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# SPECTRUM

FOR THE EMPLOYEES OF GE INFORMATION SERVICES COMPANY

*cover story*

## POSITIONING FOR THE POINT-OF-SALE MARKET



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**EAST-FAX**

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*SPECTRUM* Managing Editor: Spence Carter  
Acting Editor: Sallie Birket Chafer  
QUIK-COMM: SALLIE; DIAL COMM: 8\*273-4476

Fast-Fax Editor: Jim Doyle  
QUIK-COMM: FAST; DIAL COMM: 8\*274-6517

Documentation Editor: Dex Nilsson  
QUIK-COMM: OLOS; DIAL COMM: 8\*273-4444



General Electric Information Services Company, U.S.A.

## POSITIONING FOR THE POINT-OF-SALE MARKET

Late last year, GE Information Services Company entered a new market by introducing Point-of-Sale (POS) Transport Services both for terminals with a built-in MARK\*NET™ log-on sequence and for terminals without that feature.

And just last month, POS Services followed up by launching the POS Major Credit Card Authorization Service, which enables retailers to obtain authorization for transactions involving credit cards such as MasterCard™, VISA®, Carte Blanche®, Diner's Club®, American Express®, and (soon) proprietary cards. This market has grown explosively since the late 1960s and continues to expand at a rapid rate.

The new POS Services businesses are getting a dramatic boost thanks to close cooperation with Communications Engineering (now Telecommunications Engineering) on the development of two promising capabilities, direct Resource ID (RID) log on and what is called the "on-net solution." (See page 4 for further details.) These technical improvements will lower the cost of POS services and reduce transaction response time from more than 30 seconds to roughly 25 seconds (RID log on alone) and then to approximately 20 seconds (the on-net solution, which takes advantage of RID log on).

This substantial reduction in response time is the key to winning in the credit card authorization market: speed is everything. If the credit card authorization check takes much more than 30 seconds, retailers can lose business as time-conscious custo-



Photo by Brooks Blanc

Applications Marketing Operation VP & GM Ruann Pengov (center) checks out the Point-of-Sale Services exhibit at the "All-Employee Trade Fair" in Rockville with the help of (left to right) Donna Valtri and Joan Parker-Smith.

mers decide that they can wait no longer. In short, the faster that retailers can move customers through checkout counters, the more merchandise they can sell—and the new POS Services businesses are designed to accommodate that demand.

### Marketing Strategies

The augmented POS transport and credit card authorization services constitute the first steps in a value-added marketing strategy for POS Services. Beginning with a strong underlying transport capability, POS is adding—and will continue to add—services that represent real value to clients in target markets such as: national petroleum retailers, specialty chains, truck stop operators, car rental agencies, furniture stores, major hotel chains, and telephone companies.

Major credit card authorization, for example, is one of the most important weapons a retailer can

*On the cover, General Electric Company Vice Chairman and Executive Officer Larry Bossidy took time at the All-Employee Trade Fair (see picture story in this issue) to watch Donna Valtri (manager, POS Marketing) and Joan Parker-Smith (Credit Card Service Marketing) demonstrate the use of direct RID log on for credit card authorizations.*

Photo by Brooks Blanc

wield to combat credit card fraud. In 1985, retailers experienced credit card fraud losses totaling nearly \$2 billion. Moreover, retailers lost \$9 billion in 1985 as a result of credit card customers exceeding their credit limits and then failing to pay their bills.

However, the company's plans for POS value-added services extend beyond credit card authorizations. In the coming months, POS Services will commercialize services that address the retailer's competitive needs. Such services will allow retailers to track inventory, traffic patterns, and productivity and to develop customer profiles—all during the execution of a purchasing transaction. All of the network-intensive applications offered today—as well as those to come—can be dramatically improved by direct RID log on and the on-net solution.

The direct RID log-on capability has been released for deployment, will be made commercially available some time this summer, and will speed up the POS credit card authorization service. This fall, POS Services and Telecommunications Engineering will unveil their on-net solution, which employs direct RID log on and independently enables all standard POS terminals to gain equal and more rapid access to the delivery network for POS Services.



Photo by Jean Sunderland

Karen Pitelka and Roy Henderson take a last look at their ambitious delivery schedule for the on-net solution.

“These new capabilities are the products of solid teamwork across many GE Information Services organizations,” reported Donna Valtri, POS Marketing manager. “Such teamwork is the key to achieving a technological and competitive edge and then successfully delivering our services to the market.”

### **The Team Behind New POS Services**

If you've ever stood at a check-out counter drumming your fingers and rolling your eyes while the clerk uses an electronic terminal to obtain authorization for your credit card purchase—or, worse yet, for the credit card purchase of one of the shoppers in front of you in line—you'll understand exactly why POS Services has been focusing on improvements in transaction response times.

As things now stand, to access any network, a POS dial terminal must incorporate the appropriate log-on sequence as a built-in terminal feature. Although several manufacturers are building the MARK\*NET log-on sequence into their devices, most of the approximately 200,000 credit card authorization terminals in the market today do not have our log-on sequence built in, a fact that slows the delivery of POS services.

GE Information Services has countered this challenge employing strategically located MARKLINK® terminals to afford POS Services delivery system access to terminals in a limited number of sites (roughly 100 cities). The MARKLINK terminals add the log-on sequence to the transaction before it actually enters the network, but that solution is costly and increases the transaction response time.

Recognizing the market's needs and the potential to enhance the company's competitive position, Karen Pitelka (Retail and Financial Systems Marketing manager) and Larry Mauceri (Technical Product Support manager) asked Scott Hamilton (VAN Operations senior consultant) to evaluate network solutions to response time improvements and cost reductions. Hamilton consulted with Jim Keough and then approached Communications Engineering to request a feasibility study on means of leveraging network technology to exploit a new market opportunity.

Bob Brooks (Network Transmission Software manager) and Mamie Yee (Communications System Terminal Interfaces manager) considered the needs of credit card authorization clients and soon thought of applying direct RID log on, the brainchild of Chris

Brook (Communications Network Architecture manager).

Direct RID log on (explained in more detail on page 4) can be used by any MARK\*NET client to gain access to his or her own host—or to another host connected to the network—without the time-consuming MARK III® Service (formerly MARK III Foreground Service) validation procedure before the transaction is forwarded to the central concentrator (CC). This CC software will allow POS terminals to log on to the network directly to the desired host, bypassing MARK III Service. Validation still takes place but is accomplished on the CC. Records are subsequently sent to MARK III Service for accounting.

Based on the early evaluations of direct RID log on, the applicability of direct RID log on for POS Services' clients was clear: eliminating the need for MARK III Service validation could reduce POS transaction times by as much as eight precious seconds, making POS Services very competitive in the dial-up terminal market.

But Communications Engineering didn't stop with the application of direct RID log on to POS credit card authorization services. The team was on a roll, and programmer analyst Rudy Florjancic conducted studies that produced a way for terminals without a built-in MARK\*NET log-on sequence to emulate terminals that have such a feature—and hence to access the network. Joan Parker-Smith (Credit Card Service Marketing) then coordinated the next step with Mark Yader (X.25/Asynch Network Services manager), establishing the official Marketing requirement and moving the on-net solution into the product development phase.

This on-net solution (explained in more detail on page 4) takes advantage of direct RID log on and will "upgrade" credit card authorization terminals that do not have a built-in log-on sequence. By developing the capability to add the log-on sequence at the mini remote concentrator (MRC) locations, the on-net solution will enable GE Information Services to address the needs of any standard POS terminal in all 600 U.S. network access locations—and to do so several seconds quicker than currently feasible.

The on-net solution is now in development and should be ready for integration release this summer. Karen Pitelka and Telecommunications Engineering

manager Roy Henderson jointly constructed an ambitious release schedule that reflected their agreement on a central issue: the on-net solution should be in place in time to accommodate the 1986 holiday retailing season.

Combined with the breadth of the MARK\*NET network and direct RID log on, the on-net solution is designed to generate one of the fastest response times in the industry and the most flexible POS service available. This flexible system can accommodate any standard POS terminal—a unique capability that no other competitor can claim. As Donna Valtri declared, "Engineering is to be congratulated for what amounts to an enormous technological breakthrough for our POS business."

Satisfied with the product and the schedule, Karen Pitelka noted that "this project demonstrates how Marketing and Engineering can successfully focus on the external environment—our clients' needs—and develop a service that's going to win big for GE Information Services."

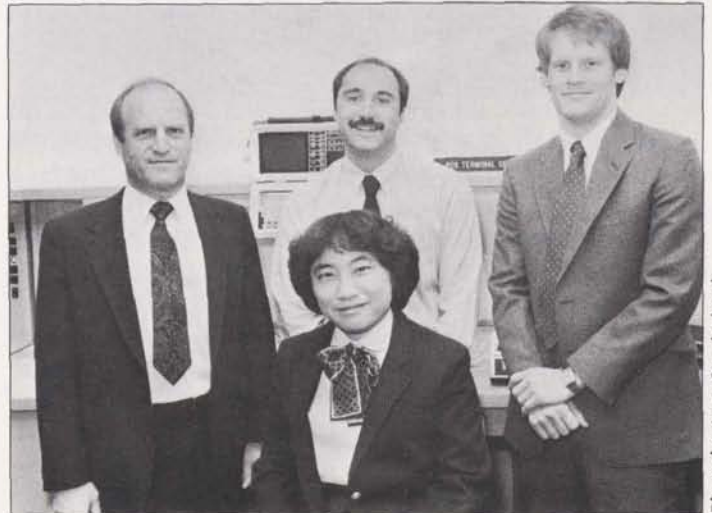


Photo by Jean Sunderland

The people who figured most prominently in the development and application of direct RID log on and the on-net solution for POS Services include (from left to right, standing) Chris Brook, Rudy Florjancic, Bob Brooks, and (sitting) Mamie Yee.









































