JANUARY 1985

SPECTRUM

FOR THE EMPLOYEES OF GE INFORMATION SERVICES COMPANY

cover story

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PRESS BRIEFING

TO THE READER:

You are reading the first issue of *Spectrum*, the new publication for all GE Information Services employees. It combines *Update*, *The Professional Force*, and *Fast Fax*.

Spectrum is the result of a number of factors. As GE Information Services has grown and changed into a portfolio of businesses, the need for information to be shared among all employees—whether technical, sales, or staff—has grown. At the same time, the cost of publishing three publications—in many cases with duplicate information to duplicate mailing lists—has gone up and has become harder to support.

The mission of this new publication is to help keep its readers up to date on what each segment of the business is doing. As always, the focus will be the people who are doing it. As always, the best stories will come from you, the reader.

Let's hear from you.

Polly Barnes, *editor*
*8*273-4476 QC YLOP*

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GE INFORMATION SERVICES
General Electric Information Services Company, U.S.A.

cover story

THE PORTFOLIO OF BUSINESSES: WHERE WE ARE NOW

WALT WILLIAMS ON THE PORTFOLIO

Editor's note: *In the following interview at the start of a new year, GE Information Services President Walt Williams discusses some of the major happenings of the past year and looks ahead to 1985. Following in this special issue, the heads of the major company business components take a look at their challenges for the coming year.*

Q: Last fall the company's organization was realigned around what you called a "portfolio" of profit and loss centers. Since the realignment didn't add any new capabilities or businesses, how does it really affect the way we do business?

Williams: The portfolio approach recognized that we aren't in one business—remote computing services—anymore. We're in a number of businesses. Some of these businesses rely on our core technology for support, but a number don't. The portfolio approach gives these individual businesses the flexibility they need to win in the marketplace. As just one example, we now have something like nine different pay plans in the business. One or two plans would be easier to administer, but these plans are based on the specific needs of the businesses they serve.

Q: How has this approach changed the way you manage the business?

Williams: I and the heads of our profit and loss centers spend more of our energies worrying about the external marketplace and less on the internal world of GE Information Services. In the past, we could spend hours discussing an issue at the company staff meeting that might have no bearing on Integrated Communication Services, GE Consulting Services Corporation, Office Communications or other big chunks of the business. Now we look to the heads of the businesses to resolve these problems. Instead of monthly staff meetings, the full staff now meets quarterly. Staff members not responsible for P&L businesses and I act as a "board of directors" to review the businesses in the portfolio monthly on a rolling cycle—with all energies focused on the needs of that business.

Q: Just how many businesses are we talking about—that's been the source of some confusion.

Williams: Well, we should be clear on how many we're talking about, that's for sure. But that points up an advantage of this structure—it makes it easy to add new businesses or ventures to the lineup.

Currently there are ten businesses that we measure separately. Nine have profit and loss responsibility and one—the Corporate Telecommunication Operation in Schenectady is charged with providing DIAL COMM service to the company. It's not set up to make a profit but last year provided $80 million worth of cost-efficient service to GE.

Q: Is Technology Operations one of the businesses?

Williams: No, with the exception of Disaster Recovery, Tech Ops doesn't directly produce income. But it is an absolutely critical function. Its contributions are vital to the success of the businesses in the portfolio.

Q: Which ones?

Williams: International Sales and Services, which handles all of our sales activities outside of the United States.

Marketing and U.S. Sales, which is now focusing its efforts on winning brand new domestic business in enhanced communications and business logistics.

The Office Communication Operation, which is shooting to become the premier worldwide office communication integrator.

And the Payment Services Operation, which specializes in electronic payments authorizations, routing, and settlement.

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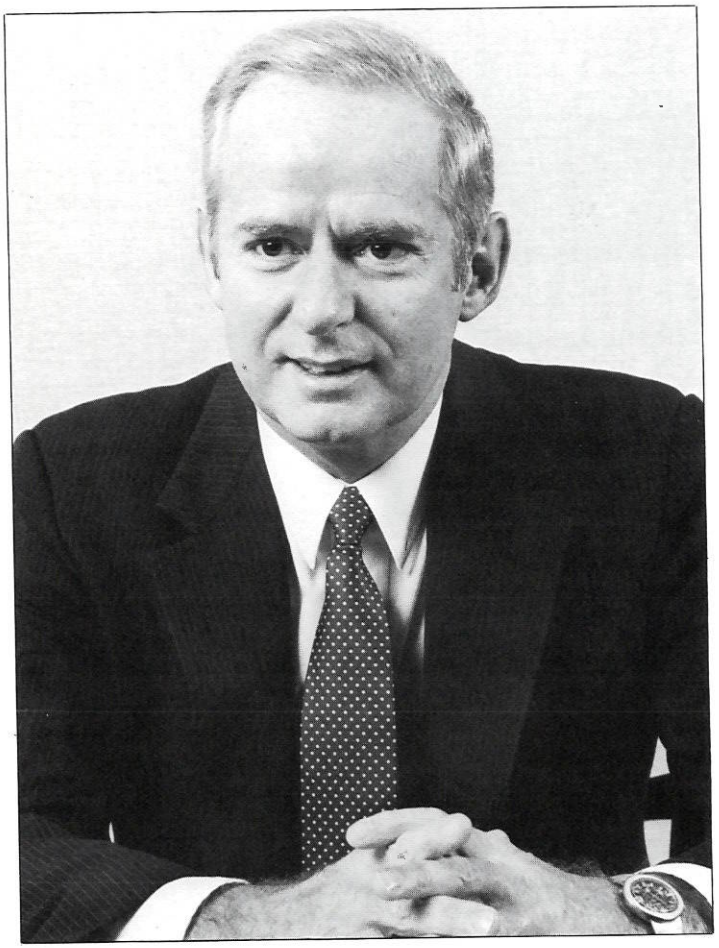


Walt Williams

These organizations all rely on our base network technology. They are the vehicles for marketing it and helping provide input on needed technological developments.

Q: Which leaves five businesses that aren't based on our network.

Williams: That's right. In this area we have the Integrated Communication Services Operation, the GE Consulting Services Corporation, which was the Professional Services Operation, and the three packaged software companies we acquired several years ago.

Integrated Communication Services Operation leases and services mini-computers, PCs, test instruments, and communications equipment including PBXs. ICSO has been growing rapidly and is looking forward to continued growth in 1985.

GE Consulting Services is our contract consulting, systems design, and programming business. The way we're managing this business is typical of the flexibility the portfolio offers. Consulting Services employees have their own pay plan and benefit plan, all aimed at meeting the specific needs of these employees and making the business competitive in their served market.

The three software companies each develop packaged software for market niches. Software International specializes in financial accounting packages and has been selected to produce the software that will be used in the consolidation of accounting functions throughout GE. Energy Enterprises serves the software needs of the oil drilling industry, while Network Consultants specializes in application software for automation of banking functions.

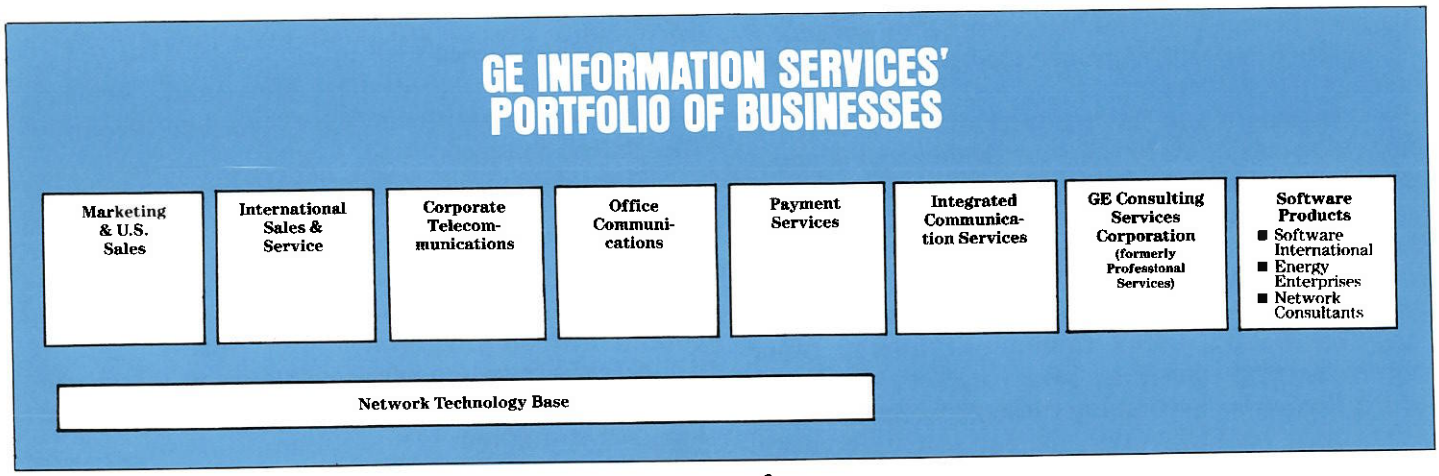
Q: You've said before that Mike Emmi's U.S. Sales organization faces some of the biggest challenges.

Williams: That's right, but I think his approach is right on target.

U.S. Sales is the biggest business in the portfolio —over $300 million. It faces very tough competition from companies like GTE–Telenet, McDonnell-Douglas/Information Services, Electronic Data Systems, Automatic Data Processing, Boeing Data Services, and others.

In addition, our clients are constantly evaluating the advantages of taking the business they do with us in-house—something that becomes increasingly attractive as the cost of processing power continues to decline.

Mike and his people have faced into this mar-



ketplace with a strategy that says let's reposition ourselves as an enhanced networking services company offering a value-added network, information management, and micro integration capabilities which can be tailored to solve client problems.

Major emphasis will be on business logistics applications. These include order service, inter-company electronic data exchange, international trade, project business systems, health care claims processing, and transportation applications.

In addition, the U.S. Sales organization will focus their selling efforts on 300 top clients and new prospects where the size and quality of our network give us a real competitive advantage.

The sales organization has a real headstart on this new approach by getting their new organization, pay plans, and responsibilities finalized well before the end of last year.

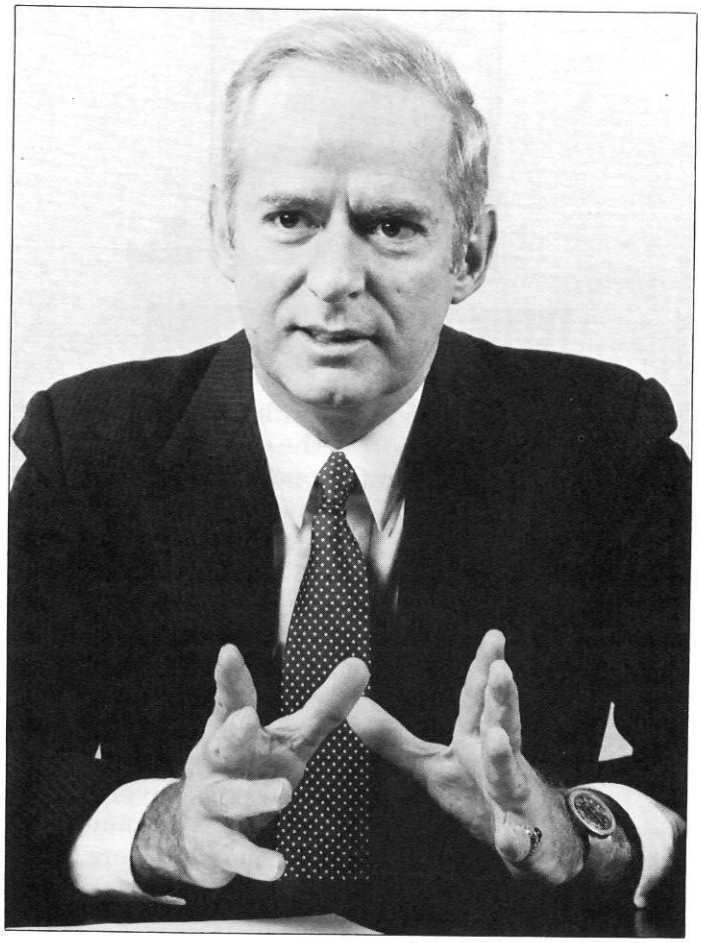
Q: What do the numbers look like? How did we do last year and what are our targets for 1985?

Williams: Last year we went back to Fairfield and reduced our revenue commitment twice and our earnings commitment once. While you never like to be in a position of doing that, we did gain credibility for alerting them early that the growth we had forecast just wasn't there. We finished last year with $749 million in sales and $41 million net. This year we've signed up for $770 million in revenue and $45 million net income.

We feel good about the '85 numbers because they're as realistic as we know how to make them. We started the budgeting process way back in May and simply refused to count on any growth that was based on wishful thinking. The numbers are a stretch, but they're doable. Looking further ahead, projected growth of our current portfolio of businesses should make GE Information Systems a $1.4 billion dollar enterprise by the end of the decade.

Q: Where's the 1985 growth going to come from?

Williams: We're looking for growth in '85 from all the businesses in the portfolio except U.S. Sales, which is going through a tough transition. But the needs of that business are now isolated and being managed. In the other businesses, the teams are in place to aggressively attack their opportunities. We're looking for continued rapid growth in Office Communication where the quality and reach of our network—and our name—gives us a real advantage. The Payment Services Operation will begin to book its first revenue from the Calwestern Automated Clearinghouse, which will further cement our position as leaders in this new business. We're looking for good growth from our international business as well.



ICSO will continue to be a major contributor to revenue growth, with double digit growth again in 1985.

And while the software companies are in a highly competitive market, we look for continued improvement at all three firms. At Software International, we see good revenue growth resulting in a profit for 1985.

Q: Any final thoughts?

Williams: I think this is going to be a year where people are going to experience success and have some fun. We've been through a lot of changes to respond to what's going on in the marketplace. Now we've got an organization in place that offers real clarity and agility. People know who their leaders are, what business they're going after, and how they'll be rewarded. Now they can get on with their lives and focus their energies on winning.

Ray Marshall

TECHNOLOGY OPERATIONS SUPPORTS THE PORTFOLIO

"Our mission for 1985 is to continue to provide the same high quality support in the design and development of products and in the operations of GE Information Services' communication networks and processing centers," said Ray Marshall, senior vice president, Technology Operations. "Perhaps the greatest difference will be that now we're supporting a portfolio of businesses which are on the cutting edge of change. That means we must have the flexibility to support their changing needs quickly and surely."

Ray said the Tech Ops organization for 1985 is in place. The two 1984 additions to the lineup, the Project Integration Office and Disaster Recovery Services, as well as Information Processing, Communications, and Engineering, will continue their core functions, with slight shifts in emphasis in some areas.

In Engineering, the trend toward greater emphasis on communications will continue into 1985," said Ray. "In 1982, the operating budget was allocated at 41 percent processing and 10 percent communication. This year it's 29 percent processing and 18 percent communications," he said.

Bob Hench's Engineering Department efforts will be focused on product development, long-term product planning, quality assurance, and advanced technology. Joe Squarzini's Communications Department, will run GE Information Services network operations, corporate voice and data network (Corporate Telecommunications Operation, see page 5), and provide network planning.

Information Processing, under Gary Mueller, is getting an infusion of $90 million in state-of-the-art Honeywell DPS 88 systems and Honeywell/NEC S-1000 processors. His department is responsible for supercenter operations, processing planning, and corporate processing.

Steve Mudrick's Project Integration Office will continue to provide major opportunity support, project integration and visibility, and problem resolution. The newest member of the Tech Ops organization is Disaster Recovery Services, headed up by Ron Freedman. It's projected to generate $4.5 million in revenue in 1985, from both commercial clients and GE components served.

"We'll be working smarter to deliver our products on time, provide quality service, and hold down production costs," Ray said, "and we'll be working closely with Marketing & U.S. Sales Operations, International Sales and Services Operations, Office Communications Operation, and Payment Services Operation."

Mike Emmi

MARKETING AND U.S. SALES LEADS TRANSITION

Sales of the bulk of GE Information Services network-based services is the charter of the Marketing and U.S. Sales Operations led by Mike Emmi, senior vice president.

"We're charged with leading the company's transition from a supplier of remote computing services to a leader in applied telecommunications," Mike said. "The transition is happening and in fact we are moving even faster than predicted." To position the sales organization for 1985, Mike, his staff, and the area sales staffs held day-long meetings in each of the three sales areas and at Rockville to cover in detail the enhanced communications capabilities central to the company's strategy.

"In today's marketplace where data processing and communication are merging, we will compete not on price but on expertise and technology," Mike said. "That's where we'll win."

In outlining the coming year for each of the three sales areas, the head of the U.S. sales force saw these challenges:

- Eastern Area – "The size of the market here is incredible. New York is where most of the telecommunication deals originate. Cracking the New York marketplace is a key challenge for us."
- Central Area – "This area has the largest potential. Half of the corporations in the Fortune 1000 are headquartered in this area."
- Western Area – "This area also has a lot of geography and market to cover. We've had some good recent wins like Porsche and Apple and need to continue the momentum."

Two "powerhouse organizations" within U.S. Marketing and Sales will play a key role in the operation's success in 1985 and ensuing years, Mike said. "We look to Bob McCalley's Enhanced Telecommu-

nications marketing organization to provide the guidance and leadership as we make the transition to the applied telecommunication company. And we're counting on Dave Foster's Business Logistics marketing organization to find the markets where there's a match between client needs and our value-added networking, micro integration, and intelligent networking capabilities.

"To win in this market requires teamwork," Mike said. "We are managing our base costs so there's money available to invest in the future. Tech Ops has to continue to deliver the right capabilities at the right time. Marketing has to identify the most attractive segments. And sales has to identify and deliver the Levis and Chembanks of the future. It's an exciting future and one where we have an excited team in place to win big."

Tony Craig

INTERNATIONAL: A DIFFERENT FOCUS

"The key difference between the U.S. business and the non-U.S. business," said Tony Craig, senior vice president, International Sales & Services Operations, "is that the current international regulatory environment largely prohibits the resale of network services. Our strategy therefore must be to sell applications which involve significant processing on our systems.

"Our major real competition internationally is in-house—a 'make versus buy' decision—therefore, our ideal business is across-border, across enterprise, where the client's 'make' decision becomes prohibitively expensive and where a buy from GE Information Services has a high value content," he continued. "Associations are a good example since they tie many companies together in one application. This provides the highest value to the clients and the best protection and competitive advantage for us."

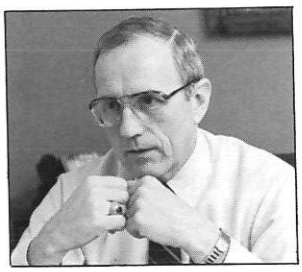
Tony explained that even though International Sales & Services Operations is a cohesive marketing unit, it cannot be viewed as a single financial entity, since each country acts as a separate and complete business with its own cash flow, accounts payable, accounts receivable, local taxes, and so forth. Each is also subject to the laws of that country.

"Viewed this way, we have different parameters to deal with in each country. These countries' specific needs must be accommodated in each major international contract." Tony pointed out that the best successes they have had are simple applications with high volume in a multi-site, multinational environment, although they have had major wins in very complex environments. "Within the country, the account rep is king, because he knows how to compete in that local economic environment and use our international strengths."

During the past year, International Sales & Services Operations has had a number of new applications that are prime examples of these concepts. "The Renault application is a management information system that will be used to run 400 subsidiaries in 29 countries, including Cameroun, Chad, and Uruguay." Tony also noted Swiss Bank's Global Limits System and Canada's Grocery Products Manufacturers Association's electronic data interchange of purchase orders as additional excellent examples. "We have also had a major break in Taiwan with Yang Ming Marine, and change in the law in Japan will allow marketing of MARK*NET this year."

Supporting the three areas that make up International Sales & Services Operations—Northern Europe, Southern Europe, and Asia/Pacific—are a full range of marketing and technical support experts in London and Amstelveen. In addition, there is the Business Development Area located in Rockville to focus on long-term opportunities and operations in Canada, Central America, and the Middle East. "The business development people are our investment bankers. They determine what opportunities, joint ventures, or new distributors to pursue and fund. There are numerous possible joint ventures with hardware manufacturers or PTTs (Post, Telephone, and Telegraph), and Business Development must pursue the decision as to which development activity has priority. They also support the pricing and contracting for major opportunities." Tony explained.

"We have taken stock of where our best opportunities lie, and our new major drive for 1985 is to open up additional channels of distribution—there is enormous opportunity. We have the organization and resources ready. We are determined to focus our sales efforts on the areas of highest return and keep that focus in place."



Bill Pomeroy

CTO: TOWARD AN INTEGRATED NETWORK

Corporate Telecommunications Operation is a component of Technology Operations' Communications Department, and one of GE Information Services' ten key business segments. From Albany, New York, CTO engineers and operates the DIAL COMM long distance telephone network for more than 800 General Electric locations that subscribe to the service. In addition, CTO oversees and manages the operation of more than 450 PBX's and CENTREX's serving the General Electric community.

"Areas of primary focus for us in 1985 will be to continue stabilizing and improving the functionality and quality of the DIAL COMM network," said Bill Pomeroy, CTO manager, "and to continue our pioneering work on integrating voice and data through the 1,544 MBS digital cross-connect systems."

Bill explained that the new DIAL COMM network was installed in December 1983, employing electronic tandem technology. Electronic tandem technology is a technologically advanced system that allows interconnection between CTO's nine satellite earth stations and any vendor of voice communication channels. Because it's new, it'll take time for the system to work at its best—for it to stabilize from both a cost and quality standpoint.

With DIAL COMM, CTO is operating one of the world's largest long distance or interexchange telephone companies, spending roughly $80 million a year with AT&T, MCI, GTE, ITT, and other vendors for lease, rental, or purchase of transmission and hardware to support the network.

The DIAL COMM network capacity is currently 250 million minutes per year. About 205 million minutes are being used at a cost savings of 30 to 40 percent over competing commercial networks. There are efforts underway which will continue into 1985 to increase usage by pointing out savings components can realize by using DIAL COMM.

Bill said about 25 GE components operate their own data networks, most of which are being used at less than 60 percent of capacity. So there is a driving need toward an integrated network, although implementation could take several years, with digital connectivity, integrated voice and data as the goal.

"No one has truly done voice-data integration; it's media hype and smoke so far," he said. "We're excited about our plans for a pilot system. We'd like to be the first."

CTO also offers to company components telecommunications consulting services that range from designing complete premise and LAN systems to analyzing bids from vendors of telecommunication equipment and services.

"One of our priorities for 1985 is to become more visible with all our capabilities," Bill said. "Voice communication technology is no longer a utility. Today, it's increasingly a vital business tool, an asset, that must be managed effectively to compete effectively. Our people are unmatched with an aggregate of over 1500 years of experience in the telecommunication industry. We are determined to help toward that end."

Ruann Pengov

OFFICE COMMUNICATIONS ON TARGET

"Our business strategy is on target," said Ruann Pengov, manager, Office Communications Operation (OCO). "Client response to the products that have resulted from the strategy is strong, as is their reaction to planned products. Our goal is to have the QUIK-COMM™ Global Electronic Mailbox Service become the master connector and integrator of office communications for a company."

She explained that there are three market segments that Office Communication must address to meet this goal (see chart): First, the direct connectivity segment, sold by GE Information Services for linking all types of workstations and applications to the QUIK-COMM System directly; second, the intrasite segment where existing in-house installed word processing and mail systems must be linked to QUIK-COMM. OCO has formed alliances with hardware vendors (e.g., WANG Laboratories, Inc.) to address the market; and third, the mass market.

An example of the mass market approach would be to interconnect users from the intra- and inter-site segments via the QUIK-COMM System to public sys-

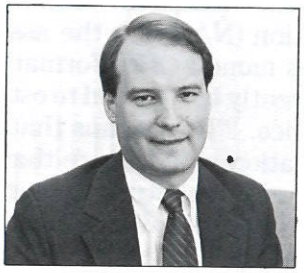
tems such as Telex, or to let them direct messages to hard copy output for delivery via the postal services or couriers. In this application, a personal computer or word processor could send a message to any other on the system. And if a terminal device is not available, hard copy could be sent out via mail or Telex. Additionally, in this mass market, resellers such as Post Telephone and Telegraphs (PTTs) in Europe or the Bell Operating Companies in the U.S. are targets, along with vertical market resellers.

Office Communications Operation's results support the strategy. "We had over a 100 percent V in 1984," Ruann said, "and we are looking at over a 200 percent V in 1985." The group, which has grown from three or four people last year, is preparing for that kind of growth with a dedicated sales force under Mark Alexander, manager, OCO sales. "We needed to have our own force to work with other vendors and to support the GE Information Services sales activity. We will essentially be a resource for the U.S. sales force—the specialized support team when they see an office opportunity."

Ruann also pointed out that there will be double revenue booking on all Office Communications products between the U.S. sales force and the Office Communications sales team. Supporting the dedicated OCO sales people are marketing support representatives and technical consultants. The marketing support representatives provide post-sales project support and help ramp up revenue; the technical consultants provide high-level, pre-sales and installation consulting and guide customization and application links.

"The Engineering Department group that supports us has grown to 30 people. They will be providing the support we need to introduce more than 15 products in 1985," Ruann explained. One of the new products will be the next generation of the QUIK-COMM System—QUIK-XC, slated for late 1985. The XC stands for 'extraordinary connectivity' and will make connecting dissimilar devices easier with more flexibility. "It will also have a 'tool box' capability so that QUIK-COMM users —both clients and SDC—can build their own interfaces to QUIK-XC," she explained.

"Our organization, revenue, and product offerings have grown, and the response we are getting from our clients supports our business approach. We look forward to an exciting 1985."



Ed Stevens

PAYMENT SERVICES: RUNNING HARD AT ACHs

"Our new name," said Ed Stevens, manager, Payment Services Operation, "reflects more accurately what we are trying to do as an organization. The terms retail banking and retail financial services were too broad; Payment Services restates our new focus—building knowledge and understanding of our market, which includes payments authorization, routing, clearing, and settlement services."

Currently, the organization is focusing on the automated clearing houses, e.g., Calwestern Automated Clearinghouse Association, because of the large volume of transactions involved. "There are more than *100 billion* transactions of the type we are targeting valued at 5¢ to 80¢ each, and only a very small percentage are currently automated. It is a tremendous opportunity," Ed said.

Payment Services Operation is also targeting the point of sale transaction business for 1986. Point of sale is the electronic transaction—using either a credit or debit card—made when and where goods or services are purchased.

The organization is being staffed to grow, with dedicated resources in sales, marketing, technology and programs, and field services. "Ray Jimison is heading up a small team of sales people who will sell to targeted accounts. Fred White is putting a field support group in place for each major client we sign," Ed said. "Basically, they will be providing educa-

tion, training, and phone support. Alex Pankow heads up our marketing effort. And Pam Druhan heads up technology and programs—our interface to Technology Operations to get their ownership on schedules, estimates, and bidding to ensure the coordination of deliverables."

Payment Services has some major league competition in the marketplace. The Federal Reserve, VISA, Electronic Data Systems, AT&T, and IBM are all competing for this market with the 30 percent average annual growth rate in all segments. "Because we are the only private concern to set up an automated clearing house, we are considered the industry leader," Ed explained.

Recently, the National Automated Clearing House Association (NACHA), the association of the local ACHs, has named GE Information Services as the vendor currently best suited to establish a nationwide ACH service. "This means that we can set up *one* standard nationwide service that local ACHs or depositing financial institutions can subscribe to, rather than setting up individual services for each ACH in the country," said Ed.

"In 1985, we will be spending 99.4 percent of our energies in running hard at the automated clearing houses. Each of these opportunities is very large —millions of dollars, so our ramp up is in jumps. If we execute, we can become a $100 million business in five years."

Rex Flint

INTEGRATED COMMUNICATION SERVICES OPERATION LEADS COMPETITION

"The convergence of communication and information processing technologies has created tremendous growth opportunities for our business," said Rex Flint, senior vice president and general manager, Integrated Communication Services Operation (ICSO), "and we are aggressively pursuing a leading role in the delivery of important new services to a large and growing group of customers."

ICSO is an organization of 1200 employees working in 64 service centers located throughout the United States. These service centers are grouped into territories, with each territory having the responsibility to develop its markets and to deliver services on a *local* level. The territories in turn are grouped into two operations, with Gene Hart heading up the Eastern Operations and George Searing managing Western Operations. Gene and George provide overall leadership and coordinate local and regional programs.

According to Rex, "The territories and regions have been very successful in developing a solid base in our 'core' service businesses: equipment service of personal computers, minicomputers, peripherals, data communications products and PBXs, and other electronic equipment; rental and leasing of products such as personal computers, peripherals, data communications, and electronic test equipment; and repair and calibration of electronic instruments made by other manufacturers.

"I am extremely proud of the 1984 brand preference survey conducted by McGraw-Hill which showed that ICSO is the number one service and rental lease organization in the data communications business," said Rex. GE has significant leads over its nearest competitors and is number one in nine out of ten measurement categories.

"Our strength in these capabilities," he said, "makes us a major force in the third party service industry, so our challenge is to leverage our core business skills in new markets."

ICSO is implementing several important programs which build on its strengths. One of the most important concentrates on expanding ICSO's computer service business. "Roger Grant will be working on developing a larger customer base for our computer service skills," Rex explained. "We currently service micro and minicomputers made by Apple, IBM, DEC, Data General, and several others, and we believe there is a large opportunity to capture business from customers who seek single-source service solutions."

Another key new program is Tenant Services. "There is a new and exciting opportunity in Tenant Services," he said, "where ICSO designs, owns, and operates advanced telecommunication systems in commercial office buildings and sells its market basket of services to tenants. This venture, managed by John Hamann, takes advantage not only of ICSO strengths but also sells GE Information Services Company services such as enhanced telecommunications, the QUIK-COMM™ System, and applications software. GECC can finance the telecommunications system and other GE components will supply products, so there is broad benefit to GE."

Finally, Rex noted that ICSO is making investments in technology to improve its ability to provide service. "Brian Hanson has the responsibility to work with Corporate Research and Development on several exciting projects which, when completed,

will give ICSO service *technologies* unavailable to our competitors. It will further strengthen our market position."

"We did very well in 1984," he concluded, "and the actions we are taking will further extend our leadership position and provide us with new sources for growth."

Ed Stewart

GE CONSULTING SERVICES CORPORATION: BUILDING TO WIN

"When Professional Services became a separate business component some three months ago, with that realignment came the opportunity to build a stronger stand-alone business," said Ed Stewart, senior vice president. Some of the first changes were establishment of General Electric Consulting Services Corporation to house the new organization, installation of a dedicated sales force, and realignment of recruiting efforts to enhance market responsiveness. A new set of employee benefit plans was also created to recognize the significant differences between the typical manufacturing oriented population of GE and the new professional services business.

"We now have the focus and the flexibility to build an increasingly profitable and high quality business," Ed said. "We're intent on developing a more people-sensitive and less bureaucratic culture. Funds have been committed for five full-time training personnel and more computer-based and video tape courses to improve employee education. A new delegation of authority pushes decision-making down to local management rather than up to headquarters. In everything we do, we're striving to be lean, simple, and quick."

The goal is to develop a business system and technical base which anticipates market requirements and grows earnings by 15 percent or more per year. This business segment is also shooting for a 5-6 percent return on sales and a better than 20 percent return on investment.

"We'll do that," Ed continued, "by hiring the best employees we can find, investing in them via further training, and rewarding them in accordance with their success. Moving fast means taking some risks, of course, but taking risks is synonymous with the entrepreneurial spirit needed to win."

Jeff Goodman

SOFTWARE INTERNATIONAL INVESTING TO GROW

"Our business is standard application packages primarily in the financial management arena," said Jeff Goodman, president, Software International Corporation. "Our client base is the Fortune 1000, though any company larger than $50 to $60 million is a candidate."

Jeff explained that the packages, which include general ledger, accounts payable, accounts receivable, and fixed assets, run on the broadest range of hardware in the industry, including IBM, Univac, ICL (in the United Kingdom), Data General, DEC, Wang, and HP. Recently, General Electric has accepted the SI products as standards, and two have been installed in the company last year, with more slated for this year.

"We started expanding last year into the human resources management systems with payroll, personnel, and other packages running on IBM mainframes," Jeff said. "We are running this as a venture. It has been doing great, and we're expecting 30 percent growth in '85. We are also beginning to commercialize MRP III (Manufacturing Resource Planning) and expect 100 percent growth from that in '85."

Software International, which does 40 percent of its business in the United Kingdom, Southeast Asia, and Australia, grew over 10 percent in 1984, and is expecting to accelerate that level to 24 percent this year. With three main competitors, Management Sciences of America, McCormack & Dodge, and Culinet, there are three key ingredients to competing successfully, said Jeff. "First is market presence, really the value of our reputation; second, technically current product portfolio—we are not there yet, but we have defined where we should be; and distribution leverage and the productivity of our sales force.

"This year, we will build on the productivity gain we had last year by investing in more training in sales skills and multiple product lines, technical product expertise, product literature and user docu-

mentation, and developing specialists to focus on specific niches, such as DEC or Wang.

"We have changed a lot over the past year," said Jeff, "with a new management team and new products. We couldn't have done what we have done without the whole company buying in."

ENERGY ENTERPRISES ADDRESSES MARKET IN TURMOIL

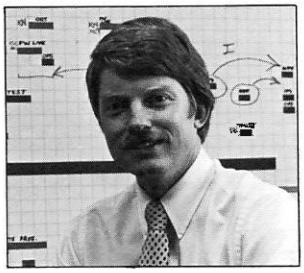
"The petroleum industry is very vulnerable, because of price swings in oil," said Ed Stevens, president of Energy Enterprises. "The swings have been mostly down recently, the industry is in turmoil, and 1985 doesn't look any better."

As a result of this turmoil, Energy Enterprises has had a flat 1984 and expects a flat 1985. "Our market is in the middle to large independents—about 400 companies. In the past, the vast majority of our revenue has come from RCS-based RAMS™ Software (Reserve Analysis and Management System). We are working now to reposition it as packaged software, so that it can be delivered more cost effectively. We are also going to come out this year with a micro product—RAMS–PC."

Energy Enterprises software is designed as economic evaluation tools for the petroleum industry. RAMS, for example, projects taxes, expenses, production, and prices to provide a net income projection. EE is in an extremely competitive industry, vying with Cook, Garrett, and PSI for business.

Ed said that EE is also trying to integrate some micro-based author programs into the product line. At the same time, they are working to finish a product for the economic evaluation of reserves to run on the IBM mainframe.

"As the petroleum industry continues to be subject to price swings, we have to keep our software competitive by delivering it in a variety of cost competitive ways," Ed concluded.



Duncan Rarity

NETWORK CONSULTANTS DIVERSIFYING TO GROW

"We will continue to focus on communications intensive transaction processing for banks," said Duncan Rarity, manager of Network Consultants, "especially high-value transactions that need a fault tolerant environment."

Network has emerged, via the MoneyNET™ wire transfer system for banks, as a leading provider of that service to banks. Currently 35 banks use the MoneyNET system, and they transfer 30 percent of the U.S. funds transferred each year on it. Network is planning to diversify to related areas to improve its growth.

"Two months ago, we introduced Mariner™. It is a micro-based corporate treasury workstation designed to provide the necessary cash management functions required by middle market cash managers," he explained. "It runs on the IBM PC and allows the corporate treasurer to access MoneyNET as well as the cash management system."

The Mariner system was developed as a result of information gathered in extensive corporate and bank surveys by Network Consultants and Phoenix-Hecht, Inc., who will market it jointly. The functions of the system include information retrieval, planning and analysis, wire transfers, electronic mail, standard reports, user defined reports, and other user specified administration and control functions.

"We are also moving to international funds transfer with an interface to the S.W.I.F.T. international wire service, because of the growing interest from international banks in MoneyNET," Duncan said.

"Last year, we improved our performance by about 25 percent, and we hope that Mariner and enhancements to MoneyNET will help us get even better results this year."

*If the words "FAST FAX" are new to you, here's some background. Within Client Services, Jim Doyle and Joe Bublik provide a "hotline" service called Fast Fax for those who need information in a hurry. By calling 8*274-6517 (301 251-6517) GE Information Services personnel (not clients) can get their questions answered, or be directed to someone who can answer. The hotline service is for AR's, TR's, ICSO, Network Consultants, MIMS, BSI, SDC, and the NSC's. Fast Fax does not provide programming assistance, but can help with other company-related information. The QUIK-COMM™ System address is FAST.*

As an adjunct to the telephone service, a monthly newsletter (circulation 4,000) named FAST-FAX was sent to distributors, USA field offices, and headquarters documenting common questions (and their answers) called into the hotline service from the field and headquarters. The monthly publication of Fast Fax as a separate newsletter has ceased, and is now a part of the new publication you are reading, though the hotline service continues as before. This first issue of "Fast-Fax-within-Spectrum" highlights some of the services that will be installed at client sites during 1985.

FIELD MEETINGS LAUNCH ENHANCED TELECOMMUNICATIONS

Field Sales, Engineering, and Marketing Rally Behind Re-Positioning of MARK III® Service

The Field Tours are now history. All 13 regions participated in the 7-city event during November and early December. Bob McCalley, manager of Enhanced Telecommunications Operation, discussed why and how we are re-positioning GE Information Services around opportunities driven by the need for communications and the integration of micros. He emphasized that we have the products and services necessary in place now to win.

Ron Fellows, who heads up marketing for Enhanced Telecommunications and applications, created excitement with the commercial announcement of a family of micro integration software and services, along with some enhancements to MARK III Foreground. These are summarized later in this issue.

Ron also sparked a lot of interest about a planned new offering called the Information Manager, and how it will lead to winning more situations like the ones we already have with Apple, Porsche, and Gannett. More about the Information Manager later. First, let's take a more detailed look at Enhanced Telecommunications, in particular its two newly created components, Intelligent Networking and Micro Integration, which come under the direction of Ron Fellows.

ENHANCED TELECOMMUNICATIONS REPOSITIONS MARK III SERVICE

A Natural Fit

The objective of the recent company re-alignment was to foster teamwork and give focus to applied telecommunications, several key application areas (e.g. Electronic Data Interchange) and two

Bob McCalley

ventures (i.e. Office Communications and Payment Services). The Enhanced Telecommunications Venture, headed by Bob McCalley, is responsible for providing the applied

ENHANCED TELECOMMUNICATIONS

	VAN	Intelligent Networking	Micro-Integration
Service Elements	■ Pure data communications ■ Wide range of protocols ■ Shared network resources ■ Broad coverage	■ Broad range of flexible connections ■ Protocol conversion control in applications ■ Application routing of communication streams ■ Database of databases ■ Ability to manage many information sources easily	■ Software & services to make micro's part of the corporate information environment ■ Preferred user interface for most new distributed applications ■ The solution clients want to buy
Product Capabilities	■ High Speed Dial-Out ■ 3270 on MARK III® Network ■ ASYNC ■ X.25 ■ 3270 BSC ■ 3270 SDLC/SNA	■ Information Manager ■ Intelligent Switch ■ New Foreground User ■ "C" on MARK III Foreground ■ Multi-user systems ■ Computer conferencing ■ Credit card billing services	■ Professional Work Station ■ File Transfer Utility ■ CONNECTOR ■ SOFTRAN ■ QUIK*WARE (Electronic software warehouse) ■ Form & menu system

telecommunications focus including:
(1) Value Added Network – Our MARK*NET™ Service offering of asynchronous communications in 600 cities and bisynchronous communications in 200 cities across the country.
(2) Micro Integration – A family of micro-to-mainframe software and services that handle intelligent communications, file transfer, database access and electronic software distribution.
(3) Intelligent Networking – A single, off-the-shelf interface to all of an end user's information needs including micros, in-house hosts, information providers, local area networks . . . as well as applications on MARK III Service and MARK 3000™ Service.

Grouping the resources for these three areas together in one organization results in a powerful force for addressing the dynamic telecommunications and information management marketplace. It simultaneously casts MARK III Service in a new role necessary to maintain market leadership. This enables Enhanced Telecommunications to offer clients the best in information management, data communications and micro integration, and to focus on a unified solution to a client's complex business problems. Ron Fellows heads Marketing activities for Intelligent Networking and Micro Integration. Because these concepts are new, they are featured in this issue of *Spectrum*. The third remaining element, Value Added Network, will be covered in a later issue.

Changing Markets

The information processing market has changed enormously in the past few years. Bob McCalley explains: "Where communications was once incidental to information management, it is now the substance." This changes the structure of the market. Competition is converging in information management. Processing companies like GE Information Services are taking on more of a communications role; and communications companies like AT&T are taking on a processing role. Technological developments such as micros, superminis and local area networks are stimulating change. Deregulation also contributes to structural changes by freeing communications companies to move into information processing.

Market changes have brought competitive alliances such as McAuto–Tymeshare, IBM-Rolm, IBM-Merrill Lynch. We have also set up a similar alliance internally between MARK III Service and MARK* NET Service which can meet competition head-on, and has already proven to be successful. Some recent big wins include:

- Apple: On-Line System for supporting and communicating with dealers.
- Mazda: MARK*NET replacement of WATS links hundreds of dealers.
- Porsche: Order Entry and electronic software distribution for dealers.
- Bonneville Telecommunications: Combines MARK* NET with satellite and FM broadcasts for point-to-point and multi-point communications.

Successes such as these require many new products and capabilities. And there are a lot of new products in the areas of the VAN, Intelligent Networking, and Micro Integration. These are summarized in the accompanying chart.

Teamwork Essential

The success achieved so far is encouraging and points out the need for continued teamwork to "put it all together." As Bob McCalley points out, "We understand the challenge . . . we know where we're going . . . and we have the basics to win. Let's keep up the momentum throughout 1985!"

NEW PRODUCTS FOR A NEW ERA

At the field meetings during November and December a number of new products and capabilities were discussed in detail. Here's a brief rundown on what's available now.

Microsoftware

- Professional Work Station Now can be obtained on diskette as well as continuing to be available via electronic downloading. Professional Work Station is our most widely used microsoftware package, and justly so. It provides a typical user what's needed to get work done on MARK III Service, and is an easy way to get a client started using a PC to access our service interactively. Professional Work Station handles all the common communications, input/output, monitoring and editing functions. It can do a lot . . . but not everything. The Systems Interface (TSI) is still the product for large and complex production jobs. But Professional Work Station augments TSI nicely, and together they cover just about any situation a user will encounter.
- File Transfer Utility – FTU is rapidly emerging as the workhorse in our microsoftware product line because it handles one of the most common functions . . . that of moving files . . . easily, quickly and securely. Its key feature is that it moves files error-free, asynchronously, without the need for a special modem or protocol. Uploading/downloading, FTU operates in both directions following simple menu instructions. Watch out for improper international use, however, where the files being moved must be an integral part of an application that includes data processing.
- Connector – A powerful database and spreadsheet integration package that links MARK III DMS databases with popular spreadsheet packages operating on the IBM PC. It can move data in either di-

rection, and converts the format appropriately. Clients have all the advantages of a centralized database, including worldwide access, yet any subset of the database is available to individual PC users for local analysis and updating. This gives them the best of both worlds to cope with a dynamic information processing environment.

■ SOFTRAN I – The electronic management and distribution of microcomputer software is what this product is all about. A client can store his proprietary microsoftware in a database on MARK III Foreground and make it available to PC users throughout his company wherever they are. SOFTRAN I is already being used by several clients, and will be augmented soon by SOFTRAN II which will provide a packaged set of routines for the central administrator.

New Features On MARK III Foreground

■ DATA*MARK – This new database manager introduces a whole new level of security and integrity to Foreground database management. DATA *MARK is designed to protect the user against hardware and software failures or incomplete transactions. Concurrent access by multiple users is permitted, even when the database is being updated. Logging, rollback, concurrency management and item-level security are standard, state-of-the-art features included.

■ 3270 Connectivity – Allows the multitude of IBM 3270 terminals operating today to access MARK III Foreground Service. No re-training is necessary—no added cost. The user can combine the advantage of high speed transmissions, error-free protocol, and full screen editing with interactive access. This, combined with the advantages of TP1, make a powerful package.

DATA*MARK LIVES

DATA*MARK is a database manager which has capabilities which are much more powerful than HISAM alone. The *hot* feature is journalization—so your clients' databases can't be accidentally destroyed because transactions are recorded. There's multi-user features—so multiple users can use and even update the database. There's security so classes of users and item-level permissions can be assigned. There's ROLLBACK—to protect the database from incomplete transactions. For more information list ESB.DATA on DY28!

■ High Speed Dial Out – The present baud limit on Dial Out has been increased so that MARK III Foreground can now initiate outbound calls at rates of 2400 or 4800 baud—even 9600 baud over leased lines. This provides the capability to collect or distribute a lot of

PRODUCT SUPPORT

	BROCHURE	STARTER CARD	FEATURE PROFILE	USER MANUALS	SOFTWARE ITEM CODE	DY28 INFO FILE	DEMO INSTRUCTIONS	MARKETING CONTACT (QK)
Connector	1375.23	1375.22-5	1375.30	1375.22-1	GPCCON01	ESB.CONN	TOOL:CONNDEMO	Karen Giventer (KARE)
File Transfer Utility	1375.23			1375.25-1	GPCFTU01	ESB.FTU		Marty Reese (REES)
SOFTRAN Services ■ User's Guide ■ Administrator's Guide	1375.23	1375.26	1375.19 (1Q85)	1375.28 1375.20-1 (1Q85)	 GPCSTU01 (1Q85)	ESB.SOFT	TOOL:SOFTDEMO	Jim Cahill (CAPT)
Professional Work Station	1375.23	3000.44		1375.21-1	GPCPWS01	ESB.PWS		Norm Harvey (NORM)
PC Form & Menu ■ Developer's Guide ■ User's Guide	1375.23			 (1Q85) (1Q85)	 (1Q85) (1Q85)	ESB.FORM		Norm Harvey (NORM)
DATA*MARK			3501.103	3501.102		ESB.DATA		Karen Giventer (KARE)
3270 Connectivity			3000.46	3000.45		ESB.3270		Glenda Roberts (GLENDA)
High Speed Dial-Out				3504.01		ESB.HSDO		Glenda Roberts (GLENDA)

data fast. Synchronous transmission accommodates 2780/3780 protocols and a variety of high speed modems. As before, this feature is limited to domestic U.S. user numbers.

Coming Attractions

■ Form & Menu System – Due to be released early in 1985, this new microsoftware package represents another powerful application development tool. It provides the means for creating forms and menus for inputing data and controlling applications. It will reduce the time and effort to get an application up and running, as well as facilitating its use on an on-going basis.

■ QUIK*WARE™ – This product launches GE Information Services into a new business, that of selling and distributing popular business software packages for the IBM PC. Initially it will handle order entry that will trigger off shipment of hard copy media and related billing. Soon thereafter desired software can be electronically downloaded directly to the client's PC.

WHAT'S HAPPENING

Field Meetings

The Field Meetings that took place in November and December were the first step to inform field sales about the re-positioning of MARK III Service and announce related new products and features. In addition, other communication and support activities have taken place or are underway.

Client Bulletin

A newsletter covering significant new features and capabilities was mailed in December to over 17,000 clients whose names are on the mailing list for LEADER magazine. Copies of this bulletin, entitled "POSITIVELY MARK III SERVICE . . . Information Manager of the '80s," were handed out at the field meetings mentioned above. Use publication number 3000.47 to order extra copies via OLOS.

Pricing Announcement

In November a letter from Mike Emmi was sent to 7000 client billing addresses announcing a CRU price increase. This was a legal requirement. But we included some good news as well. The letter stated the price for two newly released features . . . 3270 Connectivity on Foreground and High Speed Dial-Out. Other new products highlighted included SOFTRAN, CONNECTOR, FTU, DATA*MARK, and the Form & Menu System.

Press Coverage

An Enhanced Communications press briefing was held in Rockville on December 6th for 17 representatives of the news media and industry consultants. Editors of the following publications attended: *Byte, Communications Daily, Computer Decisions, Computerworld, Datamation, Electronics Week, International Videotex/Telex Newsletter, Management Technology, Data Communications, Phillips Newsletters, Systems and Software*, and *Business Week*. Industry consultants represented included: Yankee Group, Link Resources and Newton-Evans Research.

Presentations were given on our Enhanced Telecommunicatio;ns activities and products, as well as talks by key GE Information Services executives. Attendees said they were impressed with the amount of time our top management spent with them. The reaction was so positive, in fact, that the briefing will be presented again in January for a similar audience from the Boston area. Another press briefing will be conducted in conjunction with INTERFACE '85 in Atlanta next March.

Press Releases were also sent to other business publications. One of the first to pick-up our copy was *USA Today*. They published an article on the first page of the business section on our agreement with Apple. Additional coverage is expected in monthly publications.

Sign-On Banner

During December a sign-on banner was displayed on MARK III Service calling attention to an information file which enumerates newly announced micro integration products and enhancements to MARK III Service.

Sales Training

Two newly released products, CONNECTOR and SOFTRAN, are covered in a half-day sales training class. This class is conducted as-needed in field locations. Over a half dozen sessions have been held in the last few months and will continue to be offered.

A technical class is also offered. It's two days of hands-on training covering SOFTRAN, CONNECTOR, FTU, TSI, Professional Work Station and PC Mailbox. List TRAIN* in DY28 for details.

DO YOU SPEAK ENHANCED COMMUNICATIONS

Here's A Few Frequently Mentioned Terms.

■ BSC or BISYNC – Means binary synchronous. This is a half-duplex, character-oriented, 2400-4800 baud, synchronous data communications protocol.

■ Computer Conferencing – A means for professionals in geographically dispersed locations to use network-connected personal computers to interchange information. Such "computer conferences" have a leader, are topic-oriented and text-based, and may be conducted in "real time" but not necessarily.

■ Information Manager – A packaged "window on the information world" which allows MARK III Service to talk to multiple host computers, information providers, networks, etc. It overcomes inter-company and intra-company compatibility so that there are no application restrictions due to speeds, protocols, character sets, formats or terminal devices.

■ Micro Integration – Software which enables microcomputers to interact with MARK III Service.

■ Value Added Network or VAN – Shared data transmission facilities. A VAN carrier buys communications capabilities in bulk (e.g. from AT&T)—adds value through protocol and speed conversion, security, administrative and billing features—optimizes the use of the circuits through routing and packetizing techniques—and sells the package to many users. The client receives a less expensive and more robust solution than he would by leasing lines himself.

FAST·FAX

Electronic Sales Bulletins

A series of Electronic Sales Bulletins in the form of listable files are deployed in the DY28 catalog. The files contain sales information on newly released products. File names are listed in the accompanying Product Support chart.

Client Services

Client Services, including FAST FAX are prepared to respond to your telephone calls and QUIK-COMM messages. Contact them when you need information or help.

THE INFORMATION MANAGER TYPIFIES NEW DIRECTION

A Window To The Information World

Ron Fellows gave this explanation at the recent field meetings. "The Information Manager represents the creative packaging of all our unique competitive advantages . . . integration of micros, networking, access to remote data bases and hosts, and speedy implementation.

"While still an emerging product, the Information Manager is very much in place today. We can see it now, as evidenced by our successful sales situation with Apple Computers. And there's more to come, because the commitment is there to replicate and build on our success. Don Montgomery and his people in Engineering are on board. And our Region Managers and Account Executives are already developing sales leads that apply the capabilities of the Information Manager."

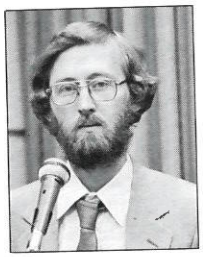
Ron Fellows

The chart, right, illustrates various aspects of the Information Manager.

BUSINESS LOGISTICS AND EDI: A NEW GROWTH OPPORTUNITY

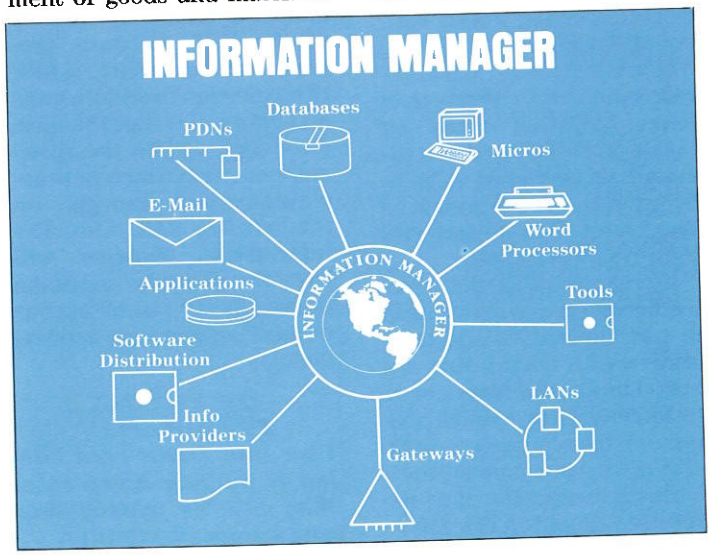
On the Fall Tour, the subjects of Business Logistics (BLS) and Electronic Data Interchange (EDI) were discussed in detail by David Foster, manager of the Business Logistics and EDI Venture. He provided some compelling reasons why GE Information Services Company is in a unique position in 1985 to become established as a market leader in these two areas, while making a significant contribution to revenue. BLS and EDI match very well the focused market concept that concentrates on large companies who need to control the movement of goods and materials across geography. Or companies that need a third party to handle intercompany transactions.

These are not products on the drawing board for mid-



Dave Foster

1985. They're here now. We have the capabilities in place. Several success stories can be referenced. We have some good experiences in providing solutions to clients in 1983 and 1984. For example, the Parsons application implemented in early 1983 was not called a BLS, but it clearly fits the mold. It was called a Shared Application. This experience is being applied to other BLS projects. The Parson's application is documented in the 3rd Quarter '83 LEADER. Parsons was clearly provided a BLS solution to the problem of distributed engineering and project control on a worldwide basis.



Transportation Decision System

A recent application has become available that has an impact on Transportation Managers. It's the QUIK-LOAD™ System that matches trucks with loads. The system has a broad appeal since it impacts not just manufacturers, but also truckers, agents, leasors, truck brokers, and shippers.

Computer Dating For Trucks

In its simplest terms, it's computer dating for trucks. A shipper has material to be shipped and he's looking for an available truck to take it. He enters the QUIK-LOAD System on Foreground service to see if a truck has placed an "ad" indicating he's looking for a load. Or, a trucker has unloaded in Miami, and is looking for a load to take back to New York. A shipper, manufacturer, or a trucker can find out immediately which loads or trucks are going where. "Back hauling" is alive and well, and "deadheading" is on its last legs. The DY28 file named QUIKLOAD provides full details about this NSS offering. MARK 3000™ Service is used to implement the other BLS for transportation managers of manufacturing firms.

Global Transportation

The cross-border flow of goods in international trade requires good logistical control and timely communication of proper documentation. One without the other means ships cannot unload their cargo at destination and lengthy delays for exporters in receiving payment.

GE Information Services has already begun to address some of the opportunities in international trade through manifest transmission sys-

tems. Two shipping companies in New York use the QUIK-COMM System to transmit manifests from port to port allowing ships to sail on time and yet have completed manifests when they arrive at their port-of-call. GE Information Services' network directly links the shipper's document processing applications, eliminating the need to rekey information which speeds the process of incoming shipments in foreign ports.

Huge electronic document exchange opportunities exist between exporters, freight forwarders, carriers, and banks. Participants can benefit in a variety of ways including: faster document delivery; reduced document processing costs; better inventory turnover; and quicker payment. If you have a prospect deeply involved in international trade who wants the benefits of electronic document exchange, call Conrad Persels on 8*273-4252 (CPER).

EDI Works Well

GE Information Services was selected to do the EDI job for a major automobile maker where the concept of "just-in-time" inventory is being implemented. The car maker writes his production schedules to a large file on MARK III Service. A specially written program picks up the total orders, and writes specific orders, for example, for supplier #124 into User Number 124. Supplier 124 signs in, downloads his orders to his PC, and then uses screen-formatted data handling techniques to extract parts orders to be billed against a standing purchase order. Parts suppliers agree to deliver specific quantities of their products to the production line at a specific day and time after having received ten-day forecasts modified daily. This is a custom system—typical of the single-client-to-multiple vendor application for EDI. A generic version of this system is planned to be available to field sales offices late second quarter of this year.

Training Can Help

There's a new course available that can help you get up to speed on EDI. It's a one-day course called "EDI Capabilities and Benefits." There are no prerequisites, and the course is designed for AR's, TR's, and SDC personnel. You can make arrangements to have the course taught in your area by contacting Joe Webster on 8*273-4141, or send him a QUIK-COMM System message on JOEW.

Q's & A's FROM THE FIELD

TONY CASSA
NEW YORK

What is the Information Manager and who are typical prospects?

The Information Manager is an off-the-shelf product that will interconnect a wide variety of devices like IBM PC's, Apple Macintoshes, and 3270-type terminals to remote data bases including those on MARK III Foreground, the client's host computer, or public/private data bases such as The Source, Dow Jones News Retrieval Service, etc.

You can see that this service builds on our investment in communications and integration with micros. And we are adding to that investment by increasing the number and type of remote devices with which we can communicate.

The characteristics of a prospective client for The Information Manager are: geographically distributed operations, a large number of installed micros, the need to access data from multiple sources, and where strategic value is placed on better information.

IDA HSU
ROCHESTER

I understand that The Information Manager is similar to Shared Applications Service (SAS). What is similar and what is different?

The Information Manager builds on our experience with connecting MARK III Service to a client's host, which we call Shared Applications Service. SAS, to the client, was straightforward, but implementing it required expertise with TP programming and installation of dedicated circuits. The Information Manager will overcome this limitation of SAS by creating off-the-shelf software programs for controlling MARK III connection to remote hosts and data bases. But the most difference will be the speed and ease with which new applications are brought up compared to SAS. Also, The Information Manager will have the capacity to handle thousands of simultaneous users of an identical application.

LOU CICCONE
PHILADELPHIA

I see that credit card billing is playing a key role. Why are we adding this new service capability?

Negotiations are underway to enable our services to be paid for by MasterCard, VISA, American Express and Choice cards. As you know, today we require clients to sign a contract prior to using our service. In the future some of our new services, principally Computer Conferencing, will be attracting a new class of user for whom credit terms are simply not available, or signing a contract is an obstacle to immediate use of our service. Moreover, we must provide this payment service for our clients in our role as a total service provider.

PETER MANETTI
NEW YORK

What is "C" and how does it relate to The Information Manager?

"C" is a computer language made popular during the microcomputer explosion of the past 5 years. Its principal attributes are: transportability across a variety of hardware, broad understanding by recent college graduates, and efficiency of execution. In short, it is becoming an industry standard. For this reason Engineering, SDC and Marketing have selected "C" as our preferred development language replacing F77. To take full advantage of "C", the Information Manager will possess a "C" compiler. This action has a secondary benefit of attracting clients who view "C" as their standard—something that was unlikely with F77.

WANT AD

Wanted:
Field Test Clients For "C" Language

"C" is fast becoming the most popular development language because it can be easily transported between different types of computers. "C" is being installed on MARK III Foreground and we'd welcome field test clients. For more information contact Karen Giventer (QK=KARE or call 8*273-4829).

HONEYWELL IS FIRST COMMERCIAL CLIENT FOR DISASTER RECOVERY SERVICES

Honeywell, Inc., has signed an historic three-year agreement for disaster recovery services for their corporate data processing center in Minneapolis, where the company is headquartered.

Although Technology Operations' Disaster Recovery Services has served some 50 GE components since 1983, Honeywell is the first commercial client for that service. The projected revenue for GE Information Services is $86,400 annually.

"We're gratified that Honeywell is one of our premier commercial clients," said Ron Freedman, manager, Disaster Recovery Services. GE's long-term relationship with Honeywell and its extensive experience as users of their hardware undoubtedly were factors. However, they could have taken other routes to provide backup for their computer center at Honeywell Plaza, and we're pleased that they determined our service was a cost-effective, secure, and reliable choice."

Through the Honeywell agreement, a Honeywell equipment configuration, using a DPS 8/70 dual processor system will be used to provide back-up capability for Honeywell's data processing center. In the event of a disaster, Honeywell can set up shop for 45 days (in some cases, longer) in Schenectady after giving GE Information Services 24 hours notice. The company also has available to it 48 hours of rehearsal time per year.

"We're expecting closings with other clients for similar commercial contracts in the very near future," Ron said. "In particular, we're aiming at major companies, which are often required by their internal and external auditors to maintain the integrity of financial data and records; the banking industry, which must have disaster recovery plans by order of the U.S. Comptroller of the Currency; and insurance companies, which are often required by state law to provide a plan for continuing payment of claims if there is a computer failure."

Disaster Recovery Services provides a "hot" site facility for use by subscribers whose own computer facilities have been destroyed or disabled. At a "hot" site, computers and other equipment are prepared for use at all times. Subscribers can use the Disaster Recovery Services facility at a lower cost than building their own redundant computer facility and in a shorter time than a "cold" or shell site, where the necessary equipment must be procured, installed, and brought on line.

In addition, a wide range of equipment is an important feature for those corporations which use computers from different vendors, or who are migrating from one type of equipment to another.

Located in Schenectady, the Disaster Recovery Services facility contains mainframe equipment from Honeywell Information Systems, Inc., IBM, and Hewlett Packard Company, as well as related peripheral devices, telecommunications links, office and work space.

Prices for Disaster Recovery Services depend on the type of equipment and the dura-

cont'd. on p. 25

CALNDR: NEW TOOL TO FIND OUT WHAT'S GOING ON

A powerful new business-wide communication tool called CALNDR can now be run from either the DY28 or QK11 catalogs.

CALNDR can eliminate numerous phone calls and QUIK-COMM™ messages. It can make you look smart in front of co-workers and customers. And it can keep you well informed about what's happening across the increasingly diversified business that is GE Information Services.

CALNDR lists key business events in a calendar format—on a day-by-day and month-by-month basis. If you're planning a course, a product announcement, press conference, employee meeting, or any other event employees throughout the company should know about, check with CALNDR in advance to minimize the chance of conflict. Then include the event on CALNDR to publicize it and help others with their planning.

CALNDR is a project of the Communication Council, a nine member group formed last summer to improve internal communication. Council member Steve Mudrick, manager of the Project Integration Office, Technology Operations, spearheadeed the development of CALNDR.

"The design of CALNDR was dictated by the dynamic nature of our business and planning process," Steve said. "The calendar was designed to be easy to access and update, so that it presents an accurate listing of current and planned business events."

Steve said that employees who spend a few minutes a week to input information on CALNDR will be the key to its success. "The next few weeks will be critical. If field and headquarters people log on and enter the major events they're involved in, we'll have a system that will improve communication and improve coordination throughout the business," he said. "But if people log on and find little information on the calendar, chances are they won't try again. We think CALNDR can become a way of life here that can improve coordination and communication of key events."

What types of events should be entered? "Events that either involve a large number of people or have significance to the business, come to mind immediately," Steve said. "Training courses such as GENESIS, sales meetings, employee meetings, press conferences, advertisement dates, product announcements or enhancements should all be entered by the person responsible for the event. As people begin using the system, we might find additional types of information to include."

Each CALNDR listing includes a description of the event, the date, additional comments, and the name of a contact who can answer any additional questions you might have.

To access the system, just run /CALNDR from either QK11 or DY28. Then enter DOC to receive complete documentation for the easy-to-use program. Other CALNDR commands include:

RPT — To obtain the calendar report for the months of your choice

ENT — To enter an event

MOD — To modify information you've previously entered

? — For help in what to enter

NEW SERVICE ANNOUNCED AT PRESS BRIEFING

Last month, 17 industry analysts and representatives of the press including Computerworld, Computer Decisions, Management Technology, and Electronic Week, were briefed on the enhanced telecommunications capabilities of GE Information Services.

Those attending received a thorough briefing on GE Information Services enhanced telecommunications technology, applications, the regulatory puzzle, marketing, business development, and future plans, as well as a business overview from Mike Emmi, senior vice president, Marketing & U.S. Sales Operations. They also saw a demonstration of the micro integration software (see box, next page). The informal session, held in the International Training Center, featured speakers from both the technical and marketing areas including: Bob McCalley, manager, Enhanced Telecommunications Venture; Bob Hench, vice president and general manager, Engineering Department; Larry Mauceri, manager, technical marketing support; Ron Fellows, manager, enhanced telecommunications applications; Art Hyder, manager, enhanced telecommunications market planning; and Donna Valtri, project manager, Enhanced Telecommunications Venture.

How it works

A highlight of the meeting was the announcement by Kenneth J. Bentley, president, Bonneville Telecommunications, of the new agreement with GE Information Services. "The Bonneville Data Network," he explained, "provides an extremely fast and cost effective means for large, geographically dispersed companies to send data to personal computers or dumb terminals by using FM broadcasting frequencies."

Bonneville collects data to be distributed from a data provider, such as a company sending to its regional sales offices, and transmits it via satellite to FM radio stations around the country, which in turn broadcast that data to individual personal computers or printing terminals located within the broadcast area of each radio station.

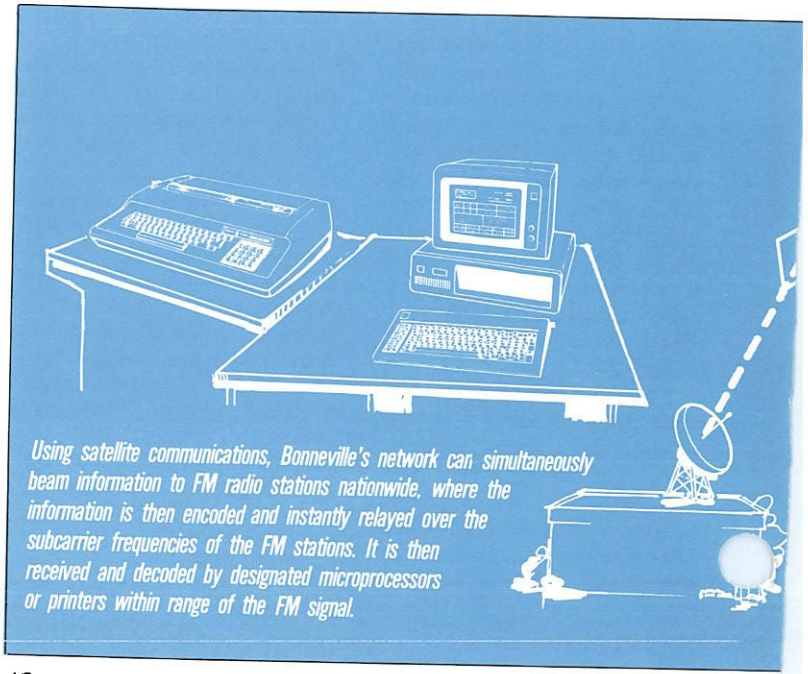
The data provider transmits data to the Bonneville Uplink Host via a standard modem connection to the terrestrial-based portion of the GE Information Services MARK*NET™ Service. Upon receiving that data, the Bonneville Uplink Host transmits the data via satellite to FM radio stations which broadcast the data on the FM sideband/subcarrier to data receivers in its broadcasting area.

Kenneth Bentley briefs the press on Bonneville.

The receiving end

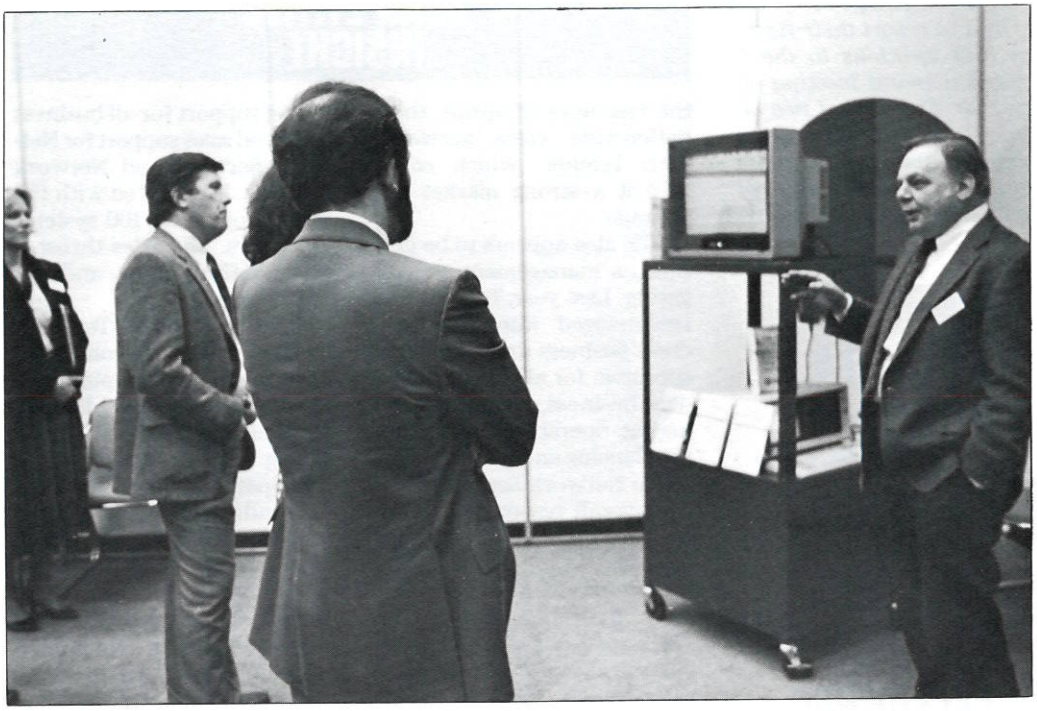
Each data receiver collects data from the FM radio station using a standard FM antenna. The data receiver filters the incoming data to remove any information which is not intended for that location, then feeds the appropriate data to a personal computer running Bonneville software to display, store, print, or process it. This happens in a matter of seconds.

At that time, the end user may access the data provider's computer directly via the MARK*NET Service to request more information, respond to questions or advertisements, or acknowledge receipt of the information.



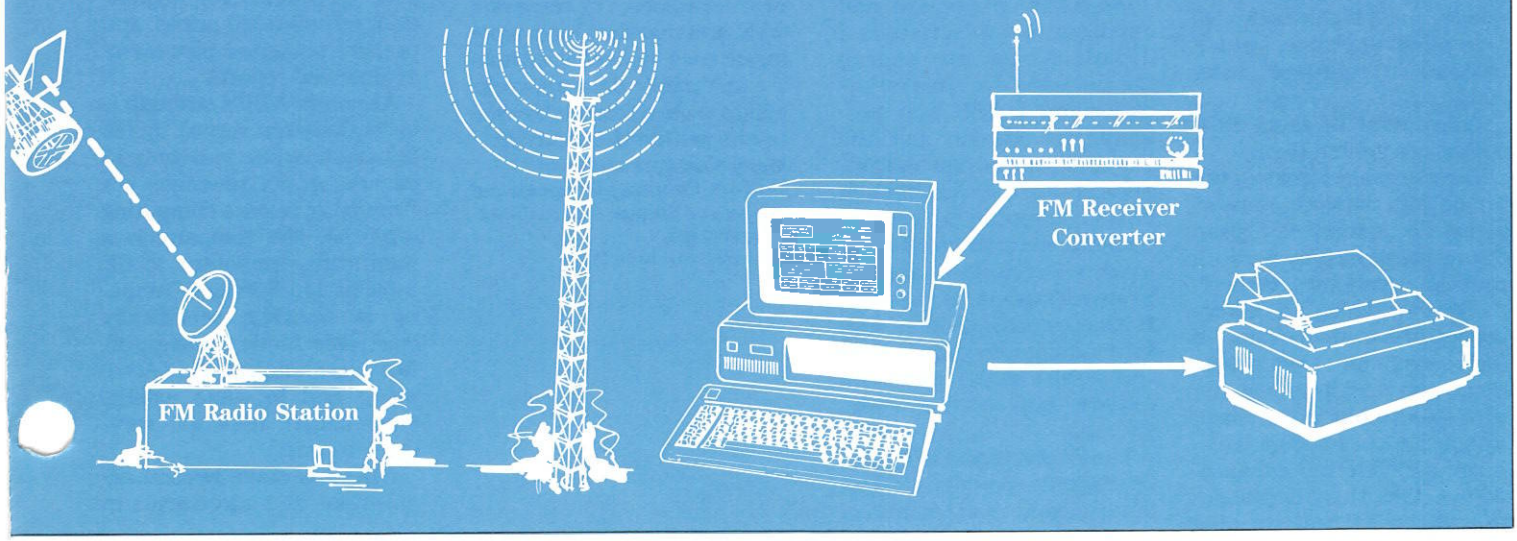
Using satellite communications, Bonneville's network can simultaneously beam information to FM radio stations nationwide, where the information is then encoded and instantly relayed over the subcarrier frequencies of the FM stations. It is then received and decoded by designated microprocessors or printers within range of the FM signal.

PRESS DEMO



Norm Harvey (right), manager, information products, enhanced telecommunications and applications marketing, Enhanced Telecommunications Venture, demonstrated Micro Integration Software for the press. It was fitting that Norm gave the demo, since he has been involved in shaping GE Information Services' enhanced telecommunications over the last ten years. Norm is particularly pleased with the recent release of the MARK III CONNECTOR, Professional Work Station, SOFTRAN Services, and File Transfer Utility (see FAST FAX page 12). "They all make the IBM PC and compatible devices talk easily to MARK III® Foreground. This is important because it transforms micros from a competitive threat into a competitive advantage. The key to making money from micros is to integrate them with MARK III Service applications," explained Norm. "When you use a micro and MARK III Service together, you get something better than either alone." Norm has participated in the development of several major telecommunications products. This includes his key role in the development of HISAM and DMS data base management software in 1972-74. He points out that DMS is still our top revenue producing product with library use alone generating 5 percent of our total revenue, not counting its use in applications. The development of DMS was one of the building blocks that provided a foundation for enhanced telecommunications. Other products for which Norm was a catalyst include CRT connectivity, transaction processing, and the recent micro integration software. Norm is quick to point out, however, that all of these accomplishments were the result of a lot of teamwork on the part of many dedicated individuals throughout the organization.

HOW THE BONNEVILLE SYSTEM WORKS



COMPETITIVE INSIGHT

Editor's note: *Five Technology Operations managers accepted the challenge to research six of GE Information Services Company's competitors and to report their findings and opinions to their peers at a recent meeting of Tech Ops. Excerpts of two of those reports form the first in a series of competitive insight columns. The remaining reports will appear in future issues.*

Mary Curland

GTE TELENET COMMUNICATIONS CORPORATION: EXPERIENCE COUNTS

GTE Telenet was one of the pioneers of packet switching and the public data network, although its history is somewhat rocky.

At the beginning, Telenet was faced with a monumental education task and a skeptical and hesitant user community. It responded with network malfunctions, system redesigns, mismanagement, huge cash outlays for plant expansion and improvements, and a highly technical marketing approach, which resulted in confused customers.

Today most of their difficulties are behind them.

Their primary business, the public data network, grew at about 30 percent last year. Strong points include network routing capabilities through packet switching, a microprocessor-based system, a high-speed 56 kbps backbone, and X.25 interface. Improvements planned include upgrading to a 1.5 mbps backbone, and Telemail enhancements. Also, there is speculation that GTE will combine the resources of Sprint, their nationwide voice network, with Telenet, which could give it a strong market advantage.

GTE also appears to be getting its management act together. Last year, Telenet was restructured into four discrete business units, each responsible for all aspects of its own business, including marketing, operations, and product planning and development.

The Network Services Unit has overall responsibility for the public data network and employs approximately 450 people, including 300 in Operations. The network now provides local dial access in 325 cities, serving 1250 computer systems and 200,000 terminals via more than 140 packet switching nodes.

Network Systems, with 60 employees, is responsible for the dedicated networks business for customers such as Manufacturers Hanover Trust and major accounts such as Southern Bell and the U.S. Department of Agriculture. In 1983, Telenet signed an eight-year contract valued at more than $160 million with the USDA to provide all data communication requirements for the Department.

International Systems and Services provides service and dedicated networks outside the United States. Telenet implemented public data networks for Mexico and the United Kingdom, and also provides network service through direct connection between its domestic network to Canada, Mexico, Puerto Rico, and the United Kingdom. It provides further interconnection with International Record Carriers that furnish data transmission to more than 50 off-shore locations.

The Product and Field Sales Operations provide product development and manufacturing support for all business units and sales support for Network Services and Network Systems. It is staffed with 150 sales people and 100 systems engineers. The sales thrust is to stress the ubiquity and cost of service.

Thirty percent of Telenet's customer base is comprised of business and computer science enterprises. Another 20 percent comes from manufacturing. Substantial growth is anticipated from the financial industry, but any geographically dispersed company is considered a target.

Telenet public network revenues have risen from $13 million in 1979 to $116 million in 1983, accounting for about 60 percent of total revenue. However, large losses have been posted each year, seen as an effect of rapid growth. The operation was in the red by $19 million in 1980 and $17 million in 1981. Telenet first reported a profit at the end of the third quarter of 1983. Revenues for 1984 are projected at $143 million.

Telenet is recovering from slower than expected user acceptance and huge cash outlays for plant expansion and improvements. However, the fact is that they are backed by the resources of corporate GTE, and that they have more experience in packet switching and public data networks makes them a formidable contender within the industry.

Mary Curland*, manager*
Network Planning & Deployment
Corporate Telecommunications Operation
Schenectady, New York

Jim Keogh

AUTOMATIC DATA PROCESSING: PROFITABLE FOR 35 YEARS

Automatic Data Processing, or ADP as it is commonly known, has always been financially strong, Now in it's 35th year, it was founded on the principle that business needs usable data delivered on time, accurately, and at low cost.

The business began in 1949, providing payroll service. Payrolls were manually prepared by clerks operating comptometers. Since then, ADP has acquired more than 100 companies, buying market share to expand service and to diversify into other areas. Still, payroll accounts dominate, with more than 80,000 customers. Five percent of all U.S. payroll checks are produced by ADP.

ADP capitalized on its experience in acquiring other companies by developing merger and acquisition software programs that can select candidate companies for acquisition, establish bid prices, and prepare projected post-merger financial reports.

Although ADP's strength is in markets not served by GE Information Services (only 15 percent of its revenues are from basic remote computing services), the company is a significant competitor to GE Information Services Company in banking, specifically electronic funds transfer; office communication (Automail); and to some extent, value-added network services (Autonet).

ADP has made several acquisitions and agreements in

the area of electronic funds transfer. It reached an agreement with *The Exchange* to offer its automatic teller machine service exclusively in 47 states. And it recently acquired two companies—one of which gives ADP a sixth computer center serving savings and loan associations—and the other which provides Pay-By-Phone services to banks which in turn market the service to their customers.

At one point, ADP ventured into the automated clearinghouse industry, serving the Midwest Automated Clearing House. Service was discontinued because anticipated volumes failed to materialize, resulting in high unit costs. The client went back to the Federal Reserve Board which had been providing the service.

ADP appears to be integrating products vertically to serve a total market.

While ADP's remote computing service is declining in demand as are other non-specialized RCS vendors, their value-added network is a different story. Autonet, which is similar to MARK*NET Service, was formed in 1969 to support client in-house use. Today 60 percent of the network traffic is from this source, while the remaining 40 percent is commercial. Still, the total VAN revenue is probably under $5 million.

The network provides 250 local access areas and 40 countries via International Record Carriers. Equipment allows more than 8700 domestic access ports, 230 communications nodes, and connections to more than 150 hosts through asynchronous pads and X.25 gateways. Direct support for DCA and DEC Unibus is also offered. There is more than 99.7 percent availability to the network, adaptive routing, and dial back-up to hosts.

ADP's electronic mail product, Automail, offers electronic mailboxes, electronic bulletin boards, on-line editing, telex communications, and message collating. And

On the sixth-floor conference room wall in the Maryland Center hang these photographs of the chief executive officers of nine competing corporations—a "rogue's gallery." "They are a continuing reminder," said GE Information Services President Walt Williams, "that every day of the week we are facing some very powerful people. They are big, aggressive, and strong, and they are willing to invest, coming at the business from different directions. The Competitive Insight column will describe these and other competitors.

they are a price leader for on-line entry service. However, the service is not attractive for international applications.

Almost half of ADP's revenues, about $390 million in 1983, is dependent on continued success with commercial payroll and accounting services.

Also, some of the markets ADP competes in, notably payroll, auto dealer, and brokerage services, are keyed to the economy. Economic downturns have a negative impact on the demand for ADP's services.

Lastly, their technology is fragmented. ADP's acquisition strategy has had technological implications, and they have a mixed bag of hardware and software systems.

Nonetheless, ADP is a solidly successful company with more than 100,000 clients, from very small to very large. Much of their business is based in simple, low-priced services, and only 15 percent of their revenues are derived from basic RCS.

ADP provides a contrasting approach to the computer service business and as such provides a useful case study for GE Information Services as we prepare for the future.

***Jim Keough**, manager*
Communication Systems
Planning & Analysis
Rockville, Maryland

NEW AND REVISED DOCUMENTATION

CONNECTIVITY ITEMS HEAD LIST OF SALES AIDS

Extensive fourth-quarter Marketing Communications efforts yield 25 new documents and sales aids with which to start the year.

FTU, CONNECTOR PACKAGES AVAILABLE

The FTU (File Transfer Utility) is an easy-to-use, menu-driven software mover, which is designed to provide error-free file transfers from MARK III® Foreground Service to an IBM Personal Computer and back. Both ASCII- and IBM-PC-generated binary files may be transferred.

Documentation now has two items available for the FTU. One is the *File Transfer Utility (FTU) User's Guide* (1375.25-1) which can be ordered through OLOS; the other is the entire FTU software package, including documentation and diskette packaged in an attractive folder. This may be ordered as usual for a software package—via MR for internal use or MAILBOX for clients.

The MARK III CONNECTOR allows Foreground DMS (Data Management System, Level 3) users to download their data base information to an IBM PC and prepare it for local analysis using popular spreadsheet formats such as LOTUS, VisiCalc and dBASE II/III. It offers on-line help screens, on-screen data base diagram for easy reference, data conversion to/from spread sheet format, and menu-driven data selection and transfer between MARK III Service and the IBM PC.

Documents and/or packages are available for MARK III CONNECTOR: a *User's Guide* (1375.22–1), a *User Access Pocket Guide* (1375.22-5), and like for FTU, the entire *soft-*

ware documentation package in folder. The pocket guide assists new users in their initial use of the product through a brief description of operating requirements, information on obtaining the necessary software, and descriptions of key functions; it also has a scenario which "walks" new users through a typical working session.

MARK III FOREGROUND ADDS CAPABILITIES

A *New Capabilities Booklet (October 1984)* (3000.45)—largest ever published—contains descriptions and user information about the new SORT/MERGE capability, Large Block Input, Flow Control, Edit Enhancements, Catalog Enhancements, and 3270 Foreground Support.

There are two new publications for Dial-Out. One is a new *Dial-Out Product Profile* (3504.00), the other is the revised *User's Guide* (3504.01). Dial-Out is a product that allows the user to initiate a session from MARK III Service out to a specified device (terminal or computer, attended or unattended).

For expanded use and greater flexibility with MARK III Service, DATA*MARK provides administrative data base services, as well as supportive system features to user application systems operating either in time sharing or transaction processing mode. It is documented in the new *DATA*MARK Reference Guide* (3501.102).

MARK 3000™ SERVICE EXPLAINED

For MARK 3000 Service, two new Sales Guides are available. One is the *MARK 3000 Service Sales Guide* (2501.04). Some copies were distributed to U.S. field locations in mid-December, so your office may already have a copy; if not, it can be ordered through OLOS. The guide explains the threefold marketing strategy for MARK 3000 Service and presents recent product enhancements. There are new sections on VSS, key products such as IDMS and CICS, along with communications information, including IBM PC and 3270 connectivity.

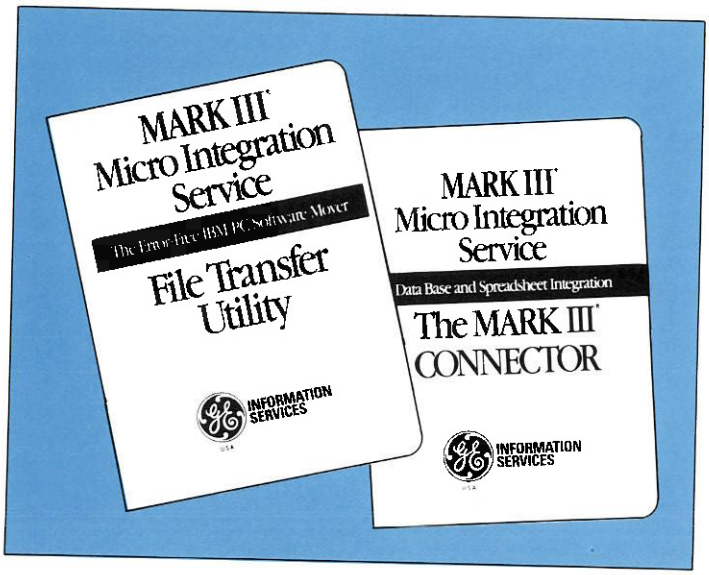
The other is the *MARK 3000 Data Base Management and Transaction Processing Systems Sales Guide* (2051.64). It gives general information about DBMS/TP offerings as well as specific information about individual products. Appendices contain charts, so comparisons between different offerings can be made.

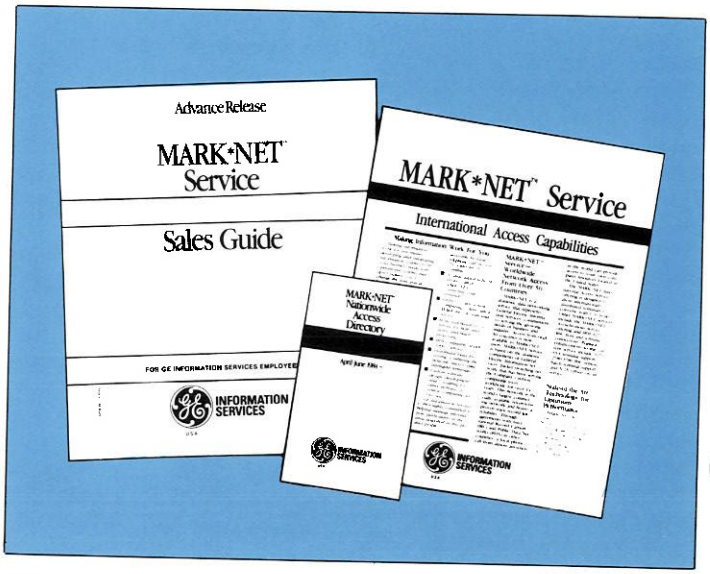
A new MARK 3000 enhancement is SPSS–X, replacing present SPSS Version 9. SPSS (Statistical Package for the Social Sciences), is a group of programs for analyzing social science data. It contains statistical routines commonly used in the social sciences and offers procedures for data transformation and file manipulation. Most SPSS–X procedural changes occur in these last two areas. Note that these changes may significantly impact SPSS users, so the following McGraw-Hill publications available via OLOS are vital to anyone using SPSS: *SPSS–X User's Guide* (5700.08) and *Basics Guide* (5700.09).

MARK*NET™ ANNOUNCED SALES GUIDE PUBLISHED

MARK*NET Service is based on GE Information Services U.S. packet data switching network, and is designed to allow widely distributed terminals to converse with their hosts. It can mix several operational modes and supports devices operating at different speeds. Presently, MARK*NET offers three services: Asynchroous, bisynchronous and 3270 BSC. Planned enhancements include 3270 SNA terminal support, 2780/3780 BSC remote batch terminal support, and X.25 virtual circuit service. MARK*NET is highly cost effective when terminals are widely dispersed, have low volume, and may have to connect to more than one host.

New MARK*NET publications include: the *Sales Guide* (3918.13), *Asynchronous product profile* (3918.05), *Bisynchronous product profile* (3918.00), *International Reference Guide* (3918.14), *Ter-*





WORTH NOTING

minal Operator's Guide (3918.04), and *Access Directory* (3918.09).

SUPPLEMENTS OUT FOR QUIK-COMM TELEX ACCESS

Two QUIK-COMM™ supplements describe the use of QUIK-COMM Telex Access capability. One is the *QUIKM*** User's Guide Supplement for QUIK-COMM Telex Access* (3410.22-2); the other is the *Administrative* equivalent (3410.24-3).

NEW BROCHURE DESCRIBES BUSINESS LOGISTICS THRUST

"Things that move need a network for control." The new *Business Logistics Brochure* is now available (0910.37).

Business Logistics Systems are involved with the integrated movement, coordination, and control of materials and goods worldwide from initial acquisition of raw materials through delivery of the final, finished products. This basic flow of materials coming in, and finished goods going out requires an integrated control of various tasks, detail, and paperwork—order entry, purchasing, inventory management, dispatching, tariffs, bills of lading, pick lists, and more—to manage the orderly movement of materials and goods.

With Business Logistics Systems, GE Information Services can take these tasks and structure an integrated system to meet the demands for coordination, control, and effectiveness for multi-company and multi-company businesses.

APPLE COMPUTER PRODUCTS TO BE OFFERED

GE Information Services will begin offering Apple® Computer, Inc. products to its corporate clients. Under the agreement, GE Information Services will become a Value-Added Reseller (VAR) of the Apple line of microcomputers.

Under the terms of the VAR agreement, GE Information Services will support, service, and maintain the Apple microcomputers on behalf of its clients. Hardware support, rentals, and leasing for the Apple products will be provided by the Integrated Communication Services Operation.

USA TODAY UPDATE NOW AVAILABLE

GE Information Services and Gannett Co., Inc., have announced an agreement under which Gannett will offer USA Today Update, its new electronic information service on GE Information Services worldwide teleprocessing network.

Initially, USA Today Update will consist of four Hotlines covering general news, business/finance, weather, and international news, plus Decisionlines which are executive news summaries created for specific industries and interests such as high technology, law, and energy.

Written by USA Today Update editors for immediate electronic delivery, the Hotlines will be updated hourly by Gannett seven days a week from 8 am until 11 pm (EST). Decisionline reports will be available by 9 am each business day. The USA Today Update service will also publish breaking news bulletins and special reports on general news and business topics.

SKIKO NEW CIS VICE PRESIDENT

Edward Skiko, previously Vice President, Printer Business Area—Information Products Division at International Business Machines, has become GE's Vice President for Corporate Information Systems. He succeeds Daniel McGlaughlin who recently was named President of Calma Company, GE's computer-aided design and manufacturing affiliate.

HARDWARE SUPPORT TRANSFER TO ICSO NEAR COMPLETION

DDP product maintenance and warehousing functions are being transferred from Technology Operations to Integrated Communication Services Operation (ICSO).

"This move is being made to put like things in like places," said Dick Lewis, Network and field services manager, "recognizing that ICSO, with maintenance being a major activity in their business, is the logical segment within GE Information Services for consolidation of this function."

Twenty field service technicians, located in 15 cities, have been transferred to ICSO. The remaining personnel in the Network and field services section, with responsibility for Network operations, are not affected by the consolidation.

"We regret that 12 employees in the hardware support subsection received lack of work notices as the result of the consolidation," Dick said. "We're pleased that to date eight of the twelve affected employees have accepted other positions both within GE Information Services and outside of General Electric or are returning to school. The placement assistance program is actively being used to achieve 100 percent placement of all employees affected by the transition."

Dick said all MARKLINK® DDP system components and spare parts have been transferred from the Rockville Depot to the ICSO facility in Houston.

"The remaining DDP products, IBM PCs, TeleVideo 950s, MARKQUIK and MSI terminals, will be transferred to an ICSO facility in Atlanta as soon as it is ready to receive the hardware," he said.

Both clients and employees who require DDP product maintenance should now call client services at 800-638-8730, which will contact ICSO to schedule a maintenance call.

Eligibility for elective holidays

Employees hired between January 1 and June 30, *1985*, have two elective holidays. Employees hired between July 1 and October 31, *1985*, have one day. Employees hired after October 31, *1985*, do not get an elective holiday.

The December editions of the publications reported the years incorrectly.

PEOPLE ON THE MOVE

Dan Lessard—has become manager, sales integration, GE Account Program, reporting to Bob Simmons, vice president and general manager, GE Accounts & Systems Development and Consulting Operation. Dan will be responsible for the integration, coordination, and support of all GE Information Services sales activities directed at the various GE components.

Jim Macioce—has been appointed manager, SDC development, GE Account and Systems Development and Consulting Operation. Jim will be responsible for providing the direction and focus on upgrading the field SDC organization's skills and equipping them with the tools necessary to perform more productively.

Ed Scully—has become manager, large account management, reporting to Mike Chamberlain, vice president and general manager, National Services Operation. His responsibilities include servicing those large accounts that will be handled centrally and identifying new opportunities within those accounts.

Dave Slone—is now manager, special projects, GE Account Program, reporting to Bob Simmons, vice president and general manager, GE Accounts and Systems Development and Consulting Operation. In his new role, Dave will be responsible for managing the planning and execution of major, high impact programs that may cut across several GE Information Services businesses and require a central focal point.

Charles Stevens—has been appointed manager, project planning and management, systems engineering, Engineering Department. Chuck is responsible for the project planning and management in the Engineering Department. This includes identifying and resolving issues and priorities, scheduling, and serving as the interface for the Engineering Department to other organizations.

SOFTWARE PIRACY – DON'T DO IT!

Virtually all third-party software programs which General Electric Information Services acquires for use in its business are protected by copyright or trade secret restrictions which prohibit copying other than for back-up purposes. Back-up copies may only be used if the original software program has been destroyed or damaged and should not be given or loaned to others for their use. In addition, all copyrighted software programs, and most software programs acquired pursuant to a trade secret license, are restricted to use on a single machine. Despite this restriction it is permissible in the case of a software program purchased subject to copyright protection, and *may* be permissible in the case of a software program acquired pursuant to a trade secret license to load and use the program on any number of different machines, *provided that* the program is loaded and available for use on only one machine at a time.

The specific restrictions applicable to the use of each software program are generally set forth in the materials accompanying the program. You should carefully review these materials, since it is General Electric Company policy to fully comply with the restrictions imposed by the copyright laws or by a software developer or publisher in its license. Any unauthorized copying or use of diskettes or other media containing proprietary software programs and any unauthorized copying or use of other program documentation or user manuals, could subject both the company and the individual employee to substantial financial exposure and embarrassment. Stated simply, the company cannot and will not permit the use of "bootleg" or "pirate" software in connection with the conduct of its business.

In view of the seriousness of this matter, any improper copying or use of software will subject the offending employee to disciplinary action. If in doubt, contact your assigned counsel for advice on permissible copying or use.

***Bob Healing**, vice president & general counsel*
Legal Operation

NOVEMBER S&SP PRICES

Here is the report on the prices for GE Stock, Mutual Fund, and Holding Period Interest Fund used under the Savings and Security Program to credit participants' accounts.

The Long Term Interest Fund price for the last day of the month is also shown, as well as year-to-date annual income rates for both the HP and LT Funds.

			Holding Period Fund					Long Term Fund	
				YTD Annual Income Rate (a)					
Month	Stock Price	Mutual Fund Price	Price	1981	1982	1983	1984	Price	YTD Annual Reinvestment Income Rate
January	$ 56.482	$32.991	$10.00	13.2%	16.5%	13.7%	13.0%	$10.42	11.8%
February	$ 53.206	$30.989	$10.00	13.2%	16.6%	13.7%	13.2%	$10.30	12.0%
March	$ 52.188	$30.915	$10.00	13.2%	16.5%	13.6%	13.2%	$10.14	11.7%
April	$ 53.825	$30.831	$10.00	13.1%	16.5%	13.6%	13.3%	$10.02	11.7%
May	$ 53.875	$30.845	$10.00	13.1%	16.5%	13.6%	13.3%	$ 9.76	11.6%
June	$ 53.250	$30.309	$10.00	13.1%	16.5%	13.6%	13.3%	$ 9.67	11.7%
July	$ 50.756	$29.953	$10.00	13.1%	16.5%	13.6%	13.3%	$ 9.83	11.8%
August	$ 57.158	$32.927	$10.00	13.1%	16.5%	13.6%	13.3%	$10.00	11.8%
September	$ 56.658	$33.236	$10.00	13.1%	16.5%	13.6%	13.3%	$10.13	11.9%
October	$ 56.065	$33.128	$10.00	13.1%	16.5%	13.6%	13.3%	$10.49	11.9%
November	$ 57.113	$33.706	$10.00	13.1%	16.5%	13.6%	13.3%	$10.69	12.0% (b)

(a) The "announced" HP Fund Rate was 13.00% for 1981, 16.25% for 1982, 13.25% for 1983, and 12.75% for 1984.
(b) At November 30, 1984, the net current yield of the long term investment portion of the fund was 12.0%.

MILESTONES

Congratulations to the following employees who are celebrating service anniversaries in January:

30 years

Oakland
Gene Wise
Rockville
Lois Valentine

20 years

Schenectady
Michael Benedict

15 years

Rockville
Charles Bledsoe
Georgia Hodges

10 years

Albany
Chic-Sheng Yang
Morristown
George Balynsky
Rockville
William Colbert
Cheryl Hicks
Rickey Rollins
Vicki Steiner

5 years

Brook Park
Minna Chao
Wai Hoong Kwoon
Cincinnati
Jodi Mattes
Fairfield
David Chang
Glastonbury
Rosemary Levere-Chasse
New York
Charles Zeale
Oak Brook Terrace
John Cody
Palo Alto
Maria Freitas
Rockville
Donald Cooper
Paul Hume
Nancy Semyan
Eileen Shannahan
Sharon Wittmann
Farrell Woods
Schenectady
Elizabeth Loeber
Donald Salisbury

DISASTER RECOVERY

cont'd. from p. 17

tion of the subscription contract. Monthly fees range from $1,000 for the use of Hewlett Packard equipment under a 3-year contract, to $10,000 per month for the use of Honeywell dual processors under a one-year contract, in addition to charges incurred when using the equipment to recover from a disaster.

As Spectrum *went to press, two additional corporations signed agreements with Disaster Recovery Services. The Pillsbury Company committed to two, one-year contracts —one for an IBM configuration and the other for Honeywell—worth $162,000 in revenue to GE Information Services. Coleco Industries, Inc., signed a three-year agreement for Honeywell back-up, with a projected annual revenue of $87,600.*

They said it couldn't be done in less than six months: But Chuck Regner (right), GCOS planning and Paula Wiltrout, Employee Relations representative, pulled together the people and materials needed to consolidate MARK III® Foreground and commercial GCOS services in the Ohio Supercenter in just three months. Chuck's plan was 23 feet long and included 19 trucks, 7 planes, and 3 hand-carried transfers among other modes of transportation. Paula coordinated the Employee Relations aspects of the transition, including group benefit sessions, individual counseling sessions, and skill building seminars. "All the managers involved in the consolidation put a lot of effort into working with their employees to assure that everything went smoothly," she said. "Overall, even though their jobs were being eliminated the employees really pulled together to make the consolidation a success." "It was a massive logistical job," said Chuck, "I never thought we'd do it, but we did."