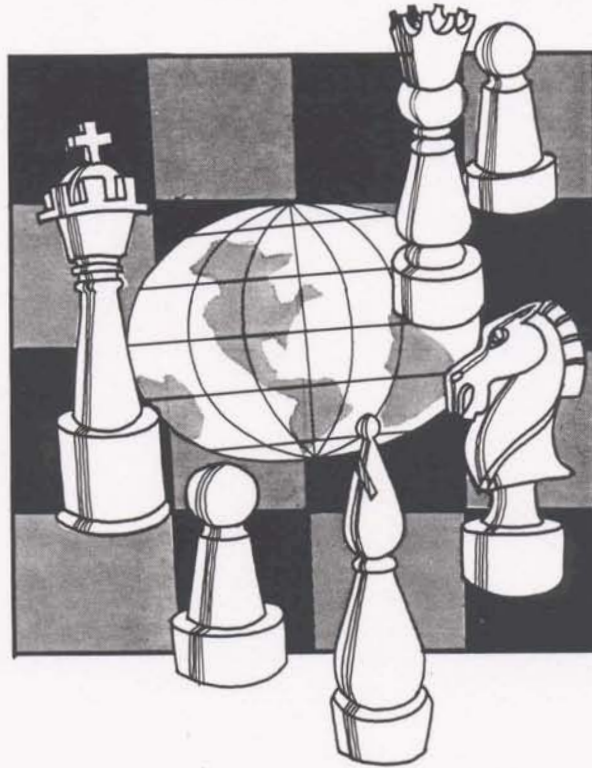


July/August 1987

SPECTRUM

FOR THE EMPLOYEES OF GE INFORMATION SERVICES COMPANY

TURNING THE CORNER: A LOOK TO THE FUTURE



Business Strategies for Global Markets

page 8

Over the Top Rewards Sales Initiative

page 17

Team Work Wins EniChem Contract

page 24

EAST-TEK

Remember San Francisco 1995 ★

CONTENTS

Turning the Corner	1
Clients Speak Out	5
Advanced Course in Computers	7
Over the Top	8
Transport Program	10
Penny Melrose	12
IN-\$TEP	13
Chicago Exhibit	14
Trade and Transportation Seminars	15
EniChem Contract	17
International STC Award	18
Performance Appraisal Program	19
EASYS SABRE	20
Good News	21
Bottom Line	22
Industry Briefs	23
FastFax	24
Milestones	25

SPECTRUM is published for employees by Employee Communication, GE Information Services, 401 N. Washington St., 07E, Rockville, Maryland 20850, U.S.A. For distribution changes, send a message via the QUIK-COMM™ System to OLOS. For additional copies, order via OLOS, publication number 0308.24.

SPECTRUM Acting Editor: Kathleen Power
Managing Editor: Spencer Carter
QUIK-COMM: KATHLEEN; DIAL COMM: 8*273-4476



INFORMATION
SERVICES

cover story

TURNING THE CORNER: A LOOK TO THE FUTURE

Barry Clarke, who heads the Business Planning and Marketing Research team within Business Planning and Development, talked with SPECTRUM recently about what his team's market research tells us about market position and future directions for GE Information Services. Here are some of the things that Barry Clarke had to say.

Q: Strategy development often starts from considering the past. What are the important considerations from recent history?

A: Perhaps the most important lesson to be learned from recent history is the volatile nature of our business. Applications we are serving today may be served in different ways tomorrow. We learned that from the collapse of the timesharing industry, which took a toll on this company and from which we are just now recovering.

But what is more important than history is the current state, the state of the market, the supply, the environment, and the business.

Today we are delivering 25% more resources than in 1982 when timesharing revenue peaked. We are serving fewer clients with more complex and much larger scale applications. We are seen by these clients as a cost effective service provider.

We have a strong technology base, an excellent client base and access to market, and a worldwide presence. We are firmly the number one provider of global network based application service. We have a winning combination.

Q: What is happening to our competition?

A: The services that GE Information Services provides have changed significantly over the past five years. During this period we have seen the total demise of timesharing, which took its toll on the industry. Those of our competitors who survived, such



as Comshare, UCCEL, and Boeing, have changed focus and are no longer our competition.

GE Information Services, on the other hand, became an early entrant into network services in inter-enterprise, international banking, and custom system design. These markets today are undergoing rapid change—change that will have dramatic impact on our business strategies for the near and long term.

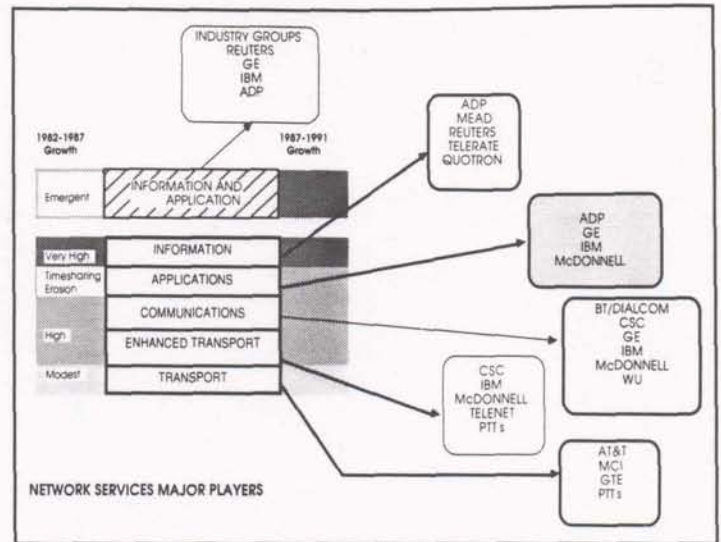
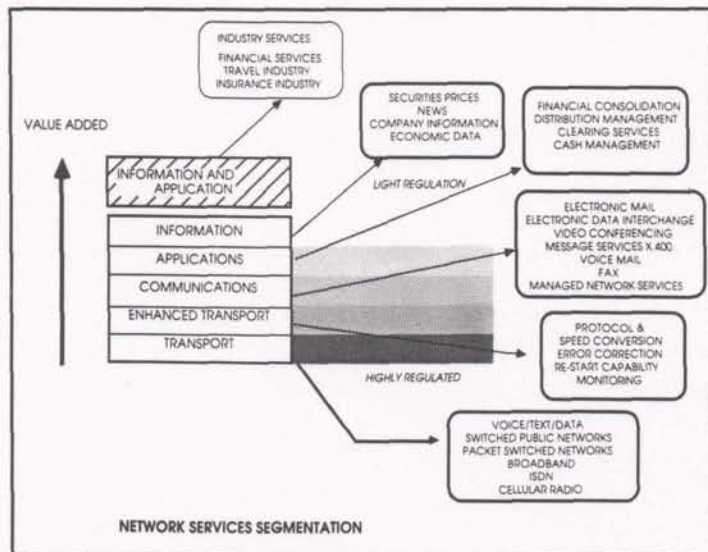
The most significant happening today is the entrance of IBM into the network services market. They are bringing enormous resources to build up capabilities we already have in place. In the very near future IBM will be a direct competitor in what they call extended enterprise, that is, the EDI and value added markets.

In the banking area, one of our strongest markets, Reuters will soon become a major force. With 127,000 terminals and revenue of \$1 billion, they offer information data bases to their clients and will soon extend to providing applications services, in direct competition with the services we offer.

The entrance of powerful competitors will make it easier for us to define our market. Back in the timesharing days this was relatively easy to do. All of us in the business were knocking on the same doors, selling very similar services. We benchmarked each other's prices, measured each other's market shares. Without that kind of clear definition, market position is more difficult to assess.

But this will soon change. The advent of IBM and other large scale competitors will bring some definition to the market. To understand who will be the major players as the network services market takes shape, it is useful to look at the market in terms of enhancements or value added to pure data transport. The chart below shows the boundaries of today's business.

The chart at the right shows who we see as the major players in the network services arena over the next five years and the market segments they are likely to



dominate. You will see that we will be going head to head with IBM in our two major segments: applications and communications. Life for GE Information Services is going to be very competitive.

Q: Are you saying that competition will be good for us?

A: Competition will be fantastic for us. Today we have to convince the customer that the service solution is viable. It's a buy or make decision—either the client buys from us or he buys the components and makes his own solution. The whole competitive structure has been making versus buying. This is indirect competition. Direct competition brings definition and credibility.

Q: What factors are most likely to have impact on the direction of the market over the next five years?

A: In the next five years, we shall be faced with a rapidly changing regulatory environment, a change in buying style, a change in supplier response, and a return to high growth in our market sector. We will be challenged to respond to and manage change as never before; the difference this time is that success will lead to high growth rather than maintaining the status quo positioning as we did during the transitioning.

Q: How is the regulatory environment likely to change?

A: In the past, technology has progressed at a rapid rate and regulations have not kept pace. We are today seeing less and less influence from regulatory constraints and the innovative supplier can make attractive new services available. Regulations will, however,

continue to determine the boundaries of the business for the foreseeable future and our challenge is to both influence and understand change.

Q: When you talk about a change in buying style, what do you mean?

A: Systems integration is the new hot buzzword. As opposed to making the complex solution by buying all the component parts, systems integration means buying a total solution from a vendor such as ourselves. The U.S. federal market has changed its buying style completely. Most new systems delivered to the government are total integrated solutions. It is the wave of the future in communications and most major hardware vendors are gearing up to ride that wave.

A change in buying style, and, on the supply side, more capacity to deliver through the entrance of new competition into the market could double our served market overnight. Today we are a \$3.7 billion market for network based services in a world with total expenditures on equipment, people, and services of \$494 billion. Our served market, then, can be very sensitive to a change in buying style.

Q: How will we be approaching change?

A: The company today is in a state of transition. The focus of corporate leadership is to bring us through this transition, managing costs, keeping us profitable as we look for new areas of focus. We have to build up resources to support new areas and we have to take resources from areas of current focus that are not profitable and where it will be difficult to be the leading supplier.

For example, we have ceased to play in the payment service arena in which we had a very low market share. At the same time we have invested very heavily in managed network service which is an area in which we believe we can play and be profitable. It's a matter of optimization of resources.

We have broadened our mission statement and we have corporate concurrence with this mission. GE Information Services is viewed by corporate as having very considerable upside potential.

MISSION STATEMENT

Establish and maintain a profitable, strong, and growing worldwide market position in the principle data processing information services markets as a provider of services integrating computers, communications, and software to solve business problems

Q: How will we realize this potential?

A: That's the key question. Management has spent much time and energy looking at creative ways to make a quantum leap.

The overriding consideration is that it is the user, not the supplier, who is now determining the pace of adopting new applications. The overwhelming challenge for major corporations is the need to link their disparate computer systems, including personal computers, into comprehensive integrated networks to solve business problems. Top management of many companies now perceive that advanced information systems, if properly managed, can be used to strategic competitive advantage.

Computers are being transformed from their traditional role of background support to systems whose role is to increase the productivity, flexibility, and responsiveness of individuals, work groups, and entire organizations. The heart of the systems will be a new era of heavily networked, highly distributed, highly intelligent applications operated by individual end users rather than by data processing professionals—exactly GE Information Services' forte.

Strategically the end user is king and our technology and application developments will concentrate on ease of use. If the user is king, there is a need to deliver customized applications. We shall be establishing a very strong systems engineering organization that will deliver the new era of customized network based application solutions for our clients. These applications will typically be very complex, integrated with in-house operations, and will incorporate many of our standardized services such as electronic mail and data exchange.

The new generation of applications will be very large scale and new cost effective methods of delivery will be required. Clients will be provided with managed networks, custom built to their requirements, and we shall increase our integration capabilities by providing hardware on the client's site or managed on their behalf in our centers. Plans are well advanced to make MARK III® Service available for use on site. We expect the new applications to be in the \$2 to \$20 million per year range.

Q: Where do you see the focus of this new activity?

A: Investment will be increased considerably in developing applications and markets for banking and financial services. We expect to gain considerable ground in moving services toward front offices and dealing rooms, building on our strengths in the back office applications. We have a leading position as the application provider to the international wholesale and

corporate banking community. We shall continue with this narrow functional focus in the banking sector and will grow the business through extended services.

Another area of strength is international shipping and trade. This area has relatively small revenues today but the fit between us—our locations, our ability to give service around the world—and the transportation industry is absolutely right. The whole travel/transport/trade industry offers great potential and we are following various approaches to gain a very significant position.

Q: Is finding the right fit a key to developing new business?

A: I think it's the key to successful business. There is a lot more value in international applications—the more complex the application, the better the fit for us. If it is inter-enterprise, international, and large scale, it is right for us. That is where we get the maximum margin. We have the basic infrastructure in place; whether we use it for local or international applications is a matter of balancing cost against opportunity.

Q: As we face greater competition, how will we maintain our competitive edge?

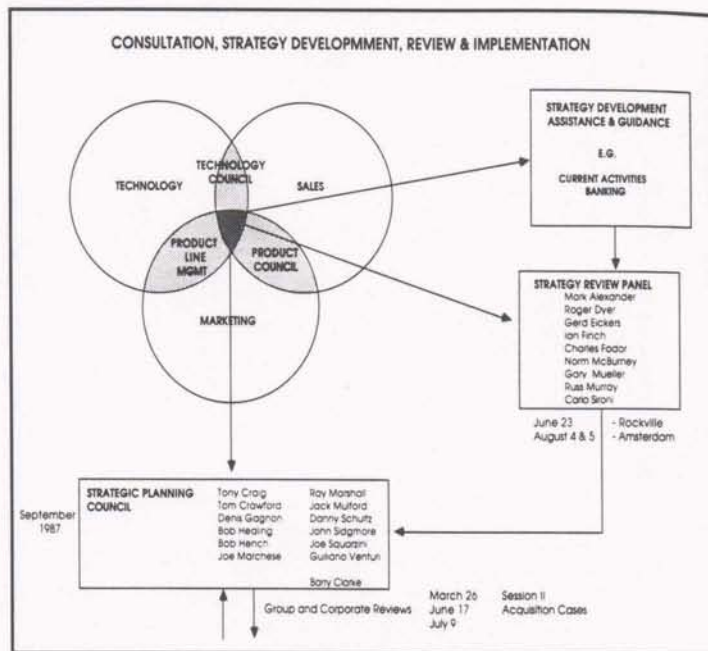
A: We are number one in this business today, with IBM coming at us very quickly. We want to stay number one! So the time has never been better to raise our profile. We need to project the GE image very strongly—the GE strength, the GE integrity, the GE presence in the market—and we need to project the winning combination...“simply making your business more competitive.”

There will be some selective advertising this year and we are still evaluating how much we should spend on advertising in future years. It could be very considerable and very necessary.

The terminal, that is the user's most frequent interface with GE, can also be used very effectively to convey image and to inform about additional services which are available. Whether standard applications or custom solutions, we need to try much harder to use the terminal to project both a GE awareness, with a leading edge image, and the availability of a range of extended services.

Q: Are we trying to do too much?

A: Focus is important. We have a good team together to ensure that strategies can be implemented effectively. The business strategy is the responsibility of the president, who gains concurrence of corporate through regular reviews. His staff is responsible for many of the innovative ideas which are translated into



strategy. Reviews of the strategic direction are held regularly with the key functional groups. Also, we have a panel of “hard heads” who review in-depth all plans. The new business units are responsible for developing their own strategies and they can also challenge the overall business strategies through this process. We need to accelerate the pace of development of the business. The current thinking is, can we stretch ourselves further?

Q: How do we measure progress?

A: Each quarter we take a hard look at our financials and compare our progress against the published results of companies in our (services) industry. We measure ourselves against more than 130 companies at present and our aim is to both understand and anticipate the winning ingredients and to compete effectively in our served markets.

Q: How will the new strategic direction affect employees?

A: We are striving for growth—growth through the completion of transitioning in the market and growth through change. We need to realize that new approaches will be taken to provide customers with solutions and that there will continue to be pressure for change—change in organization, change in attitude, change in required skills. We have a natural inclination and comfort level toward keeping things as they are. For those of us who can break out of this and adapt to change—welcome its challenge—there will be excellent opportunities to develop careers as the business moves forward. ▲

CLIENTS SPEAK OUT TO MANAGERS

GE Information Services takes pride in its client relations. Responding to clients' needs is at the heart of our business. At a recent managers meeting, held in Rockville, representatives of three prominent clients were invited to talk to GE Information Services managers about ways we could improve our client relations—things we should do differently, things we can do better, and things we are doing well.

The speakers represented clients with very different business problems and therefore different perceptions of how GE could better service their needs. This is what these clients had to say.

Keith Johnson, Continental Grain

Continental Grain is a highly diversified international agribusiness with 200 operations in 38 geographically dispersed countries, including Egypt and India. It ranks approximately 22 among Fortune 500 companies. The company runs on information delivered by multiple services, using unique protocols to reach vendors in such fields as market quotations, international banking, news and data base services, internal administrative messaging, and data processing services.

Much of the data Continental Grain gathers is critical to productivity, monitoring climatic factors that have an impact on crop yield. The company is looking for ways to improve its communications system and network infrastructure. Its goal is to have a single terminal workbench interface that can access all communications environments, thus saving time and simplifying productivity.

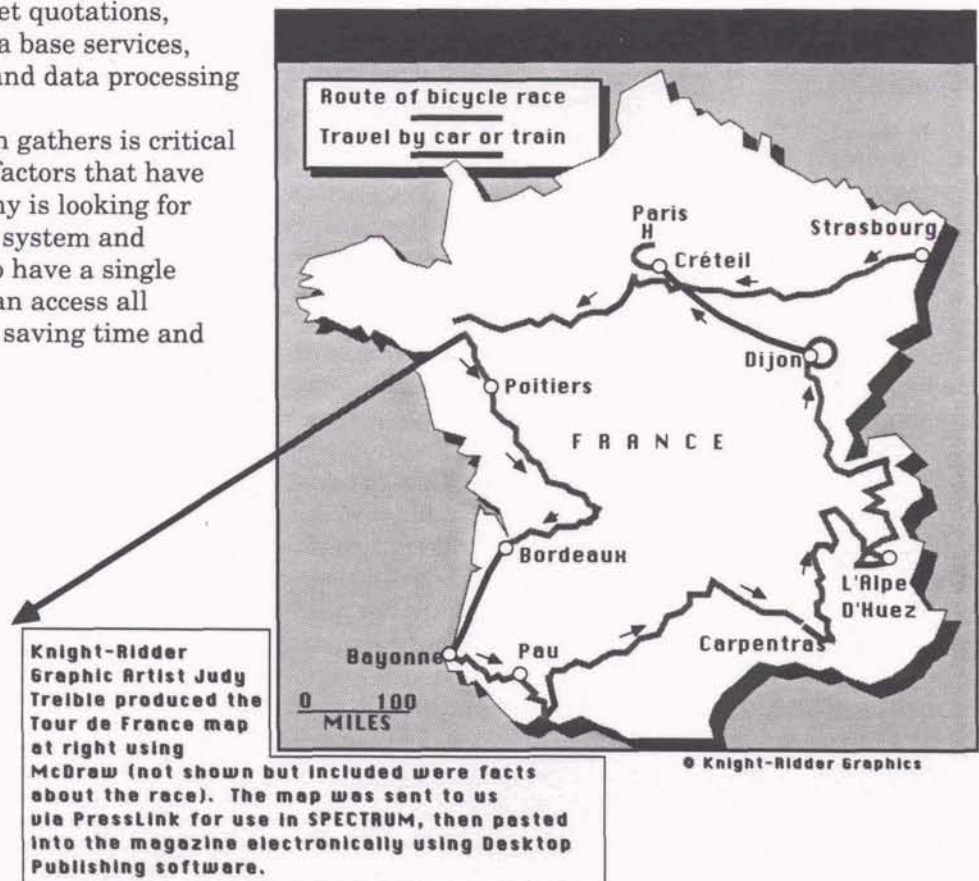
"We think we're unique because we're moving into different areas of using GE Information Services products," Keith Johnson told the managers, "and we may provide some ideas on key opportunities where you can expand your business."

Keith Johnson told the managers that his company chose GE because of its stability and financial strength and because GE's distributor coverage closely mirrored Continental Grain's international locations. "A call in our client's language rather than from the U. S. is extremely important," he observed. The central Clients Services support operation—which Keith Johnson noted we don't promote hard enough—was also key in his company's selection of GE.

How could GE improve its products and its client relations? Among Keith Johnson's suggestions were these:

- Advertise for a bigger market share. "You would

Continued on next page



Continued from previous page

make my job easier if your products were better known."

- Send product managers out into the field to find out how clients are using your tools.
- Conduct user information exchange forums because "clients are the most creative people you have in many situations."
- Integrate your product lines and develop a universal catalog system.
- Simplify the delegation capability of electronic mail so that executives traveling with portable PCs can access their own key mail.

Roger Fidler, Knight-Ridder Graphics

Knight-Ridder is an information and communications company that owns 32 newspapers, including the Philadelphia Inquirer, the Miami Herald, the Detroit Free Press, and the San Jose Mercury News. Knight-Ridder uses PressLink electronic graphics network to create graphics that it makes available to all of its newspapers and to a growing number of independent newspapers.

The business is growing rapidly, a growth Roger Fidler attributes in large part to the ease of use of BusinessTalk, which for most of its newspaper art departments was their first exposure to computers and telecommunications.

"Our original mandate was just a graphics distribution network for Knight-Ridder," Roger Fidler observed, "but it's grown so rapidly within a year—to roughly 500 total users—that we now have more outside users than Knight-Ridder users."

Roger Fidler praised BusinessTalk as one of the easiest electronic mail systems to use and expressed his belief that GE should explore other markets such as marketing and advertising.

Fidlers' suggestions for improving products and services were limited to electronic mail and its ability to respond to the unique needs of the newspaper industry.

"Newspapers have different problems than some of your customers," he said. "We can't wait; we're a very impatient group of people. If a PressLink customer can't get into the network and deadline is in ten minutes, and they're holding space for one of our graphics, they get very, very angry and want an immediate response."

To alleviate this situation, Roger Fidler suggested:

- Your 800 number has to be responsive when we can't get into the network. "I'm here to tell you that we do get busy signals sometimes."
- You need to look closely at network access, monitor the nodes, make sure that the modems aren't hung up and that ports are adequate.



Larry Bowen, GTE Florida, speaks to GE Information Services managers at their May meeting.

As for new business opportunities, Roger Fidler observed, "I think you have international opportunities. You might be surprised at the enthusiasm of markets in Europe, Australia, and Canada. BusinessTalk is new and not well known, and you need to develop an interface between BusinessTalk and the networks in those countries."

Larry Bowen, GTE Florida

GTE Florida uses the Mechanized Assignment and Record Keeping (MARK) system to help it keep telephone lines open and responsive to customer demands. "In our business, clients measure performance quite simply," Larry Bowen noted, "either they have a dial tone or they don't. Your MARK system gives us tremendous flexibility and is the hub of our business. For us, redundancy is critical and very attractive."

Larry Bowen praised the responsiveness of the client services division of GE, singling out technology managers Bob Hench and Roger Dyer for having helped GTE come up with technical solutions to their problems. "Now we can get dial tone to a site within a few minutes of the time service is requested," he said. "It's taken us 15 years to get there."

GTE Florida is now evaluating LANs as a network opportunity and Larry Bowen expressed the company's need to be able to rely on GE's help. "We hope you're pursuing LAN applications because it's important to us that you're on the leading edge of technology and that you listen to us about the areas we feel are the direction we want to go," Larry Bowen commented. "The buzzword in our company is optimization. We need to be aggressive in looking at and sharing new technologies and hardware. We depend on you." ▲

ADVANCED COURSE IN COMPUTERS: A TOUGH DEGREE FOR GE EMPLOYEES

"...the competitive race for worldwide markets is getting tougher. We believe that the solid grounding in technical disciplines and computer skills you received in engineering school, coupled with the interdisciplinary and cross-functional technical problem-solving skills that are provided by the Advanced Course, will equip you for leadership roles in General Electric's drive to be Number One or Number Two in all the markets we serve."

—Edward H. Hood Jr., Vice Chairman of the Board

If you've ever wanted to earn a Master's Degree in computers that would really cross-apply to the business world, GE's Advanced Course in Computers (ACC) may be just the ticket.

Established in 1985, the ACC is a sister program to both the Advanced Course in Manufacturing and the historic Advanced Course in Engineering, founded in 1923 by Robert E. Doherty, a protoge of Charles Steinmetz, the technical leader of GE at that time, whose 2,500 graduates include two Nobel Prize winners, industry leaders, and distinguished educators, scientists, and engineers.

The Advanced Course in Computers is a prepaid-tuition program that enables GE employees at participating components to earn a Master's in fields such as computer engineering or computer science by participating in an intensive, three-year, multidisciplinary program taught by the local GE component and a local university.

But the ACC isn't for everybody—it's a rigorous program designed to challenge students' intelligence, imagination, and creativity.

Making the Grade

The ACC program emphasizes leading-edge computer technologies and their application to complex, real-world problems. The program develops problem-solving and communications skills and generates know-how in a broad range of computer technologies and applications, such as software engineering, computer engineering, systems engineering, computer applications, and applied math.

"The Advanced Course in Computers counteracts the tendency for computer science and engineering students to specialize too early in their educational careers in either hardware or software," explains Larry Larkin,



ACC students include (top, left to right) Jeff Heinbaugh and Gary MacPhee—the infamous first-year Drop Forge problem is visible in the background—and (bottom, left to right) John Wittenberg, Dan Dearing, and Mike Revelette.

now Asynchronous Products Manager, who developed and implemented the ACC program. "That kind of education raises barriers because it narrows the student's perspective. ACC exposes students to all computer disciplines, which we feel makes them more effective and knowledgeable employees."

The ACC degree also is unique in its approach to earning graduate credits. Students must spend the first three semesters taking classes taught by the local GE component, the next two semesters attending two courses per semester at the local participating university, and the final semester undertaking a Master's project.

Accepting the ACC Challenge

The Advanced Course in Computers is presently offered in five cities, where there are sufficient numbers of GE employees to support the program: Syracuse, Milwaukee, Daytona Beach, Valley Forge, and Washington, DC. The three-year program entails 45 weeks (three semesters) of instruction by GE employees and three semesters of course work at an affiliated university. Universities affiliated with the program are Syracuse University in Syracuse; Marquette University and the University of Wisconsin in the Milwaukee area; the University of Central Florida in Daytona Beach; Villanova, the University of Pennsylvania, Temple and Penn State in the Valley Forge

Continued on next page

Continued from previous page

area; and George Mason University and Virginia Tech in the Washington, DC area. Students must be admitted to one of these universities as well as to the ACC program.

Five GE Information Services employees are currently enrolled in the Advanced Course in Computers: second-year students Dan Dearing, Jeff Heinbaugh, Gary MacPhee, and John Wittenberg and first-year student Mike Revelette. As a group, they seem to respond well to the rigors of the ACC program, although they will readily admit that it's enormously time-consuming.

"I'm not sure people understand the demanding nature of three years of ACC classes," Larry Larkin notes. "Each week, every student must produce a technical report on that week's problem—and the reports often run around 50 pages. To carry that course load on top of a full-time job with GE requires a great deal of discipline and commitment."

GE Information Services students and students from the Federal & Electronic Systems Division (FESD) are enrolled in the same ACC program, supervised locally by Tracy Cypher of FESD. Local classes are held at FESD's Springfield, Virginia, office and include weekly four-hour lectures on specific topics and homework problems that three- and four-person teams spend 20-30 hours to solve. The students' technical reports are periodically supplemented by classroom presentations of the reports' highlights, and local GE managers sometimes drop by the classes to hear student presentations.

Grades are based primarily on students' technical reports, which are graded by fellow students and reviewed by the supervisor. "It makes for an interesting atmosphere," says Larry Larkin. "Usually there is no problem with cutthroat critiques, because students quickly learn that it pays to be impartial over the long term."

The homework assignments are derived from actual problems encountered and solved by GE scientists and engineers, thus enabling ACC's top-notch students to gain skill in solving real world problems. Typical homework problems might require students to choose among several computer system designs for a proposed contract bid, to develop software or use existing software tools to solve the problem, or to select the best of several possible solutions.

Employees who feel up to the challenge of the Advanced Course in Computers can contact Jim Violette in Rockville for an application or additional information. Call DIAL COMM 8-273-4074 or (301) 340-4074 or send a QUIK-COMM™ System message to VIOLETTE. Classes are forming for the fall semester, so there is no time to lose. ▲

OVER THE TOP REWARDS SALES INITIATIVE

Although GE Information Services sales are up, there's no such thing as a ceiling in the world of sales.

On August 1, a four-month sales incentive contest began for U.S. sales employees called "OVER THE TOP" to help beat the 1987 revenue target, heighten employee spirit, and send sales activity soaring into 1988.

With GE Information Services employees feeling like winners, the contest will emphasize sales successes.

"We are starting to beat the numbers and want to emphasize the need to push over the top," says Paul Inserra, Sales Development. "We want to keep the momentum going while preparing for 1988." He adds that the contest intends to stimulate business activity in the year's second half and build pipelines for 1988.

Quentin Gallivan, a Los Angeles account manager and 1986 Markmaker, agrees. "The mid-year timing of this contest is valuable in that it adds extra incentive to build your pipeline for 1988 success. Also, the contest is invigorating and fun, given the nature of our business with long sales cycles and complex business solutions."

"This sales program continues to emphasize the excellent team working relationship between Sales and SDC personnel, which is essential to our overall success. These two distinct but homogeneous portions of our sales force share in the competition and rewards of the program," says Jim Macioce, SDC and Information Systems Programs.

In early August, field offices received posters and promotional picnic packets for local contest kick-off activities. The contest promises to include something for everyone:

- Significant awards to outstanding performers
- Lots of ways to earn points toward earning awards
- Lots of gifts and prizes so everyone can be a winner
- Area and regional competition
- Monthly awards
- Monthly national performance reports
- Biweekly area performance reports
- Regional kick-offs
- Sales management involvement.

Continued on next page

How the Contest Works

Paul Inserra says the awards are the incentive to help push GE Information Services above goal. Points are earned and accumulated individually, by area, and by region based on pipeline additions, new business closes, and 1987 revenue booked by December. Other ways to earn points include: client visits to Rockville's Executive Briefing Center, documented success stories and technical profiles, published articles, and presentations such as seminars, vendor conferences, and trade shows. Also, the best international contract closed will earn special prizes.

Tim Lee, a San Francisco account executive and Markmaker in 1983 and 1986, suggests earning points with the client, too. "The one thing you should have is client focus. Try to think how you affect the client and his business goals."



Lunch bags with motivational messages like "Get Your Bags Packed," "If Selling Is Your Bag," and "It's Almost in the Bag" were part of the promotional picnic packets used to kick off local contests.

And the Winners Are

If you get over the top, GE Information Services will send you over the ocean. Airfare and 10 days in Hawaii or London for two plus \$5,000 awaits the sales and technical person with the highest total points nationwide by campaign's end. The area manager with the highest point average per participant nationwide will receive a plaque and Markmaker status. Region and SDC area managers with the highest point average per participant nationwide each receive a plaque, Markmaker status, and \$2,500.

Although prizes and the prestige of winning are important, motivation and spirit are often the big winners in sales contests. "The carrot is not the money but rather the competitive spirit and recognition that go along with sales contests," says Tim Lee. He adds that sales contests are great motivators and there should be more of them.

"Visibility among peers and management" is what winning means to Quentin Gallivan. "Although you may be able to purchase a trip for yourself, it might not rate as a financial priority. But when a trip is offered as a prize, that's a real value added incentive."

"Competition between areas and regions should be a lot of fun. A few side bets could build additional spirit," says Paul Inserra.

Each month \$2,500 goes to the sales and technical person with the most points nationwide. The sales region and technical contributors with the most points nationwide receive a plaque and dinner out. Area salespeople compete in a different category each month: most new 25% opportunities, most new proposals in 60 days, most improved pipeline, and most new closes in 90 days. The top salesperson each month wins \$500. The region with the best new prospect, best close, or best technical contribution each month receives \$150 for a night on the town.

While contest points are earned and accumulated with individual effort, those efforts pay off in overall company performance. Quentin Gallivan suggests a winning approach. "Be entrepreneurial in your client approach. Understand how the client's business works and how you can best impact his bottom line. Take control and responsibility for all levels of activity within the sale. This way you can control your own destiny."

And to clinch the sale, he adds, "Concentrate on your own individual style, target the objective, and work harder." ▲

TRANSPORT PROGRAM REUSES TECHNICAL TOOLS

The recently formalized U.S. Sales and Services Transport Program is already seeing results—tools available through the Program have been adapted and reused in six new client opportunities this year.

The Transport Program is essentially an information clearinghouse for software tools/techniques and device connectivity solutions that have proven their worth in other Sales "wins." The successful transports to date illustrate how the program can leverage existing Sales/SDC knowledge and creativity, providing new prospecting ideas and technical solutions to improve SDC and Sales productivity. For example,

- Two Transport Program tools were adapted and reused to assemble a QUIK-COMM™/PROFS Acknowledgement capability for GE Corporate Finance. The tools—an FCM server developed for the National Communications area "Legal*Talk" prototype and the QKPIPE routines developed for the Central Area 3M opportunity—were integral to the GE solution. Dave Slone, GE Accounts SDC, points out that "the availability of the Transport Program tools reduced our GE Accounts development cycle and significantly accelerated our implementation—and ultimately our revenue realization."

- Portions of the resultant solution for GE Corporate Finance were then adapted and reused to build a QUIK-COMM/DISSO Acknowledgement capability for the Coca Cola account in the Southern area. "The cascading effect here really worked to our benefit," notes Steve Bain, Atlanta SDC. "The Transport Program provided added confidence that we could deliver the custom solution that our client required—in the time frame they required." John Adams, the account executive for Coca Cola, adds "The Transport Program gave us the opportunity to demonstrate a prototype to the client, building our credibility."

- Another Transport Program solution, an LU6.2 CICS interface, originally developed for Boise Cascade, has been adapted and proposed for reuse twice—for Ingersoll Rand (New Jersey Region) and Cedel (Belgium). "We were involved in these opportunities,"

explains John Summerville, IBM Technical Center, "and we foresee significant productivity savings that will increase with each subsequent implementation."

- And an Automobile Dealer Communication system built by Eastern area SDC for Peugeot served as the basis for a custom system being developed for Freightliner in the Western area. Clete Spehr, Western area SDC, emphasizes that "we were really pleased that we could leverage the work done by Alex To's SDC organization. We'll see the benefit in our development cycle

Application Transport Program

\$\$\$	Success Story # 2,	\$\$\$
\$\$\$	Automobile Dealer Communication System	\$\$\$

\$\$	Winning AGAIN with Fast Response	\$\$
\$\$	"We Drove Away With The Deal"	\$\$

Application Transport Program

\$\$\$	Success Story # 4	\$\$\$
\$\$\$	Electronic Order Transmission System	\$\$\$
\$\$\$	NYPSA (National Yellow Pages Service Association)	\$\$\$

Application Transport Program

\$\$\$	Success Story # 5,	\$\$\$
\$\$\$	Wang VS to QUIK-COMM Interface	\$\$\$

\$\$	Account Support led to Increased Product	\$\$
\$\$	Use and a Stronger Client Relationship	\$\$

Business Problem

The client, GE European Headquarters in Shortlands, U.K. has an established office environment based upon Wang equipment, with a significant investment in both their Wang-installed base and Wang training for their personnel. Historically, their "electronic mail" capability was Telex-oriented (the GE RECCOM system). Thus, when they began to use the GE version of QUIK-COMM on MARK III® Service, they commissioned a London-based software house for Wang interface software that was oriented toward a single administrative address. With time, the limited nature of this interface became evident to GE Information Services. Because the interface was "Telex/station-oriented", the client was using it for only a small subset of its potential user community's electronic mail.

Client Requirements

The GE Information Services representative for the account, Penny Melrose, determined that a

ent's prior investment in that technology. Penny realized that to provide the proper encouragement a better Wang (program-controlled) interface would have to be developed. Further, she saw that the client needed an interface that would help them with their overall management of their electronic mail traffic between their Wang systems and QUIK-COMM, providing the ability to:

- Send/receive QUIK-COMM messages on the Wang without regard to QUIK-COMM format conventions
- Easily source message text from the Wang library for outgoing mail and store incoming QUIK-COMM messages into the Wang library
- Address QUIK-COMMs via a Wang-resident directory

The GE Solution

To meet the client's needs, Penny developed a series of Wang-resident COBOL programs that

Sales Success Story Profiles are distributed in a brochure format to Sales and SDC personnel.

and, equally important, it has helped us up front to qualify and close the deal.”

In effect, the Transport Program serves as a catalyst for reusing portions of field-developed client solutions to help meet the needs of other potential clients. Although the company always has encouraged such in-house technology transfer, the Transport Program adds a new dimension: an organization that is dedicated to the task, is held accountable for targeted numbers of available tools and successful transfers, and minimizes the impact on the developing Sales or SDC resources in the process.

The Transport Program team—Jim Macioce, Deb Miller, Bob Eldridge, Rich Osten, and Doug Hurley—take an activist approach to their program, soliciting candidate applications, tools, and connectivity techniques and then distributing information on those technical solutions.

“The program is building momentum now,” Jim Macioce says. “And our multiple channels of information are producing many candidates. We’re definitely not suffering for lack of tools to promote. In addition, we’re actively expanding the contribution to and use of the program on an international basis. As an example, 450 documents were listed in June from our InfoTalk Technical Library data base, with 35% of that activity from international addresses.”

Overall, figures to date show the program is off to a good start:

- The data base now includes 54 technical profiles
- Seven success stories are complete, and five have been published
- Six solutions have been transported.

“The transport solutions show just how creative Sales and SDC can be when faced with client business needs,” explains Bob Eldridge, “and the program can help others facing similar requirements, even if there isn’t an exact fit.” For example, the GE Corporate opportunity required the adaptation and combination of two Transport Program tools to help assemble the required custom solution.

Deb Miller notes that “we’ve also been able to take advantage of the resources and expertise of the SDC Technical Centers to provide Transport Program solutions, and in some cases to assist in the adaptation of those solutions for other client opportunities.” For example, the Technical Centers provided excellent

support in the LU6.2 solutions and both the GE Corporate and Coca Cola registered mail solutions.

Candidate tools for sharing within the company are sourced from field Sales, SDC, the SDC Technical Centers, and other internal sources. The Transport Team holds a monthly technical conference call with U.S. SDC managers and SDC Technical Center managers. Using the morning call format, the team discusses solutions to technical problems and any potential candidates for Transport. The team also keeps a close eye on significant events reports and major closes, which may provide leads on candidates. Jim Macioce notes that “we do have to be sensitive to the need to protect software that cannot be transported because of proprietary constraints, so we work closely with Legal to analyze specific contracts whenever proprietary questions arise.”

The Program communicates information about available solutions through a variety of media:

- Sales Success Story Profiles are distributed in a brochure format to Sales and SDC personnel.
- InfoTalk offers three avenues for accessing Transport data.
- The SDC Transport Library contains software and documentation for proven solutions.
- Working sessions are held with the GE Information Services Sales Region Managers, sales personnel, and appropriate SDC personnel.

Jim Macioce emphasizes, “We want field Sales to view this program as a clearinghouse resource to assist them in developing solutions for clients, leveraging the creativity of their peers in worldwide sales locations. And we want them to think of us and send along pertinent information whenever they create a new application, technical tool, or device connectivity technique.” ▲

MAKING A NEW CONNECTION

The Transport Program's roster of available tools includes the Wang-to-QUIK-COMM interface designed by Penny Melrose. Her development of the interface is described on page 12.

THE WANG-TO-QUIK-COMM INTERFACE: PENNY MELROSE AT WORK

When Penny Melrose says she starts and ends her work day by rowing, she's not just talking exercise—that's how she commutes from her home on an island in the Thames to her office at GE Information Services in London. Over the last six months, she's spent a lot of rowing time mulling over the Wang-to-QUIK-COMM™ interface that she's been developing.

Penny Melrose was familiar with the Wang when she joined GE Information Services. The system had been introduced during the nine years that she worked for Paolo Fresco, VP for GE's International Operations, triggering an enthusiasm and interest in information systems that led Penny Melrose to GE Information Service in 1985.

"I was new to the job and new to the serious computer field, and I felt that I needed to specialize," Penny Melrose recalls. "The Wang system seemed a logical focal point. The majority of my clients were committed Wang users, so I pretty soon realized that we didn't have any specific Wang software. We needed a menu-



Penny Melrose

based, user-friendly interface—to make available the advantages and immediacy of electronic mail direct from the Wang workstations."

Hiring a software house to develop the necessary software was prohibitively expensive, and no one within GE was available to write the required COBOL programs. So Penny Melrose took top management's advice seriously—she saw something that needed doing, so she went out and did it. She signed up for an introduction to COBOL course from Wang and went to work.

"Once I got started, I just couldn't stop. It was like a puzzle. The obstacles kept coming, and I had to find a way to overcome them. I learned a lot that way—when there's no one to ask for the answer, you figure out what went wrong and why."

"My colleagues at GE Information Services were very kind during the development process," she says. "I worked evenings and weekends, and they gave me the run of the big Wang VS system here at GE's European headquarters. Sometimes I learned the hard way—like the 1,020 documents I unintentionally queued to the printer one night—but we got there in the end."

Working solo over roughly a six-month period, Penny Melrose literally created a new device connectivity solution that can be applied throughout the company. "I've demonstrated the interface for a number of potential clients," she notes. "And many worldwide clients with Wang systems are expressing interest."

A few key people within GE Information Services and at GE European Headquarters have beta tested the interface and helped to work the bugs out. Reactions to the user-friendly interface are extremely positive.

Thanks to Penny Melrose's initiative and high-quality client support, Wang clients will be able to use the QUIK-COMM System more effectively and more often, and our relationship with GE European Headquarters has been strengthened. ▲

WITH IN-\$TEP EVERYBODY WINS

GE Information Services is going to be a winning business in 1987 and a new employee incentive program will enable every employee to benefit from a winning year.

On July 1 General Electric Information Services introduced a new compensation concept—the IN-\$TEP Plan. IN-\$TEP rewards employees not only for their individual contributions and excellence but also for their collective efforts that result in business excellence. It brings to 100 percent the number of U. S. employees eligible to participate in salary enhancing incentive programs.

IN-\$TEP is a unique program within GE. It is founded on the simple premise that every employee contributes to the success of the company and so should share in its results. Its name derives from that very concept: the program lets employees become financial winners IN-\$TEP with the business.

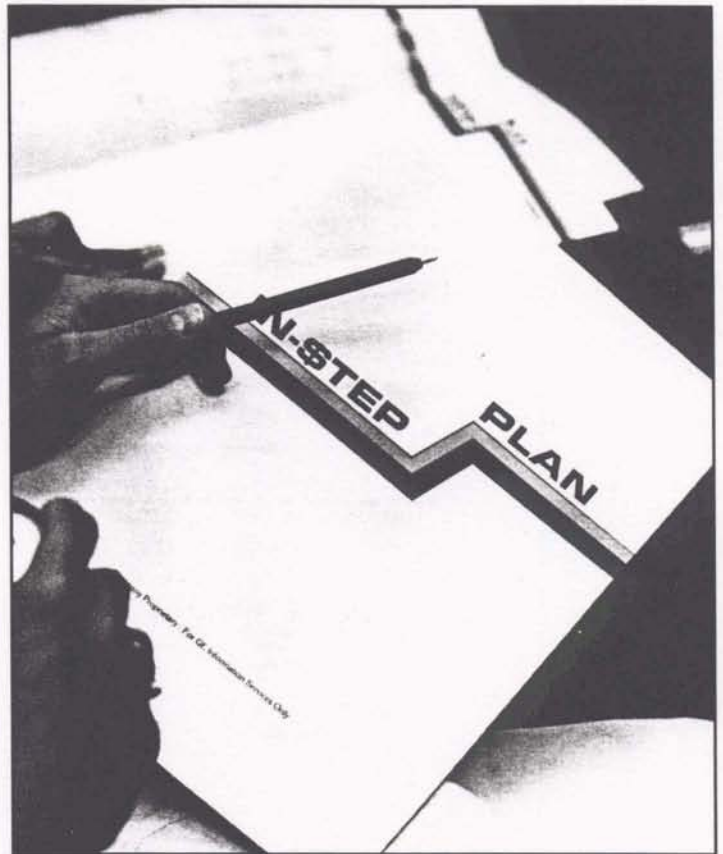
A Formula For Success

IN-\$TEP bonuses (credits) are based on Expense/Revenue ratios, the critical measure by which business results are gauged.

This is how it works. Each organization within GE Information Services has projected the costs it will expend in supporting the business in 1987. These costs divided by the revenue goal produces the Expense/Revenue ratio. For example, in the case of Staff Components, the revenue goal is \$384.4 million and anticipated costs are \$31.4 million. This produces an E/R ratio of 8.17 percent.

Staff managers are tasked with closely monitoring this ratio. If revenue starts to decline, costs must be reduced proportionately. This requires the support of all employees in that organization.

Michael Kostrzewa, Human Resources, observes, "IN-\$TEP is both an incentive and a rewards program, because results from keeping the right balance between costs and revenues, cost containment on every level, contributes to net income. On the individual level, this cost containment can be as simple as reduction of paper waste. Its ultimate goal is to develop a corporate mentality that habitually measures the cost-effectiveness of individual and organizational actions."



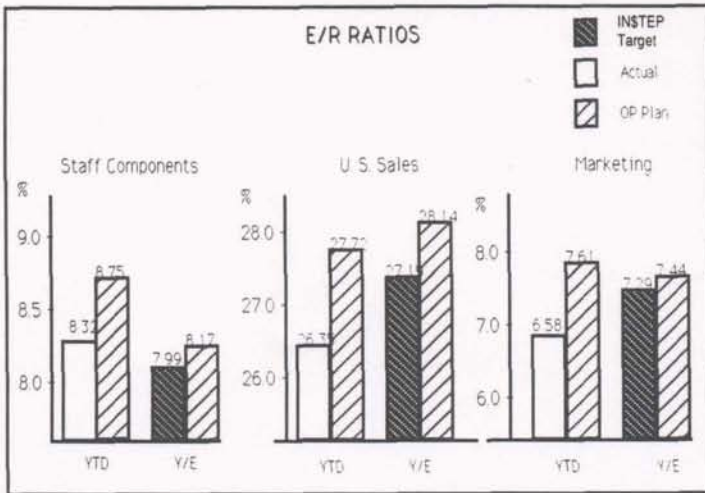
When a group within GE Information Services is able to reduce the E/R ratio either through increased productivity or reduced costs—or both, everybody in that organization benefits from the improvement. In the case of Staff Components, for example, if the E/R ratio is reduced to below 8.15 percent, eligible employees begin to earn IN-\$TEP credits. And the lower the E/R ratio falls the greater the number of credits will be earned, until at 7.99 percent employees would earn 100 percent of the credits allocated to their position levels within the organization.

Employees in position levels 12 through 14 can earn up to 500 credits, levels 8 through 11 up to 400 credits, levels 4 through 7 up to 300 credits, and levels B through 3 up to 200 credits. Since every credit is worth \$1.00, it's easy to figure the monetary reward.

Tangible Rewards

Based on 1987 results, early in 1988 IN-\$TEP checks will be distributed to participants, based on their position levels at the end of the period. It should be understood that bonuses earned through IN-\$TEP are part of one's total gross income and are therefore

Continued on next page



Continued from previous page

subject to taxation. On the other hand, these earnings count toward income for pension and savings and security plans for 1988.

The Sales and Marketing organizations have Expense/Revenue ratios based on the same formula (although the U.S. Sales E/R ratio uses U.S. revenue only) and are offered the same incentives for reducing that ratio.

"IN-\$TEP is all up side," says Mike Kostrzewa. "It's good for all of us because nobody loses anything in wages, salary, or benefits. And everybody has the opportunity to add to those benefits with IN-\$TEP bonuses."

The IN-\$TEP Plan isn't just pie in the sky. As of late July, all three participant groups were comfortably ahead of their E/R targets, as shown on the chart above. Revenue has been much stronger than Op Plan projections and expenses have been contained by very selective hiring. The prognosis is good, but the challenge is no less real. With continued vigilance in containing expenses we can maintain and improve our current E/R ratios and hence our IN-\$TEP credits.

Before the initiation of the IN-\$TEP program, only 54 percent of U. S. staff had incentive opportunities, through either the Information Processing Technology PAR Plan, the Telecommunications PAR Plan, one of the Marketing and U.S. Sales and Service Operation Compensation Plans or Commission Specials, or the GE Incentive Compensation Plan for levels 15 and above. IN-\$TEP is for all active employees on the payroll as of July 1 who are not eligible to participate in one of these other incentive programs.

At present, IN-\$TEP includes only U.S. employees. The plan is to eventually bring all employees under the IN-\$TEP umbrella, but differences in compensation practices in other countries makes implementation of the program outside the U.S. slower and more complicated. ▲

GE SALES SYSTEMS EXHIBITS IN CHICAGO

Members of the GE Sales Systems staff were among more than 70 exhibitors at the third annual Sales and Marketing Expo in Chicago. The Expo was cosponsored by *Sales and Marketing Management* magazine and the American Management Association in conjunction with the AMA's 1987 Sales and Marketing Conference.

The GE team (Bill Beckley, David Chang, Sharon Hormby, David Page, and Maria Siravo) explained that GE Sales Systems are customized solutions to automate many sales and marketing functions for clients with large distributed sales forces. Because sales reps are increasingly likely to be using laptop computers in the field, the Sales Systems team used a Toshiba 3100 to demonstrate a custom version of the BusinessTalk™ system, designed specifically for sales people.

"Our presence at this show gave us access to a very targeted audience," says Bill Beckley, GE Sales Systems. "Conference delegates are all involved in the sales or marketing function and are typically at a decision making level within their companies. We talked with show attendees from all across the U. S. and collected 20 qualified leads, which we've passed on to the U. S. field for followup."

"In addition to the lead generation," he added, "our attendance at the conference enabled us to see the software solutions our competitors are offering and to discuss potential business partnerships with key vendors."

Booth logistics and show participation at the Sales and Marketing Expo were managed for GE Sales Systems by Judith Greig, Advertising and Sales Promotion. ▲



Bill Beckley and Sharon Hormby, GE Sales Systems, speak with show attendees who visited their booth at the Sales and Marketing Expo in Chicago.

TRADE AND TRANSPORTATION HOSTS LONDON SEMINARS

The transatlantic Trade and Transportation group has taken several big steps to reinforce GE Information Services' stature and prospects in the international trade and transportation market.

The Trade and Transportation team organized an exhibit at Expoship in London and piggybacked both a client seminar on information management in international transportation and an internal team meeting. The latter two coincided with but did not conflict with Expoship—the leading shipping exhibition in Europe. Expoship immediately followed the Seatrade Money and Ships Conference at the Barbican Centre in London.

Client Seminar Attracts Leading Industry Players

“The Role of Information in the Intermodal Transportation Chain” is the first major client seminar conducted by the newly formed International Trade and Transportation team. Over 450 invitations were sent to industry leaders and interested parties, and the targeted audience turned out in force. More than 90 senior commercial and operational executives in the



Dave Foster linked the speaker and case-study sessions of the information management client seminar that Trade and Transportation held in conjunction with Expoship.

European transportation industry and their clients—major importers and exporters—joined 25 GE Information Services employees for the half-day client seminar.

The seminar was organized to air the views of leading industry players on the role of information management technologies and to highlight case studies that demonstrate the practical benefits of information integration among trading partners. The seminar program featured 12 top-level managers from GE Information Services and from major firms such as: London Carriers Ltd.; COST 306 Project (Finland); LEP Information Systems (Switzerland); Invicta Management Services Ltd. (U.K.); Overseas Trade, ICI plc (U.K.); A/S Kristian Jebsens Rederi (Norway); First National Bank of Chicago (U.K.); and Shell Transport and Trading (U.K.).

The seminar program was divided into two sessions linked by Dave Foster's presentation:

- Speakers representing the transport industry reported the competitive edge they gain by controlling information, with the help of third-party networks, and by being able to relay that information to clients as needed.
- Case studies provided evidence that information technologies are now working effectively for programs such as Global Equipment Management (GEM) and DISH, an industry-led initiative for data exchange between shipping companies and transport operators in the U.K., and for Shell International's trade cluster.

Dave Foster, GE Information Services Intercompany Businesses and Logistics, linked the two groups of speakers by explaining the ongoing role of third-party networks in the transportation industry, noting that information and trade have gone hand-in-hand throughout the development of civilization.

GE Information Services sales people received background information on the seminar and on business opportunities in the international transportation industry—for example, the tremendous pressure to improve the efficient movement of goods between buyer and seller and the complications of multiple transportation modes and associated paperwork. They learned

Continued on next page

that integrating information from numerous trading partners is emerging as a prominent tool in the industry's cost-control arsenal—a tool that also will enhance the quality of intermodal transportation services.

Meeting Molds New Team

More than 30 employees from GE Information Services and International Network Services, Ltd.(INS) joined forces at the internal Trade and Transportation meeting, the first meeting of the newly merged group. Presentations on international strategy, marketing plans, and product developments—as well as updates on major international opportunities—helped the team members from eight different countries build a common information base. The team meeting also was aimed at melding the strengths of existing U.S. and international groups and generating a team atmosphere.

WHAT THEY WERE SAYING...

Speakers at the client seminar emphasized that they cannot put up with informational "black holes" when tracking shipments, that they need international transmission standards, and that they want their telecommunications vendor to be a working partner.

A few highlights of the speakers' presentations at the GE Information Services client seminar in London are noted below.

- "GE Information Services is to telecommunications what IBM is to computing."
—**Richard Butcher, Invicta Management Services Ltd.**
- "We've taken an off-the-shelf product by GE Information Services and FNBC [First National Bank of Chicago], we've put it in the City (the London financial district), and we've run with it, saving \$5,000 per Letter of Credit."
—**Steve Reiff, FNBC, and Paul Greenslade, Shell International**
- "QUIK-COMM is one-seventh the cost of sending Telex between Norway and New Zealand."
—**Per Ekeland, Kristian Jebsens Rederi**

"Meeting other team members face-to-face is an important element of building team spirit," says Mary DeTuerk, Trade and Transportation Market Development. "There are fewer filters now, and we expect an easier exchange of ideas. We're already seeing more effective tapping of available team members."

Team members and the international opportunities they profiled at the team meeting included:

- Ann Hill described GEM, a major shipping client
- Alec Absalom and Robin Dent described the Equipment Management System presently under development, which will be delivered to GEM later this year and commercialized early next year
- Herman Schreuder reviewed Pandair/Pandanet, an air freight shipment tracking system
- Manfred Kreuger explained Logic, a system that connects German freight forwarders, shippers, and now ports
- Nigel Roberts described INS, the joint venture between ICL and GE whose mission is developing EDI within the U.K.
- Don Greenwood explained a proposed system that would allow the GE Major Appliances Group to use EDI for offshore sourcing operations.

Several critical issues were raised in team discussions during the meeting. For example:

- The apparent divergence between the development of industry-based U.S. EDI systems and closed-country European EDI systems
 - The reliance of European clients on EDIFACT standards, which vary in small but significant ways from the ANSI and TDCC standards prevalent in the U.S.
 - The Trade and Transportation policy of supporting business opportunities anywhere in the world—at no cost to the local operator—so long as the opportunities are real, replicable, and significant.

"Both the client seminar and the team meeting were designed to reinforce our capabilities and prospects in the international trade and transportation market," reports Niels Nielsen, International Industry Marketing. "From my perspective, we accomplished our objectives."

"We've got quite an international team in this area," says Bob House, Trade and Transportation. "We all expect great things from one another." ▲

TEAM WORK WINS ENICHEM CONTRACT

When EniChem contracted GE Information Services in Italy to develop an international treasury management system in December 1986, international began bank-rolling ideas, resulting in a system that performs 6,000 on-line transactions daily, delivers 700 reports in batch mode, and saves EniChem about \$15 million yearly.

Owned by Ente Nazionale Idrocarburi (Eni), EniChem ranks among top European manufacturers in the chemical and oil industry with operations in major world markets. It manufactures fertilizers, base chemicals, synthetic rubbers, fibers, and pharmaceutical products.

In 1983, EniChem needed to coordinate all financial, cash, and treasury transactions. Each component company was using a different financial management system causing information delays and an inability to monitor monetary and financial positions. The bottom line was high financial costs.

In Search Of A New System

EniChem needed a new system that would avoid waste, improve banking relationships, and help them:

- Anticipate information about their financial means availability and flow
- Obtain daily information on bank accounts, currency operations, and loans
- Standardize financial operations and methods
- Manage operations with Sofid, Eni's intragroup financial company.

"We needed a fast and efficient solution to face the financial problems which were the most urgent matters at that time. Now everyone in the company acknowledges the (new) treasury system to be a successful application," said Jose Vajra, EniChem Information Systems.

Because EniChem uses IBM mainframes, the hardware and software needed to be IBM-compatible to integrate with group accounting and management procedures. They wanted a high quality level application developed within a tight and rigorous timing plan.

"The client realized that only GE Information Services was able to offer a global service, providing a problem solution far beyond the software development and the technical side," said Piero Radovan, Eni Group Branch Manager, Italy.

The GE Information Services Solution

The system uses a compatible MARK 3000™ Service, a competitive pricing option (BULK or VSS price options), and effective technical support to connect almost all of the 60 production sites covering EniChem's financial and banking operations.

The application, running on MARK 3000 Service, utilizes the standard tools of an IBM environment including the operating system, data files, tel-eprocessing monitor, programming language, on-line protocol, and RJE protocol. The on-line software was created using the ACCOLADE software tool.

"Our ability in investigating and understanding the client's problems coupled in a winning way to our almost traditional strength represented by the network and the fast, accurate, and efficient software development," said Piero Radovan.

EniChem's internal network connects to GE Information Services' network and operates an integration which will be SNI-type in the future.

With more than 500 programs available, users can access the system from 3,270 workstations for data input and reports production, enquiries, and system management. Different subsystems cover such treasury needs as treasury budget subsystem, currency risk control, and short-term debts.

"We have created a flexible integrated software. The application is a real on-line system enabling an anticipated treasury management through specific forecasting modules and financial consolidation at holding level," said Mauro Canova, SDC, Italy.

Team Work Made It Happen

International employees were made available to EniChem for sales, consultation, development, and training. Piero Radovan headed the sales effort. Attilio Trombini, SDC, Italy, and Mauro Canova, SDC, Milan, put together a technical team including: Maria Teresa Gandi, Silvio Cogliolo, Emilio Pellizzari,

Continued on next page



Continued from previous page

Massimo Mangoni, and Paola Codara.

According to Piero Radovan, employees met the complexities of the IBM system with confidence. "The ability of our sales force was not to be diverted by IBM not-easy technical jargon and its possible traps, but rather to understand what the client really wanted."

Four employees are dedicated to the EniChem project, ensuring a \$15 million savings yearly due to less interest from reduction of value-days, fewer expenses for more rapid operations on exchange rates, and better banking interest rates.

"Each value-day gained represents a savings calculated in \$880,000 for EniChem. Thanks to global support by GE Information Services we are able to plan effectively our financial investments, contributing

decisively to the overall objectives of the group," said Angelo Manghi, EniChem's financial manager.

Other Eni groups are showing interest in the new system. "SERFACTORING, the Eni factoring company, has adopted the treasury system. Now new opportunities with joint-ventures of the group and with EniData are quite possible," said Carlo Enrico Sironi, Country Sales Manager, Italy, who emphasizes that the knowledge is available to everyone at GE Information Services and that the solution is transportable.

"The EniChem success, apart from the Italian technical and sales teams, can thank also the large international support from Amsterdam and Rockville. The real winning factor has been a work team integrated on both national and international levels." ▲

GE WINS FIRST INTERNATIONAL STC AWARD

The GE Information Services FORTRAN System Routines reference manual and three members of the development team—Kathy Stevenson, Peter Lovell, and Norma Valentino—recently accepted one of the Society for Technical Communication's highest publication awards, an international honor described as the "Pulitzer Prize of the world of technical documentation." This marks the first time that GE Information Services has won one of STC's international awards.

To qualify for the international contest, a publication must win an award of Distinction or Excellence in its local STC chapter's contest. Hundreds of publications from STC local chapters worldwide qualified for this year's International Technical Communications Conference competition, which evaluated the candidate publications and issued top awards.

"We competed against outstanding publications from our industry and other fields," reports Kathy Stevenson. "International entrants came from organizations such as IBM, AT&T, Boeing, National Geographic, the AMA, and the Smithsonian Institution."

The FORTRAN System Routines manual is designed for experienced, FORTRAN-knowledgeable software developers who are thoroughly familiar with FORTRAN 77 and associated ANSI standards. The manual enables such software developers to make use of additional features available through the system routines.

Feedback from the user community—basically SDC, internal developers, and a few clients who develop their own software—suggests that the manual may be the

most complete FORTRAN system routine guide in the last decade. While highly technical, the Manual is very user friendly. For example, thorough cross-referencing and indexing make information easy to find.

Developed in about six months, the FORTRAN System Routines manual is the product of a team representing MARK III® Technical Operations, Technical Documentation, and Marketing. "This was an outstanding team effort," says Kathy Stevenson. "Cooperation was the key, from Roger Dyer's organization to Chuck Crotty in Marketing, from Peter Lovell as a technical resource to Norma Valentino as a consultant responsible for basic research and writing. The next revision already is underway."

To order a copy from OLOS, use publication number 3107.01E. ▲



Left to right, Kathy Stevenson, Norma Valentino, and Peter Lovell display the plaques presented to them—as the FORTRAN System Routines manual development team—during STC International's awards banquet in Denver.

NEW PERFORMANCE APPRAISAL PROGRAM ANNOUNCED

In September GE Information Services will introduce a new performance appraisal process for U.S. employees. Supported by two new human resource systems, a new manager's guide and employee brochure, and manager workshops, the new process aims to enhance and improve daily performance, organization, and communication.

"We searched our literature, interviewed employees and managers, and compared GE Information Services with 10 other U.S. companies to find out what was good in our present process," says Lynette Griffin, Human Resources Programs, in Rockville.

A primary emphasis of the new process is to establish a performance standard by comparing past activities with agreed upon goals. The new process will help managers create a climate for excellence by encouraging sustained or improved employee performance, initiating better internal communication, and ensuring that employees understand what is expected.

The new appraisal process emphasizes goal setting and has established some goals of its own:

- Ensure timely performance appraisals (annually or no longer than 15 months apart)
- Improve performance appraisal quality by setting clear expectations and standards
- Improve manager/employee interaction.

Goal Setting Is The Key

Formal goal-setting, which will be explained in the new manager's guide, is the foundation of the new performance appraisal process. The guide recommends that goal-setting be used throughout the performance planning and appraisal process. The guide also outlines the purpose of the appraisal process, the sequence for the evaluating phases, dealing with performance problems, and the one-over-one manager role.

The employee brochure will address GE Information Services' performance appraisal, career progression, compensation, and communication programs.

Appraisal Is An Ongoing Process

In recent feedback sessions, Rockville and field managers and employees suggested using a centralized data base to remind managers and employees of performance appraisal due dates. This will help managers

and employees incorporate the performance appraisal process into their busy workdays.

The Performance Appraisal Tracking System (PATS), maintained in Rockville's Human Resources Systems, works this way: A QUIK-COMM™ System message is sent to managers and employees the month before the appraisal is due, asking the employee to develop a list of significant accomplishments. The manager uses the list as one resource during the performance appraisal discussion.

"We added this piece to the process for employees. They wanted more in-put in their appraisals and listing their significant accomplishments gives that opportunity," Lynette Griffin says.

At the end of the discussion, the employee will be asked to sign the appraisal letter indicating that he or she has read and understands the content. The letter is returned to PATS Control (HR Systems) and the data base is updated.

PATS issues a monthly Past Due Report to those managers who have overdue appraisals. If the appraisal will be delayed up to three months, the

Continued on next page



manager should notify PATS of the new delivery date. No appraisal should be delayed more than 15 months from the last performance appraisal.

The available three-month extension keeps the process flexible and adaptable to circumstances beyond the manager's control, such as a special long-term project or an extended illness.

To provide a smooth transition to the new performance appraisal process, Human Resources Managers

received information and a guide to train managers for the new performance appraisal process at a July workshop in Rockville.

"We think the new process responds to what managers and employees want," says Lynette Griffin. "We hope it will contribute to mutual understanding of each others' expectations. We think that it will contribute to employee morale as well as to performance." ▲

TRAVELING THE EAASY SABRE WAY

If you or your clients have ever exchanged countless calls as travel plans were made or changed and reservations were adjusted, then American Airlines' EAASY SABRE may be just the thing for you.

EAASY SABRE enables GE Information Services MARK III® Service clients to access the SABRE computer reservation system now used by over 12,000 travel agents. EAASY SABRE opens the door to up-to-the-minute information on over 650 airlines, 25 rental car agencies, and over 13,000 hotels. With no up-front training, EAASY SABRE subscribers can:

- Review airline schedules and fares
- Determine rental car availability and rates
- Review hotel availability and room rates
- Make or change reservations immediately.

"EAASY SABRE really makes sense for companies," explains Jeanne Huling, Dallas Account Manager. "It gives individuals control over their travel plans, requires less time to plan a trip, and is particularly useful for changing reservations. Tickets can be delivered without subscribers even making a phone call—except to connect to EAASY SABRE."

Users can choose from several ticket delivery options. Tickets can go to any travel agent or to the airline or can be mailed upon request. EAASY SABRE also enables users to direct reservations to any of the more than 12,000 SABRE agencies for ticketing.

Any U.S. client using MARK III can become an EAASY SABRE subscriber by requesting a special catalog user number, paying a one-time \$35 initiation fee, agreeing to a monthly minimum usage charge of \$50, and paying hourly charges for actual usage during

prime or non-prime time. (Individual users in the U.S. and Canada also can access EAASY SABRE through GENie; see the August/September 1986 issue of SPECTRUM.)

"Companies that sign up for EAASY SABRE become very consistent users," Jeanne Huling reports. "Even companies with their own travel departments stick with EAASY SABRE. Individuals within the company make their own reservations, and the travel department retains review and ticketing responsibility, freeing up department time for other priorities.

"We really think that the only dissatisfied EAASY SABRE client is the one who hasn't tried the system yet, so we're encouraging GE sales representatives to let their clients know about the EAASY SABRE alternative and to share the demonstration diskette with interested clients." ▲



The logo for EAASY SABRE features the word "EAASY" in a bold, sans-serif font, enclosed within a rounded rectangular border. A small graphic of a bird in flight is positioned above the letter "A". Below "EAASY", the word "SABRE" is written in a much larger, bold, serif font. A small "SM" trademark symbol is located to the right of "SABRE".

GOOD NEWS

Oil Pool Contract

GE Information Systems has won a contract to develop an oil stock/sales exchange application for a pool of oil companies in Italy. The application allows the companies using the system to manage intercompany transactions of oil products. Through GE Information Services network, participating companies are able to get a timely reading of oil quantities being exchanged among themselves in order to improve final distribution. Each company is also able to track stock levels and related variations of its own stores.

Companies using the system, which became operational in July, are Mobil, Fina, Isaoil (formerly Chevron), and Maxon (formerly Texaco). Another six prospects are expected to join the system in 1988.

Robert Di Felice, Center-Southern District Manager, led the sales and technical team who made the contract happen. Sales people made frequent visits to the oil companies to determine the clients' needs and requirements. These visits generated new ideas for software development, which changed considerably from the first version of the package.

The Oil Exchange software was developed by Ruggero Vecchiarelli, SDC, Rome, and his SDC team. Major contributors to closing the contract were Mario Colangelo, Rome Branch Manager, Febrizio Farnetani, Sales Consultant, Rome, and Vincent Doblin, European Sales Support, Paris.

The oil companies chose GE Information Systems because of its already proven reliability and expertise in the sector and its ability to provide global support. ▲

NORA System

GE Information Services has teamed up with Data Development, Inc. (DDI) to develop and market the National Online Regulatory Access (NORA) system. NORA provides next day, on-line access to the rule-making documents cycled through the Common Carrier Bureau of the Federal Communications Commission (FCC). DDI is a media conversion company using the latest in high speed scanning technology to convert hard copy documents into electronic format.

To change FCC regulations, a rule-making request must survive a complex process of industry comments,

objections, and replies. A typical proceeding cycle—from action request to order—can go on for years while any interested company files comments, opposition, and petitions.

The key to winning the regulatory game is to be able to locate, track, and respond to comments filed by competitors. The current manual process of tracking documents as they flow through the many departments within the FCC is laborious and time consuming.

The NORA system solves this problem. First Bell Communications Research, owned by seven regional Bell Telephone companies, uses its insider expertise to identify, track, and acquire the documents from the many departments within the FCC. U. S. West, one of the seven regional holding companies, then organizes and classifies the documents before forwarding them to Data Development. Once at DDI's Alexandria, Virginia, branch, the documents are scanned and converted to electronic format for loading into a Hisam Text data base on MARK III® Service. Clients, initially legal and regulatory departments in the telephone industry, can then locate documents by accessing MARK III from an IBM PC.

The account manager for NORA is David Jacobs from the Western Communications Region. Other people key to the success of the application are Cindy Douglass, Jim Motyka, Mary Ingalls, Susan Williams, Art Lee, Paul Newell, Sandy Carey, and John Falkenstein.

Global Equipment Management (GEM)

The Global Equipment Management (GEM) project, won by ISSO in January 1986 (see January 1986

Continued on next page



SECOND QUARTER SALES ABOVE PLAN

Continued from previous page

SPECTRUM cover story), is an estimated 35 man-year effort to build a MARK 3000™ Service based (CICS/DL1) container tracking application for a London-based shipping consortium. The project is approaching full ramp on staffing with 20 internal and 40 contractors now assigned. This team is working to deliver operational subsets of four of the five required functional modules by the end of 1987.

One of these modules, currently in the prototyping stage, is planned to be a distributed VM/CMS based

GOOD NEWS

expert system that will assist GEM in the optimization of its container fleet.

The GEM team has committed to a very aggressive schedule to bring GEM's first of thirteen lines live by early in the fourth quarter of 1987. When it reaches full production, the system will be accessed from approximately 60 countries and will be used to manage a global fleet of 150,000 containers.

The system will interface to a range of hardware, including IBM 308X/43XX, S36/38, 8100, DEC VAX, HP 3000, Prime, and Honeywell. Access will be provided for 3270, TTY/Telex, and 2780/3780 protocols.

In June 1986, ISSO implemented an Equipment Control System (ECS) on MARK III® Service so the consortium could operate its business while the long-term MARK 3000 Service solution was being built. At the same time, Software International's general ledger and accounts receivable systems were installed on MARK 3000.

The software being built for GEM is being commercialized as a GE Information Services product to be marketed to the worldwide shipping industry.

Second quarter sales reached \$96 million, 3% better than Operating Plan, with higher revenue in U. S. Sales, Europe, and Northern Operations/Distributors. Sales were only 1% below 1986. Net income was equal to Plan and the business is nicely positioned to address the second half challenges.

- U. S. revenue was 4% above Plan due mainly to slower HCA in-house migration and additional SDC volume.
- European sales were up 3% from Plan as favorable exchange more than offset the volume shortfall in Germany.
- Northern Operations/Distributors revenue was 2% ahead of Plan with favorable exchange offset by volume underruns in the U.K. and the Distributors.

Second half sales are expected to exceed prior year by 3% but are now projected to fall 4% below the strong growth anticipated in the OP Plan as volume underruns in each component are partially offset by favorable exchange. ▲



INDUSTRY BRIEFS

Computer Sciences Corporation's (CSC) U.K. subsidiary received a \$3.7 million contract from the British Department of Health and Social Security to provide network management support for the National Unemployment Benefits System (NUBS). The on-line system calculates and pays unemployment benefits. Also, CSC posted record annual revenues above \$1 billion and profit increased 35 percent.

Telenet announced a multi-year contract from United Technologies Corporation (UTC) to design and install a 15-country private data communications network serving all UTC locations and data centers. The network will be centrally managed by a TP5/11 Network Control Center and TP4/11 packet switches will route calls.

Tymnet Inc. announced a synchronous CCITT X.25 service over dial-up lines. With this service the host must still be hard-wired, but terminals can dial up with synchronous links over dial-up lines for a more cost-effective solution. Tymnet now offers ExpressTym, a service that connects remote IBM PCs and IBM compatibles to IBM mainframes. The cost is \$8-\$10/hour and a specially designed software package is \$175 with volume discounts available.

ADP, with record revenues of \$373.69 million and net earnings of \$39.2 million, attributes its third quarter success to "continuing record transaction levels in brokerage services." Year end growth is expected to be 15 percent on revenue and 30 percent on earnings per share.

Computer Sciences Corporation (CSC) has opened a Tokyo office to expand its Infonet network services in Northeast Asia. CSC will provide enhanced packet-switched services to Japan via Infonet after 1987 when international deregulation is expected. The Tokyo office serves 600 regional companies in Japan, Korea, Taiwan, and China. Infonet claims to be the only service providing international access and service using its own network and support personnel.

Digital Equipment Company (DEC) announced it will set up the U.K.'s first national "value-added network" (VAN) allowing financial institutions and advisors to perform on-line transactions. Initial service, starting in January 1988, includes mortgages and life insurance products with service expanding to include personal finance, pensions, and unit trusts.

The network, open to all financial institutions, plans to link with at least 1,000 intermediaries.

As of September 30, **Visa** replaces GE as the private-sector processor for Calwestern Automated Clearing House Association (CACHA). CACHA processes about six million commercial and four million government transactions monthly through the Federal Reserve Bank. Using their VisaNet Clearing and Settlement Services, they charge less than one cent per transaction to member banks.

In an effort to build one of the world's largest electronic data networks, The London Insurance Market Network Management Group awarded a three-year networking services contract to **IBM U.K. Ltd.** for value-added network services, electronic mail service, and Electronic Data Interchange (EDI). The contract value was undisclosed, but IBM expects annual revenues of \$13 to \$16.6 million. Initial user cost is \$1,666 plus small transaction charges and companies are not required to buy IBM equipment.

In less than a year after forming, **Chemical Bank's** financial services division has turned a profit, proving its worth to top management. With its lead product, ChemLink, 1986's sales totaled \$220 million and \$245 million are expected in 1987. Division responsibilities include developing, manufacturing, and selling Chemical's financial transaction and information services.

McDonnell Douglas Applied Communications Systems Co. released an upgraded Ontyme version 23 accessible through their Tymnet public packet switching network. New ways to manipulate message lists allow users to search and view by designating the sender, the type of data sent, a word in a subject line, or a combination of options. Ontyme public E-mail service is 25 cents per thousand characters plus \$3 per hour of connect time, with a minimum of 500 hours a month. A discount schedule is available.

In October, 20 vendors will show how their X.400 electronic mail products overcome equipment compatibility barriers and link to other vendors' E-mail systems at the Telecom '87 Trade Fair, a communications conference sponsored by the International Telecommunications Union. Vendors include: **British Telecom, Dialcom, AT&T, Nixdorf Computer Group, Olivetti, and Swiss PTT.** ▲

Bill Gavin
New York

What are the online files that can help me to read our audits?

There are three files on QK11 that will help. They are: .TASKAUD - For Mark III® task level audits. .SCAN - For Mark III session audits. DIS.CODE - It has disconnect codes for user sessions.

Ed Dejesus
Fairfield

*What do I do once I have a client sign a MARK*NET SERVICE SOFTWARE LICENSE AGREEMENT FOR SIMWARE?*

Send a signed copy to:

Al Parker
Maildrop MN2E
GE Information Services
401 N. Washington St.
Rockville, MD 20850

Also, send a copy of the signed agreement to Larry Larkin, the new Asynchronous Product Manager. He can be reached at 301-340-4455 (Dial Comm 8*273-4455). You can send the agreement via FAX to 301-340-4053. In order to make sure that it is received you should send a QUIK-COMM™ message (address: CASC/Larry Larkin).

Mark Feldman
Dallas

Everyone knows what EDI



(Electronic Data Interchange) stands for, but what about all of the abbreviations and acronyms associated with EDI?

Here are the ones that I know about. If anyone knows of more then please let me know.

AIAG - Automotive Industry Action Group
CIDX - Chemical Industry Data Exchange
SITPRO - Simplification of International Trading Procedures
TDCC - Transportation Data Coordinating Committee
UCS - Uniform Communications Standard
VICS - Voluntary Interindustry Committee Standards
WINS - Warehouse Industry Network System

The ADM administrative functions are now the responsibility of Validations. Signed special ADM forms should be mailed to:

GE Information Services
Attn: Validations AMF-
PO Box 81009
Cleveland, OH 44181

Or, they can be sent to Validations FAX machine at telephone number 216-362-5606 (Dial Comm 8*366-5606).

To check the status of your ADM validation request you can call 216-362-5627/5624 (Dial Comm 8*366-5627/5624), or send a message via the QUIK-COMM System (address: ADMA).

International distributors should continue to use the QK11 program QK2ADM when submitting special ADM forms. The followup signed special ADM forms should be mailed to the aforementioned address. Here are some QK11/DY28 files that may be of interest:

DY28:PCMB3*PR - contains PC Mailbox 2.1 and 3.0 prices across

distributors. A file named PCMPRICE is on QK11 is also available but has outdated information. QK11:CCCHART - this has the cost centers for the U.S. QK11:NSSBOOK - this reflects the NSS Author Programs publication and has information on whether or not the author has cancelled. QK11/DY28:MEET** - procedures for meeting competition.

Help wanted:

From time to time Fast*Fax receives inquiries on data bases available on our service. If you know of a data base that is not highly visible please let Fast*Fax know. Send a message via the QUIK-COMM system (address: FAST).

Fast*Fax is currently trying to find out information about ECDIN (European Chemical Data Information Network).

Has anyone written a boiler plate for QUIK-COMM or PC Mailbox? Fast*Fax has received several inquiries about boiler plates for those products, but has yet to find any. If you have developed one please let Fast*Fax know. ▲



MILESTONES

Congratulations to the following U.S. employees who celebrated service anniversaries in June and July, and to the International employees who have celebrated service anniversaries between January and July 1987.

35 YEARS

Norman W. Harvey, U.S.

30 YEARS

Rodolfo Del Giudice, Italy
Raymond W. Marshall,
U.S.
Ralph H. Taylor, U.S.
John M. Wright, U.S.

25 YEARS

Raoul Burgraeve, Belgium
Albert G. Ertel, U.S.
Charles R. McInnes, U.S.

20 YEARS

Loredana Garbelli, Italy
Russell M. Haugen, U.S.
Henry A. Martin, Jr., U.S.
Peter E. Nilsson, U.S.
James K. Wright, U.S.

15 YEARS

Evelyn G. Alston, U.S.
Raymond W. Brown, U.S.
Robert T. Grissom, U.S.
David Lewis, Japan
Robert E. Loew, U.S.
Lorraine F. Miller, U.S.
Gary R. Saul, U.S.
Louis G. Schreiber, U.S.
Kent A. Schwab, U.S.
Philip H. Snyder, Jr., U.S.
Neil Taylor, Canada
Alonzo Waddell, U.S.

10 YEARS

Alec Absalom, U.K.
Florence Anglars, France
Sharon Black, Canada
Nicole Biotet, France
James Brewer, U.K.
Mike Chapman, Hong
Kong
Barry J.M. Clarke, U.S.
Mario Colangelo, Italy
John Deacon, U.K.
Brian E. Dearing, U.S.
Franco Dell'Oca, Italy
Frode Eidem, Norway
Christy L. Enrico, U.S.
Lucy A. Franklin, U.S.
Zev Hadash, U.S.
Arthur F. Hyder, U.S.
Marcel Kraak, The
Netherlands
Lun C. Kwan, U.S.
Louis Lampe, The
Netherlands
Teresa Leonard, U.K.

Guido Malagodi, Italy
Penny Melrose, U.K.
Wayne Morrison, Hong
Kong
Peg Ohrt, U.S.
Earl Parkinson, U.S.
Maurizio Prati, Italy
Hernandez C. Rivers, U.S.
Joan B. Robertson, U.S.
Malika Roumili, France
Birger Schoenbeck,
Sweden
Paul L. Tilley, U.S.
John E. Toussaint, U.S.
Cees Vos, The
Netherlands
David J. Woolley, U.S.

5 YEARS

Carlo Alberto, Italy
Agata Altavilla, Italy
Rajaraman Balan, U.S.
Marcello Bardi, The
Netherlands
Mirko Bassetti, Italy
Andre Boico, France
Philippe Bossut, France
Lajolo Bramini, Italy
Daniel O. Casco, U.S.
Gilles Coignac, France
Anne-Dora Cresens,
Belgium
Jane Cutts, U.K.
Dario Denaldi, Italy
Rosa Pia Domenichini,
The Netherlands
Jocelyne Duport, France
Mark Elliott, U.K.
Barbara C. Feldman, U.S.
Catherine Fitterer, U.S.



Stefan Forsberg, Sweden
Maria Teresa Gandi, Italy
Laura M. Gomez, U.S.
Garret K. C. Goo, U.S.
Andrea R. Hoover, U.S.
D. Johnson, Canada
Stephane Karam, France
Angelo Keranos, Australia
K.T. Leung, Hong Kong
Benham Malcom, U.S.
David A. Mills, U.S.
Ella A. Mui, U.S.
Roberto Piatto, Italy
Richard J. Pfeiffer, U.S.
Robert V. Planck, U.S.
Felina Solomon, U.S.
Gerri F. Stoner, U.S.
Elizabeth D. Tucker, U.S.
Joseph A. Webster, U.S.
Silvano Zannini, Italy
Pavel Zeman, France ▲

parting shot

INTERNATIONAL EXCHANGE

Christine Pittman's Network Product Marketing Group hosted the first worldwide Network Specialists Seminar this summer. Network Specialists from most of our European countries and from Australia, Canada, Japan, and Mexico joined their U.S. counterparts for three days of formal and informal exchange of ideas. The event featured presentations on worldwide Network Services marketing (MARK*NET™,



MNS, MARK 3000™, MARK III® Connectivity), a communications engineering update on development projects and post sales activities, presentations by major players in the telecommunications market (IBM, Telematics, DEC), a worldwide regulatory update, and a worldwide discussion of engineering, client services, and sales issues.

A four-hour Trade Fair featured demonstrations of all current and upcoming network services. Pictured above, Benham Malcom, IBM Technical Center, demonstrates features of Async to 3270 protocol conversion using SIMPC and SIMVTAM. Enjoying the presentation are (left to right) Sid Waxman, San Francisco; John Travis, Atlanta; and Hank Perahia, Kingston, U.K.

Irene Aronian, Network Product Support Group, who coordinated the seminar, says, "Bringing Network Specialists together from countries throughout the world brought a new dimension to our seminar. The cross-fertilization of ideas not only in the formal presentations but also during lunch breaks and in the evening gave participants a world view of Network Services marketing." ▲