 45 |
| USA (US) | | | |
| | 15 | 8 | 43 |
| White Crusader (Britain) | | | |
| | 15 | 8 | 43 |
| Canada II (Canada) | | | |
| | 11 | 12 | 31 |
| Italia (Italy) | | | |
| | 11 | 12 | 27 |
| Eagle (US) | | | |
| | 8 | 15 | 24 |
| Heart of America (US) | | | |
| | 5 | 18 | 13 |
| Azzurra (Italy) | | | |
| | 3 | 21 | 2 |
| Challenge France (France) | | | |
| | 2 | 21 | 2 |

**Defenders**

| Kookaburra III | | | |
|---|---|---|---|
| | 19 | 1 | 29 |
| Kookaburra II | | | |
| | 14 | 6 | 21 |
| Australia IV | | | |
| | 14 | 6 | 20 |
| Australia III | | | |
| | 7 | 13 | 10 |
| South Australia | | | |
| | 5 | 15 | 8 |
| Steak 'n' Kidney | | | |
| | 0 | 20 | 0 |

### Feedback

SPECTRUM recently received a letter from an employee in the United Kingdom. The employee complained that last month's cover story on Sail America for ignored the competitors—and sentiments—of other countries in which GE Information Services has offices. Said the correspondent: "Wake up! The world does not end at the East and West seaboards of the USA!"

The SPECTRUM staff is always glad to hear what employees think of SPECTRUM. One of the best ways to improve the publication is to respond to readers' critiques.

In this case, the reader makes a good point. Although SPECTRUM previously addressed a largely US audience—while INTERNATIONAL UPDATE served ISSO—all of the company's publications should reflect the fact that we're an international company. We are dedicated to upholding the company's international identity. Any failure on that score was one of execution, not intention.

But supporting an America's Cup competitor is employee-relevant news—it represents the first time that the company has offered support of this magnitude as a public service to a non-profit venture. We do think it was a legitimate topic for a SPECTRUM story.

Readers also should know that GE Information Services offered QUIK-COMM and QUIK-GRAM services to all challengers and defenders (the story last month erroneously said "all US challengers"). Only the **Stars and Stripes** camp accepted the offer.

We appreciate the reader feedback—keep it coming. We'll try to keep SPECTRUM up to your standards.  ▲

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## CONTRIBUTORS

Thanks to the many employees who contributed their time and expertise to this issue of SPECTRUM. Key contributors included:

Bill Backer
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Dave Shepherd
Bob Simmons
Dave Slone
Phil Uhler
Leslie Vogel
Sam Wenck  ▲

## S&SP

The following table summarizes the prices for GE stock, Mutual Fund, and Holding Period Interest Fund that are used in the Savings and Security Program to credit participants' accounts. The Long Term Interest Fund price for the last day of the month also is shown, as well as year-to-date annual income rates for both the HP and LT Funds. ▲

| Month | Stock Price | Mutual Fund Price | Holding Period Fund | | | | | | Long Term Fund | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Price | YTD Annual Income Rate (a) | | | | Price | YTD Annual Reinvestment Income Rate |
| | | | | 1983 | 1984 | 1985 | 1986 | | |
| January | $69.818 | $35.929 | $10.00 | 13.7% | 13.2% | 12.8% | 9.6% | $11.57 | 10.1% |
| February | $75.013 | $38.019 | $10.00 | 13.7% | 13.2% | 12.8% | 9.7% | $11.96 | 10.4% |
| March | $77.403 | $40.995 | $10.00 | 13.7% | 13.2% | 12.9% | 10.5% | $12.53 | 10.2% |
| April | $77.744 | $41.184 | $10.00 | 13.7% | 13.2% | 12.9% | 10.6% | $12.23 | 10.2% |
| May | $80.923 | $42.452 | $10.00 | 13.7% | 13.2% | 12.9% | 10.6% | $12.36 | 10.1% |
| June | $75.915 | $41.625 | $10.00 | 13.7% | 13.2% | 12.9% | 10.6% | $12.34 | 10.0% |
| July | $75.583 | $42.362 | $10.00 | 13.7% | 13.2% | 12.9% | 10.7% | $12.60 | 10.0% |
| August | $74.107 | $41.552 | $10.00 | 13.7% | 13.2% | 12.9% | 10.7% | $12.35 | 9.9% |
| Sept. | $74.943 | $41.498 | $10.00 | 13.6% | 13.2% | 12.9% | 10.7% | $12.47 | 9.8% |

(a) The "announced" HP Fund Rate was 13.25% for 1983, 12.75% for 1984, 12.50% for 1985, and 9.50% for 1986.

## MILESTONES

Congratulations to the following employees, who celebrated—or soon will celebrate—service anniversaries in October, November, and December.

**40 years**
*Rockville*
**Donald Hilts**

**30 years**
*Rockville*
**Conley Stallard**

**25 years**
*Brook Park*
**Thomas Drury**
*Rockville*
**Warren Rose**
*Schenectady*
**Thomas Sullivan**

**20 years**
*Brook Park*
**John Gummo**
**Thomas Sesler**

*Dallas*
**Carl Worlock**
*Oak Brook*
**Deloris Peace**
*Rockville*
**Raymond N. Brown**
**George Klumph**
**John L. Touch**

**15 years**
*Brook Park*
**Nora Davis**
*Rockville*
**Fortunee (Toni) Schettewi**

**10 years**
*Arlington*
**Harry Rainey**
**John Sandstrom**
*Atlanta*
**Alice Brock**
**Carolyn Christ**
*Brook Park*
**Donald Gotsch**
*Rockville*
**Richard Amato**
**Romeo Centeno**
**Victor Lee**
**W. George McKitterick**
**Bryan Seale**
**Ileana Slagle**
**Phillip Stevens**
**Barry Tapscott**
**Theo Tuggle**

**5 years**
*Atlanta*
**W. Mark Alexander**
*Brentwood*
**Donald Deutsch**
*Brook Park*
**Mark Budaji**
**Pauline Ferko**
**Richard Ross**
*Chicago*
**Richard Rued**
*Cincinnati*
**James Greulich**
*Fairfield*
**Albert Vanek**
**David Wiig**
*Houston*
**Jeffrey McClain**
*Lyndhurst*
**Ann Fellini**
*Morristown*
**James Motyka**
*New York*
**Lorraine Henderson**
*Oak Brook*
**Ronald Stich**
*Palo Alto*
**Carolyn Len**
*Rockville*
**Rafael Boza**
**Barbara Brooks**
**Debra Davis**
**Richard Demers**
**Zachary Farabi**
**Sharon Flanary**

**Kevin Harris**
**Paula Houck**
**Deborah Mattos**
**W. Jack McMahon**
**Daniel Nelson**
**Mark O'Leary**
**Alexander Pankow**
**Jacqueline Preston**
**Sharon Reel**
**Gracie Royall**
**Robert Schein**
**Vijay Wagh**
**Paul Williams**
**Teresa Yeary**
**Thomas Zelaney** ▲

### BOTTOM LINE

October sales of $32.6 million were the same as estimate but 4 percent lower than Op Plan.

o Domestic revenue was down 14 percent from Plan because of the impact of selected product delays and slower than anticipated ramp of new applications, while RCS base business continued to decline.

o International sales were 8 percent above Op Plan, with favorable currency exchange more than offsetting lower volume.

Year-to-date sales were 3 percent lower than Op Plan and 6 percent below last year (excluding the SCO transfer to Corporate). ▲

# UK EMPLOYEES ENTER NATIONAL FUN RUN



GE Information Services employees in the United Kingdom recently headed to Hyde Park in London for the Eighth Annual National Fun Run. Organized by the Sunday Times newspaper, the Fun Run encourages mass participation by individuals, families, or groups.

Some 30,000 men, women, and children ran the 2.5-mile course, divided into categories by age and sex. The first 15 percent of the finishers receive gold certificates, the next 30 percent silver, and the remaining 55 percent bronze.

This year, GE Information Services' second year of participation, two company teams entered the Fun Run:

o  The GEISCO Geysers: Chris Gray, David Morgan, Frances Morgan, Gerry Fagan, Bob Redman, David Westwood, Chris Toone, Helge Kittlesen, Mike Callanan, and Ivan Newman.

o  The Network Knaves: Steve Harding, Colin Sleight, Phillipa Darnell, Bill Thomson, Stephen Brooks, Tony Harrison, John Thorpe, Colin Grenville, Rita Barclay, and Mark Burrows.

Frances Morgan, Phillipa Darnell, and Chris Gray won gold certificates. Helge Kittlesen and Ivan Newman received silver certificates.

Moreover, the teams hope to raise around 1,250 pounds sterling to send to Tadworth Court Children's Hospital, which cares for chronically ill and handicapped children. The funds will be used for Christmas extras or for needed equipment.

Each team had an assigned finishing time of 250 minutes. For each minute that the team undercut the target, sponsors contributed a per-minute sum. The Geysers came in 70 minutes under target, the Knaves 37 minutes.

In addition, many employees made a family outing of the Fun Run, bringing picnics that ranged from a sandwich in a brown paper bag to a wicker hamper with cooled wine and other tempting treats.